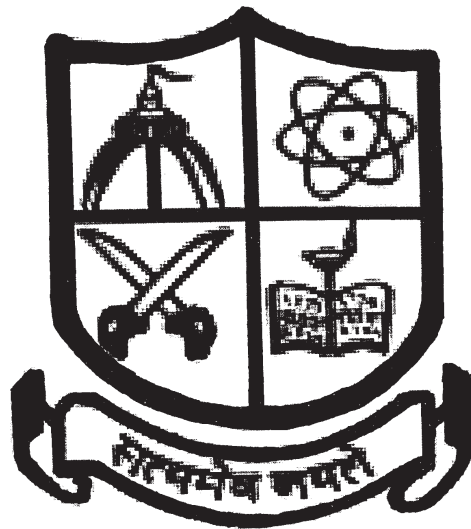


# COURSES OF STUDIES ARTS STREAM

Admission Batch - 2021-22



**Buxi Jagabandhu Bidyadhar Autonomous College**

Bhubaneswar - 751014

Accredited at the 'A' Level by

National Assessment and Accreditation Council (NAAC)

College with Potential for Excellence (UGC)

Telephone/Fax : 0674-2436971, Website : [www.bjbcollege.ac.in](http://www.bjbcollege.ac.in)



## General Instructions

### CBCS SYLLABUS

- Details of course structure for B.Sc/BA/B.Com (Honours) :  
(with suitable modification of draft model provided by OSHEC)

Courses	Credits	
	Theory + Practical	Theory + Tutorial
I. Core Course (14 Papers)	14 x 4 = 56	14 x 5 = 70
Core Course Practical/Tutorial (14 Papers)	14 x 2 = 28	14 x 1 = 14
II. Elective Course		
A.1 Discipline Specific Elective (3 Papers)	3 x 4 = 12	3 x 5 = 15
A.2 Discipline Specific Elective Practical/Tutorial (3 Papers)	3 x 2 = 6	3 x 1 = 3
A.3. Discipline Specific Elective Project (Report and Presentation) (1 Papers)	6	6
III. Generic Elective/Interdisciplinary 2 papers/2 subjects (GE-1 & GE-2 in 1 <sup>st</sup> year) and Generic Elective (GE-3 & GE4 in 2 <sup>nd</sup> year) Practical/Tutorial (4 Papers each from GE - 1, GE - 2, GE - 3, GE - 4)	4 x 4 = 16 4 x 2 = 8	4 x 5 = 20 4 x 1 = 4
IV. Ability Enhancement Compulsory Course(AECC) (2 Papers of 4 Credit each)	4 x 2 = 8	4 x 2 = 8
(i) AECC-1 (Environmental Studies)		
(ii) Odia/Hindi/Communicative English		
V. SEC (Skill Enhancement Course) (2 Papers of 2 Credit each) Refer to 18.4,18.5,18.6.	4 x 2 = 8	4 x 2 = 8
<b>Total Credit</b>	<b>148</b>	<b>148</b>

**Arts, Science and Commerce students can also opt for NCC and other subjects (as and when required by the Board of Studies) as additional Generic Elective in the 1<sup>st</sup> year (1<sup>st</sup> and 2<sup>nd</sup> Semester) to enhance their credit points.**

- Mark Distribution

Core Courses:	14x100=1400
Discipline specific elective:	3x100=300
Project + Viva:	1x100 =100
Generic Elective- 1, 2	2x100=200
Generic Elective- 3, 4	2x100=200
Ability Enhancement (Compulsory)	2x100=200
Skill Enhancement Course	2x100=200

Total Mark = 2600, Total number of Papers = 26

Subjects with Practical: Theory-75 Marks, Practical-25 Marks

Mid Semester Theory-15 Marks, End Semester Theory-60 Marks

There is no Practical Exam. in Mid Semester.

Subjects without Practical : 100 Marks

Mid Semester-20 Marks, End Semester-80 Marks

SEMESTER	COURSE	COURSE NAME	Credits
<b>I.</b> 4 Papers  (400 Marks)  22 credits	Ability Enhancement Compulsory Course-I	Communicative Eng/Odia/Hindi	4
	Core course-I		4/5
	Core Course-I Practical/Tutorial		2/1
	Core course-II		4/5
	Core Course-II Practical/Tutorial		2/1
	Generic Elective -1	GE-1	4/5
	Generic Elective -1 Practical/Tutorial		2/1
<b>II.</b> 4 Papers  (400 Marks)  22 credits	Ability Enhancement Compulsory Course-II	Environmental Studies	4
	Core course-III		4/5
	Core Course-III Practical/Tutorial		2/1
	Core course-IV		4/5
	Core Course-IV Practical/Tutorial		2/1
	Generic Elective -2	GE-2	4/5
	Generic Elective -2 Practical/Tutorial		2/1
<b>III.</b> 5 Papers  (500 Marks)  28 credits	Core course-V		4/5
	Core Course-V Practical/Tutorial		2/1
	Core course-VI		4/5
	Core Course-VI Practical/Tutorial		2/1
	Core course-VII		4/5
	Core Course-VII Practical/Tutorial		2/1
	Skill Enhancement Course -1	SEC-1	4
	Generic Elective -3	GE-3	4/5
Generic Elective -3 Practical/Tutorial		2/1	
<b>IV.</b> 5 Papers  (500 Marks)  28 credits	Core course-VIII		4/5
	Core Course-VII Practical/Tutorial		2/1
	Core course-IX		4/5
	Core Course-IX Practical/Tutorial		2/1
	Core course-X		4/5
	Core Course-X Practical/Tutorial		2/1
	Skill Enhancement Course -2	SEC -2	4
	Generic Elective -4	GE-4	4/5
Generic Elective -4 Practical/Tutorial		2/1	
<b>V.</b> 4 Papers  (400 Marks)  24 credits	Core course-XI		4/5
	Core Course-XI Practical/Tutorial		2/1
	Core course-XII		4/5
	Core Course-XII Practical/Tutorial		2/1
	Discipline Specific Elective -1	DSE-1	4/5
	Discipline Specific Elective -1 Practical/Tutorial	DSE-1 Practical/Tutorial	2/1
	Discipline Specific Elective -2	DSE-2	4/5
Discipline Specific Elective- 2 Practical/Tutorial	DSE-2 Practical/Tutorial	2/1	
<b>VI.</b> 4 Papers  (400 Marks)  24 credits	Core course-XIII		4/5
	Core Course-XIII Practical/Tutorial		2/1
	Core course-XIV		4/5
	Core Course-XIV Practical/Tutorial		2/1
	Discipline Specific Elective3	DSE-3	4/5
	Discipline Specific Elective -3 Practical/Tutorial	DSE-3 Practical/Tutorial	2/1
	Discipline Specific Elective-4	DSE-4 (Project Work)	6
<b>Total Credits</b>			<b>148</b>

## Model Regulation for Under Graduate Programme (BA/B.Com/B.Sc) As per CBCS system from 2021 admission batch (with suitable modification)

### 1. (A) Compulsory Registration for 1st Semester :

Registration for 1<sup>st</sup> semester is compulsory. A candidate admitted to +3 Course but not registered for 1<sup>st</sup> semester examination, his/her admission will be automatically cancelled .

(B) Only one admit card (called Examination card) for all semester examinations should be issued to the student by Controller of Examination (COE) in the first semester. This will be valid for all semesters.

2. • Mid semester examination of will be of 01hour duration for 20/15 marks (20 for subject having no practical and 15 for subject with practical papers). There shall be no pass mark in Mid semester Examination. The type of questions will be decided by the college authority.
- A student who fails to appear in a Mid semester examination will allowed one more chance to take the same examination. There will be no provision to reappear in the Mid-semester Examination for improvement. This will be applicable for the students of 2021 admission batch

### 3. GRADING SYSTEM

Grading system in each paper (Mid+End Semester Exam) in a Semester :

Qualification	Grade	Mark Secured from 100	Grade Points	Classification for Honours	Classification for Pass
Outstanding	'O'	90-100	10	First Class Hons.	Pass
Excellent	'A+'	80-89	9		
Very Good	'A'	70-79	8		
Good	'B+'	60-69	7		
Above Average	'B'	50-59	6	Second Class Hons.	
Fab-	'C'	45-49	5		
Pass	'D'	40-44	4		
Failed	F	Below 40	0		Fail
Absent	'ABS'	00	0		Fail
Malpractice	'M'	00	0		MP

(a) The Candidate obtaining Grade-F is considered failed and will be required to

clear the Back paper(s) in the subsequent examinations within the stipulated time.

- (b) Candidate in both Pass and Honours Courses securing “B” Grade and above in aggregate in their first appearance will be awarded Distinction. However, students who could not appear at an examination due to their representing the University or State in Inter-University or Inter-State competitions in Games and Sports at National/International level or attending National level NCC/NSS camps will get one chance exemption for Distinction.
- (c) FAIL/MP/HARD CASE and Back Paper Clearance candidates in any Semester Examination are not eligible for award of Distinction.
- (d) Minimum percentage of marks to be secured for Passing :
- 40% (40 out of 100) in theory paper by taking both components (i.e. Mid+End Semester Examination) and minimum Pass mark for Practical paper is 40%.
- (i) No pass mark for Mid-Semester Examination, A student has to appear at the Mid-Semester Examination. Securing “ABS” in Mid-Semester Examination students will be declared Fail in that Paper, though he/she secures pass mark in theory and practical paper. Such candidates would require to appear at the Mid-Semester Examinations in subsequent semester.
- (ii) In order to clear a semester examination a candidate is required to pass in all theory and practical papers/project component of the said paper.
- (e) Mark Distribution:

A. Subjects without Practical:

Mid Semester	End Semester	Total
20	80	100

B. Subject with Practical:

Mid Semester	End Semester		Total
	(a) Theory	(b) Practical	
15	60	25 (20+05 Record)	100

C. DSE-4 for all Hons students (6th semester) is the project.

Project- The mark distribution would be subject specific. In general the project will carry 80 marks and Viva Voce/Seminar will carry 20 marks. The project paper will not have mid semester Examination and it will be evaluated by an internal examiner specified by the college.

**N.B. : A Candidate has to secure Grade-D or above to pass in each of the Papers**

4. A student's level of competence shall be categorized by a GRADE POINT AVERAGE to be specified as :

**SGPA - Semester Grade Point Average**

**CGPA - Cumulative Grade Point Average**

- (a) **POINT** - Integer equivalent of each letter grade  
 (b) **CREDIT** - Integer signifying the relative emphasis of individual course item(s) in a semester as indicated by the Course structure and syllabus.

**CREDIT POINT** - (b) X (a) for each course item

**CREDIT INDEX** -  $\frac{\sum \text{CREDIT POINT}}{\sum \text{CREDIT}}$  of course items in

**GRADE POINT AVERAGE** -  $\frac{\text{CREDIT INDEX}}{\sum \text{CREDIT}}$

**SEMESTER GRADE POINT AVERAGE (SGPA)** =  $\frac{\text{CREDIT INDEX}}{\sum \text{CREDIT}}$  for Semester

**CUMULATIVE GRADE POINT AVERAGE (CGPA)** =  $\frac{\text{CREDIT INDEX of all previous Semester up to a Semester}}{\sum \text{CREDIT}}$

- (c) Formula of Equivalent percentage of marks

Case (a) Equivalent percentage of marks =

$$(\text{CGPA} - 0.5) \times 10 \text{ for } 4 < \text{CGPA} \leq 10$$

Case (b) Equivalent percentage of marks =  $\text{CGPA} \times 10$  for  $\text{CGPA} < 4$ .

5. A student in order to retain honours has to secure Grade 'C' and above in each of the Core papers. Further in order to obtain distinction a student has to secure Grade 'C' in all the papers in 1<sup>st</sup> appearance .
6. The details of grading system shall be printed on the backside of University Mark-sheet.

## REPEAT EXAMINATION

1. A student has to clear back papers ( i.e., in the paper/papers one has failed ) by appearing at subsequent two consecutive semesters of the same nomenclature.
  2. A student after passing out may appear in improvement in any number of papers in the two immediate examinations with next batch students.. The higher marks shall be retained.
  3. Improvement has to be completed within 6 years from the date of admission for Under Graduate Students. For Post Graduate students, it has to be completed within 4 years from the date of admission.
  4. No improvement will be allowed for the students who have cleared the semesters by appearing special back examination.
-

## HARD CASE RULE

1. 2% of grace mark on the aggregate mark subject to maximum of 5 (five) marks in single paper shall be given. This shall be applicable in each semester.
2. 0.5 (point five percent) grace mark can be given for award of B Grade in each semester provided grace mark.

## QUESTION PATTERN FOR - 2021

### A. For Non Practical Subjects (Total Marks - 80)

1. Part - I will carry 12 one mark question in the form of fill in the blanks and one word answer (12 marks).
2. Part - II will carry 10 two mark question of which 8 have to be answered. The answer should be two or three sentence maximum ( $8 \times 2 = 16$ ).
3. Part - III will carry 10 three marks question out of which 8 have to be answered. The answer should be within 75 words maximum ( $8 \times 3 = 24$ ).
4. Part - IV will carry 4 seven marks question of either or format. The either or question can be set from each unit. The answer should be within 500 words maximum ( $4 \times 7 = 28$ ).

### B. For Practical Subjects (Total Marks - 60)

1. Part - I will carry 8 one mark question in the form of fill in the blanks and one word answer (8 marks).
2. Part - II will carry 10 one point five (1.5) mark question of which 8 have to be answered. The answer should be written two or three sentence maximum ( $8 \times 1.5 = 12$ ).
3. Part - III will carry 10 two (2) marks question out of which 8 have to be answered. The answer should be within 75 words maximum ( $8 \times 2 = 16$ ).
4. Part - IV will carry 4 six marks question of either or format. The either or question can be set from each unit. The answer should be within 500 words maximum ( $4 \times 6 = 24$ ).

### C. For Language Subjects (Total Marks - 80)

1. English (core course and DSE)  
Part - I : 4 long question of 14 marks each to be set from 1-4 in either or format ( $4 \times 14 = 56$ )  
Part - II : 4 short notes/ annotation / analysis of 6 marks each covering all the units ( $4 \times 6 = 24$ ).

### D. For AECC-II MIL (Alternative English)

- Part-I : 5 short questions of 4 marks each to be set unit 1-2 covering all prescribed stories and prose pieces ( $10 \times 4 = 40$ )
-



- Part - II : An unknown passage to be set with 5 questions carrying 4 marks each. (5x4=20).
- Part - III : 10 bit questions carrying 2 marks each from grammar/vocabulary and usage (10x2=20).

**E. For AECC-II MIL (Odia/Hindi/Sanskrit) / Core / DSE**

- Part - I : It will carry 12 two(2) marks question out of which 10 have to be answered. (2x10=20).
- Part - II : It will carry 4 fifteen mark question of either or format. The either or question can be set from each unit. (15x4=60)

**FOR ARTS HE/SHE SHALL HAVE TO CHOOSE**

- (a) One core subject from among the list of following subjects: Anthropology, Economics, Education, English, Geography, Hindi, History, Mathematics, Music(HV), Odia, Philosophy, Political Science, Psychology, Sanskrit, Sociology, Statistics or any other subject to be opened in the future as per the rule of the College/University.
- (b) Two Generic elective (GE) subjects : one for First Year from group I and one for 2<sup>nd</sup> year from group II. Each elective subject is composed of two papers of 100 marks each.
- Group I - (GE-I,GE-2): Anthropology, Applied Philosophy, Hindi, Landmarks in Indian History(LIH), Psychology, Mathematics, Sanskrit & NCC\*.
- Group II - (GE-3, GE-4): Indian Economics, Education, Indian Geography, Indian Music(HV), Odia, Indian Polity, Sociology & Statistics.
- (c) All the compulsory subjects are as follows :
- |   |                                |  |
|---|--------------------------------|--|
| (Ability Enhancement<br>Compulsory Course - AECC) | - (1 <sup>st</sup> Semester) - | Environment Studies<br>AECC-1                    |
| (Ability Enhancement<br>Compulsory Course - AECC) | - (2 <sup>nd</sup> Semester) - | MIL Communication (English/Odia/Hindi)<br>AECC-2 |
| (Skill Enhancement<br>Course -SEC-I)              | - (3 <sup>rd</sup> Semester) - | Communicative English                            |
| (Skill Enhancement<br>Course -SEC-II)             | - (4 <sup>th</sup> Semester) - | Quantitative Logical Thinking.                   |
- (d) Discipline Specific Electives (DSE)
- This particular course is related to respective core subjects. The students can choose
- (i) Two DSE subjects related to their core subjects in 5<sup>th</sup> Semester provided in the syllabus
- (ii) Two DSE courses including the project work in the 6<sup>th</sup> Semester.
- \* The students have to go through the required tests to be eligible for N.C.C.

**GRADE SHEET**

At the end of 6(six) semester, a grade sheet shall be made available to each student.

## CBCS Syllabus (Arts Stream)

SEMESTER - I		SEMESTER - II	
AECC-1- Environmental Science	: 100 (80 + 20)	AECC-2- MIL Communication (Eng/Odia/Hindi)	: 100 (80 + 20)
Core - 1	: 100 (80 + 20)	Core - 3	: 100 (80 + 20)
Core - 2	: 100 (80 + 20)	Core - 4	: 100 (80 + 20)
<b>For Practical Subjects</b>		<b>For Practical Subjects</b>	
Core - 1 (Theory)	: 75 (60 + 15)	Core - 3 (Theory)	: 75 (60 + 15)
(Lab)	: 25	(Lab)	: 25
Core - 2 (Theory)	: 75 (60 + 15)	Core - 4 (Theory)	: 75 (60 + 15)
(Lab)	: 25	(Lab)	: 25
GE - 1	: 100 (80 + 20)	GE - 2	: 100 (80 + 20)
<b>For Practical Subjects</b>		<b>For Practical Subjects</b>	
GE - 1 (Theory)	: 75 (60 + 15)	GE - 2 (Theory)	: 75 (60 + 15)
(Lab)	: 25	(Lab)	: 25
SEMESTER - III		SEMESTER - IV	
SEC - 1 Communication English	: 100 (80+20)	SEC - 2 Quantitative & Logical Thinking	: 100 (80 + 20)
Core - 5	: 100 (80+20)	Core - 8	: 100 (80 + 20)
Core - 6	: 100 (80+20)	Core - 9	: 100 (80 + 20)
Core - 7	: 100 (80+20)	Core - 10	: 100 (80 + 20)
<b>For Practical Subjects</b>		<b>For Practical Subjects</b>	
Core - 5 (Theory)	: 75 (60 + 15)	Core - 8 (Theory)	: 75 (60 + 15)
(Lab)	: 25	(Lab)	: 25
Core - 6 (Theory)	: 75 (60 + 15)	Core - 9 (Theory)	: 75 (60 + 15)
(Lab)	: 25	(Lab)	: 25
Core - 7 (Theory)	: 75 (60 + 15)	Core - 10 (Theory)	: 75 (60 + 15)
(Lab)	: 25	(Lab)	: 25
GE - 3	: 100 (80+20)	GE - 4	: 100 (80 + 20)
<b>For Practical Subjects</b>		<b>For Practical Subjects</b>	
GE - 3 (Theory)	: 75 (60 + 15)	GE - 4 (Theory)	: 75 (60 + 15)
(Lab)	: 25	(Lab)	: 25
SEMESTER - V		SEMESTER - VI	
Core - 11	: 100 (80 + 20)	Core - 13	: 100 (80 + 20)
Core - 12	: 100 (80 + 20)	Core - 14	: 100 (80 + 20)
<b>For Practical Subjects</b>		<b>For Practical Subjects</b>	
Core - 11 (Theory)	: 75 (60 + 15)	Core - 13 (Theory)	: 75 (60 + 15)
(Lab)	: 25	(Lab)	: 25
Core - 12 (Theory)	: 75 (60 + 15)	Core - 14 (Theory)	: 75 (60 + 15)
(Lab)	: 25	(Lab)	: 25
DSE - 1	: 100 (80 + 20)	DSE - 3	: 100 (80 + 20)
DSE - 2	: 100 (80 + 20)	DSE - 4 (Project)	: 100
<b>For Practical Subjects</b>		<b>For Practical Subjects</b>	
DSE - 1 (Theory)	: 75 (60 + 15)	DSE - 3 (Theory)	: 75 (60 + 15)
(Lab)	: 25	(Lab)	: 25
DSE - 2 (Theory)	: 75 (60 + 15)		
(Lab)	: 25		

N.B. : Music-All Theory (40+10) Practical - 50

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**+3 FIRST YEAR FIRST SEMESTER****GENERIC ELECTIVE - I****PAPER - I****NCC**Time : **3 Hours**Credit : **6**End Semester : **60 Marks,**Mid-Semester : **15 Marks****The NCC****Unit-1**

- (a) Aims and Objectives of NCC.  
Organisation & Training and NCC Song. Incentives.
- (b) Basic organisation of the Armed Forces Organisation, Army Badges of Rank.
- (c) Religions, Culture, Traditions and Customs of India. National Integration :  
Importance and Necessity.

**Unit-2**

- (a) Introduction to Personality Development, Factors Influencing / shaping Personality,  
Self Awareness-know yourself, change your mind set.
- (b) Types of communications.

**Unit-3**

- (a) Civil Defence organisation, types of emergencies/National Disaster
- (b) National Resources, Conservation, Water conservation, Rain water Harvesting
- (c) Basics of Social service, weaker sections of our society & their needs., Social & Rural  
Development projects: MNREGA.SASY, NSAP etc., Contribution of youth towards social  
Welfare

**Unit-4**

- (a) Introduction to types of maps & conventional signs.
- (b) Scales & Grid system, Topographical Forms & Technical terms.
- (c) Relief, contours and Gradient.

**PRACTICAL-1**Mark - **25**

- |    |                  |   |    |
|----|------------------|---|----|
| 1. | Foot-Drill       | - | 15 |
| 2. | Health & Hygiene | - | 10 |

**+3 FIRST YEAR SECOND SEMESTER  
AECC - 2 - Odia**

Time : 3 Hrs.  
Credit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**ଦକ୍ଷତାବର୍ଦ୍ଧକ ବାଧ୍ୟତାମୂଳକ ପାଠ୍ୟକ୍ରମ  
ଯୋଗାଯୋଗମୂଳକ ମାତୃଭାଷା - ଓଡ଼ିଆ  
ପ୍ରଥମ ପତ୍ର**

କଳା, ବିଜ୍ଞାନ ଓ ବାଣିଜ୍ୟ (ସାଧାରଣ/ସମ୍ମାନ) ଶ୍ରେଣୀ ପାଇଁ ଉଦ୍ଦିଷ୍ଟ

**ପାଠ୍ୟକ୍ରମର ଭୂମିକା :**

ଏହି ପାଠ୍ୟଖଣ୍ଡଟି ପସନ୍ଦ ଓ ଆସ୍ଥାଭିତ୍ତିକ (ସିବିସିଏସ୍) ପାଠ୍ୟ ପ୍ରଣାଳୀ ଅନୁସାରେ ପ୍ରସ୍ତୁତ ହୋଇଛି । ବିଭିନ୍ନ ସ୍ତରରେ ଆବଶ୍ୟକ ଅନୁସାରେ ସମସାମୟିକ ପରିସ୍ଥିତିକୁ ନେଇ ଭାବବିନିମୟ ଓ ପାରସ୍ପରିକ ଯୋଗାଯୋଗ ସ୍ଥାପନ କିପରି ଓଡ଼ିଆ ଭାଷାରେ ସହଜରେ, ସରଳରେ ହୋଇପାରିବ - ଏ ଦିଗ ପ୍ରତି ଏଥିରେ ଧ୍ୟାନ ଦିଆଯାଇଛି । ଓଡ଼ିଆ ଭାଷା ଓ ସାହିତ୍ୟର ପ୍ରାୟୋଗିକ ଜ୍ଞାନର ବିକାଶ ନିମିତ୍ତ +୩ ସ୍ତରୀୟ ବିଦ୍ୟାର୍ଥୀଙ୍କୁ ଏହି ପାଠ୍ୟକ୍ରମର ଖଣ୍ଡଟି ସାହାଯ୍ୟ କରିବ । ସେଥିପାଇଁ ପ୍ରଚଳିତ ଭାଷାର ବୈୟାକରଣିକ, ବ୍ୟାବହାରିକ ଓ ପ୍ରାୟୋଗିକ ଦିଗ ପ୍ରତି ଏଥିରେ ଧ୍ୟାନ ଦିଆଯାଇଛି । ଏଥିରେ ସଂଯୋଗ ପ୍ରକ୍ରିୟାର ଅନୁବିଧି, ଯୋଗାଯୋଗର ତଥ୍ୟ ଓ ତତ୍ତ୍ୱ ପ୍ରତି ଗୁରୁତ୍ୱ ଦିଆଯାଇଛି । ସରକାରୀ କାର୍ଯ୍ୟାଳୟରେ ଓଡ଼ିଆ ଭାଷାର ବ୍ୟବହାରରେ ଏହା ଦକ୍ଷତା ବୃଦ୍ଧି କରିବ । ଓଡ଼ିଆ ଭାଷାର ପ୍ରୟୋଗରେ ସେମାନେ ଶୁଦ୍ଧ ଓ ପରିଚ୍ଛନ୍ନ ଭାବରେ ଯେ କୌଣସି ପ୍ରକାର ଜ୍ଞାନର ସୂଚନା ତଥ୍ୟ ଓ ସିଦ୍ଧାନ୍ତକୁ ମୌଖିକ ଓ ଲିଖିତ ସ୍ତରରେ ସହଜରେ ପ୍ରକାଶ କରିପାରିବେ ଏବଂ ସେମାନଙ୍କ ମାତୃଭାଷା ପ୍ରୟୋଗର ବିକାଶ ଘଟିପାରିବ ।

**ମୂଲ୍ୟ ବିଭାଜନ ପଦ୍ଧତି : (ସବୁଥିରୁ ବିକଳ ପଡ଼ିବ)**

- (କ) ନିର୍ଦ୍ଧାରିତ ପାଠ୍ୟର ସବୁ ଏକକ (ୟୁନିଟ୍)ରୁ ବିକଳସହ ଦୁଇଟି ଲେଖାଏଁ ମୋଟ ୮ଟି  
୧୫ ନମ୍ବର ବିଶିଷ୍ଟ ଦୀର୍ଘପ୍ରଶ୍ନ ପଡ଼ିବ । ବିଦ୍ୟାର୍ଥୀଙ୍କୁ ୪ଟି ପ୍ରଶ୍ନର ଉତ୍ତର ଦେବାକୁ ହେବ । (୧୫x୪=୬୦)
- (ଖ) ନିର୍ଦ୍ଧାରିତ ପାଠ୍ୟର ସବୁ ଏକକରୁ ୧୨ଟି ଅତିସଂକ୍ଷିପ୍ତ ପ୍ରଶ୍ନ ପଡ଼ିବ । ସେଥିରୁ ୧୦ଟି ପ୍ରଶ୍ନର  
ଉତ୍ତର ଦେବାକୁ ହେବ । (୧୫x୪=୬୦)
- (ଗ) ମହାବିଦ୍ୟାଳୟସ୍ତରୀୟ ଆନ୍ତଃ ପରୀକ୍ଷା - ୨୦  
ମୋଟ ମୂଲ୍ୟାଙ୍କ - ୧୦୦

**ଦକ୍ଷତାବର୍ଦ୍ଧକ ବାଧ୍ୟତାମୂଳକ ପାଠ୍ୟକ୍ରମ  
ଯୋଗାଯୋଗ ଅନୁବିଧି, ରୀତି ଓ ମାଧ୍ୟମ  
ଦ୍ୱିତୀୟ ପତ୍ର**

କଳା, ବିଜ୍ଞାନ ଓ ବାଣିଜ୍ୟ (ସାଧାରଣ/ସମ୍ମାନ) ଶ୍ରେଣୀ ପାଇଁ ଉଦ୍ଦିଷ୍ଟ

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ଯୋଗାଯୋଗର ପରିଭାଷା, ଅନୁବିଧି, ପରିସର ଓ ପ୍ରକାରଭେଦ ।  
୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ସାକ୍ଷାତକାର, ଭାଷଣ କଳା ।

୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ସମ୍ବାଦର ପରିଭାଷା, ପରିସର ଓ ସମ୍ବାଦ ପ୍ରସ୍ତୁତି ।

୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ଓଡ଼ିଆ ଭାଷାର ବର୍ଣ୍ଣମାଳା, ବର୍ଣ୍ଣାଶୁଦ୍ଧିର ନିରାକରଣ । (ବନାନ ତୁଟି - ସାଦୃଶ୍ୟଜନିତ ଅଶୁଦ୍ଧି, ଲିଙ୍ଗଗତ ଅଶୁଦ୍ଧି, ସନ୍ଧିଗତ ଅଶୁଦ୍ଧି, ସମାସଗତ ଅଶୁଦ୍ଧି, ବଚନ ଓ ବିଭକ୍ତିଗତ ଅଶୁଦ୍ଧି, ବାକ୍ୟ ବିଧିଜନିତ ଅଶୁଦ୍ଧି, ସମାର୍ଥବୋଧକ ଶବ୍ଦାଶୁଦ୍ଧି, ପ୍ରତ୍ୟୟ ଜନିତ ଅଶୁଦ୍ଧି, ଶବ୍ଦ ସଂଯୋଗାତ୍ମକ ଓ ସ୍ଵରସଙ୍ଗତି ଜନିତ ଅଶୁଦ୍ଧି ।)

#### ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :

୧. ଯୋଗାଯୋଗ ମୂଳକ ମାତୃଭାଷା (ଓଡ଼ିଆ) ସାମଲ ବିରଞ୍ଚି ନାରାୟଣ, ସତ୍ୟନାରାୟଣ ବୁକ୍ ଷୋର, କଟକ ।
୨. ସଂଯୋଗ ଅନୁବିଧି, ସନ୍ତୋଷ କୁମାର ତ୍ରିପାଠୀ, ନାଳନ୍ଦା, କଟକ ।
୩. ଭାଷଣ କଳା ଓ ଅନ୍ୟାନ୍ୟ ପ୍ରସଙ୍ଗ - କୃଷ୍ଣଚନ୍ଦ୍ର ପ୍ରଧାନ, ସତ୍ୟନାରାୟଣ ବୁକ୍ ଷୋର, କଟକ ।
୪. ପ୍ରାୟୋଗିକ ଓଡ଼ିଆ ଭାଷା - ଓଡ଼ିଶା ରାଜ୍ୟ ପାଠ୍ୟ ପୁସ୍ତକ ପ୍ରଣୟନ ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ଵର ।
୫. ସମ୍ବାଦ ଓ ସାମ୍ବାଦିକତା - ଚନ୍ଦ୍ରଶେଖର ମହାପାତ୍ର, ଓଡ଼ିଶା ରାଜ୍ୟ ପାଠ୍ୟପୁସ୍ତକ ପ୍ରଣୟନ ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ଵର ।
୬. ନିର୍ଭୂଲ ଲେଖାର ମୂଳସୂତ୍ର, ନୀଳାଦ୍ରି ଭୂଷଣ ହରିଚନ୍ଦନ, ପି.ସି.ଆଇ ପବ୍ଲିକେସନ, ଭୁବନେଶ୍ଵର ।
୭. ସର୍ବସାର ବ୍ୟାକରଣ - ନାରାୟଣ ମହାପାତ୍ର ଓ ଶ୍ରୀଧର ଦାସ, ନିୟୁ ଷ୍ଟୁଡେଣ୍ଟସ୍ ଷୋର, କଟକ ।

**+3 FIRST YEAR SECOND SEMESTER**  
**AECC : Hindi (MIL)**  
**Arts / Science**

Time : 3 Hrs.  
 Credit : 06

End Semester Theory : 80 Marks  
 Mid Semester Theory : 20 Marks

**UNIT-I**

कविता :

१. कवीर - साखी : १ से १०।
२. तुलसी - विनयपत्रिका - पद १ और २।
३. प्रसाद - मधुमय देश।
४. अज्ञेय - हिरोशिमा।

**UNIT-II**

गद्य :

१. रामचन्द्र शुक्ल - उत्साह।
२. हजारी प्रसाद द्विवेदी - कुटज।
३. हरिशंकर परसाई - सदाचार का तावीज।

**UNIT-III**

शब्द ज्ञान :

१. शब्द शुद्धि
२. वाक्य शुद्धि
३. पर्यायवाची शब्द
४. विलोम शब्द

**UNIT-IV**

सामान्य ज्ञान :

निबंध लेखन (Essay Writing)

- अंक विभाजन :**
- (क) यूनिट 3 से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे  
 जिनमें से 10 के उत्तर लिखने होंगे - 2 x 10 = 20
- (ख) यूनिट 1, 2 और 4 से 06 दीर्घ उत्तरमूलक एवं यूनिट 1 से 2  
 दीर्घ उत्तरमूलक (व्याख्या सहित) प्रश्न पूछे जाएँगे।  
 कुछ 04 प्रश्नों के उत्तर लिखने होंगे - 15 x 4 = 60

**पाठ्य पुस्तक :**

१. हिन्दी प्रसून - सं. डॉ. अंजुमन आरा, प्लानेट वी, कटक।
२. आधुनिक हिन्दी व्याकरण और रचना - वासुदेवनन्दन प्रसाद, भारती भवन, दिल्ली।



**+3 FIRST YEAR SECOND SEMESTER****AECC - 2****MIL (ALTERNATIVE ENGLISH)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**INTRODUCTION :**

The paper is focused upon developing one fundamental skills of Language learning; reading which needs a thorough rethink and revision. In order to build a strong base for acquisition of the communication skills, suitable reading content is selected from diverse areas in prose form. This would boost the learner's competence in expressive and comprehension skills. The well researched language exercises in the form of usage, vocabulary and grammar is the other area that should attract the teacher and learner to work out for giving decent shape to the mastery of English language.

**UNIT 1: Short Story**

- (i) Jim Corbett-The Fight between Leopards
- (ii) Dash Benhur- The Bicycle
- (iii) Dinanath Pathy- George V High School
- (iv) Alexander Baron- The Man who knew too much
- (v) Will f Jenkins- Uneasy Homecoming

**UNIT 2: Prose**

- (i) Mahatma Gandhi- The way to Equal Distribution
- (ii) S Radhakrishnan- A Call to Youth
- (iii) C V Raman-Water- The Elixir of Life
- (iv) Harold Nicolson- An Educated Person
- (v) Claire Needell Hollander- No Learning without Feeling

**UNIT 3:**

Comprehension of a passage and answering the questions

**UNIT 4:**

Language exercises-test of vocabulary, usage and grammar

**Text Books :**

All Stories and Prose pieces

**Reference Books**

- *The Widening Arc: A Selection of Prose and Stories*, Ed. A R Parhi, S Deepika, P Jani, Kitab Bhavan, Bhubaneswar.
  - *A Communicative Grammar of English*, Geoffrey Leech.
  - *A University Grammar of English*, Randolph Quirk and Sidney Greenbaum
  - *Developing Reading Skills*. F. Grellet. Cambridge: Cambridge University Press, 1981.
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**+3 SECOND YEAR THIRD SEMESTER**  
**SEC - 1**  
**(Communicative English)**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 50 Marks

Mid Semester Theory : 20 Marks

This special course of Communicative English aims to engage the students more creatively to improve their English language and communication skills. This paper will be taught under Skill Enhancement Compulsory Course - 1 (SECC-1). The main intent of this paper is to strengthen the language competency of graduate students, majority of who are set to enter the job market with high hopes. Needless to say, a good command over English language is one skill which various companies expect from the prospective employees.

**UNIT-I: CONTEXTS OF COMMUNICATION AND PHONETIC FEATURES**

1. Why English Communication is essential and how to improve the skill?
2. Introduction to Voice and Accent
  - a. Why do we have such different accents?
  - b. Accent Training-Consequences
  - c. Voice and accent in the Enterprise Industry
  - d. Globally Comprehensible Accent
  - e. Introduction to Phonetics
  - f. International Phonetic Alphabet
3. Consonant Sounds
4. Vowels
5. Diphthongs
6. A Few Phonic Rules
7. Word Stress: Syllables
8. Intonation and Stress
9. Pacing and Chunking
  - a. Common Patterns of Pacing
  - b. Importance of Chunking
10. Fluency
11. Indianisms - Errors in pronunciation

**UNIT-II: GRAMMAR**

1. English: Spoken Versus Written Communication
  2. Nouns
    - a. Kinds of Nouns
    - b. Nouns-Number
    - c. Noun-Gender
    - d. Countable and Uncountable Nouns
-

3. Pronouns
4. Adjectives
  - a. Positioning of adjectives
  - b. Comparative Degrees of Adjectives
  - c. Order of Adjectives
5. Adverbs
  - a. Kinds of Adverb
  - b. Degree of Comparison
  - c. Word Order with Adverbs
6. Prepositions  
Prepositions with Adjectives, Nouns and Verbs
7. Conjunctions
  - a. Coordinating conjunctions
  - b. Subordinating Conjunctions
  - c. Correlative Conjunctions
  - d. Connecting Adverbs
8. Verbs
  - a. Verb Classification
  - b. List of irregular verbs
9. Subject and verb agreement
10. Determiners and Modifiers
11. Proof Reading and Punctuation
12. Tenses
13. Common errors in grammar and vocabulary

### **UNIT-III: READING COMPREHENSION**

Reading - A 7 - Step Process, Techniques to enhance students' reading skills, Types of reading skills (Skimming, Scanning, Extensive reading, Intensive reading), Three levels of Reading, Improving your reading speed. Reading comprehension practice exercises,

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**+3 FIRST YEAR FIRST SEMESTER**  
**AECC - 1**  
**ENVIRONMENTAL SCIENCE**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Unit-I**

The Environment : The Atmosphere, Hydrosphere, Lithosphere, Biosphere, Ecology, Ecosystem, Biogeochemical Cycle (Carbon Cycle, Nitrogen Cycle), Environment Pollution : Air Pollution, Water Pollution, Soil Pollution, Radiation Pollution.

**Unit-II**

Population Ecology : Individuals, Species, Pollution, Community, Control Methods of Population, Urbanization and its effects on Society, Communicable Diseases and its Transmission, Non-Communicable Diseases.

**Unit-III**

Environmental Movements in India : Grassroot Environmental movements in India, Role of women, Environmental Movements in Odisha, State Pollution Control Board, Central Pollution control Board.

**Unit-IV**

Natural Resources : Conservation of Natural Resources, Management and conservation of Wildlife, Soil Erosion and Conservation, Environmental Laws : Water Act, 1974, Air Act, 1981. The Wildlife (protection) Act, 1972, Environment Protection, 1986, Natural Diasters and their Management.

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**+ 3 SECOND YEAR FOURTH SEMESTER**  
**SEC - 2**  
**QUANTITATIVE AND LOGICAL THINKING**  
**(Special Course)**

**Time : 3 Hrs**  
**Credit : 06**

**End Semester Theory : 80 Marks**  
**Mid-Semester : 20 Marks**

**Unit - I : QUANTITATIVE APTITUDE & DATA INTERPRETATION.**

1. Whole numbers, Integers, Rational and irrational numbers, Fractions, Square roots and Cube roots, Surds and indices, Problems on Numbers, Divisibility.  
Steps of Long Division Method for Finding Square Roots.
2. Basic concepts, Different formulae of Percentage, Profit and Loss, Discount, Simple interest, Ratio and Proportion, Mixture.
3. Time and Work, Pipes and Cisterns, Basic concepts of Time, Distance and Speed; relationship among them.
4. Concept of Angles, Different Polygons like triangles, rectangle, square, right angled triangle, Pythagorean Theorem, Perimeter and Area of Triangles, Rectangles, Circles.
5. Raw and Grouped Data, Bar graphs, Pie charts, Mean, Median and Mode, Events and Sample Space, Probability.

**Unit - II : LOGICAL REASONING**

1. Analogy basing on kinds of relationships, Simple Analogy; Pattern and Series of Numbes, Letters, Figures. Coding-Decoding of Numbers, Letters, Symbols (Figures), Blood relations.
2. Logical Statements - Two premise argument, More than two premise argument using connectives.

**Unit - III :**

Venn Diagrams, Mirror Images, Problems on Cubes and Dices.

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**+3 FIRST YEAR SECOND SEMESTER  
GENERIC ELECTIVE - 2  
NCC**

Time : **3 Hours**

Credit : **6**

End Semester : **60 Marks,**

Mid-Semester : **15 Marks**

**Unit-1**

- a) Freedom struggle and Nationalist Movement in India, Nationalist Interest, objectives threats and opportunities,
- b) Self defence

**Unit-2**

- a) Scout and Patroo
- b) Judging Distance

**Unit-3**

- a) Dressing of Wounds
- b) Yoga : Introduction and Exercises, Physical and Mental Health
- c) Fractures : types and treatment, evacuation of Casualties

**Unit-4**

- a) Cardinal points & types of north
- b) Types of bearing & use of Service Protractor
- c) Prismatic compass & its use

**PRACTICAL-2**

Full Mark - **25 Marks**

- |    |                  |   |    |
|----|------------------|---|----|
| 1. | Map Reading      | - | 15 |
| 2. | Judging Distance | - | 10 |

# ANTHROPOLOGY

## +3 FIRST YEAR FIRST SEMESTER Core Paper - 1 INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

### Unit I:

History of Physical Anthropology and development of Modern Biological anthropology, aim, scope and its relationship with allied disciplines; Difference in the approaches of modern and traditional Biological Anthropology.

### Unit II:

History and development of understanding human evolution (pre-19th and post-19th Century); Theories of evolution: Lamarckism, Darwinism, Synthetic theory, and Mutation theory.

### Unit III:

Primates: General Characteristics, Distribution and Classification of Non human living primates. Comparative anatomy and behaviour of human and non-human primates.

### Unit IV:

Structure and function of an animal cell; cell theory and cell division (Mitosis and Meiosis), Mendel's Laws of inheritance and its application to man.

### PRACTICAL

Credit : 02

25 Marks

#### Osteology

Introduction to Anthropology Laboratory: Dry Lab and Wet Lab, Calibration and Standardization of Instruments, Demonstration of Instruments: Anthropometry, Spreading Calliper, Sliding Calliper, Weighing Machine and Steel tape.

#### Somatometry

- |                         |                                |
|-------------------------|--------------------------------|
| 1. Stature              | 6. Maximum bizygomatic breadth |
| 2. Sitting height       | 7. Bigonial breadth            |
| 3. Body weight          | 8. Morphological facial height |
| 4. Maximum head length  | 9. Head circumference          |
| 5. Maximum head breadth | 10. Minimum frontal breadth    |

#### Text book recommended:

1. Shukla B.R.K. & Rastogi, S. 1990. *Physical Anthropology & Human Genetics: An Introduction*. Palka Prakashan. Delhi.
  2. Das B.M. 2008. *Outlines of Physical Anthropology*. Kitab Mahal, New Delhi.
  3. Sarkar, R. M. 2004. *Fundamentals of Physical Anthropology* (New Edition). Book World. Kolkata.
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4. Mukherji, D., D. Mukherjee and P. Bharti and A. Mukhopadhyaya. 2018. *Laboratory Manual for Biological Anthropology: Revised and Enlarged 2<sup>nd</sup> Edition*. SCHOLAR Booksellers & Publishers, Kolkata.

### Suggested Readings

1. Jurmain R., Kilgore L., Trevathan W., Ciochon R.L. (2012). *Introduction to Physical Anthropology* Wadsworth Publ., USA.
2. Stanford C., Allen J.S. and Anton S.C. (2010). *Exploring Biological Anthropology. The Essentials*. Prentice Hall Publ, USA.

## +3 FIRST YEAR FIRST SEMESTER Core Paper - 2 INTRODUCTION TO SOCIO-CULTURAL ANTHROPOLOGY

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

### Unit I:

Anthropological perspective and orientation; Scope and relevance of Social Anthropology; Relationship of Social Anthropology with other disciplines. Its distinction from sociology.

### Unit II:

Concepts of society and culture; status and role; groups and institution, social stratification, and civil society.

### Unit III:

Social organization; social structure; social function; social system.

### Unit IV:

Theory and practice of ethnographic fieldwork; survey method; comparative and historical

### PRACTICAL

Credit : 02

25 Marks

Methods and Techniques of Social Anthropology: The practical will include the following techniques and methods in collection of data in Social Anthropology.

1. Observation
2. Interview
3. Questionnaire and Schedule
4. Case study
5. Life history

### Text book recommended:

1. Ember C. R. et al. (2011). *Anthropology*. New Delhi: Dorling Kindersley.
2. Haviland, Prins, Walrath, McBride (2008). *Cultural Anthropology*. Cengage Learning India Pvt. Ltd., New Delhi.
3. Kapadia, K.M, 1966, *Marriage and Family in India*, Oxford University Press, London



4. Murdock, G.P. 1949, Social structure, Macmillan Co. London
5. Tylor, E. B. 1920 (originally in 1871), Primitive Culture, New York: J.

### Suggested Readings

1. Beattie J. (1964). Other Cultures. London: Cohen & West Limited.
2. Bernard H.R. (1940). Research Methods in Cultural Anthropology. Newbury Park: Sage Publications.
3. Davis K. (1981). *Human Society*. New Delhi: Surjeet Publications.
4. Delaney C. (2004). 'Orientation and disorientation' In *Investigating Culture: An Experiential Introduction to Anthropology*. Wiley-Blackwell.
5. Ferraro G. and Andreatta S. (2008). In *Cultural Anthropology: An Applied Perspective*. Belmont: Wadsworth.
6. Karen O'reilly. (2012). 'Practical Issues in Interviewing' *Ethnographic Methods*. Abingdon: Routledge
8. Lang G. (1956). 'Concept of Status and Role in Anthropology: Their Definitions and Use. *The American Catholic Sociological Review*, 17(3): 206-218
8. O'reilly K. (2012). *Ethnographic Methods*. Abingdon: Routledge.
9. Parsons T. (1968). *The Structure of Social Action*. New York: Free Press
10. Rapport N. and Overing J. (2004). *Key Concepts in Social and Cultural Anthropology*. London: Routledge.
10. Royal Anthropological Institute of Great Britain and Ireland (1971). 'Methods' In *Notes and Queries on Anthropology*. London: Routledge & Kegan Paul Ltd.

## +3 FIRST YEAR SECOND SEMESTER

### Core Paper - 3

### ARCHAEOLOGICAL ANTHROPOLOGY

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

#### Unit I:

Introduction, Definition and scope of archaeological anthropology; Relation with other disciplines; Methods of studying archaeological anthropology.

#### Unit II:

Methods of Estimation of Time and Reconstruction of the Past; Absolute dating methods: Radiocarbon <sup>14</sup>C dating (C<sup>14</sup>), Potassium-Argon, Dendochronology, Fission Track Dating; Relative dating methods: Stratigraphy, Palaeontology, Palynology.

#### Unit III:

Geochronology of Pleistocene Epoch; Glacial and Interglacial; Pluviation and Inter Pluviation; Different types of geoclimatic events.

#### Unit IV:

Understanding Culture; Technique of tool manufacture and estimation of their relative efficiency; Classification of tools: primary and combination of fabrication techniques; Earliest evidence of culture in the world: Konso, Olorgesaille, Olduvai Gorge, Pirro Nord, Damanisi, Attirampakkam, Isampur, Kuliana.

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**PRACTICAL**Credit : **02****25 Marks**

Typo-technological Analysis of Prehistoric Tools: Identification, Interpretation and Drawings of the tool Types

1. Core Tool Types
2. Flake Tool Types
3. Blade Tool Types
4. Microlithic Tool Type
5. Neolithic Tool Type

**Text book recommended:**

1. Bhattacharya D.K. (1978). *Emergence of Culture in Europe*, Delhi, B.R. Publication.
2. Bhattacharya D.K. (1979). *Old Stone Age Tools and Techniques*. Calcutta, K.P. Bagchi Company
3. Sankalia H.D. (1964). *Stone Age Tools*. Poona Deccan College

**Suggested Readings**

1. Allchin and Allchin (1993). *The Rise of Civilization of India and Pakistan*. Cambridge University Press
2. Bhattacharya D.K. (1978). *Emergence of Culture in Europe*, Delhi, B.R. Publication.
3. Bhattacharya D.K. (1979). *Old Stone Age Tools and Techniques*. Calcutta, K.P. Bagchi Company
4. Bhattacharya D.K. (1996). *Palaeolithic Europe*. Netherlands, Humanities Press.
5. Champion et al. (1984). *Prehistoric Europe*. New York, Academic Press.
6. Fagan B.M. (1983). *People of Earth: An Introduction*. Boston, Little, Brown & Company.
7. Phillipson D. W. (2005). *African Archaeology*. Cambridge, Cambridge University Press.
8. Renfrew, C. and Paul Bahn 1996, *Archaeology: Theory, Method and Practice*:Thames & Hudson ... London
9. Sankalia H.D. (1964). *Stone Age Tools*. Poona Deccan College

**+3 FIRST YEAR SECOND SEMESTER****Core Paper - 4****FUNDAMENTALS OF HUMAN ORIGIN & EVOLUTION**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****Unit-I:**

Primate origin, evolution and radiation: Ramapithecus, Dryopithecus, distribution, features and their phylogenetic relationships.

**Unit-II:**

Australopithecines: distribution, features and their phylogenetic relationships. Appearance of genus Homo (Homo habilis) and related finds. Homo erectus from Asia, Europe and Africa: Distribution, features and their phylogenetic status.

**Unit-III:**

The origin of Homo sapiens: Fossil evidences of Neanderthals and Archaic *Homo sapiens sapiens*, Origin of modern humans (*Homo sapiens sapiens*): Distribution and features

**Unit-IV:**

Theories of human evolution: Multiregional and Out of Africa theory; Hominisation process.

**PRACTICAL**Credit : **02****25** Marks

1. Craniometry: Maximum cranial length, Maximum cranial breadth, Maximum bizygomatic breadth, Maximum frontal breadth, Minimum frontal breadth, Nasal height, Nasal breadth, Bi-mastoid breadth, Greatest occipital breadth, Upper facial height, Cranial index, Nasal index.
2. Osteometry: Measurements of long bones: lengths, minimum/least circumference and caliber index
3. Identification of casts of fossils of family hominidae: Drawing and comparison of characteristics.

**Text book recommended:**

1. Shukla B.R.K. & Rastogi, S. 1990. *Physical Anthropology & Human Genetics: An Introduction*. Palka Prakashan. Delhi.
2. Das B.M. 2008. *Outlines of Physical Anthropology*. Kitab Mahal, New Delhi.
3. Sarkar, R. M. 2004. *Fundamentals of Physical Anthropology* (New Edition). Book World. Kolkata.
4. Singh I.P. and M.K. Bhasin. 1989. *A Laboratory Manual on Biological Anthropology: Anthropometry*. Kamal-Raj Enterprises, Delhi.

**Suggested Readings**

1. Buettner-Janusch, J. (1966). *Origins of Man: Physical Anthropology*. John Wiley & Sons, Inc., New York, London, Sydney.
  2. Conroy, G.C. (1997). *Reconstructing Human Origins: A Modern Synthesis*. W. W. Norton & Company, New York, London.
  3. Howell F.C. (1977). *Horizons of Anthropology*. Eds. S. Tax and L.G. Freeman, Aldine Publishing House, Chicago.
  4. Nystrom P. and Ashmore P. (2011). *The Life of Primates*. PHI Learning Private Limited, New Delhi.
  5. Seth P. K. and Seth S. (1986). *The Primates*. Northern Book Centre, New Delhi, Allahabad.
  6. Singh I. P. and Bhasin M.K. (1989). *Anthropometry: A Laboratory Manual on Biological Anthropology*. Kamla-Raj Enterprises, Chawri Bazar, Delhi.
  7. Standford C.; Allen J.S. and Anton S.C. (2012). *Biological Anthropology: The Natural History of Mankind*. PHI Learning Private Limited, New Delhi.
  8. Swindler D. R. (2009). *Introduction to the Primates*. Overseas Press India Pvt. Ltd., New Delhi.
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**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 5**  
**TRIBES AND PEASANTS IN INDIA**

Time : 3 Hrs.  
 Credit : 04

End Semester Theory : 60 Marks  
 Mid Semester Theory : 15 Marks

**Unit I:**

Definition and Concept of Tribe; Problems of nomenclature, distribution and classification; Features of tribes in India.

**Unit II:**

Tribes in India. The history of tribal administration; Constitutional safeguards; Draft of National Tribal Policy, Issues of acculturation assimilation and integration; Impact of development schemes and programme on tribal life.

**Unit III:**

Concept of Indian Village; The concept of peasantry; Approaches to the study of peasants – economic, political and cultural. Characteristics of Indian village: social organization; economy and changes. Caste system and its changes in the Indian society.

**Unit IV:**

Ethnicity Issues: Tribal and peasant movements; Identity issues.

**PRACTICAL**

Credit : 02

25 Marks

Reading of Ethnography: Students are required to read and analyze any two of the ethnographies (as listed below) and prepare a report based upon it. The report should clearly link up the study with the concept of tribe and peasantry and delineate clearly the concept used in the text.

1. Research questions/objectives of the study and their relevance.
2. Theoretical schema.
3. Methods and techniques used in the study.
4. Key findings and their significance in the context of the objectives of the study.
5. Critical analysis of the finding on the basis of contemporary available resources.

**List of Ethnographies:**

1. Walker A. (1986). *The Todas*. Delhi : Hindustan Publishing Corporation
2. Verrier Elwin (1992). *The Muria and their Ghotul*. USA: Oxford University Press.
3. Malinowski M. (1922). *Argonauts of the Western Pacific*. London: Routledge and Kegan Paul Ltd.
4. Furer-Haimendorf C.V. (1939). *The Naked Nagas*. London: Methuen and Co.
5. Evans-Pritchard E.E. (1940). *The Nuer: A Description of the Modes of Livelihood and Political Institutions of a Nilotic People*. Oxford : Clarendon Press.
6. Majumdar D. N. (1950). *Affairs of tribes*. Lucknow: Universal Publishers Ltd.
7. Dube S.C. (1955). *Indian Village*. London: Routledge and Kegan Paul Ltd.
8. Berreman G.D. (1963). *Hindus of the Himalayas*. Berkeley: California University Press.

**Suggested Readings**

1. Gupta D. (1991). Social Stratification. Oxford University Press: Delhi.
2. Madan V. (2002). The Village in India. Oxford University Press: Delhi.
3. Nathan D. (1998). Tribe-Caste Question. Simla: IIAS.
4. National Tribal Policy (draft). (2006). Ministry of Tribal Affairs. Government of India.
5. Patnaik S.M. (1996). Displacement, Rehabilitation and Social change. Inter India Publication, Delhi.
6. Shah G. (2002). Social Movement and the State. Delhi: Sage.
7. Shanin T. (1987). Peasants and Peasantry. New York, Blackwell.
8. Vidyarthi L.P. and Rai B.K. (1985) Tribal Culture in India, New Delhi, Concept Publishing Company.
9. Wolf E. (1966). Peasants. NJ, Prentice Hall.

**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 6**  
**HUMAN ECOLOGY**

Time : 3 Hrs.  
 Credit : 04

End Semester Theory : 60 Marks  
 Mid Semester Theory : 15 Marks

**Unit 1:**

Concepts in Ecology: Definition, Ecosensitivity, adaptation, acclimation, acclimatization, Ecosystem: Types and Components (biotic and abiotic).

**Unit II:**

Methods of studying human ecology. Adaptation to various ecological stresses: heat, cold and high altitude; Ecological rules and their applicability to human populations.

**Unit III:**

Culture as a tool of adaptation; various modes of human adaptation in pre-state societies; (i) Hunting and food gathering (ii) Pastoralism and (iii) Shifting cultivation and Agriculture and peasantry.

**Unit VI:**

Ecological themes of state formation: i. Neolithic revolution, ii. Hydraulic Civilization, Impact of urbanization and industrialization on Man.

**PRACTICAL**

Credit : 02

25 Marks

**Biological Dimensions***Size and Shape Measurements*

- |                                 |                                 |
|---------------------------------|---------------------------------|
| 1. Stature                      | 5. Total Lower Extremity Length |
| 2. Sitting Height               | 6. Nasal Breadth                |
| 3. Body Weight                  | 7. Nasal Height                 |
| 4. Total Upper Extremity Length |                                 |

**Size and Shape Indices (Any two)**

- |                            |  |
|----------------------------|--|
| 1. Body Mass Index         | 4. Relative Upper Extremity Length       |
| 2. Ponderal Index          | 5. Relative Total Lower Extremity Length |
| 3. Relative Sitting Height | 6. Nasal Index                           |

**Cultural Dimensions**

1. Make a research design pertaining to any environmental problem and do a project based on it.

**Text book recommended:**

1. Mukherji, D., D. Mukherjee and P. Bharti and A. Mukhopadhyaya. 2018. *Laboratory Manual for Biological Anthropology: Revised and Enlarged 2<sup>nd</sup> Edition*. SCHOLAR Booksellers & Publishers, Kolkata.

**Suggested Reading**

1. Human ecology: biocultural adaptation in human communities. (2006) Schutkowski, H. Berlin. Springer Verlag.
2. Human ecology and cognitive style: comparative studies in cultural and physical adaptation. (1976). Berry, J.B. New York: John Wiley.
3. Human ecology. (1964) Stapledon. Faber & Faber.
4. Studies in Human Ecology. (1961) Theodorson, G.A. Row, Peterson & Company Elmsford, New York.
5. Human ecology: (1973) Problems and Solutions. Paul R. Ehrlich, Anne H. Ehrlich and John P. Holdress. W.H. Freeman & Company, San Francisco.
6. Cohen, Yehudi A. 1968. Man in adaptation; the cultural present. Chicago: Aldine Pub. Co.
7. Redfield, Robert. (1965). Peasant society and culture an anthropological approach to civilization. Chicago [u.a.]: Univ. of Chicago Press.
8. Symposium on Man the Hunter, Richard B. Lee, and Irven DeVore. 1969. Man the hunter. Chicago: Aldine Pub. Co.
9. Dave Deeksha & S.S. Katewa (2012). Text Book of Environmental Studies. Cengage Learning India Pvt. Ltd., Delhi
10. Eugene P. Odum and Gary W. Barrett (2004). Fundamentals of Ecology. Cengage Learning; 5 edition.

**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 7**  
**BIOLOGICAL DIVERSITY IN HUMAN POPULATIONS**

Time : 3 Hrs.  
 Credit : 04

End Semester Theory : 60 Marks  
 Mid Semester Theory : 15 Marks

**Unit I:**

Concept of Biological Variability; Sources of Genetic Variation; Structuring Genetic Variation; Interpretation of Human Variation, Genetic Polymorphism (Serological, Biochemical and DNAMarkers).

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**Unit II:**

Concept of Race and UNESCO Statement on Race, A Comparative account of various races of the world. A critical appraisal of contribution of Risley, Guha, Rickstett and Sarkar towards understanding ethnic elements in the Indian populations.

**Unit III:**

Demographic Anthropology: meaning and scope, Sources of Demographic Data, Demographic Processes, Demographic profile of Indian populations and its growth structure. National population policy.

**Unit IV:**

Role of Bio-cultural Factors: Bio-cultural factors influencing the diseases and nutritional status; Evolution of Human diet, biological perspectives of ageing process among different populations.

**PRACTICAL**Credit : **02****25 Marks**

1. Craniometric Measurements (Skull & Mandible)
2. Determination of B, O; and Rh blood groups of ten subjects.
3. Analysis and interpretation of finger ball pattern types, palmar main lines and pattern index; Finger print classification and development of chance prints and statistical treatment of the data collected (Ten Subjects)
4. Collection of demographic data from secondary sources.

**Text book recommended:**

1. Shukla B.R.K. & Rastogi, S. 1990. *Physical Anthropology & Human Genetics: An Introduction*. Plaka Prakashan. Delhi.
2. Das B.M. 2008. *Outlines of Physical Anthropology*. Kitab Mahal, New Delhi.
3. Sarkar, R. M. 2004. *Fundamentals of Physical Anthropology* (New Edition).Book World. Kolkata.
4. Mukherji, D., D. Mukherjee and P. Bharti and A .Mukhopadhyaya. 2018. *Laboratory Manual for Biological Anthropology: Revised and Enlarged 2<sup>nd</sup> Edition*. SCHOLAR Booksellers & Publishers, Kolkata.

**Text book recommended:**

1. Shukla B.R.K. & Rastogi, S. 1990. *Physical Anthropology & Human Genetics: An Introduction*. Palka Prakashan. Delhi.
2. Das B.M. 2008. *Outlines of Physical Anthropology*. Kitab Mahal, New Delhi.
3. Sarkar, R. M. 2004. *Fundamentals of Physical Anthropology* (New Edition).Book World. Kolkata.
4. Mukherji, D., D. Mukherjee and P. Bharti. 2009. *Laboratory Manual for Biological Anthropology*. Asian Books Pvt. Ltd., New Delhi.

**Suggested readings:**

1. Baker P.T. and J.S. Weiner (ed.) (1996) *The Biology of Human Adaptability*. Oxford & New York, Oxford University Press.
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2. Bhende A. and T. Kantikar (2006) *Principles of Population Studies*. Himalayan Publishing House, Mumbai
3. Bogin B. (1999). *Pattern of Human Growth*. 2nd edition CUP.
4. Cameron Noel and Barry Bogin (2012) *Human Growth and development*. Second edition, Academic Press Elsevier.
5. Eckhardt R.B.(1979) *The Study of Human Evolution*. McGrand Hill Book Company, USA.
6. Frisancho R. (1993) *Human Adaptation and Accommodation*. University of Michigan press
7. Harrison G.A., Tanner, J.M., Pilbeam, D.R., Baker, P.T. (1988) *Human Biology*. Oxford University Press.
8. Jurmain Robert Lynn kilgoreWendaTrevathan and Ciochon (2010). *Introduction to Physical Anthropology*. Wadsworth Publishing, USA.
9. Kapoor A.K. and Satwanti Kapoor (ed) (1995). *Biology of Highlanders*. Jammu, Vinod Publisher & Distributor.
10. Kapoor A.K. and Satwanti Kapoor (eds) (2004) *India's Elderly-A Multidisciplinary Dimension*. Mittal Publication, New Delhi.
11. Klepinge L.L. (2006). *Fundamentals of Forensic Anthropology*. John Willey & Sons., New Jersey.
12. Malhotra K.C. and B. Balakrishnan(1996) *Human Population Genetics in India*.
13. Malina Robert M., Claude. Bouchard, Oded. Bar-Or. (2004) Growth, and Physical Activity. *Human Kinetics*.
14. Stanford C., Allen, S.J. and Anton, C.S. (2013): *Biological Anthropology*. 3rd edition, Pearson, USA.
15. Bhende A. and Kaniikar, T. (2010) *Principles of Population Studies*. Himalaya Publishing House. Mumbai (All Units, It covers most to.

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 8**  
**THEORIES OF CULTURE AND SOCIETY**

Time : 3 Hrs.  
 Credit : 04

End Semester Theory : 60 Marks  
 Mid Semester Theory : 15 Marks

**Unit I:**

Emergence of Anthropology: Interface with evolutionary theory and colonialism, Evolutionism, Diffusionism and Culture area theories.

**Unit II:**

Emergence of Fieldwork tradition; Historical Particularism, American Cultural Tradition.

**Unit III:**

Durkheim and Social integration; Functionalism and Structural-functionalism and British Social Anthropology.

**Unit IV:**

Structuralism: Claude Levi-Strauss and Edmund Leach; Symbolism and Interpretative approach.



**PRACTICAL**Credit : **02****25 Marks**

As a part of the practical following exercises will be undertaken by the students so as to enable them to connect the theories they learn with things of everyday living.

1. To identify a topic relating to contemporary issue and formulate research questions and clearly identify the theoretical perspectives from which they are derived.
2. Identification of variables of a study.
3. Various types of hypotheses.
4. Formulation of hypothesis.
5. Distinction between hypothesis testing and exploratory research.
6. Identification of universe and unit of study with justifications.
7. Choice of appropriate research technique and method in the context of theoretical framework.
8. Data collection and analysis

**Suggested Readings**

1. Applebaum H.A. (1987) *Perspectives in Cultural Anthropology*. Albany: State University of New York.
2. Barnard A. (2000). *History and Theory in Anthropology*. Cambridge: Cambridge University.
3. McGee R.J. and Warms R.L. (1996) *Anthropological Theories: An Introductory History*.
4. Moore M. and Sanders T. (2006). *Anthropology in Theory: Issues in Epistemology*, Malden, MA: Blackwell Publishing

**Text Book Recommended:**

1. Behura, N.K. Anthropological thought and Theories ,New Delhi
  2. Geertz, C. 1973. *The Interpretation of Culture*, New York: Basic Books.
  3. Harris, M. 1969. *The Rise of Anthropological Theory*, London: Routledge and Kegan paul.
  4. Honnigman, J. J. (Ed). 1997, *A Hand Book of Social and Cultural Anthropology*, Vol-II, University of North Carolina, New Delhi: Rawat Publications
  5. Kroeber, A. L. 1953. *Anthropology Today: An Encyclopedic Inventory*. Chicago
  6. Levi-Strauss, C. 1983, *Structural Anthropology*, Chicago: University of Chicago Press
  7. Manners and Kaplan (Ed). 1968. *Theory in Anthropology: A Course Book*, Chicago: Aldine Publishing Company
  8. Morgan, L. H. 1963. (Originally 1877), *Ancient Society*, New York
  9. Merton, R. K. 1957, *Social Theory and Social Structure*, New York
  10. Radcliffe-Brown, A. R. 1952, *Structure and Function in Primitive Society*. New York: Free Press.
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**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 9**  
**HUMAN GROWTH AND DEVELOPMENT**

Time : 3 Hrs.  
 Credit : 04

End Semester Theory : 60 Marks  
 Mid Semester Theory : 15 Marks

**Unit I:**

Concept of human growth, development, differentiation and maturation; Evolutionary perspective on human growth.

**Unit II:**

Prenatal (conception till birth) and postnatal (birth till senescence) period of growth, pattern of normal growth curves, variation from normal growth (canalization, catch-up growth and catch-down growth), ethnic and gender differences in growth curves, secular trend.

**Unit III:**

Bio-cultural factors (genetic, social, and ecological factors) influencing patterns of growth and variation, methods and techniques to study growth, significance/ applicability of growth studies Nutritional epidemiology-concept of balanced diet, impact of malnutrition (over and under) with special reference to obesity, Kwashiorkor and Marasmus. Assessment of nutritional status.

**Unit IV:**

Human physique and body composition – models and techniques; gender and ethnic differences; Somatotyping and human physique with reference to Sheldon, Parnell, Heath and Carter methods.

**PRACTICAL**

Credit : 02

25 Marks

**(Any two)**

1. Growth status: Somatometry (stature, body weight, mid upper arm circumference etc), assessment of chronological age, percentile, z-score, height for age, weight for age, BMI for age
2. Obesity assessment: General (BMI, body fat %, Conicity index, body adiposity indices) and regional adiposity indices (WC, WHR, WHtR)
3. Estimation of body composition (fat percentage and muscle mass) with skinfold thickness and bioelectric impedance
4. Nutritional assessment through dietary pattern and anthropometric indices

**Text book recommended:**

1. Das B.M. 2008. *Outlines of Physical Anthropology*. Kitab Mahal, New Delhi.
2. Mukherji, D., D. Mukherjee and P. Bharti and A .Mukhopadhyaya. 2018. *Laboratory Manual for Biological Anthropology: Revised and Enlarged 2<sup>nd</sup> Edition*. SCHOLAR Booksellers & Publishers, Kolkata.

**Suggested Readings**

1. Bogin B. (1999) Patterns of human growth. Cambridge University Press.
2. Frisancho R. (1993) Human Adaptation and Accommodation. University of Michigan Press.
3. Cameron N and Bogin B. (2012) Human Growth and Development. Second edition, Academic press Elsevier.
4. Harrison GA and Howard M. (1998). Human Adaptation. Oxford University Press.
5. Harrison GA, Tanner JM, Pibeam DR, Baker PT. (1988). Human Biology. Oxford University Press.
6. Jurmain R, Kilgore L, Trevathan W. Essentials of physical anthropology. Wadsworth publishing.
7. Kapoor AK and Kapoor S. (1995) Biology of Highlanders. Vinod Publisher and Distributor.
8. Kathleen K. (2008). Encyclopedia of Obesity. Sage.
9. Malina RM, Bouchard C, Oded B. (2004) Growth, Maturation, and Physical Activity. Human Kinetics.
10. McArdle WD, Katch FI, Katch VL. (2001) Exercise Physiology: Energy, Nutrition, and Human Performance.
11. Singh I, Kapoor AK, Kapoor S. (1989). Morpho-Physiological and demographic status of the Western Himalyan population. In Basu and Gupta (eds.). Human Biology of Asian Highland Populations in the global context.
12. Sinha R and Kapoor S. (2009). Obesity: A multidimensional approach to contemporary global issue. Dhanraj Publishers. Delhi.

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 10**  
**RESEARCH METHODS**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Unit I:**

Field work tradition in Anthropology; Ethnographic approach, contribution of Malinowski, Boas and other pioneers; cultural relativism, ethnocentrism, etic and emic perspectives, comparative and historical methods, techniques of rapport establishment identification of representative categories of informants, maintenance of field diary and logbook.

**Unit II:**

Research Design, Review of literature, conceptual framework, formulation of research problem, formulation of hypothesis, sampling and reference. Genealogy; data analysis and report writing- Chapterization, preparing a text for submission and publication, concepts of preface, notes (end and footnotes), bibliography (annotated) and references cited, review and index.

**Unit III:**

Ethics and Politics of Research, ethical issues in the context of human subject research; privacy and confidentiality in research; Issues of academic fraud and plagiarism, conflicts of interest, authorship and publication.

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**Unit IV:**

Basic tenets of qualitative research and its relationship with quantitative research; Types of variables, presentation and summarization of data (tabulation and illustration). Descriptive statistics- Measurers of Central Tendency, standard deviation,

**PRACTICAL**Credit : **02****25 Marks**

1. Construction of Genealogy & Pedigree Analysis.
2. Observation: Direct, Indirect, Participant, Non-participant, Controlled
3. Questionnaire and Schedule, Interview- Unstructured, Structured, Key informant interview, Focussed Group Discussion, and Free listing, pile sorting
4. Case study and life history.

**Text book Recommended**

1. Garrard E and Dawson A. What is the role of the research ethics committee? Paternalism

**Suggested Readings**

2. Garrard E and Dawson A. What is the role of the research ethics committee? Paternalism,
  3. inducements, and harm in research ethics. *Journal of Medical Ethics* 2005; 31: 419-23.
  4. Bernard H.R. *Research Methods in Anthropology, Qualitative and Quantitative*
  5. *Approaches*. Jaipur: Rawat Publications. 2006.
  6. Madrigal L. *Statistics for Anthropology*. Cambridge: Cambridge University Press. 2012.
  7. Zar JH. *Biostatistical Analysis*. Prentice Hall. 2010.
  8. Michael A. *The Professional Stranger*. Emerald Publishing. 1996.
  9. Bernard R. *Research Methods in Anthropology: Qualitative and Quantitative*
  10. *Approaches*. AltaMira Press. 2011.
  11. Emerson RM, Fretz RI and Shaw L. *Writing Ethnographic Field notes*. Chicago,
  12. University of Chicago Press. 1995.
  13. Lawrence NW. *Social Research Methods, Qualitative and Quantitative Approaches*.
  14. Boston: Allyn and Bacon. 2000.
  15. O'reilly K. *Ethnographic Methods*. London and New York: Routledge. 2005.
  16. Patnaik S.M. *Culture, Identity and Development: An Account of Team Ethnography*
  17. *among the Bhil of Jhabua*. Jaipur: Rawat Publications. 2011.
  18. Pelto PJ and Pelto GH. *Anthropological Research, The Structure of Inquiry*. Cambridge:
  19. Cambridge University Press. 1978.
  20. Sarantakos S. *Social Research*. London: Macmillan Press. 1998.
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**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 11**  
**PREHISTORIC ARCHAEOLOGY OF INDIA**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Unit I: Pleistocene chronology of India; Palaeolithic cultures in India.**

Palaeolithic cultures in India: Lower Palaeolithic cultures – evidences from Kashmir Valley and Peninsular India), Middle Palaeolithic culture in India, Upper Palaeolithic culture in India (characteristic features, major tool types, important sites, chronology with stratigraphic evidences). Some important sites of Odisha may be discussed on the above cultural periods.

**Unit II: Mesolithic cultures in India.**

Mesolithic culture in India (characteristic features, major tool types, important regions and sites, chronology with stratigraphic evidences (some important sites of Odisha may be discussed on above cultural periods).

**Unit III: Neolithic cultures in India.**

Neolithic culture in India (characteristic features, major tool types, important regions and sites, chronology with stratigraphic evidences (some important sites of Odisha may be discussed on above cultural periods).

**Unit IV: Rock art of India.**

Prehistoric Art in India with special reference to Central India and Odisha.

**PRACTICAL**

Credit : 02

25 Marks

1. Identification of tools:
  - (a) Hand axe varieties, chopper/chopping tools
  - (b) Cleaver varieties
  - (c) Side scraper varieties
  - (d) Knives
  - (e) Burins
  - (f) End scrapers
  - (g) Borer
  - (h) Microlithic tools
  - (i) Bone tools
  
2. Identification of lithic technology.

**Text Books Recommended:**

1. Bhattacharya, D. K. 1990, *An Introduction to Prehistoric Archaeology*. Delhi: Hindustan Publishing Corporation.
  2. Bhattacharya, D. K. 1990, *An Outline of Indian Prehistory*. Delhi: PalakaPrakashan.
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**Suggested Reading:**

1. Agarwal, D. P.1984, *Archaeology of India*. New Delhi: Select Book Services Syndicate.
2. Allchin, Briget. and Raymond Allchin,1982. *The Rise of Civilization in India and Pakistan*.Cambridge: Cambridge University Press.
3. Allchin, B. and R. Allchin, 1997. *Origins of Civilization: The Prehistory and Early Archaeology of South Asia*. New Delhi. Viking by Penguin Books India (P) Ltd.
4. Bhattacharya, D. K.1990, *An Introduction to Prehistoric Archaeology*. Delhi; Hindustan Publishing Corporation
5. Bhattacharya, D. K.2001. *AnOutline of Indian Prehistory*. Delhi: PalakaPrakashan.
6. Chakrabarti, D.K. 2001. *India: An Archaeological History: Palaeolithic Beginning to Early Historic Foundation*. New Delhi: Oxford University press.
7. Jain, V.K.2009, *Prehistory and Protohistory of India*. New Delhi: D.K. Printworld (P) Ltd.
8. Paddayya, K. (Ed.), 2002, *Recent Studies in Indian Archaeology*. New Delhi.
9. Pappu R. S.2001, *Aheulian Culture in Peninsular India—An Ecological Perspective*, New Delhi: D.K. Printworld (P) Ltd.
10. Rammi Reddy, V.1987, *Elements of Prehistory*. New Delhi: Mittal Publications.
11. Rammi Reddy, V.1989, *Palaeolithic and Mesolithic Cultures*. New Delhi: Mittal Publications.
12. Rammi Reddy, V.1991, *Neolithic and Post-Neolithic Cultures*. New Delhi: Mittal Publications.
13. Sankalia, H.D.1974. *Prehistory and Protohistory of India and Pakistan*. Pune: Deccan College.
14. Sankalia (1982) *Stone Tool Type and Technology*. Delhi, B.R.Publication.
15. Settar, S. and R. Korisettar (Ed), 2001, *Indian Archaeology in Retrospect*, Vol.1: PREHISTORY Archaeology of South Asia. New Delhi: Manohar in association with Indian Council of Historical Research.

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 12**  
**ANTHROPOLOGY IN PRACTICE**

Time : 3 Hrs.  
 Credit : 04

End Semester Theory : 60 Marks  
 Mid Semester Theory : 15 Marks

**Unit I:**

Academic Anthropology; Academics and Practitioners: Differences, Structure, Activities, Controversies and Issues: Applied Anthropology, Action Anthropology and Development Anthropology.

**Unit II:**

Role of Anthropology in Development; Anthropology and Public Policy, Need Assessment and Community Development, Anthropology of NGO's, Business Anthropology, Environment and Community Health, Social and economic sustainability, Cultural resource management.

**Unit III:**

Future Dynamics in Anthropology; Trends in Anthropology: Anthropology of Tourism, Anthropology in Census; Designing And Fashion, Visual Anthropology.

**Unit IV:**

Biosocial anthropology in practice; Bio-social elements of human development at national and international level, application of conceptual framework of Forensic Anthropology in judicial settings both criminal and civil, Population Dynamics and relationship between population growth and various aspects of culture such as means of subsistence, kinship, social complexity, social stratification and political organization, Bio-social counselling of an individual or population.

**PRACTICAL**Credit : **02****25 Marks**

1. The students will visit a NGO or corporate office or census office in Odisha and its adjoining areas and write principal observations on the same.
2. Write a project on constitutional provisions or evaluation of any development project/report.
3. Draw a scene of crime and identify the various evidences in a portrayed crime scene.
4. Write a project on Religious Tourism / Tribal Tourism / Health Tourism / Fashion / Human Rights / Ecotourism.
5. Write a project on the demographic profile from secondary data.
6. Collect data on bio-social problem and design counselling and give the analysis and interpretation.

**Text Books Recommended:**

1. Vidyarthi V (1981). Tribal Development and its Administration. Concept Publishing Company, New Delhi.
2. Vidyarthi LP. (1990). Applied Anthropology in India – Principles, Problems and Case Studies. Kitab Mahal, U.P.
3. Vidyarthi LP and BN Sahay (2001). Applied Anthropology and Development in India, National Publishing House, New Delhi.

**Suggested Readings**

1. Arya A and Kapoor AK. (2012). Gender and Health Management in Afro-Indians. Global Vision Publishing House, New Delhi.
  2. Kertzer DI and Fricke T. (1997). Anthropological Demography. University of Chicago Press.
  3. Basu, A. and P. Aaby (1998). The Methods and the Uses of Anthropological Demography. 329 pp. Oxford, Clarendon Press
  4. Carter A. (1998). Cultural Models and Demographic Behavior. In The Methods and the Uses of Anthropological Demography edited by Basu A and Aaby P. Oxford: Clarendon Press. pp 246-268.
  5. Census of India (2001, 2011) and National Family Health Survey (2006,2010).
  6. Ervic, Alexander M., (2000). Applied Anthropology: Tools and Perspectives for Contemporary Practise, Boston, MA: Allyn and Bacon.
  7. Erwin A. (2004). Applied Anthropology Tools and Practice, Allyn and Bacon.
  8. Gupta S and Kapoor AK. (2009). Human Rights among Indian Populations: Knowledge, Awareness and Practice. Gyan Publishing House, New Delhi.
  9. Willen SS. (2012). Anthropology and Human Rights: Theoretical Reconsiderations and Phenomenological Explorations. Journal of Human Rights. 11:150–159.
  10. Goodale M. (2009). Human Rights: An Anthropological Reader. Wiley Blackwell.
  11. Gupta S and Kapoor AK. (2007). Human Rights, Development and Tribe. In : Genes, Environment and Health – Anthropological Perspectives. K. Sharma, R. K. Pathak, S. Mehra and Talwar I (eds.). Serials Publications, New Delhi.
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12. Margaret AG. (2003). Applied Anthropology: A Career-Oriented Approach, Boston, MA: Allyn and Bacon.
13. Halbar BG and Khan CGH. (1991). Relevance of Anthropology – The Indian Scenario. Rawat Publications, Jaipur.
14. Kapoor AK (1998). Role of NGO's in Human Development : A Domain of Anthropology. J Ind Anthropol Soc; 33:283-300.
15. Kapoor AK and Singh D. (1997). Rural Development through NGO's. Rawat Publications, Jaipur.
16. Klepinger LL (2006). Fundamentals of Forensic Anthropology. Wiley-Liss Publications
17. Kumar RK and Kapoor AK. (2009). Management of a Primitive Tribe: Role of Development Dynamics. Academic Excellence, Delhi.
18. Mehrotra N and Patnaik SM. (2008). Culture versus Coercion: The Other Side of Nirmal Gram Yojna, Economic and Political weekly. pp 25-27.
19. Mishra RC (2005). Human Rights in a Developing Society, Mittal Publications, Delhi.
20. Noaln RW. (2002). Anthropology in Practice: Building a Career outside the Academy. Publishing Lynne Reinner.
21. Patnaik SM (1996). Displacement, Rehabilitation & Social Change. Inter India Publications, New Delhi.
22. Patnaik SM (2007). Anthropology of Tourism: Insights from Nagaland. The Eastern Anthropologist. 60(3&4):455-470
23. Srivastav OS (1996). Demographic and Population Studies. Vikas Publishing House, India.

### **+3 THIRD YEAR SIXTH SEMESTER**

#### **Core Paper - 13**

#### **FORENSIC ANTHROPOLOGY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

#### **Unit-I:**

Introduction to Forensic Anthropology: Definition, Brief History, Scope, Applications and Integration of Forensic Anthropology.

#### **Unit-II:**

Basic Human Skeletal Biology, Identification of Human and Non-Human Skeletal Remains, Ancestry, age, sex and stature estimation from bones. Discovery and Techniques for recovering skeletal Human Remains.

#### **Unit-III:**

Personal Identification, Complete and Partial Identification, Methods of Identification in Living Persons: Somatometry, Somatoscopy, Occupational Marks, Scars, Bite Marks, Tattoo Marks, Fingerprints, Footprints, Lip Prints, Nails, Handwriting, Deformities and Others.

#### **Unit-IV:**

Serology: Identification and Individualization of bloodstain, urine, semen and saliva. Forensic Odontology-Tooth Structure and Growth, Bite Marks, and DNA Profiling.

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**PRACTICAL**Credit : **02****25 Marks**

1. Study of Human Long Bones. Estimation of age, sex and stature from bones.
2. Somatometric and Somatoscopic Observation on living persons.
3. Identification of bloodstain, urine, semen and saliva.
4. Examination of Fingerprints and Handwriting.

**Text book recommended:**

1. Mukherji, D., D. Mukherjee and P. Bharti and A .Mukhopadhyaya. 2018. *Laboratory Manual for Biological Anthropology: Revised and Enlarged 2<sup>nd</sup> Edition*. SCHOLAR Booksellers & Publishers, Kolkata.

**Suggested Readings:**

1. Bass W.M. (1971). *Human Osteology: A Laboratory and Field manual of the Human Skeleton*. Columbia: Special Publications Missouri Archaeological Society.
2. Black S. and Ferguson E. (2011). *Forensic Anthropology 2000 to 2010*. CRC Press, London.
3. Byers, S. N. (2008). *Forensic Anthropology*. Boston: Pearson Education LTD.
4. Gunn A. (2009) *Essential Forensic Biology* (2nd ed). Chichester: Wiley-Blackwell
5. Modi, R. B. J. P. (2013). *A Textbook of Medical Jurisprudence and Toxicology*. Elsevier.
6. Reddy V. R. (1985). *Dental Anthropology*, Inter-India Publication, New Delhi.
7. Spencer, C. (2004). *Genetic Testimony: A Guide to Forensic DNA Profiling*, Pearson, New Delhi.
8. Vats Y., Dhall J.K. and Kapoor A.K. (2011). Gender Variation in Morphological Patterns of Lip Prints among some North Indian Population. *J. Forensic Odontology*, 4: 11-15.
9. Wilkinson, C. (2004). *Forensic facial reconstruction*. Cambridge University Press.
10. Nath, Surendra . *Forensic Anthropology*. Kitab Mahal, New Delhi.

**+3 THIRD YEAR SIXTH SEMESTER  
Core Paper - 14  
FIELDWORK AND DISSERTATION**

Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks**

Empirical study among the tribal, rural and urban communities of Odisha is to be conducted for a minimum period of 21 days in semester VI under the guidance of a teacher or teachers. Two copies of dissertations are to be submitted for examination on the basis of fieldwork and presentation of seminar. The Examination of Dissertation shall be conducted by an internal and an external examiner.

Mid-term Examination **= 15 marks**

(Seminar presentation by the student based on his/her fieldwork/field topic)

End-term Examination

Dissertation based on 21 days fieldwork **= 60 marks**

Field diary (15 marks) and Viva-voce (10 marks) **= 25 marks**

The dissertation has to be submitted by the student positively before the end semester examination. The dissertation will be evaluated both by the internal and external examiners

**+3 THIRD YEAR FIFTH SEMESTER**  
**DSE - 1**  
**ANTHROPOLOGY OF RELIGION, POLITICS AND ECONOMY**

Time : 3 Hrs.  
 Credit : 04

End Semester Theory : 60 Marks  
 Mid Semester Theory : 15 Marks

**Unit I:**

Anthropological approaches to understand religion- magic, animism, animatism, totemism, naturism; witchcraft and sorcery; Religious specialists: shaman, priests, mystics; Overview of Anthropological Theories of Religion; Religion as the sacrality of ecological adaptation and socialness

**Unit II:**

Economic institutions: principles of production, distribution, and consumption in simple and complex societies; critical examination of relationship between economy and society through neo-classical, substantivist, and neo-marxist approaches, various forms of exchange: barter, trade and market; Forms of currencies; reciprocities: generalized, balanced and negative.

**Unit III:**

Political institutions: concepts of power and authority; types of authority; state and stateless societies; law and justice in simple and complex societies; the prospects for democracy and tolerance among and within the world's diverse civilizations; the meaning and sources of identity in complex contemporary societies; the origins of modern politics, its institutions, and cultures, both Western and non-Western.

**Unit IV:**

Interrelationship between religion, politics and economy; religious conversion and movements, emergence of new religious sects in the global order.

**PRACTICAL**

Credit : 02

25 Marks

1. Case study of any of the social institute (religion, economic, political) with respect to culture perspective

**Text book recommended:**

1. Barbara M. (2011). Cultural Anthropology. New Jersey: Pearson Education.
2. Ember C.R. (2011). Anthropology. New Delhi: Dorling Kinderslay

**Suggested Readings:**

2. Durkheim E. (1986). The elementary forms of the religious life, a study in religious sociology. New York: Macmillan.
3. Benedict A. (2006). Imagined Communities: Reflections on the Origin and Spread of Nationalism. Verso
4. Gledhill J. (2000). Power and Its Disguises: Anthropological Perspectives on Politics. 2nd ed. London: Pluto Press.

5. Ellis F. (2000). A framework for livelihood analysis. In *Rural Livelihoods and Diversity in Developing Countries*. Oxford: Oxford University Press.
6. Henrich J, Boyd R, Bowles S, Camerer C, Fehr E, Gintis H, McElreath R, Alvard M et al. (2005). 'Economic Man' in cross-cultural perspective: Behavioral experiments in 15 small-scale societies. *Behavior and Brain Science*. 28(6):795-815;
7. Henrich J. (2002). Decision-making, cultural transmission, and adaptation in economic anthropology. In: J. Ensminger (Ed.), *Theory in Economic Anthropology* (pp. 251-295). Walnut Creek, CA: Altamira Press.
8. Lambek. M. (2008) *A Reader in the Anthropology of Religion*.
9. Eller JD. (2007). *Introducing Anthropology of Religion*. New York: Routledge.
10. Glazier SD. (1997). *Anthropology of Religion: A Handbook*. Westport, CT: Greenwood Press.
11. Frick GD and Langer R. (2010). *Transfer and Spaces*. Harrassowitz (Germany).
12. Evans-Pritchard EE. (1937). *Witchcraft, Oracles and Magic among the Azande*, Oxford: Clarendon Press.
13. Frazer JG. (1978). *The Illustrated Golden Bough*, London: Macmillan.
14. Barbara M. (2011). *Cultural Anthropology*. New Jersey: Pearson Education.
15. Ember CR. (2011). *Anthropology*. New Delhi: Dorling Kindersley.
16. Herskovits MJ. (1952). *Economic Anthropology: A Study in Comparative Economics*. New York: Alfred A Knopf Inc.
17. Malinowski B. (1922) *Argonauts of the Western Pacific*. London: Routledge.
18. Polyani K. et al (1957), *Trade and Market in the Early Empires*. Chicago: Henry Regnery Company.
19. Balandier G. (1972). *Political Anthropology*. Middlesex: Penguin

**+3 THIRD YEAR FIFTH SEMESTER**  
**DSE - 2**  
**TRIBAL CULTURES OF INDIA**

Time : 3 Hrs.

End Semester Theory : 60 Marks

Credit : 04

Mid Semester Theory : 15 Marks

**Unit I:**

Concept of tribes and its problematic nature, General and specific characteristics of tribes, Classification and distribution of tribes based on their economy, occupation and religion, Racial elements among the tribes, Scheduled and non-scheduled categories of tribes, Particularly Vulnerable Tribal Groups (PVTGs).

**Unit II:**

Tribe- caste continuum, Gender and Tribe, Distribution of tribes in India.

**Unit III:**

Tribes: Nomenclature- emic and etic differences; Tribal movements, Problems of tribal development.

**Unit IV:**

Forest policies and tribes, Migration and occupational shift, Tribal arts and aesthetics Displacement, rehabilitation and social change Globalization among Indian tribes.

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**PRACTICAL**Credit : **02****25 Marks**

1. Distribution of Indian Tribes: PVTGs, ST
2. Location of different tribes on the map of India
3. Write an annotated bibliography on any one tribe
4. Write the social structure of any one tribe of India

**Text book recommended:**

1. Vidyarthi L.P and Rai B.K.. (1976). The tribal culture of India. Concept Publishing Co, Delhi

**Suggested Readings:**

1. Behera, D.K and Georg pfeffer. Contemporary Society Tribal Studies, Volume I to VII. New Delhi: Concept Publishing Company
2. Georg Pfeffer. Hunters, Tribes and Peasant: Cultural Crisis and Comparison. Bhubaneswar: Niswas.
3. Vidarthi, L.P. and Rai. Applied Anthropology in India.
4. Vidarthi.L.P. and B.N. Sahay . Applied Anthropology and Development in India. New Delhi: National Publishing House

**Suggested Readings**

1. Bhende A. and Kaniikar, T. (2010) *Principles of Population Studies*. Himalaya Publishing House. Mumbai (All Units, It covers most topics)
2. Caldwell J.C. (2006). *Demographic Transition Theory*. Springer.
3. Census of India (2001,2011), SRS bulletin (2013), NFHS (2006 ), CRS, NSSO ( Can be seen from browsing net)
4. Gautam R.K., Kshatriya, G.K. and Kapoor A.K. (2010) *Population Ecology and Family Planning*. Serials publications. New Delhi.
5. Howell N. (1986) Demographic Anthropology. *Ann. Rev. Anthropol.* 15: 219-246
6. Kshatriya G.K. (2000). Ecology and health with special reference to Indian tribes. *Human Ecology special volume 9:229-245*.
7. Kshatriya G.K., Rajesh,G. and Kapoor , A.K. (2010) Population Characteristics of Desert Ecology.VDM Verlag Dr. Muller Gmbh and Co., Germany.
8. Misra BD (1982). *An introduction to the study of population*. South Asia publ. ltd. New Delhi.
9. National Population Policy <http://populationcommission.nic.in/npp.htm>
10. Park K. (2000) *Text book of Preventive and Social Medicine*. BanarsidasBhanot, Jabalpur.
11. Patra P.K. and Kapoor, A.K. (2009) *Demography And Development Dynamics in a Primitive Tribe of Himalayas*. International Book Distributors, Dehradun
12. Riley N.E. and Mc Carthy, J. (2003) *Demography in the Age of the Postmodern*. Cambridge University press. UK. Pages 1-13 and 32-98
13. Sharma A.K. (1979) Demographic transition: A Determinant of Urbanization. *Social Change* 9: 13-
14. Srivastava O.S. (1996) *Demographic and Population Studies*. Vikas Publishing House, India
15. Zubrow E.B.W. (1976) *Demographic anthropology. Quantitative approaches*. University of New Mexico Press, Albuquerque.
16. <http://human-nature.com/dm/chap3.html>
17. <http://biography.yourdictionary.com/john-graunt>
18. <http://www.marathon.uwc.edu/geography/demotrans/demtran.htm>

**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 3**  
**ANTHROPOLOGY OF INDIA**

Time : **3 Hrs.**  
Credit : **04**

End Semester Theory : **60 Marks**  
Mid Semester Theory : **15 Marks**

**Unit I:**

Origin, history and development of Anthropology in India, approaches to study Indian society and culture- traditional and contemporary Racial and linguistic elements in Indian population. Understanding the diversity of Indian social structure - concept of Varna, Jati, Caste, Ashram or purusharatha, gender hierarchies - their economic and cultural impact, origin and evolution of social structures and their underlying philosophies; Contribution of contemporary biological, social and archaeological anthropologists in India.

**Unit II:**

Aspects of Indian Village –social organisation, agriculture and impact of market economy on villages; Tribal situation in India- biogenetic variability, linguistic and socio-economic characteristics; Problems of tribal peoples, land-alienation, indebtedness, lack of educational facilities, shifting-cultivation, migration, forests and tribal unemployment, health and nutrition, tribal movement and quest for identity

**Unit-III:**

Developmental projects- tribal displacements and rehabilitation problem; Impact of culture-contact, urbanization and industrialization on tribal and rural Population ; Basic concepts -Great tradition and little tradition, sacred complex, Universalization and parochialization, Sanskritization and Westernization, Dominant caste, Tribe-caste; continuum, Nature-Man-Spirit complex, pseudotribalism.

**Unit IV:**

Problems of exploitation and deprivation of scheduled caste/ tribe and Other Backward Classes. Constitutional Provisions for the Scheduled caste and scheduled tribes, Evaluation and Development of Indian Population; Human Rights, Protection and enforcement of human rights, Human rights of special category and marginal groups, Emerging trends of human rights with respect to terrorism, globalization and environment.

**PRACTICAL**

Credit : **02**

**25 Marks**

1. Identify various traits/variables which can be used in racial classification and comment on its relevance.
  2. Review a book/edited volume on Indian social structure such as caste, religion, tribe or rural population and give its salient features.
  3. Explore the biological diversity of any population group considering a minimum of five genetic traits.
  4. Highlight the contributions of any two contemporary Indian anthropologists.
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**Text book recommended:**

1. Dube SC. (1992). Indian Society. National Book Trust, India : New Delhi.
2. Malhotra K.C. (1978). Morphological Composition of people of India. J. Human Evolution.
3. Trautmann T.R (2011). India: Brief history of Civilization. Oxford University Press : Delhi

**Suggested Reading**

1. Nichola,s D. (2001). Castes of Mind: Colonialism and the Making of Modern India. Princeton University Press.
2. Bernard C.S. (2000). India: The Social Anthropology of Civilization. Delhi: Oxford University Press.
3. Bhasin M.K, Watter H and Danker-Hopfe H. (1994). People of India – An Investigation of Biological variability in Ecological, Ethno-economic and Linguistic Groups. Kamla Raj Enterprises, Delhi
4. Lopez D.S. (1995). Religions of India in Practice. Princeton University Press
5. Gupta D. Social Stratification. Delhi: Oxford University Press.
6. Karve I. (1961). Hindu Society: An Interpretation. Poona : Deccan College
7. Guha BS. (1931). The racial attributes of people of India. In: Census of India, 1931, vol I, Part III (BPO, Simla)
- 8.
9. Vidyarthi L.P and Rai B.K.. (1976). The tribal culture of India. Concept Publishing Co,Delhi.
10. Haddon AC. (1929). Races of man. Cambridge University, London.
11. Kapoor A.K. (1992). Genetic Diversity among Himalayan Human Populations. M/S Vinod Publishers, Jammu
12. Majumdar, D.N. (1901). Races and Culture of India. Asia Publishing House, Bombay
13. Dumont, L. (1980). Homo Hierachicus. University of Chicagon Press.
14. Guha B.S. (1931). The racial attributes of people of India. In : Census of India, 1931, vol I, Part III (BPO, Simla)

**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 3.2**  
**OPTIONAL (Human Genetics)**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Unit I:**

Human Genetics: Meaning and Scope; Structure and Function DNA and RNA, DNA replication, repair and recombination, Concept of Human genome and codon.

**Unit II:**

Gene expression, Expression of genetic information from Transcription to Translation, RNA processing, encoding genetic information

**Unit III:**

Methods of studying heredity: Twin method, Pedigree method and Sib- pair method; Heritability estimate; Human Cytogenetics: Chromosome Karyotypes, Banding Techniques and Molecular cytogenetic, Polygenic Inheritance in Man , Concept of non-mendelian inheritance and complex diseases.

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**Unit IV:**

Population Genetics: Hardy-Weinberg Law and its application. Genomic Diversity & Human Evolution Genomic Variation: Genomic Polymorphisms (SNPs, VNTR, CNVs, etc); haplotypes and haplogroups; genotype-phenotype correlations, epigenetics, Peopling of the Indian Subcontinent: Evidence from *mtDNA* and Y-chromosome.

**PRACTICAL**Credit : **02****25 Marks****(Any two)**

1. Blood group typing-A1, A2, B, O, MN and Rh (D) blood groups
2. Color Blindness
3. Glucose-6-phosphate dehydrogenase deficiency (G6PD)
4. PTC tasting ability
6. Gel Documentation
5. Biochemical markers-DNA isolation and polymerase chain reaction (PCR)

**Text book recommended:**

1. Shukla B.R.K. & Rastogi, S. 1990. *Physical Anthropology & Human Genetics: An Introduction*. PlakaPrakashan. Delhi.
2. Das B.M. 2008. *Outlines of Physical Anthropology*. Kitab Mahal, New Delhi.
3. Mukherji, D., D. Mukherjee and P. Bharti and A. Mukhopadhyaya. 2018. *Laboratory Manual for Biological Anthropology: Revised and Enlarged 2<sup>nd</sup> Edition*. SCHOLAR Booksellers & Publishers, Kolkata.

**Suggested Readings:**

1. Strachan T and Read AP. (2004). *Human Molecular Genetics*. Garland Science
  2. Brown TA. (2007). *Genomes*. Garland Science.
  3. Griffiths AJF. (2002). *Modern Genetic Analysis: Integrating Genes and Genomes*. WH Freeman Press.
  4. GriffithsAJF, Wessler SR, Carroll SB, Doebley J. (2011). *An Introduction to Genetic Analysis*. Macmillan Higher Education.
  5. Cavalli-sforza LL, Menozzi P, Piazza A (1994). *History and Geography of Human Genes*. Princeton University.
  6. Cummings Michael R. (2009). *Human Genetics*. Cengage Learning India Pvt. Ltd, Delhi.
  7. Cummings MR (2011). *Human Heredity: Principles and Issues*. Brooks/Cole, Cengage Learning
  8. Giblett, ER. (1969). *Genetic Markers in Human Blood*. Blackwell Scietific, Oxford.
  9. Jobling M, Hurls M and Tyler-Smith C. (2004). *Human Evolutionary Genetics: Origins, Peoples & Disease*. New York: Garland Science.
  10. Lewis R. (2009). *Human Genetics: Concepts and Application*. The McGraw”Hill Companies, Inc.
  11. Patch C. (2005). *Applied Genetics in Healthcare*. Taylor & Francis Group
  12. Snustad .D.P. and Simmons M.J. (2006). *Principles of Genetics, Fourth Edition*, John Wiley & Sons USA
  - 13.
  14. Verma, P.S. and V.K. Aggarwal (1974). *Cell Biology, Genetic, Molecular Biology, Evolution and Ecology*. S.Chand and Company Pvt. Ltd., New Delhi.
  15. Vogel F. and Motulsky A.G. (1996). *Human Genetics*. Springer, 3rd revised edition.
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1. Brooker R.J. (2012). *Genetics: analysis & principles*. The McGraw-Hill Companies, Inc 4th ed.
2. Cavalli-Sforza, L.L. and Bodmer, W.F (1971). *The Genetics of Human Population*. San Francisco: Freeman
3. Cooper DN and Kehrer-Sawatzki H. (2008). *Handbook of Human Molecular Evolution*. John Wiley & Sons, volume-2.
4. Crawford MH (2007). *Anthropological Genetics Theory, Methods and Applications*. Cambridge University Press
5. Cummings M.R. (2011). *Human Heredity: Principles and Issues*. Ninth Edition. Brooks/Cole, Cengage Learning
6. Jobling, M.A. Hurlis M. and Tyler-Smith C. (2004). *Human Evolutionary Genetics: Origins, Peoples & Disease*. GS. NY
7. Lewis R. (2009). *Human Genetics: Concepts and Applications* 9th Edition. The McGraw-Hill Companies, Inc.
8. Patch C. (2005). *Applied Genetics in Healthcare*. Taylor & Francis Group
9. Relethford J.H. (2012). *Human Population Genetics*. Wiley-Blackwell, USA
10. Snustad D.P. and Simmons M.J. (2006). *Principles of Genetics*, Fourth Edition, John Wiley & Sons USA, Hoboken NJ
11. Strachan T, Read A.P. (2004). *Human Molecular Genetics*. Garland Science/Taylor & Francis Group.
12. Vogel F. and Motulsky A.G. (1996). *Human Genetics*. Springer, 3rd revised edition.

### **+3 THIRD YEAR SIXTH SEMESTER**

#### **DSE - 3.3**

#### **OPTIONAL (Demographic Anthropology)**

Time : **3 Hrs.**

End Semester Theory : **60 Marks**

Credit : **04**

Mid Semester Theory : **15 Marks**

#### **Unit I:**

Demographic Anthropology; Introduction, definition and basic concepts Relationship between demography, population studies and anthropology Population Theories: John Graunt, Thomas R. Malthus; Biological theory of population; Theory of demographic transition.

#### **Unit II:**

Tools of Demographic Data; Measures of population composition, distribution and growth; Measures of fertility; Measures of mortality; Measures of migration.

#### **Unit III:**

Population of India; Sources of demographic data in India; Growth of Indian population; Demography of Indian tribal and non-tribal groups; Anthropological determinants of population growth; Impact of urbanization on the migration of tribal groups.

#### **Unit IV:**

National policies; National Population Policy; National Health Policy; National Policy on Reproductive Health Care.



**PRACTICAL**Credit : **02****25 Marks**

A student will collect and compile demographic data from different secondary sources on any given topic by the concerned teacher and a project report will be submitted for its evaluation.

**Text book recommended:**

1. Bhende A. and Kanitkar, T. (2010) *Principles of Population Studies*. Himalaya Publishing House. Mumbai (All Units, It covers most topics)
2. Sinha V C and Zacharia E, (2010). *Elements of Demography*, 2nd Ed. New Delhi: Allied Publishers

**Suggested Readings**

1. Caldwell J.C. (2006). *Demographic Transition Theory*. Springer.
  2. Census of India (2001,2011), SRS bulletin (2013), NFHS (2006 ), CRS, NSSO ( Can be seen from browsing net)
  3. Gautam R.K., Kshatriya, G.K. and Kapoor A.K. (2010) *Population Ecology and Family Planning*. Serials publications. New Delhi.
  4. Howell N. (1986) Demographic Anthropology. *Ann. Rev. Anthropol.* 15: 219-246
  5. Kshatriya G.K. (2000). Ecology and health with special reference to Indian tribes. *Human Ecology special volume 9:229-245*.
  6. Kshatriya G.K., Rajesh,G. and Kapoor , A.K. (2010) Population Characteristics of Desert Ecology.VDM Verlag Dr. Muller Gmbh and Co., Germany.
  7. Misra BD (1982). *An introduction to the study of population*. South Asia publ. ltd. New Delhi.
  8. National Population Policy <http://populationcommission.nic.in/npp.htm>
  9. Park K. (2000) *Text book of Preventive and Social Medicine*. BanarsidasBhanot, Jabalpur.
  10. Patra P.K. and Kapoor, A.K. (2009) *Demography And Development Dynamics in a Primitive Tribe of Himalayas*. International Book Distributors, Dehradun
  11. Riley N.E. and Mc Carthy, J. (2003) *Demography in the Age of the Postmodern*. Cambridge University press. UK. Pages 1-13 and 32-98
  12. Sharma A.K. (1979) Demographic transition: A Determinant of Urbanization. *Social Change 9*:
  13. Srivastava O.S. (1996) *Demographic and Population Studies*. Vikas Publishing House, India
  14. Zubrow E.B.W. (1976) *Demographic anthropology. Quantitative approaches*. University of New Mexico Press, Albuquerque.
  15. <http://human-nature.com/dm/chap3.html>
  16. <http://biography.yourdictionary.com/john-graunt>
  17. <http://www.marathon.uwc.edu/geography/demotrans/demtran.htm>.
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**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 4**  
**MUSEUM AND MUSEOLOGY**  
**(Project)**

Time : 3 Hrs.

Credit : 04

End Semester Theory : **85** Marks

Mid Semester Theory : **15** Marks

## MUSEUM AND MUSEOLOGY

A report will be prepared by visiting an Anthropological Museum and doing empirical study on ethnographic specimens of material cultures of tribal, rural communities of Odisha . The museum visit is to be conducted for a minimum period of 10 days in semester V<sup>th</sup> under the guidance of a teacher or teachers. Two copies of report are to be submitted for examination on the basis of museum visit. The Examination of Report shall be conducted by an internal and an external examiner.

**Mid- term Examination** (Each student has to answer one elective question of **15 marks** from the two units On Museum and Muscology given below for the Mid Term Examination)=15 marks

**End - term Examination=85 marks**

Report\* on 10 days Museum visit of anthropological /tribal/cultural museums = **60 marks**

Practical Record on ethnographic Specimens of material culture = **15 marks**

Viva- Voce = **10 marks**

The Report\* on 10 days Museum visit of an Anthropological Museum has to be submitted by the student positively before the end semester examination. The Report\* will be evaluated both by the internal and external examiners.

**MUSEOLOGY:** The students are to be taught on the following aspects **Museum and of Muscology** pertaining to perspectives of Muscology and the basic principles of museum:

**Unit - I: Museums** : Meaning and scope; History and development of museums in India; Types of Museums in India; Role of Anthropological museums in education.

**Unit -II: Muscology and Basic Principles of Museum:** Modes and ways of acquisition of museum specimens; Principles of display and arrangement in museum; Basic principles of museum, Documentation, labeling, display of the museum specimens of material cultures of tribal and rural people.

Each student has to answer one elective question of **15 marks** from the above aspects of Museum and Muscology in the Mid Term Examination.

The students are required to learn the basic principles of museum, documentation, labelling and display of the museum specimens of material cultures of tribal and rural people. Each student has to apply the above methods, whichever is applicable , on specimens of following materials.

- a. Plant remains: Wood, Bamboo
- b. Fibre remains: Cloth/ Linen
- c. Metal remains: iron,brass, copper, silvers.
- d. Animal remains: Bone, antler, horn, leather/hide

Maintaining proper **Laboratory Record** is compulsory . Each student has to submit a proper and complete Laboratory Record is compulsory. Each student has to submit a proper and complete laboratory record duly signed by the teacher who is assigned to teach this aspect.

The students are required to submit their Laboratory Records at least five days before the conduct of practical examination. Defaulters of the same are neither allowed to appear the practical examination nor entitled to get the marks assigned to Practical Records.

**Books Recommended:**

1. Basa K.K., Md. Rehan, R.K. Gupta 2007, *Museology A Comprehensive Bibliography and Webliography*, Serial Publications, New Delhi.
2. Behera B.K. and S.K. Mohanty, 2007 *Museology and Museum Management in India*, Mayur Publications, Bhubaneswar, Odisha
3. Bhatnagar, A. 1999, *Museum, Museology and new Museology*, Sandeep Prakashan, New Delhi.

**Suggested Readings:**

1. Aiyappan, A. and ST. Satyamurti (Ed), 1960, *Handbook of Museum Technique*, Government Museum. Madras.
2. Diwvedi ,V.P. and G.N Pant (Ed) 1980 .*Museum and Museology -.New Horizon*, Agam Kala Prakashan. New Delhi.
3. Ghoshmaulik , and S.K Mishra 1987 .*Practical Anthropology* ,SAAS, Orissa.
4. Ghoshmaulik ,S.K and K.K Basa (Ed)2001 .*Understanding Heritage ;Role of Museum .Academic staff college*, Utkal University ,Bhubaneswar, India.
5. Nair.S.M.,*Bio-Deteriorations of Museum Materials*, Agam Kala Prakashan, New Delhi.
6. Nigam,M.L.1985 *Fundamentals of Museology*, Deva Publications, Hydrabad.
7. Renfraw.C. and P.Bahn *Archaeology; Theories .Methods and Practice*
8. Shankalia, H.D. *Stone Age Tools and Techniques*, Deccan college Poona .India

**+3 FIRST YEAR FIRST SEMESTER****GE - 1****INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Unit I:**

History of Physical Anthropology and development of Modern Biological anthropology, aim, scope and its relationship with allied disciplines; Difference in the approaches of modern and traditional Biological Anthropology.

**Unit II:**

History and development of understanding human evolution (pre-19th and post-19th Century); Theories of evolution: Lamarckism, Darwinism, Synthetic theory, and Mutation theory.

**Unit III:**

Primates: General Characteristics, Distribution and Classification of Non human living primates. Comparative anatomy and behaviour of human and non-human primates.

**Unit IV:**

Structure and function of an animal cell; cell theory and cell division (Mitosis and Meiosis), Mendel's Laws of inheritance and its application to man.

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**PRACTICAL**Credit : **02****25 Marks****Osteology**

Introduction to Anthropology Laboratory: Dry Lab and Wet Lab, Calibration and Standardization of Instruments, Demonstration of Instruments: Anthropometry, Spreading Calliper, Sliding Calliper, Weighing Machine and Steel tape.

**Somatometry**

- |                         |                                |
|-------------------------|--------------------------------|
| 1. Stature              | 6. Maximum bizygomatic breadth |
| 2. Sitting height       | 7. Bigonial breadth            |
| 3. Body weight          | 8. Morphological facial height |
| 4. Maximum head length  | 9. Head circumference          |
| 5. Maximum head breadth | 10. Minimum frontal breadth    |

**Text book recommended:**

1. Shukla B.R.K. & Rastogi, S. 1990. *Physical Anthropology & Human Genetics: An Introduction*. PalkaPrakashan. Delhi.
2. Das B.M. 2008. *Outlines of Physical Anthropology*. Kitab Mahal, New Delhi.
3. Sarkar, R. M. 2004. *Fundamentals of Physical Anthropology* (New Edition). Book World. Kolkata.
4. Mukherji, D., D. Mukherjee and P. Bharti and A. Mukhopadhyaya. 2018. *Laboratory Manual for Biological Anthropology: Revised and Enlarged 2<sup>nd</sup> Edition*. SCHOLAR Booksellers & Publishers, Kolkata.

**Suggested Readings**

1. Jurmain R., Kilgore L., Trevathan W., Ciochon R.L. (2012). *Introduction to Physical Anthropology* Wadsworth Publ., USA.
2. Stanford C., Allen J.S. and Anton S.C. (2010). *Exploring Biological Anthropology. The Essentials*. Prentice Hall Publ, USA.

**+3 FIRST YEAR SECOND SEMESTER****GE - 2****INTRODUCTION TO SOCIO-CULTURAL ANTHROPOLOGY**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****Unit I:**

Anthropological perspective and orientation; Scope and relevance of Social Anthropology; Relationship of Social Anthropology with other disciplines. Its distinction from sociology.

**Unit II:**

Concepts of society and culture; status and role; groups and institution, social stratification, and civil society.

**Unit III:**

Social organization; social structure; social function; social system.

**Unit IV:**

Theory and practice of ethnographic fieldwork; survey method; comparative and historical

**Methods****PRACTICAL**Credit : **02****25 Marks**

Methods and Techniques of Social Anthropology: The practical will include the following techniques and methods in collection of data in Social Anthropology.

1. Observation
2. Interview
3. Questionnaire and Schedule
4. Case study
5. Life history

**Text book recommended:**

1. Ember C. R. et al. (2011). *Anthropology*. New Delhi: Dorling Kindersley.
2. Haviland, Prins, Walrath, McBride (2007). *Introduction to Anthropology*. Cengage Learning India Pvt. Ltd., New Delhi
3. Haviland, Prins, Walrath, McBride (2008). *Cultural Anthropology*. Cengage Learning India Pvt. Ltd., New Delhi

**Suggested Readings**

1. Beattie J. (1964). *Other Cultures*. London: Cohen & West Limited.
  2. Bernard H.R. (1940). *Research Methods in Cultural Anthropology*. Newbury Park: Sage Publications.
  3. Davis K. (1981). *Human Society*. New Delhi: Surjeet Publications.
  4. Delaney C. (2004). 'Orientation and disorientation' In *Investigating Culture: An Experiential Introduction to Anthropology*. Wiley-Blackwell.
  6. Ferraro G. and Andreatta S. (2008). In *Cultural Anthropology: An Applied Perspective*. Belmont: Wadsworth.
  7. Karen O'reilly. (2012). 'Practical Issues in Interviewing' *Ethnographic Methods*. Abingdon: Routledge
  8. Lang G. (1956). 'Concept of Status and Role in Anthropology: Their Definitions and Use. *The American Catholic Sociological Review*, 17(3): 206-218
  9. O'reilly K. (2012). *Ethnographic Methods*. Abingdon: Routledge.
  10. Parsons T. (1968). *The Structure of Social Action*. New York: Free Press
  11. Rapport N. and Overing J. (2004). *Key Concepts in Social and Cultural Anthropology*. London: Routledge.
  12. Royal Anthropological Institute of Great Britain and Ireland (1971). 'Methods' In *Notes and Queries on Anthropology*. London: Routledge & Kegan Paul Ltd.
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**+3 SECOND YEAR THIRD SEMESTER**  
**GE - 3**  
**ARCHAEOLOGICAL ANTHROPOLOGY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Unit I:**

Introduction, Definition and scope of archaeological anthropology; Relation with other disciplines; Methods of studying archaeological anthropology.

**Unit II:**

Methods of Estimation of Time and Reconstruction of the Past; Absolute dating methods: Radiocarbon dating ( $C^{14}$ ), Potassium-Argon, Dendochronology, Fission Track Dating; Relative dating methods: Stratigraphy, Palaeontology, Palynology.

**Unit III:**

Geochronology of Pleistocene Epoch; Glacial and Interglacial; Pluviation and Inter Pluviation; Different types of geoclimatic events.

**Unit IV:**

Understanding Culture; Technique of tool manufacture and estimation of their relative efficiency; Classification of tools: primary and combination of fabrication techniques; Earliest evidence of culture in the world: Konso, Olorgesaille, Olduvai Gorge, Pirro Nord, Damanisi, Attirampakkam, Isampur, Kuliana.

**Practical**

Typo-technological Analysis of Prehistoric Tools: Identification, Interpretation and Drawings of the tool Types

1. Core Tool Types
2. Flake Tool Types
3. Blade Tool Types
4. Microlithic Tool Type
5. Neolithic Tool Type

**Text book recommended:**

1. Bhattacharya D.K. (1978). *Emergence of Culture in Europe*, Delhi, B.R. Publication.
2. Bhattacharya D.K. (1979). *Old Stone Age Tools and Techniques*. Calcutta, K.P. Bagchi Company
3. Sankalia H.D. (1964). *Stone Age Tools*. Poona Deccan College

**Suggested Readings**

1. Allchin and Allchin (1993). *The Rise of Civilization of India and Pakistan*. Cambridge University Press
  2. Bhattacharya D.K. (1978). *Emergence of Culture in Europe*, Delhi, B.R. Publication.
  3. Bhattacharya D.K. (1979). *Old Stone Age Tools and Techniques*. Calcutta, K.P. Bagchi Company
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4. Bhattacharya D.K. (1996). *Palaeolithic Europe*. Netherlands, Humanities Press.
5. Champion et al. (1984). *Prehistoric Europe*. New York, Academic Press.
6. Fagan B.M. (1983). *People of Earth: An Introduction*. Boston, Little, Brown & Company.
7. Phillipson D. W. (2005). *African Archaeology*. Cambridge, Cambridge University Press.
8. Renfrew, C. and Paul Bahn *Archaeology* 1996
9. Sankalia H.D. (1964). *Stone Age Tools*. Poona Deccan College.

**+3 SECOND YEAR FOURTH SEMESTER**  
**GE - 4**  
**ANTHROPOLOGY OF INDIA**

Time : 3 Hrs.

End Semester Theory : 60 Marks

Credit : 04

Mid Semester Theory : 15 Marks

**Unit I:**

Origin, history and development of Anthropology in India, approaches to study Indiansociety and culture- traditional and contemporary Racial and linguistic elements in Indian population. Understanding the diversity of Indian social structure - concept of Varna, Jati, Caste, Ashram or purusharatha, gender hierarchies - their economic and cultural impact, origin and evolution of social structures andtheir underlying philosophies; Contribution of contemporary biological, social and archaeological anthropologists in India.

**Unit II:**

Aspects of Indian Village –social organisation, agriculture and impact of marketeconomy on villages; Tribal situation in India- biogenetic variability, linguistic and socio-economiccharacteristics; Problems of tribal peoples, land-alienation, indebtedness, lack of educational facilities, shifting-cultivation, migration, forests and tribal unemployment, health and nutrition, tribal movement and quest for identity

**Unit-III:**

Developmental projects- tribal displacements and rehabilitation problem; Impact of culture-contact, urbanization and industrialization on tribal and rural Population; Basic concepts -Great tradition and little tradition, sacred complex, Universalization and parochialization, Sanskritization and Westernization, Dominant caste, Tribe-caste; continuum, Nature-Man-Spirit complex, pseudotribalism.

**Unit IV:**

Problems of exploitation and deprivation of scheduled caste/ tribe and Other Backward Classes. Constitutional Provisions for the Scheduled caste and scheduled tribes, Evaluation and Development of Indian Population; Human Rights, Protection and enforcement of human rights, Human rights of special category and marginal groups, Emerging trends of human rights with respect to terrorism, globalization and environment.

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**PRACTICAL**Credit : **02****25 Marks**

1. Identify various traits/variables which can be used in racial classification and comment on its relevance.
2. Review a book/edited volume on Indian social structure such as caste, religion, tribe or rural population and give its salient features.
3. Explore the biological diversity of any population group considering a minimum of five genetic traits.
4. Highlight the contributions of any two contemporary Indian anthropologists.

**Suggested Reading**

1. Nicholas D. (2001). *Castes of Mind: Colonialism and the Making of Modern India*. Princeton University Press.
  2. Bernard CS. (2000). *India: The Social Anthropology of Civilization*. Delhi: Oxford University Press.
  3. Bhasin MK, Watter H and Danker-Hopfe H. (1994). *People of India – An Investigation of Biological variability in Ecological, Ethno-economic and Linguistic Groups*. Kamla Raj Enterprises, Delhi
  4. Lopez DS. (1995). *Religions of India in Practice*. Princeton University Press
  5. Gupta D. *Social Stratification*. Delhi: Oxford University Press.
  6. Karve I. (1961). *Hindu Society: An Interpretation*. Poona : Deccan College
  7. Guha BS. (1931). The racial attributes of people of India. In: *Census of India, 1931, vol I, Part III (BPO, Simla)*
  8. Trautmann TR (2011). *India: Brief history of Civilization*. Oxford University Press : Delhi
  9. Vidyarthi LP and Rai BK. (1976). *The tribal culture of India*. Concept Publishing Co, Delhi.
  10. Haddon AC. (1929). *Races of man*. Cambridge University, London.
  11. Kapoor A.K. (1992). *Genetic Diversity among Himalayan Human Populations*. M/S Vinod Publishers, Jammu
  12. Majumdar DN. (1901). *Races and Culture of India*. Asia Publishing House, Bombay
  13. Dube SC. (1992). *Indian Society*. National Book Trust, India : New Delhi.
  14. Dumont L. (1980). *Homo Hierarchicus*. University of Chicagon Press.
  15. Guha B.S. (1931). The racial attributes of people of India. In : *Census of India, 1931, vol I, Part III (BPO, Simla)*
  16. Malhotra K.C. (1978). *Morphological Composition of people of India*. J. Human Evolution.
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# ECONOMICS

## +3 FIRST YEAR FIRST SEMESTER

### Core Paper - 1

#### INTRODUCTORY MICROECONOMICS

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This course is designed to expose the students to the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

#### **Unit I: Exploring the Subject Matter of Economics, Markets and Welfare**

The Ten Principles of Economics: How people make decisions; Working of the economy as a whole; Thinking Like an Economist: The economist as Scientist – The scientific method: Observation, Theory and more observation; Role of Assumptions; Economic Models; Why economists disagree; Graphs in Economics. The Market Forces; Markets and Competition; The Demand and Supply curves – Market vs Individual curves, Shifts in Demand and Supply Curves; Market Equilibrium and changes there in; Price Elasticity of Demand – determinants and computation; Income and Cross Elasticity of Demand; The Price Elasticity of Supply – determinants and computation; Consumer and Producer Surplus.

#### **Unit II: Theory of Consumer Choice**

The Budget Constraint; Preferences – representing preferences with indifference curves; Properties of Indifference Curves; Two extreme examples of indifference curves; Optimization – Equilibrium; Change in equilibrium due to changes in income, changes in price; Income and Substitution Effect; Derivation of Demand Curve; Three applications – Demand for Giffen goods, Wages and Labour Supply, Interest rate and Household saving.

#### **Unit III: The Firm and Market Structures**

Cost concepts; Production and Costs; The various measures of cost – Fixed and Variable cost, Average and Marginal cost; Cost curves and their shapes; Costs in the short run and in the long run; Economies and diseconomies of scale. Firms in Competitive Markets – What is a competitive market; Profit maximization and the competitive firm's supply curve; The marginal cost curve and the firm's supply decision; Firm's short-run decision to shut down; Firm's long-run decision to exit or enter a market; The supply curve in a competitive market – short run and long run

#### **Unit IV: The Input Markets**

The Demand for Labour – The production function and the marginal product of labour; Value of the marginal product of labour and demand for labour; Shifts in labour demand curve; The supply of labour – the trade-off between work and leisure; Shifts in the labour supply curve; Equilibrium in the Labour Market; Other factors of production: Land and Capital; Linkages among factors of production.

#### **Text Book:**

Principles of Economics, Gregory N Mankiw, 6e Cengage Learning India Private Limited, New Delhi

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**Reference Book:**

Karl E. Case and Ray C. Fair (2007): *Principles of Economics*, 8<sup>th</sup> Edition, Pearson Education Inc. Pindyck, Robert and Daniel Rubinfeld (2018): *Microeconomics*, 9<sup>th</sup> Edition, Pearson Education Inc.

**+3 FIRST YEAR FIRST SEMESTER  
Core Paper - 2  
MATHEMATICAL METHODS FOR ECONOMICS-I**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This is the first of a compulsory two-course sequence. The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general. The level of sophistication at which the material is to be taught is indicated by the contents of the prescribed textbook.

**Unit I: Preliminaries and Functions of one Real Variable**

Sets and set operations; Cartesian product; relations; functions and their properties; Number systems

Types of Functions- constant, polynomial, rational, exponential, logarithmic; Graphs and graphs of functions; Limit and Continuity of functions; Limit theorems

**Unit II: Derivative of a Function**

Rate of change and derivative; Derivative and slope of a curve; Continuity and differentiability of a function; Rules of differentiation for a function of one variable; Application- Relationship between total, average and marginal functions

**Unit III: Functions of two or more Independent Variables**

Partial differentiation techniques; Geometric interpretation of partial derivatives; Partial derivatives in Economics; Elasticity of a function – demand and cost elasticity, cross and partial elasticity

**Unit IV: Matrices and Determinants**

Matrices: concept, types, matrix algebra, transpose, inverse, rank; Determinants: concept, properties, solving problems using properties of determinants, solution to a system of equations - Cramer's rule and matrix inversion method.

**Text Book:**

A. C. Chiang and K. Wainwright (2005): *Fundamental Methods of Mathematical Economics*, McGraw Hill International Edition.

**Reference Book:**

K. Sydsaeter and P. J. Hammond (2002): *Mathematics for Economic Analysis*. Pearson Educational Asia.

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**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 3**  
**INTRODUCTORY MACROECONOMICS**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This course aims to introduce the students to the basic concepts of Macroeconomics. Macroeconomics deals with the aggregate economy. This course discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like savings, investment, GDP, money, inflation, and the balance of payments.

**Unit I: Basic Concepts in Macroeconomics**

Macro vs. Micro Economics; Limitations of Macroeconomics; Stock and Flow variables, Equilibrium and Disequilibrium, Partial and General Equilibrium Statics – Comparative Statics and Dynamics; National Income Concepts – GDP, GNP, NDP and NNP at market price, factor cost, real and nominal; Disposable personal Income;

**Unit II: Measurement of Macroeconomic Variables**

Output, Income and Expenditure Approaches; Difficulties of Estimating National Income; National Income Identities in a simple 2-sector economy and with government and foreign trade sectors; Circular Flows of Income in 2, 3 and 4-sector economies; National Income and Economic Welfare; Green Accounting.

**Unit III: Money and Changes in its Value**

Evolution and Functions of Money, Quantity Theory of Money – Cash Transactions, Cash Balances and Keynesian Approaches, Value of Money and Index Number of Prices, Inflation – Meaning, Causes, and Anti-Inflationary Measures; Classical, Keynesian, Monetarist and Modern Theories of Inflation, Inflationary Gap, Deflation- Meaning, Causes, and Anti-Deflationary Measures, Depression and Stagflation; Inflation vs. Deflation

**Unit IV: Determination of National Income**

The Classical Approach - Say's Law, Theory of Determination of Income and Employment with and without saving and Investment; Basics of Aggregate Demand and Aggregate Supply and Consumption- Saving – Investment Functions, Basics ideals about aggregate demand, aggregate supply. The Keynesian Approach – Basics of Aggregate Demand and Aggregate Supply and Consumption, Saving, Investment Functions; The Principle of Effective Demand; Income Determination in a Simple 2-Sector Model; Changes in Aggregate Demand and Income- The Simple Investment Multiplier

**Text Book:**

N. Gregory Mankiw (2010): *Macroeconomics*, 7th edition, Cengage Learning India Private Limited, New Delhi.

**Reference Book:**

Richard T. Froyen (2005): *Macroeconomics*, 2<sup>nd</sup> Edition, Pearson Education Asia, New Delhi.

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**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 4**  
**MATHEMATICAL METHODS FOR ECONOMICS II**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This course is the second part of a compulsory two-course sequence. This part is to be taught in Semester II following the first part in Semester I. The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this Syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general. The level of sophistication at which the material is to be taught is indicated by the contents of the prescribed textbook.

**Unit I: Linear models:**

Input- Output Model: Basic concepts and structure of Leontief's open and static Input-Output model; Solution for equilibrium output in a three industry model; The closed model

**Unit II: Second and Higher Order Derivatives and Integration:**

Technique of higher order differentiation; Interpretation of second derivative; Second order derivative and curvature of a function; Concavity and convexity of functions; Points of inflection, Derivative of Implicit Function; Higher Order Partial Derivative Indefinite Integrals; Rules of Integration; Techniques of Integration: Substitution Rule, Integration by parts, and Partial Fractions; Definite Integral – Area Interpretation

**Unit III: Single and Multivariable Optimization:**

Optimum values and extreme values; Relative maximum and minimum; Necessary versus sufficient conditions- First and Second derivative tests (using Hessian Determinants); Economic applications thereof, First and second order condition for extrema of multivariable functions; Convex functions and convex sets

**Unit IV: Optimization with Equality Constraints:**

Effects of a constraint; Finding stationary value – Lagrange-Multiplier method (Two variable single constraint case only); First and second order condition; The Bordered Hessian determinant

**Text Book:**

A. C. Chiang and K. Wainwright (2005): *Fundamental Methods of Mathematical Economics*, McGraw Hill International Edition.

**Reference Book:**

K. Sydsaeter and P. J. Hammond (2002): *Mathematics for Economic Analysis*. Pearson Educational Asia.

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**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 5**  
**MICROECONOMICS I**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

The course is designed to provide a sound training in microeconomic theory to formally analyze the behavior of individual agents. Since students are already familiar with the quantitative techniques in the previous semesters, mathematical tools are used to facilitate understanding of the basic concepts; this course looks at the behavior of the consumer and the producer and also covers the behavior of a competitive firm.

**Unit I: Consumer Theory I**

Preferences and Utility, Axioms of Rational Choice, Utility, Trades and Substitutions, Indifference curves; Mathematics of Indifference curves, Utility functions for specific preferences, the many good case; Utility Maximization and choice: the 2-good case (graphical analysis), the n-good case, Indirect utility function, the Lump sum principle, Expenditure minimization, properties of expenditure function

**Unit II: Consumer Theory II**

The Income and Substitution Effects: Demand function, changes in income, changes in a goods price- Direct and Indirect Approaches (Slutsky), the Individual's Demand Curve, Compensated (Hicksian) demand curves and functions, demand elasticity, Consumer Surplus, Demand relationships among goods, the 2-good case, substitutes and complements, Net (Hicksian) substitutes, and Complements, Substitutability with many goods

**Unit III: Production Theory and Costs**

Production Functions: Marginal productivity, Production with One Variable Input (labour) and with Two- Variable Inputs, Isoquant Maps and the Rate of Technical Substitution, Returns to Scale, Elasticity of Substitution, Some Simple Production Functions: Linear, Fixed Proportions, Cobb-Douglas; Technical Progress Definition of Cost and its properties, Cost minimizing input choices (Optimization principles, Expansion Path), Cost Functions and Shift in Cost Curves, Long-Run versus Short-Run Cost Curves

**Unit IV: Profit Maximization**

The Nature and Behavior of Firms, Marginal Revenue – Relationship between Average and marginal revenue, Short-Run Supply by a Price-Taking Firm, Profit Functions and its Properties, Profit maximization – General conditions, Input demands

**Text Book:**

C. Snyder and W. Nicholson (2012): Microeconomic Theory: Basic Principles and Extensions, 11<sup>th</sup> Edition, Cengage Learning, Delhi, India.

**Reference Books:**

H. R. Varian (2010): Intermediate Microeconomics: A Modern Approach, 8<sup>th</sup> Edition, W.W. Norton and Company/Affiliated East-West Press (India). The workbook by Varian and Bergstrom may be used for problems.

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**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 6**  
**MACROECONOMICS I**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This course introduces the students to formal modeling of a macro-economy in terms of analytical tools. It discusses various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context. It also introduces the students to various theoretical issues related to an open economy.

**Unit I: Consumption and Investment**

Consumption – Income Relationship, Propensities to Consume and the Fundamental Psychological Law of Consumption; Implications of Keynesian Consumption Function; Factors Influencing Consumption Function; Measures to Raise Consumption Function; Absolute, Relative, Permanent and Life – Cycle Hypotheses Autonomous and Induced Investment, Residential and Inventory Investment, Determinants of Business Fixed Investment, Decision to Invest and MEC, Accelerator and MEI, Theories of Investment.

**Unit II: Demand for and Supply of Money**

Demand for Money – Classical, Neoclassical and Keynesian Approaches, The Keynesian Liquidity Trap and its Implications, Supply of Money, The Theory of Money Supply Determination and Money Multiplier, Measures of Money Supply in India

**Unit III: Aggregate Demand and Aggregate Supply**

Derivation of Aggregate Demand and Aggregate Supply Curves in the IS-LM Framework; Nature and Shape of IS and LM curves; Interaction of IS and LM curves and Determination of Employment, Output, Prices and Investment; Changes in IS and LM curves and their Implications for Equilibrium

**Unit IV: Inflation, Unemployment and Expectations, and Trade Cycles**

Inflation – Unemployment Trade off and the Phillips Curve – Short run and Long run Analysis; Adaptive and Rational Expectations; The Policy Ineffectiveness Debate; Meaning and Characteristics of Trade Cycles; Hawtrey's Monetary Theory, Hayek's Over-investment Theory and Keynes' views on Trade Cycles

**Text Book:**

N. Gregory Mankiw (2010): *Macroeconomics*, 7th edition, Cengage Learning India Private Limited, New Delhi

**Reference Book:**

Richard T. Froyen (2005): *Macroeconomics*, 2<sup>nd</sup> Edition, Pearson Education Asia, New Delhi.

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**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 7**  
**STATISTICAL METHODS FOR ECONOMICS**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This is a course on statistical methods for economics. It begins with some basic concepts and terminology that are fundamental to statistical analysis and inference. It is followed by a study and measure of relationship between variables, which are the core of economic analysis. This is followed by a basic discussion on index numbers and time series. The paper finally develops the notion of probability, followed by probability distributions of discrete and continuous random variables and introduces the most frequently used theoretical distribution, the Normal distribution.

**Unit I: Data Collection and Measures of Central Tendency and Dispersion**

Basic concepts: population and sample, parameter and statistic; Data Collection: primary and secondary data, methods of collection of primary data; Presentation of Data: frequency distribution; cumulative frequency; graphic and diagrammatic representation of data; Measures of Central Tendency: mean, median, mode, geometric mean, harmonic mean, their relative merits and demerits; Measures of Dispersion: absolute and relative - range, mean deviation, standard deviation, coefficient of variation, quartile deviation, their merits and demerits; Measures of skewness and kurtosis.

**Unit II: Correlation and Regression Analysis**

Correlation: scatter diagram, sample correlation coefficient - Karl Pearson's correlation coefficient and its properties, probable error of correlation coefficient, Spearman's rank correlation coefficient. Two variable linear regression analysis - estimation of regression lines (Least square method) and regression coefficients - their interpretation and properties, standard error of estimate

**Unit III: Time Series and Index Number**

Time Series: definition and components, measurement of trend- free hand method, methods of semi-average, moving average and method of least squares (equations of first and second degree only), measurement of seasonal component; Index Numbers: Concept, price relative, quantity relative and value relative; Laspey's and Fisher's index, family budget method, problems in construction and limitations of index numbers, test for ideal index number.

**Unit IV: Probability Theory and Sampling**

Probability: Basic concepts, addition and multiplication rules, conditional probability; Meaning of Sampling, Types of Sampling: Probability Sampling versus Non-Probability Sampling; Simple Random Sampling and its selection, Systematic Sampling, Multi-stage Sampling, Quota Sampling; Error: Sampling and Non-sampling

**Text books:**

S. C. Gupta (2017): *Fundamentals of Statistics*, Himalaya Publishing House, Delhi

**Reference Book:**

Murray R. Spiegel (2017): *Theory & Problems of Statistics*, Schaum's publishing Series.

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**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 8**  
**MICROECONOMICS II**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This course is a sequel to Microeconomics I. The emphasis will be on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning. It covers Market, general equilibrium and welfare, imperfect markets and topics under information economics.

**Unit I: Firm Supply and Equilibrium**

Market Environments; Pure competition; Supply decision of a competitive firm and Exceptions; Inverse Supply Function; Profits and Producer's Surplus; Long Run Supply Curve of a Firm; Long Run Average Costs; Short Run and Long Run Industry Supply; Industry Equilibrium in Short and Long Run; Meaning of Zero Profits; Economic Rent

**Unit II: General Equilibrium, Efficiency and Welfare**

The Edgeworth Box; Trade; Pareto Efficient Allocations; Existence of equilibrium and efficiency; The Welfare Theorems and their implications; The Firm; Production and the Welfare Theorems ; Production possibilities, comparative advantage and Pareto efficiency

**Unit III: Market Imperfections: Monopoly and Oligopoly**

Barriers to Entry, Profit Maximization and Output Choice, Monopoly and resource Allocation, Monopoly, Product Quality and Durability, Price Discrimination, Second Degree Price Discrimination through Price Schedules, Regulation of Monopoly, Dynamic Views of Monopoly, Monopolistic competition; price output determination; excess capacity under monopolistic competition.

**Unit IV: Game Theory**

The Payoff Matrix of a Game; Nash Equilibrium; Mixed Strategies ;The Prisoner's Dilemma; Repeated Games; Enforcing a cartel; Sequential Games; A Game of entry deterrence. Oligopoly – Choosing a strategy; Quantity and price leadership; Simultaneous Quantity Setting; Example of Cournot Equilibrium; Simultaneous Price Setting; Collusion

**Text Book:**

H. R. Varian (2010): Intermediate Microeconomics: A Modern Approach, 8<sup>th</sup> Edition, W.W. Norton and Company/Affiliated East-West Press (India). The workbook by Varian and Bergstrom may be used for problems.

**Reference Book:**

C. Snyder and W. Nicholson (2012): Microeconomic Theory: Basic Principles and Extensions, 11<sup>th</sup> Edition, Cengage Learning, Delhi, India. Pindyck, Robert and Daniel Rubinfeld (2018): Microeconomics, 9<sup>th</sup> Edition, Pearson Education Inc

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**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 9**  
**MACROECONOMICS II**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This course is a sequel to Macroeconomics I. In this course, the students are introduced to the long run dynamic issues like growth and technical progress. It also provides the micro-foundations to the various aggregative concepts used in the previous course.

**Unit I: Modeling Economic Growth**

Accumulation of Capital in the basic Solow Model; supply and demand for goods, growth in the capital stock and the steady state, Golden rule level of capital: Comparing steady states, transition to the golden rule steady state with too much and too little capital, Population Growth, Technological Progress- Solow version, Beyond Solow Model and Endogenous Growth

**Unit II: Open Economy and Macroeconomic Policy**

Balance of payments- concept; meaning of equilibrium and disequilibrium in balance of payments; Determination of foreign exchange rate- the balance of payments theory; Fixed versus flexible exchange rates; Short-run open economy model- the basic Mundell-Fleming model; Macroeconomic Policies – Fiscal policy, Crowding –out and Crowding – in; Monetary policy and instruments, the Transmission Mechanism; Effectiveness of macroeconomic policies in open and closed economies

**Unit III: Classical and Keynesian Macroeconomics Thoughts**

Keynes versus classics: Classical macroeconomics, Employment and output determination, Say's law, the quantity theory of money, Keynes's General theory: Keynes's main propositions; analysis of the labour market, Keynes's critique of Say's law and Quantity theory of money, the orthodox Keynesian school, underemployment equilibrium in the Keynesian model, the Phillips curve and orthodox Keynesian school

**Unit IV: Monetarist and New Classical Macroeconomic Thoughts**

The orthodox monetarist school, the Quantity Theory of Money approach, the expectations augmented Phillips curve analysis, the orthodox monetarist school and stabilization policy New Classical Economics: The influence of Robert e Lucas Jr, the structure of new classical models: the Rational Expectations hypothesis; and policy implications

**Text Book:**

N. Gregory Mankiw (2010): *Macroeconomics*, 7th edition, Cengage Learning India Private Limited, New Delhi

**Reference Book:**

Brian Snowdon and Howard R Vane (2005): *Modern Macroeconomics: Its Origins, Development and Current State*, Edward Elgar.

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**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 10**  
**Research Methodology**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

The course is to develop a research orientation among the students and to acquaint them with fundamentals of research methods. Specifically, the course aims at introducing them to the basic concepts used in research and to scientific social research methods and their approach. It includes discussions on sampling techniques, research designs and techniques of analysis.

**Unit I: Basics of Research**

Introduction to Research: Meaning, Objectives, Motivation, Types, Approaches, Significance, Research Process, Criteria of Good Research; Qualities of a Good Researcher, Research as a Career

**Unit II: Research Problem**

Defining the Research Problem: What is a Research Problem? Selecting the Problem, Necessity of Defining the Problem, Technique Involved in Defining a Problem; Research Design: Meaning, Need, Features of a Good Design, Important Concepts Relating to Research Design, Different Research Designs, Basic Principles of Experimental Designs

**Unit III: Issues in Research**

Measurement in Research, Measurement Scales, Sources of Error in Measurement, Tests of Sound Measurement, Techniques of Measurement Tools, Scaling and Important Scaling Technique, Research Ethics: codes and ethics, permissions to research, responsibilities, confidentiality, feedback, participatory research; Research Proposal and literature review: research proposal, review of literature, levels of analysis, using the library and internet, abstracting, word processing, plagiarism, Concept of IPR

**Unit IV: Actions in Research**

English in report writing: words, sentences, paragraph, writing style; The Report: improving quality, sections, drawing conclusions, evaluation checklists, persistence; Common Citation Styles

**Text Book:**

- Kothari, C. R. (2004): Research Methodology: Methods and Techniques, New Age International Private Limited Publishers, New Delhi.

**Reference Books:**

- Guthrie, G. (2010): Basic Research Methods, Sage Publications India Private Limited, New Delhi.
  - Anderson Durston, Poole - Assignment and Thesis writing (Wiley Easter Limiting)
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**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 11**  
**INDIAN ECONOMY I**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

Using appropriate analytical frameworks, this course reviews major trends in economic indicators and policy debates in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points. Given the rapid changes taking place in India, the reading list will have to be updated annually.

**Unit I: Basic Characteristics of Indian Economy as a Developing Economy**

Indian Economy in the Pre-British Period; The Structure and Organization of Villages and Towns; Industries and Handicrafts in Pre-British India; Colonialism; Economic Consequences of British Rule; Decline of Handicrafts and Progressive Ruralization; The Land System and Commercialization of Agriculture; Industrial Transition; Colonial Exploitation and Impacts – Underdevelopment; Colonization and Modernization; State Policies and Economic Underdevelopment; The Current State of Indian Economy

**Unit II: Population and Human Development**

Population Growth and Economic Development – size, growth and future of population; Causes of rapid population growth; Population and economic development; Population policy; Demographic issues – Sex and Age Composition of population; Demographic Dividend; Urbanization and Migration; Human Resource Development – Indicators and importance of Human Resource Development; Education policy; Health and nutrition.

**Unit III: National Income in India – The Growth Story and Current Challenges**

Trends in national and per capita income; Changes in sectoral composition of national income; Regional disparities in Growth and Income; Savings and Investment and Economic Growth – The Linkage; Poverty – Estimation and Trends, Poverty Alleviation Programs – MGNREGA, NRLM, SJSRY; Inequality – Measures and trends in India; Unemployment – Nature, Estimates, Trends, Causes and Employment Policy

**Unit IV: Economic Planning in India**

Rationale, Features, Objectives, Strategies, Achievements and Assessment of Planning in India; Eleventh Five Year Plan – Objectives, Targets and Achievements; Twelfth Five Year Plan – Vision and Strategy; From Planning to NITI – Transforming India's Development Agenda.

**Text Book:**

Misra, S. K. and Puri V. K. Indian Economy — Its Development Experience. Himalaya Publishing House, Mumbai

**Reference Books:**

Dutt R. and Sundharam K. P. M. *Indian Economy*. S. Chand & Company Ltd., New Delhi.  
Indian Economy Dutt and Sundharam, Gaurav Datt and Ashwani Mahajan, S Chand Publications, 7<sup>th</sup> Revised Edition

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Indian Economy Since Independence, ed by Uma Kapila, Academic Foundation, Revised Nineteenth Edition 2008-09  
Government of India (Current Year): Economic Survey, Ministry of Finance, New Delhi

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 12**  
**DEVELOPMENT ECONOMICS I**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This is the first part of a two-part course on economic development. The course begins with a discussion of alternative conceptions of development and their justification. It then proceeds to aggregate models of growth and cross-national comparisons of the growth experience that can help evaluate these models. The axiomatic basis for inequality measurement is used to develop measures of inequality and connections between growth and inequality are explored. The course ends by linking political institutions to growth and inequality by discussing the role of the state in economic development and the informational and incentive problems that affect state governance.

**Unit I: Study of Economic Development**

Development Economics as a subject; economic growth and economic development; Characteristics of underdeveloped countries – vicious cycle of poverty and cumulative causation; obstacles to economic development; measures of economic development – national and per capita income, basic needs approach, capabilities approach, three core values of development, PQLI, HDI, HPI, MDPI, GDI; capital formation and economic development

**Unit II: Theories of Economic Growth and Development**

Classical theory, Marxian theory; Schumpeterian theory; Rostow's stages of economic growth; Solow model and convergence with population growth and technical progress, Harrod Domar Model

**Unit III: Poverty, Inequality, Agriculture, Industry and Development:**

Measuring poverty: Head Count Ratio, Poverty Gap Ratio, Squared Poverty Ratio, FGT Ratio; Measuring Inequality – Lorenz curve and Kuznets' inverted U hypothesis; Growth, poverty and inequality; Policy options– some basic considerations Agriculture, Industry and Economic Development: Role of agriculture; Transforming traditional agriculture; Barriers to agricultural development; Role of industrialization; Interdependence between agriculture and industries – A model of complementarities between agriculture and industry; terms of trade between agriculture and industry; functioning of markets in agrarian societies; interlinked agrarian markets

**Unit IV: Institutions and Economic Development:**

Role of institutions in economic development; Characteristics of good institutions and quality of institutions; The pre-requisites of a sound institutional structure; Different measures of institutions - aggregate governance index, property rights and risk of expropriation; The role of democracy in economic development; Role of markets and market failure; Institutional and cultural requirements for operation of effective private markets; Market facilitating conditions; Limitations of markets in LDCs; Corruption and economic development - tackling the problem of corruption.

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**Text book:**

Todaro, Michael P and Stephen C Smith (2006): *Economic Development*, 8<sup>th</sup> Edition, Pearson

**Reference Books:**

Debraj Ray (2009): *Development Economics*, Oxford University Press.

Thirlwall, A P (2011): *Economics of Development*, 9<sup>th</sup> Edition, Palgrave Macmillan.

**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 13**  
**INDIAN ECONOMY II**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This course examines sector-specific policies and their impact in shaping trends in key economic indicators in India. It highlights major policy debates and evaluates the Indian empirical evidence. Given the rapid changes taking place in the country, the reading list will have to be updated annually.

**Unit I: Agricultural Development in India**

Indian Agriculture: nature, importance, trends in agricultural production and productivity, factors determining production, land reforms, new agricultural strategies and green revolution, rural credit; Agricultural marketing and warehousing.

**Unit II: Industrial Development in India**

Trends in industrial output and productivities; Industrial Policies of 1948, 1956, 1977 and 1991; Industrial Licensing Policies – MRTP Act, FERA and FEMA; Growth and problems of SSIs, Industrial sickness; Industrial finance; Industrial labour.

**Unit III: Tertiary Sector, HRD and the External Sector**

Tertiary Sector: growth and contribution of service sector to GDP of India, share of services in employment; Human development – concept, evolution, measurement; HRD: indication, importance, education in India, Indian educational policy; Health and Nutrition. Foreign Trade: role, composition and direction of India's foreign trade, trends of export and import in India, export promotion versus import substitution; Balance of Payments of India; India's Trade Policies; Foreign Capital – FDI, Aid and MNCs.

**Unit IV: Indian Economy and Environment**

Environmental Policies in India: The Environment (Protection) Act 1986, The Environment (Protection) Rules 1986, The National Forest Policy 1988, Policy statement for Abatement of Pollution 1992, National Conservation Strategy and Policy Statement on Environment and Development 1992, The National Environment Appellate Authority Act 1997, National Environmental Policy 2006; Global deal with Climate Change: Introduction, Intergovernmental Panel for Climate Change (IPCC), Impact of Climate Change on India, Global Response on Climate Change, Possible Role of India.

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**Text Book:**

Misra, S. K. and Puri V. K. Indian Economy — Its Development Experience. Himalaya Publishing House, Mumbai

**Reference Books:**

Dutt R. and Sundharam K. P. M. Indian Economy. S. Chand & Company Ltd., New Delhi.  
Indian Economy Dutt and Sundharam, GauravDatt and AshwaniMahajan, S Chand Publications, 7<sup>th</sup> Revised Edition Indian Economy Since Independence, ed by Uma Kapila, Academic Foundation, Revised Nineteenth Edition 2008-09 Government of India (Current Year): Economic Survey, Ministry of Finance, New Delhi.

**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 14**  
**DEVELOPMENT ECONOMICS II**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This is the second unit of the economic development sequence. It begins with basic demographic concepts and their evolution during the process of development. The structure of markets and contracts is linked to the particular problems of enforcement experienced in poor countries. The governance of communities and organizations is studied and this is then linked to questions of sustainable growth. The course ends with reflections on the role of globalization and increased international dependence on the process of development.

**Unit I: Population and Development**

Demographic concepts : birth and death rates, age structure, fertility and its determinants, the Malthusian population trap and the microeconomic household theory of fertility; costs and benefits of population growth and the model of low level equilibrium trap; rural-urban migration – the Harris Todaro migration model and policy implications

**Unit II: Dualism and Economic Development**

Dualism – geographic, social and technological; the theory of cumulative causation (Myrdal); the regional inequalities in the context of economic development; the inverted U relationship; international inequality and the centre periphery thesis; dependency, exploitation and unequal exchange; the dualistic development thesis and its implications

**Unit III: Environment and Development**

Basic issues of environment and development – Development and environment inter-linkage; Poverty, environmental degradation and externalities; common property resources, renewable and non-renewable resources; concept of sustainable development; basics of climate change

**Unit IV: International Trade and Economic Development and Financing Economic Development**

Trade and economic development; export led growth; terms of trade and economic growth – the Prebisch Singer Hypothesis; trade strategies for development – import substitution vs. export

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promotion; international commodity agreements; trade vs aid. Saving, capital formation and economic development; financial sector and economic development; taxation, public borrowing and economic development; inflation, foreign finance, investment and foreign aid – controversies and opportunities

**Text Book:**

Todaro, Michael P and Stephen C Smith (2006): *Economic Development*, 8<sup>th</sup> Edition, Pearson

**Reference Book:**

Thirlwall, A P (2011): *Economics of Development*, 9<sup>th</sup> Edition, Palgrave Macmillan.

### **+3 THIRD YEAR FIFTH SEMESTER DSE - 1 INTRODUCTORY ECONOMETRICS**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

This course provides a comprehensive introduction to basic econometric concepts and techniques. It covers statistical concepts of hypothesis testing, estimation and diagnostic testing of simple and multiple regression models. The course also covers the consequences of and tests for misspecification of regression models.

**Unit I: Introduction**

Definition, Nature and scope of econometrics; Theoretical Probability Distributions: Binomial, Poisson and Normal distributions: their properties Theory of Estimation: Estimation of parameters; properties of estimators – small sample and asymptotic properties; point and interval estimation

**Unit II: Hypothesis Testing**

Testing of hypotheses: defining statistical hypotheses; Simple and composite hypotheses; Null and alternative hypothesis; Type I and Type II errors, Critical region; Neyman-Pearson lemma; Power of a test; Test statistics: z, chi square, t and F

**Unit III: Linear Regression Analysis**

Two variable linear regression model – Assumptions; Least square estimates, Variance and covariance between Least square estimates; BLUE properties; Standard errors of estimates; Coefficient of determination; Inference in a two variable linear regression model; ANOVA; Forecasting. Introduction to multiple regression models.

**Unit IV: Violation of Classical Assumptions**

Heteroscedasticity, Multicollinearity and Auto-correlation: Meaning, consequences, tests and remedies.

**Text Book:**

Gujarati, D & Sangeetha (2007); "Basic Econometrics", McGraw Hill Book Co.

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**+3 THIRD YEAR FIFTH SEMESTER**  
**DSE - 2**  
**PUBLIC ECONOMICS**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

Public economics is the study of government policy from the points of view of economic efficiency and equity. The paper deals with the nature of government intervention and its implications for allocation, distribution and stabilization. Inherently, this study involves a formal analysis of government taxation and expenditures. The subject encompasses a host of topics including public goods, market failures and externalities.

**Unit I: Introduction to Public Finance and Public Budgets**

Public Finance: meaning and scope, distinction between public and private finance; public good versus private good; Principle of maximum social advantage; Market failure and role of government; Public Budget: kinds of budget, economic and functional classification of the budget; Balanced and unbalanced budget; Balanced budget multiplier; Budget as an instrument of economic policy

**Unit II: Public Expenditure**

Meaning, classification, principles, cannons and effects, causes of growth of public expenditure, Wagner's law of increasing state activities, Peacock-Wiseman hypotheses

**Unit III: Public Revenue**

Sources of Public Revenue; Taxation - meaning, cannons and classification of taxes, impact and incidence of taxes, division of tax burden, the benefit and ability to pay approaches, taxable capacity, effects of taxation, characteristics of a good tax system, major trends in tax revenue of central and state governments in India

**Unit IV: Public Debt**

Sources, effects, debt burden – Classical/ Ricardian views, Keynesian and post-Keynesian views; shifting - intergenerational equity, methods of debt redemption, debt management, tax versus debt

**Text Books:**

J. Hindriks and G. Myles (2006): *Intermediate Public Economics*, MIT Press.

**Reference Book:**

R. A. Musgrave and P. B. Musgrave(1989): *Public Finance in Theory and Practices*. McGraw Hill  
Bhatia H L (2018): *Public Finance*. Vikas Publishing House.

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**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 3**  
**INTERNATIONAL ECONOMICS**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This course introduces the students to international trade and finance to understand the theories of international trade and develop insights into trade policy and balance of payments. The course also develops insight into international financial system and the trade policy of India.

**UNIT I: Importance of Trade and Trade Theories**

Importance of the study of International Economics; Inter-regional and international trade; Theories of Trade- absolute advantage (Adam Smith), comparative advantage (David Ricardo) and opportunity cost (Haberler); Heckscher-Ohlin theory of trade — its main features, assumptions and limitations (Leontief Paradox) Factor Price Equalization theorem.

**UNIT II: Trade Policy and International Economic Institutions**

Concepts of terms of trade and their importance; Doctrine of reciprocal demand – Offer curve technique; Gains from trade ;Trade as an Engine of Growth and Concept of immiserizing growth, Tariffs and quotas – their impact in partial equilibrium analysis; General Equilibrium analysis of tariff and the concept of optimum tariff, Functions of IMF (Conditional Clause), Role of IMF in international liquidity, Reforms for the emergence of international monetary system; World Bank and WTO; Their achievements and failures; Their Role from the point of view of India

**UNIT III: Exchange Rate**

Concept and Types of Exchange Rate (bilateral vs. trade-weighted exchange rate, cross exchange rate, spot, forward, futures), Demand for and Supply of foreign exchange, Exchange Rate Determination: Mint Parity Theory, Purchasing-Power Parity Theory, Fixed versus Flexible exchange rate

**UNIT IV: Balance of Trade and Payments**

Concepts and components of balance of trade and balance of payments; Disequilibrium in balance of payments; Various measures to correct deficit in BOPs (Expenditure switching and expenditure reducing policies, Direct control), Depreciation Vs. Devaluation; Elasticity approach to devaluation, Foreign trade multiplier- Concept and implications.

**Text Book:**

Mannur H. G ( Recent Edition) *International Economics*, Vikash Publishing

**Reference Books:**

SalvatoreDominick, *InternationalEconomics*,WileIndia.

SoderstenBo andReedJ, *InternationalEconomics*, McMillanPublisher.

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**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 4**  
**DISSERTATION / RESEARCH PROJECT**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Introduction :**

The project is intended to establish the connection between Economics as confined to the text books and class rooms and Economics at play in the ground. It is expected to give an empirical content to the subject. Economics is defined as the study of mankind in the ordinary business of life. It studies individual as well as group behavior.

Project work at the undergraduate level is an in-depth study on a topic chosen by the student. The objective of the project work for the students at undergraduate level is to expose students to the social and real world contexts in which the subjects taught in the classroom have applications. Therefore, the topic must be related to the field of study the student is enrolled. It is undertaken with the guidance of a faculty supervisor, and involves a prolonged period of investigation and writing. The supervisor is supposed to help the student and mentor him/her throughout, from selection of the topic to submission of the project report.

The project output will be a project report written on the topic, chosen by the student and approved by the guide, in about 10000 words.

The process of project preparation typically comprises of an investigation of a particular topic, based on the application of philosophical and theoretical knowledge available in the already existing scientific literature and other published sources of information. The student may use already available data (texts, documents, artworks or existing data sets) or she may go for collection of data from the field. The final report should ideally have the following sections.

- (1) Abstract (in about 500 words) containing a summary of the entire report.
- (2) Introduction of the topic, arguments for choosing such a topic and the key investigation propositions.
- (3) A review of the existing knowledge on the topic
- (4) Information on the data and data treatment tools used in the study
- (5) An analysis of data and findings
- (6) Conclusions
- (7) References

A good research project requires sincere efforts and honest dedication from students. Moreover, it requires an engagement of the student with an issue under probe for a fairly long period of time compared to their preparations of subjects for the examination.

A successful completion of the project report has several positive learning outcomes for the student. It empowers the student with the life skill of patience and persistence. It also helps the student to locate her theoretical understandings in the context of socio-economic and political realities.

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**+3 SECOND YEAR THIRD SEMESTER**  
**GE - 3**  
**INDIAN ECONOMY**

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

**Introduction:**

This paper introduces the students to the essentials of Indian economy with an intention of understanding the basic feature of the Indian economy and its planning process. It also aids in developing an insight into the agricultural and industrial development of India. The students will understand the problems and policies relating to the agricultural and industrial sectors of India and current challenges of Indian economy.

**Unit I: Introduction to Indian Economy and Current Challenges**

Colonialism & British Rule: Exploitation and under-development in India; Basic features of India Economy; Indian Economy as a developing economy; Demographic trends in India - Size and growth of population, Occupational structure, Sex composition, Age structure and demographic dividend; Causes of population growth and population policy; The problem of unemployment and recent policies for employment generation; The problem of inequality in income distribution and its causes, Policies to address inequality.

**Unit II: Indian Agriculture**

Role of Agriculture in Indian Economy; Causes of low productivity, Green Revolution and Land Reforms, Agricultural Finance-Sources and Problems; Agricultural Marketing in India

**Unit III: Industrial Development in India**

Role of Industrialization in Indian Economy; Small Scale & Cottage Industries: Meaning, Role, Problems and Remedies; Industrial Policies of 1948, 1956, 1977 and 1991; Problems of Industrial Development in India; Industrial Sickness.

**Unit IV: Service Sector in India**

Growth & Contribution to GDP; Composition and relative importance of service sector; Factors determining growth of the sector; ICT and IT – Spread and Policy; Sustainability of services led growth.

**Text Book:**

Misra, S. K. and Puri V. K. Indian Economy — Its Development Experience. Himalaya Publishing House, Mumbai

**Reference Book**

Dutt R. and Sundharam K. P. M. *Indian Economy*. S. Chand & Company Ltd., New Delhi.

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**+3 SECOND YEAR FOURTH SEMESTER**  
**GE - 4**  
**INDIAN ECONOMY-II**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Introduction:**

This paper is the part II of Indian economy deals with the external sector, financial markets in India, Indian Public Finances and Economic Reforms. This paper also throws some light on current challenges of Indian Economy.

**Unit I: External Sector in India**

Trends, Composition & Direction in exports from and imports of India; Problems of Balance of Payment: Causes of deficit in BOP & measures to correct it; Trade Policy- Export Promotion Vs Import Substitution; Foreign Trade Policy of India; WTO and India

**Unit II: Financial Markets in India**

Commercial Banking in India- Nationalization of Banks; Lead bank scheme and branch expansion; RBI - Functions, Monetary Policy; Development Banking- IFCI, IDBI, SIDBI and NABARD

**Unit III: Indian Public Finance**

Public Expenditure-Growth and Composition, Causes of Growth of Public Expenditure in India: Tax Revenue of Central and State Governments; Concept of VAT; Deficit Financing in India- Revenue, Budget, Fiscal and Primary Deficits; Purpose and Effects of Deficit Financing; India's Fiscal Policy-Objectives

**Unit IV: Current Challenges Facing Indian Economy**

Inflation – Causes, Consequences and Anti-inflationary Policy; Poverty – Poverty line and Estimates, Major Poverty Alleviation Programmes; Environmental Degradation – Growth and Environment; Population Growth and Environment; Environment Policy; Economic Reforms- Globalization, Macroeconomic Stabilization, Structural Reforms, and their impact on the Indian Economy; Foreign capital and MNCs-Role and consequences

**Text Book:**

Misra, S. K. and Puri V. K. Indian Economy — Its Development Experience. Himalaya Publishing House, Mumbai

**Reference Book**

Dutt R. and Sundharam K. P. M. *Indian Economy*. S. Chand & Company Ltd., New Delhi.

Basu, Kaushik (2016): *An Economist in the Real World: The Art of Policy Making in India*, enguin

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# EDUCATION

## +3 FIRST YEAR FIRST SEMESTER

### Core Paper - 1

### EDUCATIONAL PSYCHOLOGY

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

#### Learning Objectives :

On completion of this course, the learners shall be able to:

- state and analyze the meaning of education and form own concept on education
- explain philosophy as the foundation of education
- analyze aims of education
- describe the essence of different formal philosophies and draw educational implications
- compare and contrast Indian and western philosophies of education.

#### UNIT 1: Education in Philosophical Perspective

- (i) Etymological meaning of education
- (ii) Narrower and broader meaning of education, Lifelong Education
- (iii) Aims of Education- Individual and Social Aims of Education
- (iv) Meaning and nature of philosophy
- (v) Branches of Philosophy- Metaphysics, Epistemology and Axiology, and its educational implications
- (vi) Functions of Philosophy in relation to education

#### UNIT 2: Formal Schools of Philosophy and their Educational Implications

- (i) Idealism, Naturalism, Pragmatism with reference to: Aims of Education, Curriculum, Methods of Teaching, Role of Teacher, Discipline

#### UNIT 3: Indian Schools of Philosophy and their Educational Implications

- (i) Common Characteristics of Indian Philosophy
- (ii) Sankhya, Vedanta, , Buddhism, Jainism with reference to: Philosophical tenets, Aims of education, Curriculum, Methods of Teaching, Role of Teacher

#### UNIT 4: Educational Thought of Western and Indian Thinkers

- (i) Plato
- (ii) Dewey
- (iii) Gopabandhu Das
- (iv) Gandhi
- (v) Tagore
- (vi) Aurobindo

#### PRACTICAL

Credit : 02

25 Marks

- Preparation of a report on relevance of Educational Thoughts of any one great educator for modern India based on unit-4.

**NB:** It will be evaluated by both the Internal and External examiners.

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**Text Books**

- Safaya, R.N. & Shaida, B.D. (2010). *Modern Theory and Principles of Education*. New Delhi: Dhanpatrai Publishing Company Pvt. Ltd. Nayak, B.K. (2018).
- Ravi, Samuel.S. (2015). *A Comprehensive Study of Education*. Delhi: PHI Learning Pvt. Ltd.
- Taneja, V.R. (2000). *Educational thought and practice*. New Delhi: Sterling Publishers Pvt. Limited.

**Reference Books**

- Aggrawal, J.C. (2013). *Theory and principle of education*. New Delhi: Vikash Publishing House Pvt Ltd.
- Anand, C.L. *et.al.* (1983). *Teacher and education in emerging in Indian society*, New Delhi: NCERT.
- Brubacher, John.S.(1969). *Modern philosophies of education*. New York: McGraw Hill Co.
- Clarke, P. (2001). *Teaching and learning: The Culture of pedagogy*. New Delhi: Sage Publication.
- Dash, B.N. (2011) *Foundation of education*, New Delhi; Kalyani Publishers.
- Dewey, John (1916/1977). *Democracy and education*. New York: MacMillan.
- Dewey, John (1956). *The Child and the curriculum, school and society*. Chicago, Illinois: University of Chicago Press.
- Dewey, John (1997). *Experience and education*. New York: Touchstone.
- Ganesh, Kamala & Thakkar, Usha (Ed.) (2005). *Culture and making of identity in India*. New Delhi: Sage Publications.
- Govt. of India (1986/'92). *National policy on education*. New Delhi: MHRD.
- Krishnamurthy, J. (1953). *Education and significance of life*. New Delhi: B.I. Publications
- Kumar Krishna (1996). *Learning from conflict*. New Delhi: Orient Longman.
- Ministry of Education (1966). *Education and national development*. New Delhi: Ministry of Education, Government of India.
- Ornstein, Allan C. & Levine, Daniel U. (1989). *Foundations of education (4th Edn.)*. Boston: Houghton Mifflin Co.
- Pathak, R. P. (2012). *Philosophical and sociological principles of education*. Delhi: Pearson.
- Pathak, Avijit (2002). *Social implications of schooling*. New Delhi: Rainbow Publishers.
- Peters, R.S. (1967). *The Concept of education*. London: Routledge Kegan & Paul.
- Radhakrishnan, S. *Indian philosophy Vol. I and Vol. II*
- Ross, James S.(1981). *Ground work of educational theory*.Delhi: Oxford University Press Rusk, Robert R., *Philosophical bases of education*, London: Oxford University Press.
- Salamatullah, (1979). *Education in social context*. New Delhi: NCERT.
- Srinivas, M.N., (1986). *Social changes in modern India*. Bombay: Allied Publishers.
- Wingo, G. Max (1975). *Philosophies of education*. New Delhi: Sterling Publisher Pvt. Limited.

**+3 FIRST YEAR FIRST SEMESTER****Core Paper - 2****EDUCATIONAL PSYCHOLOGY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Learning Objectives:**

On completion of this course, the learners shall be able to:

- Explain the concept of educational psychology and its relationship with psychology.
- Understand different methods of educational psychology.

- Describe the theoretical perspectives of educational psychology.
- Explain the concept of growth and development of child and adolescence and underline general principles of growth and development.
- Describe briefly the periods and the typical characteristics of growth and development during childhood and adolescence.
- Specify the contexts and factors influencing development.
- Explain the theory of cognitive development and its educational implications.
- State the different forms and characteristics of individual differences and the ways of meeting the classroom issues arising out of the differences.
- Identify the learning needs during the different stages of development and adopt appropriate strategies in and out of school to meet the learning needs.

### **UNIT 1: Educational Psychology in Developmental Perspective**

- (i) Meaning, nature, scope and relevance of educational psychology
- (ii) Methods of educational psychology- observation, experimentation, and case study
- (iii) Application of educational psychology in understanding learner
- (iv) Growth and Development-Concept, difference between growth and development, and principles of growth and development
- (v) Characteristics of development during adolescence in different areas: Physical, social, emotional and intellectual (with reference to Piaget)

### **UNIT 2: Intelligence, Creativity and Individual difference**

- (i) Individual difference-concept, nature, factors and role of education
- (ii) Intelligence- meaning and nature of intelligence, concept of I.Q, theories of intelligence- Two factor theories, Guilford's structure of intelligence (SI) model, Gardner's multiple theory of intelligence.
- (iii) Measurement of intelligence- individual and group test, verbal, non-verbal test
- (iv) Creativity- meaning, nature and stages of creative thinking, strategies for fostering creativity

### **UNIT 3: Learning and Motivation**

- (i) Learning- meaning, nature and factors of learning
- (ii) Theories of learning with experiment and educational implications-
- (iii) Classical conditioning, operant conditioning, insightful learning and constructivist approach to learning
- (iv) Motivation – concepts, types, and techniques of motivation

### **UNIT 4: Personality and Mental health**

- (i) Personality- meaning and nature of personality
- (ii) Theories- type theory and trait theory
- (iii) Assessment of personality- subjective, objective and projective techniques
- (iv) Mental health-concept, factors affecting mental health and role of teacher, mental health of teacher.
- (v) Adjustment mechanism: Concept and Types

### **PRACTICAL**

Credit : **02**

**25** Marks

- Administration and interpretation of any psychological test relating to intelligence or personality.  
**N.B:** It will be evaluated by both the Internal and External examiners.
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**Text Books**

- Woolfolk, A. (2015). *Educational psychology (9th Ed.)*. New Delhi: Pearson Publication
- Chauhan, S.S. (2010). *Advanced educational psychology*. New Delhi: Vikas Publishing House Pvt. Ltd.
- Mangal, S.K. (2002). *Advanced educational psychology*. New Delhi: Prentice Hall of India.

**Reference Books**

- Arnett, J. (2007). *Adolescence and emerging adulthood: A cultural approach*. (3rd Edn.). Upper Saddle River, N.J.: Pearson.
- Berk, Laura E. (2011). *Child development (9th Edn.)*. New Delhi: Prentice Hall of India.
- Flavell, J.H. (1963). *The developmental psychology of Jean Piaget*. New York: Van Nostrand
- Hurlock, E. B. (1980). *Developmental psychology: All span approach*. New York: McGraw Hill Book.
- Hurlock, E.B. (1980). *Child development (6th Edn.)*. Tokyo: McGraw-Hill, Kogakusha Ltd.
- Hurlock, E.B. (2007). *Child growth and development*. New York: McGraw Hill.
- Kail, Robert V (2011). *Children and their development (6th Edition)*. Englewood Cliffs, N.J: Prentice Hall.
- Stephens, J. M.; Evans, E. D.(1973). *Development and classroom learning: An introduction to educational psychology*. New York: Holt, Rinehart and Winston

**+3 FIRST YEAR SECOND SEMESTER****Core Paper - 3****EDUCATIONAL SOCIOLOGY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Learning Objectives:**

On completion of this course, the students shall :

- State the relationship between education and society.
- Understand the meaning of Educational Sociology and function of education as a social system.
- State different agencies of education and their functions.
- Justify the importance of education for social change.
- Describe the role of education in modernization and globalization.
- Describe the function of education to ensure equality and equity.

**UNIT 1: Education and Society**

- Relationship between education and society, school as a miniature society
- Educational Sociology- Concept, nature, scope and importance; (iii) Relationship between education and sociology.
- Education as a process of Socialization.
- Education and Politics, Education and Economic Development

**UNIT 2: Agencies of Education**

- Family- Importance, functions and role for education and socialization of the children
- School - Importance, functions and role for education and socialization of the children



- (iii) Society- Importance, functions and role for education and socialization of the children
- (iv) Mass Media- Importance, functions and role for education and socialization of the children

### **UNIT 3: Education, Social change and Modernization**

- (i) Concept of social change and factors affecting Social Change
- (ii) Education as an instrument of social change and social control
- (iii) Concept and Attributes of modernization
- (iv) Education for accelerating the process of modernization
- (v) Impact of Globalization on Education

### **UNIT 4: Equalization of Educational opportunities for ensuring equity and Inclusion**

- (i) Concept of equality, equity and inclusion: its educational implication
- (ii) Ensuring equality in the Education of SC and ST
- (iii) Education for Women Empowerment
- (iv) Inclusive Education with reference to children with special needs(CWSN)

### **PRACTICAL**

Credit : **02**

**25 Marks**

Field Visit: Study of a social unit (Home/School/Village/slum) and reporting.

**NB:** It will be evaluated by both the internal and external examiners

### **Text Books**

- Mathur, S. S. (2000). *A sociological approach to Indian education*. Agra : Vinod Pustak Mandir.
- Pathak, R. P. (2012). *Philosophical and sociological principles of education*. Delhi: Pearson.
- Bahttacharya, S. (2006). *Sociological Foundation of Education*. New Delhi: Atlantic

### **Reference Books**

- Ravi, Samuel.S.(2015). *A Comprehensive Study of Education*. Delhi: PHI Learning Pvt. Ltd.
  - Safaya, R.N. & Shaida, B.D. (2010), *Modern theory and principles of education*. New Delhi: Dhanpati Publisng Company Pvt. Ltd.
  - Aggrawal, J.C.(2013). *Theory and principle of education*. New Delhi: Vikash Publishing House Pvt Ltd.
  - Anand, C.L. et.al. (1983). *Teacher and education in emerging in Indian society*, New Delhi: NCERT.
  - Brubacher, John.S.(1969). *Modern philosophies of education*. New York: McGraw Hill Co.
  - Clarke, P. (2001). *Teaching and learning: The Culture of pedagogy*. New Delhi: Sage Publication.
  - Dewey, John (1916/1977). *Democracy and education*. New York: MacMillan.
  - Dewey, John (1956). *The Child and the curriculum, school and society*. Chicago, Illinois: University of Chicago Press.
  - Dewey, John (1997). *Experience and education*. New York: Touchstone.
  - Ganesh, Kamala & Thakkar, Usha (Ed.) (2005). *Culture and making of identity in India*. New Delhi: Sage Publications.
  - Govt. of India (1986/'92). *National policy on education*. New Delhi: MHRD. Ministry of Education (1966). *Education and national development*. New Delhi: Ministry of Education, Government of India.
  - Ornstein, Allan C. & Levine, Daniel U. (1989). *Foundations of education (4th Edn.)*. Boston: Houghton Mifflin Co.
  - Pathak, Avijit (2002). *Social implications of schooling*. New Delhi: Rainbow Publishers.
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- Salamatullah, (1979). Education in social context. New Delhi: NCERT. Saraswati, T.S. (Ed.) (1999). Culture, socialization and human development. Theory, research and applications in India. New Delhi: Sage Publication.
- Taneja, V.R. (2000). Educational thought and practice, New Delhi: Sterling Publishers Pvt. Limited.

**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 4**  
**CHANGING PEDAGOGICAL PERSPECTIVE**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Learning Objectives:**

On completion of this course, the students shall:

- Explain the concept of pedagogy
- Differentiate pedagogy from other allied concepts
- Explain different teaching task with example
- Establish relationship between teaching and learning
- List out different approaches and methods of teaching
- Prepare a lesson plan following different designs

**UNIT 1: Concept of Teaching and Learning**

- (i) Meaning and definition of teaching and learning
- (ii) Relationship between teaching and learning
- (iii) Variables involved in teaching task: independent, dependent and intervening
- (iv) Phases of teaching: Pre- active, inter- active and post- active
- (v) Levels of teaching: memory, understanding and reflective
- (vi) Lesson plan design- The Herbartian steps, 5 E and ICON design model

**UNIT 2: Theories of Teaching**

- (i) Meaning and nature of teaching theory
- (ii) Types of teaching theories:
- (iii) Formal theories of teaching- communication theory of teaching
- (iv) Descriptive theories of teaching– Gagne’s hierarchical theory of instruction and Bruner’s cognitive theory of instruction
- (v) Normative theories of teaching - Mitra’s psychological theory of teaching and Clarke’s general theory of teaching

**UNIT 3: Principles and maxims of teaching**

- (i) General principles of teaching
  - (ii) Psychological principles of teaching
  - (iii) Maxims of teaching
  - (iv) Core teaching skills: Introducing the lesson, explaining, illustrating with examples, stimulus variation, and reinforcement, questioning, probing questions, closure.
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**UNIT 4: Approaches and methods of Teaching**

- (i) Concept of approach, method, strategy and techniques
- (ii) Methods of teaching: inductive-deductive, analytic- synthetic, problem solving and project
- (iii) Shift in focus from teaching to learning- constructivist approach to learning

**PRACTICAL**Credit : **02****25 Marks**

- Preparation of rating scale/ checklist /observation schedule to evaluate classroom teaching and reporting.

NB: It will be evaluated by both the internal and external examiners

**Text Books**

- Kochar, S.K.(2011). *Methods and Techniques of teaching*. Sterling Publisher Pvt. Ltd., New Delhi
- Chauhan, S.S.(1995). *Innovations of teaching learning process*. Vikash Publishing House, New Delhi
- Sharma, R.A.(1986). *Technology of Teaching*. International Publishing House, Meerut.

**Reference Books**

- Aggarwal, J.C.(1995). *Essentials of Educational Technology*. Vikash Publishing House, New Delhi
- Walia, J.S. (2013). *Educational Technology*. Jalandhar, Punjab: Ahim Publications.
- Mangal, S.K. and Mangal, U.(2010) *Essentials of Educational Technology*, New Delhi, PHI Learning Pvt. Limited
- Mangal, S.K.(1988) *Foundations of Educational Technology*, Ludhiana, Tandan Publications
- Nageswar Rao, S., Sreedhar, P. & Rao, B.(2007). *Methods and techniques of teaching*, Sonali Publications, New Delhi
- Oliver, R.A. (1963) *Effective teaching*, JM Dent & Sons
- Pathak, R.P. & Chaudhary, J. (2012) *Educational Technology*, Pearson, New Delhi
- Ryburn, W.M.(1955) *Principles of Teaching*, Geoffrey Cembidge, OUP
- Sampath, K, Pannir Salvam, A., & Santhanam, S.(1981) *Introduction to Educational Technology*, Sterling Publisher, New Delhi

**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 5**  
**EDUCATIONAL ASSESSMENT AND EVALUATION**

Time : **3 Hrs.**Credit : **04**End Semester Theory : **60 Marks**Mid Semester Theory : **15 Marks****Learning Objectives:**

On completion of this course, the students will.

- State the nature, purpose and types of educational assessment and evaluation.
  - Develop and use different types of tools and techniques for continuous and comprehensive assessment of learning in the school situation.
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- Explain the importance of assessment for learning and its processes for enhancing the quality of learning and teaching.
- Describe the characteristic of a good test.
- Analyze the trends and issues in learning and learner assessment.
- Analyze and interpret results of the assessment using standard score.
- Illustrate the principles of test construction in education.

#### **UNIT 1: Assessment and Evaluation in Education**

- Understanding the meaning and purpose of test, measurement, assessment and evaluation
- Scales of measurement- nominal, ordinal, interval and ratio
- Types of test- teacher made and standardized
- Approaches to evaluation- placement, formative, diagnostic and summative
- Types of evaluation- norm referenced and criterion referenced (vi) Concept and nature of continuous and compressive evaluation

#### **UNIT 2: Instructional Learning Objectives**

- Taxonomy of instructional Learning Objectives with special reference to cognitive domain
- Criteria of selecting appropriate Learning Objectives, and stating of general and specific instructional Learning Objectives
- Relationship of evaluation procedure with Learning Objectives
- Difference between objective based objective type test and objective based essay type test

#### **UNIT 3: Tools and Techniques of Assessment and construction of Test**

- Steps of test construction: planning, preparing, trying out and evaluation
- Principles of construction of objective type test items- matching, multiple choice, completion and true- false
- Principles of construction of essay type test
- Non- standardized tools: Observation schedule, interview schedule, rating scale, check list, portfolio and rubrics .

#### **UNIT 4: Characteristics of a good Test**

- Validity-concept, types and methods of validation
- Reliability- concept and methods of estimating reliability
- Objectivity- concept and methods of estimating objectivity
- Usability- concept and factors ensuring usability

### **PRACTICAL**

Credit : **02**

**25 Marks**

- Construction of Unit test on a school subject based on blueprint and reporting.

NB: It will be evaluated by both Internal and External examiners.

#### **Text Books**

- Aggrawal, J.C. (1997). *Essentials of examination system, evaluation, tests and measurement*. New Delhi: Vikas Publishing House Pvt Ltd.
- Goswami, M. (2011). *Measurement and evaluation in psychology and education*. Hyderabad: Neelkamal Publishers, Gronlund, N.E. (2003). *Assessment of student Achievement*. Boston: Allyn & Bacon

- Singh, A.K. (2016). *Tests, measurements and research methods in behavioural sciences*. New Delhi: Bharati Bhawan Publishers.

### Reference Books

- Anastasi, A. (1976). *Psychological testing*. New York: Macmillan Publishing Co.
- Anderson, L.W. (2003). *Classroom assessment: Enhancing the quality of teacher decision making*.
- Banks, S.R. (2005). *Classroom assessment: issues and PRACTICES*. Boston: Allyn & Bacon.
- Blooms, B.S. (1956). *Taxonomy of educational Learning Objectives*. New York: Longman Green and Company
- Cohen, R.J., Swerdlik, M.E., & Phillips, S.M. (1996). *Psychological testing and assessment. an introduction to the tests and measurement*. California: Mayfield Publishing Co.
- Earl, L.M. (2006). *Assessment as learning: using classroom assessment to maximize student learning*. Thousand Oaks, California: Corwin Press
- Hopkins, KD. (1998). *Educational and psychological measurement and evaluation*. Boston: Allyn and Bacon.
- Linn, R.L. & Gronlund, N.E. (2000). *Measurement and assessment in teaching*. London: Merrill Prentice Hall.
- Macmillan, J.H. (1997). *Classroom assessment, principles and practice for effective instruction*. Boston: Allyn and Bacon
- Mohan, R. (2016). *Measurement evaluation and assessment in education*. Delhi: PHI Learning Pvt. Ltd.
- National Council of Educational Research and Training (2006). *Position paper: Examination Reforms*. New Delhi: NCERT
- Noll, N.H. S cannell, D.P. & Craig, RC. (1979). *Introduction to educational measurement*. Boston: Houghton Mifflin.

## +3 SECOND YEAR THIRD SEMESTER

### Core Paper - 6

### EDUCATIONAL RESEARCH

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

### Learning Objectives:

On completion of this course, the student will:

- Describe nature, scope and limitation of educational research.
- Understand different types and methods of educational research.
- Explain sources from where knowledge could be obtained.
- Describe the process of research in education.
- Analyze research design in education.
- Illustrate procedure of collecting and analyzing data.
- Prepare the research report.

### UNIT 1: Concept and Types of Educational Research

- (i) Concept and nature of research
  - (ii) Meaning, nature and scope of educational research
  - (iii) Types of research by purpose- Fundamental, Applied and Action
  - (iv) Types of research by approach- Quantitative and Qualitative
-

**UNIT 2: Design of Research and preparation of research proposal**

- (i) Steps of Research
- (ii) Review of Related Literature; and identification of problem
- (iii) Hypothesis: Meaning, Types, Sources and Characteristics of hypothesis
- (iv) Concept of population and sample
- (v) Sampling procedures- Probability and Non-Probability
- (vi) Tools and techniques for data collection(i.e. questionnaire, interview, observation and Procedure of data collection , Preparation of research proposal

**UNIT 3: Methods of Research**

Meaning nature and steps of:

- (i) Survey method
- (ii) Case-study method
- (iii) Historical research
- (iv) Experimental research

**UNIT 4: Writing Research Report**

- (i) Data analysis and interpretation in research.
- (ii) Steps for reporting research
- (iii) Reporting style (APA Style) (iv) Plagiarism checking
- (v) Referencing Style (APA Style): Bibliography, Webliography

**PRACTICAL**

Credit : **02**

**25** Marks

- Preparation of a Research Proposal on any Educational Topic (Issues/ Trends/ Problems/ Psychological Topics)

**NB:** It will be evaluated by both Internal and External examiners.

**Text Books**

- Best J.W. and Kahn, J. V. (2006). *Research in education* (9th Ed.) New Delhi: Pearson Education Inc.
- Kaul, L. (1984). *Methodology of educational research*. New Delhi: Vikas Publication
- Singh, A.K. (2016). *Tests, measurements and research methods in behavioural sciences*. New Delhi: Bharati Bhawan Publishers.

**Reference Books**

- Nanda, G.C. & Khato, P.K. (2012). *Fundamentals of Educational Research and Statistics*. New Delhi: Ludhiana.
- Gay, L.R. (1990). *Educational research-competencies for analysis and application* (3rd Ed.), Macmillan Publishing Company, New York Ary, D., Jacobs, L. C., & Razavieh, A. (2002). *Introduction to research in education* (6th Ed.). Belmont, CA: Wadsworth/Thomson Learning.
- Bhandarkar, P.L. and Wilkinson, T.S. (2010). *Methodology and techniques of social research*. Himalaya Publishing House, New Delhi.
- Creswell, J.W. (2014). *Educational research-planning, conducting and evaluating quantitative and qualitative research* (4th Ed.). New Jersey, USA: Pearson Education Inc. (Indian Reprint available at PHI Learning Pvt.Ptd.)

- Kerlinger, F.N. (1973). *Foundation of behavioral research*. New York: Holt Rinehart & Winston.
- Rao, U. (2007). *Action research*. Himalaya Publishing House, New Delhi.
- Borg, W.R. & Gall, M.D. (1989). *Educational research: An introduction*. New York: Longman.
- Corey, S. M. (1953), *Action research to improve school practice*, New York: Teachers College Press
- Johnson, B. & Christensen, L. (2008). *Educational research: quantitative, qualitative, and mixed approaches*. London: Sage Publication
- McMillan, J.H. & Schumacher, S. (1989). *Research in Education- a Conceptual Introduction*. New York: Harper Collins.
- Mertler, C.A. (2006). *Action research: teachers as researchers in the classroom*. London: Sage Publication

**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 7**  
**STATISTICS IN EDUCATION**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Learning Objectives:**

On completion of this course, the students will:

- Describe the importance of statistics in education.
- Organise and represent educational data in tabular and graphical form.
- Compute and use various statistical measures of average, variation and bi-variate distribution in analysis and interpretation of educational data.
- Describe the concept and importance of normal probability curve and interpret test scores in using normal probability curve.
- Understand the divergence of data from normality.

**UNIT 1: Educational Statistics**

- (i) Educational Statistics-Meaning, Nature, Scope and Uses
- (ii) Organization of Data: Frequency Distribution, Cumulative Frequency Distribution
- (iii) Graphical Representation of Data ( Histogram, Frequency polygon , Ogive and Pie-Diagram)

**UNIT 2: Measures of Central Tendency and Variability**

- (i) Mean, Median and Mode- concept, computational process, uses and limitations
- (ii) Range, Average Deviation, Quartile Deviation and Standard Deviation- Concept, computational process, uses and limitations

**UNIT 3: Co-relational Statistics**

- (i) Meaning and types of Correlation
- (ii) Computation of Coefficient of Correlation by Rank Difference Method; Product Moment Method

**UNIT 4: Normal Probability Curve and Divergence from Normality**

- (i) Normal Probability Curve- concept, properties and applications
  - (ii) Skewness and Kurtosis
  - (iii) Interpretation of Derived scores: Z- score and T- score
-

**PRACTICAL**Credit : **02****25 Marks**

- Analysis of Achievement Data of a particular class and Reporting  
**NB:** It will be evaluated by both Internal and External examiners.

**Text Books**

- Aggarwal, Y.P. (2009). *Statistical methods: concepts, application and computation*. New Delhi: Sterling Publishers Pvt. Ltd.
- Garrett, H.E. (1971). *Statistics in psychology and education*. New Delhi: Paragon International Publisher
- Mangal, S.K. (2008). *Statistics in education and psychology*. New Delhi: Prentice-Hall of India Private Limited

**Reference Books**

- Ferguson, G.A. (1971). *Statistical analysis in psychology and education*. Kogakusha, Tokyo: McGraw-Hill
- Guilford, J.P. & Fruchter, B. (1981). *Fundamental statistics in psychology and education*. New York: McGraw Hill
- McCall, R. (1993). *Fundamental statistics for the behavioral Science*. New York: Harcourt Brace
- Ravid, Ruth. (2000). *Practical statistics for education*. New York: University Press of America.
- Seigel. S. & Castel Ian N.J. (1988). *Non-parametric statistics for the Behavioral Science*. Singapore: Graw- Hill Book Co.

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 8****HISTORY OF EDUCATION IN INDIA**Time : **3 Hrs.**Credit : **04**End Semester Theory : **60 Marks**Mid Semester Theory : **15 Marks****Learning Objectives:**

On completion of this course, the student will

- Understand the development of education in India during ancient period, medieval period and pre- independence period.
- Describe the development of education in India during post-independence period.
- Describe major recommendations of different policies and committee reports on education in India.

**UNIT 1: Education during Ancient Period**

- Features of Vedic period with special reference to aims, curriculum and methods of teaching
  - Features of Buddhist period with special reference to aims, curriculum and methods of teaching
  - Relevance of Gurukul system and Buddhist centers of learning
  - Ancient seats of Learning
-



**UNIT 2: Education during Medieval Period**

- (i) Features of education during Medieval Period with special reference to aims, curriculum and methods of teaching
- (ii) Educational institutions during Muslim period, important centers of education. (iii) Relevance of Islamic period

**UNIT 3: Education during pre-independence period**

- (i) Charter's Act(1813)
- (ii) Maculay's Minute(1835) (iii) Wood's Despatch (1854)
- (iv) Indian Education Commission(1882) (v) Calcutta University Commission(1917) (vi) Hartog committee(1929)

**UNIT 4: Education during post-independence period**

Major recommendations of the following commissions and committees relating to the aims of education and curriculum:

- (i) University Education Commission (1948)
- (ii) Major recommendations of Secondary Education Commission (1954 ) (iii) Major recommendations of Education Commission (1966)
- (iv) National Policy on Education (1986), revised formulation 1992

**PRACTICAL**

Credit : **02**

**25 Marks**

- Study on implementation of NPE(1986) in respect of recommendations for elementary level

**NB:** It will be evaluated by both Internal and External examiners.

**Text Books**

- Aggrawal, J.C.(2010). *Landmarks in the history of modern Indian education*. New Delhi: Vikash Publishing Pvt Ltd.
- Dash, B.N. (1911). *Development of education in India*. New Delhi: Ajanta Prakashan
- Das, K.K. (1993). *Development of education in India*. New Delhi: Kalyani Publishers.

**Reference Books**

- Naik, J.P. & Narullah, S. (1996). *A student's history of education in India*. New Delhi: Mc Millan India Ltd.
- Rawat, P.L. (1989). *History of Indian education* New Delhi: Ram Prasad & Sons.
- Govt. of India. (1992, 1998). National policy on education, 1986 (As modified in 1992). Retrieved from [http://mhrd.gov.in/sites/upload\\_files/mhrd/files/NPE86-mod92.pdf](http://mhrd.gov.in/sites/upload_files/mhrd/files/NPE86-mod92.pdf)
- Keay, F.E. & Mitra, Sukumar (1978). *A history of education in India*. New Delhi: Oxford University Press.
- Ministry of Education (1966). *Education and national development*. New Delhi: Ministry of Education, Government of India.
- Ministry of Human Resource Development (2004). *Learning without Burden: Report of the National Advisory Committee*. New Delhi: Min. of HRD.
- Mookharjee, R.K. (1989). *The Gupta Empire*. Delhi: Motilal Banarsi Dass Publishers Pvt Ltd.
- Mukherji, S.M., (1966). *History of education in India*. Vadodara: Acharya Book Depot.
- Naik, J.P. and Syed, N., (1974). *A student's history of education in India*. New Delhi: MacMillan.
- Rawat, P.L.(1989). *History of Indian education*. New Delhi: Ram Prasad & Sons. Website, [www.mhrd.gov.in](http://www.mhrd.gov.in)

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 9**  
**CURRICULUM DEVELOPMENT**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Learning Objectives:**

On completion of this course, the students will

- Differentiate curriculum from courses of study, text book.
- Analyse bases and sources of curriculum.
- Describe different types of curriculum.
- Critically examine National curriculum framework- 2000 and 2005.
- Describe process of curriculum development and differentiate different models of curriculum development.
- Evaluate curriculum using different evaluation models.

**UNIT 1: Curriculum**

- (i) Concept of syllabus, courses of study, text book and curriculum
- (ii) Bases of curriculum- philosophical, sociological and psychological
- (iii) Components of curriculum: Learning Objectives, Contents, Methods and Evaluation
- (iv) Concept of Curriculum design

**UNIT 2: Types of Curriculum**

- (i) Subject centered curriculum
- (ii) Learner centered curriculum
- (iii) Experience centered curriculum
- (iv) Core curriculum

**UNIT 3: Curriculum Organization**

- (i) Principles of curriculum construction
- (ii) Selection and organization of content
- (iii) Selection and Organization of learning experiences
- (iv) National curriculum framework- 2005 and its guiding principles

**UNIT 4: Curriculum Development and Evaluation**

- (i) Curriculum development- its process, role of local authority, state level agencies like SCERT, BSE and National Agencies like CBSE, NCERT
- (ii) Tyler and Taba Model of curriculum development
- (iii) Meaning and nature of curriculum evaluation

**PRACTICAL**

Credit : 02

25 Marks

- Content Analysis of any text book of elementary level

**NB:** It will be evaluated by both Internal and External examiners.

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**Text Books**

- Ornstein, A.C. & Hunkins, E (1998). *Curriculum. Foundations, Principles and Issues*. Boston: Allyn & Bacon, Boston.
- Oliva, P.F. (2001). *Developing the curriculum* (Fifth Ed.). New York, NY: Longman.
- Talla, M. (2012 ). *Curriculum Development: Perspectives, Principles and Issues*. New Delhi: Pearson Publications.

**Reference Books**

- Beane, J.A. ,Conrad, E.P. Jr. and Samuel JA, Jr. (1986). Curriculum planning and development, Boston: Allyn & Bacon.
- Brady, L. (1995). Curriculum development, New Delhi: Prentice Hall.
- Doll, R.C. (1996).Curriculum development: decesion-making and process, Boston: Allyn & Bacon.
- Krug, E.A.(1956). Curriculum planning. New York: Harper and Row Publishers.
- Oliva, P.F. (2001). *Developing the curriculum* (Fifth Ed.). New York, NY: Longman.
- Pratt, D.(1980). Curriculum design and development. New York: Macmillan Publishing Co. Inc.
- Popham, W.J. (1993). Modern educational measurement. Englewood Cliffs, N.J.: Prentice Hall.
- Saylor, J.G., Alexander, W.M. and Lewis, A.J.(1981). Curriculum planning for better teaching and learning. New York: Holt Rienehart & Winston.
- Taba, H. (1962). Curriculum development-theory and practice. New York: Harcourt Brace, Jovanoich. Tanner, D. and Tanner, L.(1975) Curriculum development- theory and practice. New York: Macmillan Publishing Co. Inc.
- Tyler, R.W.(1941). Basic principles of curriculum and instruction .Chicago: University of Chicogo Press.

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 10****GUIDANCE AND COUNSELLING**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Learning Objectives:**

On completion of this course, the students will

- State the concept, need, principles and bases of guidance.
- Use various tools and techniques of guidance in appropriate contexts.
- Explain the role of school in organizing different guidance programmes.
- State the concept, scope and type of counseling.
- Narrate the process, tools and techniques of counseling.
- Explain the qualities and role of a counselor.
- Describe different programmes for differently abled children.
- Explain the role of teacher and head master in organizing different guidance programmes.

**UNIT 1: CONCEPT OF GUIDANCE**

- (i) Meaning, nature and scope of guidance
  - (ii) Philosophical, psychological and sociological bases of guidance
  - (iii) Need, importance, purpose and scope of educational guidance in schools
  - (iv) Need, importance, purpose and scope of vocational guidance
-

**UNIT 2: EDUCATIONAL GUIDANCE**

- (i) Basic data necessary for educational guidance
- (ii) Basic principles and main types of pupil personnel records
- (iii) Cumulative records in a guidance programme
- (iv) Case study procedure in guidance

**UNIT 3: CONCEPT OF COUNSELLING**

- (i) Meaning, nature and scope of counseling
- (ii) Relationship between Guidance and Counselling
- (iii) Different types of counseling
- (iv) Steps and techniques of counseling
- (v) Necessary qualities of a good counselor
- (vi) Role of a counselor in secondary schools

**UNIT 4: ORGANISATION OF GUIDANCE SERVICE**

- (i) Placement Service
- (ii) Follow-up service
- (iii) Individual inventory service
- (iv) Occupational information service
- (v) Launching school guidance programme

**PRACTICAL**Credit : **02****25 Marks**

- Case Study of a Child with Special Needs or a child coming from socially disadvantaged background

**NB:** It will be evaluated by both Internal and External examiners.

**Text Books**

- Goswami, Marami (2016). *Essentials of Guidance and Counselling*. New Delhi: Lakshi Publishers And Distributors.
- Kochhar. S.K. (2017). *Educational and Vocational Guidance in Secondary Schools*. New Delhi: Sterling Publishers
- Siddiqui, M.H. (2009). *Guidance And Counselling*. New Delhi: APH Publishing Corporation

**Reference Books**

- Sharma, R. N., & Sharma, R. (2013). *Guidance and counselling in India*. New Delhi: Atlantic Publishers and Distributors (P) Ltd.
- Bhatnagar, Asha Gupta, Nirmala (Eds) (1999). *Guidance and counseling: A theoretical perspective (Vol.I)*. New Delhi: Vikas
- Bhatnagar, Asha and Gupta, Nirmala (Eds) (1999). *Guidance and counseling: A practical approach (Vol.II)*. New Delhi: Vikas.
- Dave, Indu (1984). *The basic essentials of counseling*. New Delhi: Sterling Pvt. Ltd.
- Gazda George R.M.(1989). *Group counseling: A development approach*. London: Allyn and Bacon.
- Gibson, R.L. & Mitchell, M.H. (1986). *Introduction to guidance*. New York: McMillan.
- Nugent, Frank A. (1990). *An Introduction to the profession of counseling*. Columbus: Merrill publishing Co.

- Pietrofesa, J.J., Bernstein, B., and Stanford, S. (1980). Guidance: An introduction. Chicago: Rand McNally.
- Rao, S.N. (1981). Counseling psychology. New Delhi: Tata McGraw Hill.
- Saraswat, R.K. & Gaur, J.S. (1994). Manual for guidance counselors. New Delhi: NCERT.

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 11**  
**DEVELOPMENT OF EDUCATION IN ODISHA**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 50 Marks  
Mid Semester Theory : 20 Marks

On completion of the course the students will:

- Grasp the structure of educational system of Odisha
- State the function of institutions/units at the state and district levels
- Appreciate the contribution of Utkalmani Gopabandhu Das to the thoughts and
- Practices of Indian Education narrate the Learning Objectives and implementation process of the major education
- Schemes of central as well as state government being implemented in the state of Odisha
- Explain the role of various state and district level institutions in education
- Analyze the scenario of higher and technical education of Odisha
- Establish linkage between higher education and development of the state

**UNIT 1: Status of Elementary Education**

- (i) History of primary education in Odisha
- (ii) Efforts to Universalize Elementary Education: DPEP, SSA and Right to Education Act, 2009
- (iii) Indicator wise position in terms of provision, enrolment, retention and achievement for elementary level programmes: NPEGEL and KGBV
- (iv) Problem and issues in elementary education

**UNIT 2: Status of Secondary and Higher Secondary Education**

- (i) History of secondary education in Odisha
- (ii) Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and its implementation in Odisha. (iii) Role of BSE, Odisha- Problems and issues
- (iv) Status of Higher Secondary Education and Role of CHSE; Problems and Issues
- (v) Status of Higher Secondary Vocational Education-Problems and Issues

**UNIT 3: Status of Higher Education**

- (i) History of Collegiate Education
  - (ii) Organization of higher education at the under graduation level and University level-Present status
  - (iii) RUSA and its implementation
  - (iv) Autonomous colleges and their functioning
  - (v) Problems and issues relating to higher education
-

**UNIT 4: Status of Teacher Education**

- (i) History of Teacher Education in Odisha
- (ii) Pre-service and In-service teacher education for elementary schools teachers (iii) Pre-service and In-service teacher education for secondary school teachers (iv) Role of DIET, CTE, IASE and SCERT
- (v) Problems and issues in teacher education

**PRACTICAL**Credit : **02****30** Marks

- Seminar Presentation (Each student has to present minimum two papers during this semester related to themes based on Core-11)

**NB:** It will be evaluated by both the Internal and External Examiners.

**Text & Reference Books**

- Govt. of Odisha, Department of S & ME (2011). *School Education at a Glance-2011-12*, Bhubaneswar
- Samal, J.K.(1984). *History of Education in Odisha: 1905-1936*, Sankar Bhattacharya, Punthi Pustak, 136/4B, Bidhan Sarani, Calcutta -700004 ;p-171
- Samal, J.K.(1989). *History of Modern Orissa*, Firma KLM private limited, 257B,B.B.Ganguly Street, Calcutta;p-188

**Websites to be visited:**

- [www.shodhganga.inflibnet.ac.in/bitstream/10603/.../08\\_chapter%202.pdf](http://www.shodhganga.inflibnet.ac.in/bitstream/10603/.../08_chapter%202.pdf): Education in Odisha-1850-1900: Retrieved on dt.25.07.2012
- [www.en.wikipedia.org/wiki/Odisha](http://www.en.wikipedia.org/wiki/Odisha): Odisha - Wikipedia, the free encyclopedia/Retrieved on dt.25.07.2012
- [www.newkerala.com/states-of-india/Odisha.php](http://www.newkerala.com/states-of-india/Odisha.php): Odisha: Info on geography, history, government, districts, business ...: Retrieved on dt.25.07.2012
- [www.Odisha.gov.in/e-magazine/OdishaReview/2011/Jan/engpdf/57-61.pdf](http://www.Odisha.gov.in/e-magazine/OdishaReview/2011/Jan/engpdf/57-61.pdf):
- Gopabandhu Das: The National Education Planner of Odisha: Retrieved on dt.25.07.2012
- [www.dheOdisha.in/](http://www.dheOdisha.in/) Higher Education Department - Online Admission - e-Admission for ...: Retrieved on dt.25.07.2012
- [www.Odisha.gov.in/highereducation/index.htm](http://www.Odisha.gov.in/highereducation/index.htm): Higher Education Department.... -Government of Odisha: Retrieved on dt.25.07.2012
- [www.Odisha2020.org/home/Odisha-higher-education-task-force](http://www.Odisha2020.org/home/Odisha-higher-education-task-force): Odisha Higher Education Vision 2020: Retrieved on dt.25.07.2012
- <http://www.scertodisha.nic.in/>
- <http://www.chseodisha.nic.in/>
- <http://bseodisha.nic.in/>
- <http://mhrd.gov.in/rusa>
- <http://mhrd.gov.in/rmsa>

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 12**  
**INFORMATION AND COMMUNICATION TECHNOLOGY IN EDUCATION**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Learning Objectives**

On completion of this course, the student will:

- Explain the concept, nature and scope of ICT in education
- Explore ICT resources for Teaching and learning.
- Differentiate between Web1.0 and Web2.0
- Describe the importance of free and open source software in education
- Demonstrate the use of various application software in education.
- Develop the ability to use various tools connect the world
- Explain the content by using various subject tools.
- Explore tools and techniques of ICT for evaluation.

**UNIT 1: Educational technology**

- (i) Meaning , nature and scope
- (ii) Approaches to educational Technology: Hardware, Software and System Approach
- (iii) Innovations in Educational Technology: Open Educational Resources (OER), Massive Open Online Course (MOOC) Learning Management System (LMS)
- (iv) Importance of Educational Technology for the teacher and the student.

**UNIT 2: ICT in Education**

- (i) Conceptual Understanding: Information Technology; Communication Technology; and Information and Communication Technology (ICT)
- (ii) Relevance of ICT in Education
- (iii) Nature and Scope of ICT in Education.
- (iv) Content, Pedagogy and Technology Integration
- (v) Challenges in Integrating ICT in Education
- (vi) Use of Computers in Education- Computer Aided Learning

**UNIT 3: Application of software and ICT assessment Tools in Education**

- (i) Word Processing Application
- (ii) Spread sheet Application
- (iii) Presentation Application
- (iv) Free and Open Source Software (FOSS)
- (v) Subject Tools: Digital Storytelling, Concept Map Software (C-Map) (vi) Assessment Tools: Rubistar, Hot potatoes, E- portfolios

**UNIT 4: Connecting with the World**

- (i) Use of browsers and search engines; choosing appropriate sites; search and retrieval of information and resources; Downloading, uploading and sharing information and resources;
  - (ii) Use and importance of Web 2.0 Tools: E-mail, Wikis, Social networking (WhatsApp, Twitter, Facebook and Blogging)
  - (iii) Use and importance of e-library, e-books, e-journals, Inflightnet.
-

**PRACTICAL**Credit : **02****30 Marks**

- Development of an Objective Test using any assessment tool or development of a Rubric using Rubistar.

**NB:** It will be evaluated by both Internal and External examiners.

**Text Books**

- UNESCO (2002). *Information and communication technology in education: A curriculum for schools and programme of teacher development*. Paris: UNESCO.
- Kanvaria, V.K. (2014). *A Comprehension on Educational Technology and ICT for Education*. New Delhi: GBO.
- Vanaja and Rajasekar, S. (2016). *Information & Communication Technology (ICT) In Education*. New Delhi: Neelkamal

**Reference books**

- Senapaty, H.K. (2011). *Pedagogy-Technology Integration for the Professional Development of Teacher Educators*. Bhubaneswar: Regional Institute of Education, NCERT (Monograph).
- NCERT (2006). National Curriculum Framework 2005 Position Paper National Focus Group on Educational Technology. New Delhi: Author.
- Senapaty, H.K. (2009). *ICT Integrated Learning Materials on Basic School Subjects from Constructivist Perspectives*. Bhubaneswar: Regional Institute of Education, NCERT (Monograph).
- Singh, L. C. (Ed.) (2010). *Educational Technology for Teachers and Educators*. New Delhi: Vasunandi Publication.
- UNESCO(2008). *ICT Competency Standards for Teachers: Policy Framework*. Retrieved from <http://portal.unesco.org/>
- UNESCO (2002). *Information and Communication Technologies in Teacher Education A Planning Guide*. Paris: Author
- UNESCO (2005). *How ICT can create new, open learning environments: Information and communication technologies in schools: A handbook for teachers*. Paris: UNESCO.
- Mishra, S. (2008). *Developing E-Learning Materials: Some Pedagogical Concerns*. *Indian Journal of Open Learning*, 17 (2).

**+3 THIRD YEAR SIXTH SEMESTER****Core Paper - 13****CONTEMPORARY TRENDS AND ISSUES IN INDIAN EDUCATION**Time : **3 Hrs.**Credit : **04**End Semester Theory : **60 Marks**Mid Semester Theory : **15 Marks****Learning Objectives**

On completion of this course the students will:

- Understand the importance of pre-school and elementary school education. Analyze various problems and issues for ensuring quality education.
- State the importance of secondary education and analyze various problems and issues for ensuring quality in secondary education.
- Enumerate the importance of higher education and analyze various problems and issues for ensuring quality in higher education.



- Justify the importance of teacher education and analyze various problems and issues for ensuring quality in teacher education.
- Analyze emerging concerns in Indian education.

#### **UNIT 1: Pre-school and Elementary School Education**

- (i) Meaning, nature and importance of ECCE, problems and issues with regard to ECCE (ii) Universalisation of Elementary Education: efforts to achieve UEE, SSA
- (iii) Problems and issues in implementing Right to Education Act 2009.
- (iv) Problems and issues in bringing the community to school, role of SMC (v) Problems in ensuring equity and quality of elementary education

#### **UNIT 2: Secondary and Higher Secondary Education**

- (i) Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and ensuring secondary education for all. (ii) Role of School Management and Development Committee (SMDC)
- (iii) Shifting the teaching learning process from teacher centered to learner centered and activity based classroom –problems and issues
- (iv) Problems and issues with regard to vocationalisation of secondary and higher secondary education
- (v) Examination reforms at the secondary level
- (vi) Widening the access to secondary education through National Open School

#### **UNIT 3: Higher Education and Teacher Education**

- (i) Challenges in Higher education- expansion, quality and inclusion
- (ii) Role of RUSA and NAAC for quality assurance in Higher education
- (iii) Higher education through open and distance learning mode
- (iv) Elementary level pre-service teacher education- problems, issues and reforms with reference to National Curriculum Framework for Teacher Education-2009
- (v) Secondary level pre-service teacher education- problems, issues and reforms with reference to National Curriculum Framework for Teacher Education-2009

#### **UNIT 4: Emerging Concerns**

- (i) Examination system : defects and reforms for making examination system flexible ( internal assessment and semester system, grading, open book examination, online examination)
- (ii) Choice Based Credits System (CBCS): Concept, Learning Objectives, importance, problems and issues.
- (iii) Human Rights Education: Concept, Learning Objectives, importance, problems and issues. (iv) Life-Skill Education: Concept, Learning Objectives, importance, problems and issues.
- (v) Peace Education: Concept, Learning Objectives, importance, problems and issues.

### **PRACTICAL**

Credit : **02**

**25** Marks

- Study of perception of Stakeholder's of Education on any of the current issues and concerns and reporting.  
**NB:** It will be evaluated both by the Internal and External Examiners.

#### **Text Books**

- Kumar, Chanchal & Sachedeva, M.S. (2017). *Vision of Secondary Education In India in the context of 21st century*. Twentyfirst Century Publications; First Edition edition (2015)

- Pathak, K. R. (2007). *Education in the Emerging India*. New Delhi: Atlantic Publishers.
- Saxena, V. (2011). *Contemporary trends in education: A handbook for educators*. New Delhi: Pearson.

### Reference Books

- Broudy, H.S. (1977) *Types of knowledge and purposes of education*. In R.C. Anderson, R.J., Spiro and W.E. Montanague (Eds.) *Schooling and the acquisition of knowledge* (PP. Hillsdale, NJ: Erlbaum.
- Bruner, J.S. (1996). *The culture of education*. Cambridge, M.A.: Harvard University Press.
- Butchvarov, P. (1970). *The concept of knowledge*. Evanston, Illinois, North Western University Press.
- Dearden R. F. (1984). *Theory and practice in Education*. Routledge K Kegan & Paul.
- Delors, Jacques, et al; (1996). *Learning: the Treasure within report of the international commission on education for 21st century*, UNESCO.
- Illich, I. (1996). *Deschooling society*. Marion Boyers, London.
- Matheson, David (2004). *An Introduction to the study of education* (2 Ed.). David Fulton Publish.
- MHRD (2008). *Framework for implementation of Rashtriya Madhyamik Shiksha Abhiyan: A scheme for universalisation of access to and improvement of quality at the secondary stage*. New Delhi: Department of School Education and Literacy.
- MHRD (2011). *Sarva Shiksha Abhiyan: Framework for implementation based on the Right of Children to Free and Compulsory Education Act, 2009*. New Delhi: Department of School Education and Literacy.
- MHRD, (1992). *Programme of action*. Govt. of India, New Delhi.
- MHRD, Gov. of India (1992). *National policy on education* (revised) New Delhi: MHRD.
- Ministry of Law and Justice (2009). *Right to education Act 2009*. New Delhi: Govt of India.
- Naik, J.P. (1975). *Equality, quality and quantity: The elusive triangle of Indian education*. Allied Publications, Bombay.
- NCERT (2005). *National curriculum framework 2005*. New Delhi: NCERT.
- NCERT (2005). *National curriculum framework*, New Delhi: NCERT.
- Slattery, P. and Dana R. (2002). *Ethics and the foundations of education-Teaching Convictions in a postmodern world*. Allyn & Bacon.
- UN (2015). *The sustainable development goals (SDGs) – UNDP*. United Nations
- UNESCO (1998). *Educating for a sustainable future: A transdisciplinary vision for concerted action*. Paris: UNESCO.
- UNICEF (2000). *Defining quality in education*. New York: Programme Division (Education), Unicef.
- Wall, Edmund (2001). *Educational theory: philosophical and political Perspectives*. Prometheus Books.
- WHO (1991). *Comprehensive school health programme*. New Delhi: World Health Organization Regional Office.
- Winch, C. (1996). *Key concepts in the philosophy of education*. Routledge.
- Yadav, M. S. & Lakshmi, T. K. S. (1995). Education: Its disciplinary identity. *Journal of Indian Education*, XXI (1), 01-21.

**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 14**  
**EDUCATIONAL MANAGEMENT AND LEADERSHIP**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Learning Objectives**

On completion of this course, the students will

- Describe the concept, types and importance of educational management.
- Spell out the structure of educational management at different levels - from national to institution level
- Describe different aspects and importance of educational management.
- Describe the concept, theories and style of leadership in educational management.
- Analyze the concept, principles and structures of total quality management approach in education.

**UNIT 1: Educational Management**

- (i) Concept of educational Management- meaning, nature, scope and principles
- (ii) Process of educational Management- planning, execution, staffing, control, supervision, monitoring, evaluation and feedback
- (iii) Types of Management:
- (iv) Centralized and decentralized
- (v) Authoritarian, democratic, dynamic/creative and laissez-faire
- (vi) Educational Management in Odisha- structure and function with reference to school and mass education, and Higher education

**UNIT 2: Aspects of Institutional Management**

- (i) Human, material and financial resource management
- (ii) Management of curricular and co curricular programmes
- (iii) Management of students' welfare, auxiliary services including students' health services
- (iv) School development plan
- (v) Working with SMC and SMDC

**UNIT 3: Leadership in Education**

- (i) Leadership- meaning, nature and importance in education
- (ii) Leadership : Functions and skills
- (iii) Theories of leadership- Redden's 3-D theory, and Hersey and Blanchard's situational theory
- (iv) Styles of leadership-participating style, delegating style, selling style and telling style, Hersey and Blanchard)

**UNIT 4: Total Quality Management**

- (i) Total Quality Management(TQM)- meaning, nature and importance
  - (ii) Principles of TQM- Demming's and Jurana's
  - (iii) Planning for TQM in school and higher education
  - (iv) Quality Assurance in Higher Education
-

**PRACTICAL**Credit : **02****25 Marks**

- Studying the role of SMC/SMDC in school management and reporting  
**NB:** It will be evaluated by both Internal and External examiners.

**Text Books**

- Kochar, S.K (2011). *School Administration and Management*. New Delhi: Sterling Publishers Private Limited.
- Bhatnagar, R. P. & Aggrawal V (2015). *Educational Administration, Supervision, Planning and financing*. Meerut: R Lal Book Depot.
- Mukhopadhyay, M. (2005). i. New Delhi: Sage

**Reference Books**

- Adolph and Turner Harold, E. *Supervision for change & Innovation*. Houghton Mifflin Company.
- Anderson, C.A & Bowman, M.J (1971). *Educational management*, London, U.K: Frankas
- Ashima V, Deshmukh & Naik A.P (2010). *Educational management*. Girgaon, Mumbai: Himalaya Publishing House.
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- Shaeffer, S. (1991). Collaborating for educational change: The role of parents and the community in school improvement. Paris: UNESCO.
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### Discipline Specific Elective Paper-I

**(A student has to choose any one from Pedagogy of English and Odia under DSE-1)**

#### A.PEDAGOGY OF LANGUAGE (ENGLISH)

Time : 3 Hrs.

End Semester Theory : 60 Marks

Credit : 04

Mid Semester Theory : 15 Marks

#### Learning Objectives

On completion of this course, the student will

- Analyze the issues relating to place of English in school curriculum, acquisition of skills in English, realization of aims and Learning Objectives of learning English and language policy as conceived in NPE, 1986 and NCF – 2005
- Use various methods, approaches and strategies for teaching-learning English and transact various types of lesson plans covering all aspects of English language following different approaches
- Develop test items to assess learning in English and provide feedback as well as prepare enrichment materials
- Use the understanding of phonetics for facilitating students' speaking in English
- Plan appropriate pedagogical treatment of the prescribed contents for effective classroom transaction

#### UNIT 1: English in School Curriculum

- (i) Language policy in India with reference to NPE 1986 and NCF 2005
- (ii) Place of English as a compulsory subject in school curriculum (both at elementary and secondary levels)
- (iii) Learning Objectives of learning English at elementary and secondary levels
- (iv) English language skills –components, their independence and interdependence

#### UNIT 2: Approaches, Methods and Strategies of Teaching English

- (i) Understanding of different methods and strategies: Bi-lingual Method, Translation Method, Direct Method, Structural Approach, Communicative Approach.

- (ii) Listening Skill: Tasks for developing Listening Comprehension
- (iii) Speaking Skill: Tasks for developing Speaking skills
- (iv) Reading skill: Types of Reading, Strategies to develop reading comprehension
- (v) Writing Skill: Strategies to improve writing skill, Qualities of good writing (simplicity, logicity and organization in writing)

### UNIT 3: Transaction of Contents

- (i) Teaching of Prose (detailed and non-detailed), poetry, grammar and composition – Approaches, Methods and Strategies
- (ii) Pedagogic analysis :Content analysis- analysis of topics of English text book for identification of language items(new vocabulary, structural words, grammar components),learning Learning Objectives, methods and strategies, teaching learning materials including ICT materials
- (iii) Preparing Lesson Plan following 5E and Interpretation Construction Design Model(ICON) (iv) Preparation of Lesson Plans following Herbartian approach.

### UNIT 4: Lesson Delivery Strategies and Assessment

- (i) Lesson Delivery Strategies: Lecturing, Role play and Dramatization, Collaborative Approach, Ability Grouping, Group Work; Learning through Narratives and Discourses; Concept Mapping and Brain Storming
- (ii) Techniques of Assessment in English : Continuous Assessment of Learners performance in English, preparation of different types of objective-based test items (Extended Response Type, Restrictive, Response type and objective type).

### PRACTICAL

Credit : 02

25 Marks

- School Internship (Delivery of 5 Lessons following Herbatian/5E/ICON model)

**NB:** It will be evaluated by both Internal and External examiners.

### Text Books

- Kohli, A.L (2010) *Techniques of teaching english*. New Delhi: Dhanpat Rai publishing Company
- Jain, R.K (1994). *Essentials of English teaching*, Agra: Vinod Pustak Mandir
- Sharma, K.L(1970) .*Methods of teaching English in India*. Agra : Laxmi Narayan Agrawal

### Reference Books

- Agnihotri R. K. and Khanna A. L. (1994). *Second language acquisition: socio-cultural and linguistic aspects of English in India*. New Delhi: Sage Publications.
- Allen, H.B. (1965). *Teaching English as a second language: A book of readings*. New York: McGraw-Hill.
- Baruah, T.C (1984). *The English teacher's handbook*. New Delhi: Sterling Publishers Pvt.Ltd,
- Billows, F. L. (1975). *The techniques of language teaching*. London: Longman
- Bista, A.R(1965). *Teaching of English (Sixth Edition)*. Agra: Vinod Pustak Mandir
- Bright, J.A(1976). *Teaching English as second language*. London: Long Man Group
- Catarby, E. V (1986) *Teaching English as a foreign language in school curriculum India*, New Delhi: NCERT
- Hudelson, Sarah. (1995). *English as a second language teacher resource handbook. A practical guide for K-12 ESL programs*. California.: Corwin Press, Inc.

- Joyce , Bruce and Weil, Marsha (2003). *Models of teaching*. New Delhi: Prentice Hall of India Pvt. Ltd.
- Krishna Swamy, N. and Sri Raman, T. (1994). *English teaching in India*. Madras : T.R. Publication.
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- Pal, H.R and Pal, R(2006). *Curriculum – yesterday, today and tomorrow*, New Delhi: Shipra Publications
- Sachdeva, M.S. (1973). *A new approach to teaching of english in India*. Ludhiana : Prakash Brothers
- Shrivastava, B.D(1968). *Structural approach to the teaching of English*. Agra: Ramprasad and Sons

### **+3 THIRD YEAR FIFTH SEMESTER DSE - 1**

#### **B. PEDAGOGY OF LANGUAGE (ODIA)**

Time : 3 Hrs.

End Semester Theory : 60 Marks

Credit : 04

Mid Semester Theory : 15 Marks

**(A student has to choose ANY ONE from Pedagogy of English and Odia under DSE-1)**

#### **Learning Objectives**

On completion of this course, the student will:

- State the importance and place of Odia as mother tongue in school curriculum.
- Develop the strategies to address the problems of Odia language acquisition in multilingual context.
- Use various strategies for facilitating the acquisition of language skills in Odia.
- Decide appropriate pedagogic approaches to transact different types of lessons in Odia.
- Prepare appropriate tools for comprehensive assessment of learning in Odia.
- Explain the fundamentals of Odia linguistics and their relevance in teaching learning Odia.
- Plan appropriate pedagogic treatment of the prescribed textual contents (in Odia) of classes IX and X.

#### **UNIT 1: Odia as Mother Tongue in School Curriculum**

- (i) Importance of mother tongue in the life and education of an individual
- (ii) Place of Odia as mother tongue in school curriculum in Odisha (both at elementary and secondary levels) in the context of language policy recommended by NPE, 1986 (three language formula) and NCF-2005
- (iii) Learning Objectives of teaching-learning Odia at elementary and secondary levels
- (iv) Inter-dependence of language skills in Odia and Strategies for facilitating acquisition of four-fold language skills in Odia

#### **UNIT 2: Pedagogic Approaches to Teaching-Learning Odia**

- (i) Psychology of language learning and acquisition with reference to Odia as mother tongue. (ii) Problems and issues related to acquisition of Odia language in multi-lingual context
- (iii) Traditional versus modern methods of teaching-learning Odia.
- (iv) Different approaches and strategies to the teaching-learning of : “ Odia prose (detailed and non- detailed), Odia poetry , Odia composition , Odia grammar .

**UNIT 3: Curricular Activities in Odia**

- (i) Pedagogic analysis :
- (ii) Content analysis- analysis of topics of Odia text book for identification of language items(new vocabulary, structural words, grammar components), learning Learning Objectives,
- (iii) Methods and strategies, teaching learning materials Including ICT materials, assessment strategies
- (iv) Preparing Lesson Plans following Herbartian, 5E and Interpretation Construction Design Model(ICON)

**UNIT 4: Assessment**

- (i) Types of Assessment-self assessment, peer assessment, teacher assessment, internal assessment and external assessment
- (ii) Techniques of Assessment in Odia : Continuous Assessment of Learners performance in Odia, preparation of different types of objective-based test items (Extended Response Type, Restrictive Response Type and Objective Type), preparation of check list, rating scale and rubric, Portfolio assessment in Odia

**PRACTICAL**Credit : **02****25 Marks**

- School internship (delivery of 5 Lessons following Herbartian/5E/ICON model) NB: It will be evaluated by both Internal and External examiners.

**Text Books**

- Barik, N. (2014). Odia shikshyadana paddhati. Cuttack: A.K.Mishra Publishers Pvt. Ltd.
- Kocchar, S.K. (2012). Teaching of Mother Tongue. Sterling Publishers, New Delhi.
- Mohanty, J., Barik, N. & Khandai, U. (1983). Odia sikshadana paddhati. Cuttack : Nalanda.
- Nayak, B.; Mohanty, J.(1999): Odia bhasa O Sahityara Bhitibhumi O Shikshyadan Padhati. Cuttack: Jagannath Process, Toni Road, Cutack-2.

**Reference Books**

- Daswani, C. J. Language Education in Multilingual India. New/Delhi (UNESCO)
- Dhal, G.B. (1974). Dhvani bijanana. Bhubaneswar : Odisha Rajya Pathya Pustaka Pranayana Sanstha.
- Dhal, G.B. (1972). English uchharana siksha. Cuttack : Friends Publisher.
- Mathur, S.A. Sociological Approach to Indian Education. Vinod Pustak Bhandar, Agra.
- Mohanty, B. (1970). Odia bhasara utpati O 65arma bikasha. Cuttack : Friends Publishers.
- Mohapatra, D. (1976). Odia Dhvani tattwa O sabdha sambhar. Cuttack : Grantha Mandir.
- Mohapatra, N. & Das, S. (1943). Sarbasara vykarana. Cuttack : New Student's Store
- Palmer, H.P. Principles of Language Teaching. George G. Harrep and Co. Ltd.
- Rybum, W.M.(1926). Suggestions for the Teaching of Mother Tongue. OUP.
- Saiyadain, K.G. Education and Social Order. Asia Publishing House, Bombay.



**+3 THIRD YEAR FIFTH SEMESTER**  
**DSE - 2**  
**A. PEDAGOGY OF SOCIAL SCIENCES**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**(A student has to choose ANY ONE from Pedagogy of Social Science and Mathematics under DSE-2)**

### Learning Objectives

On completion of this course, the student will:

- State the meaning, scope and importance of Social science
- Specify the skills and competencies to formulate specific LEARNING OBJECTIVES for different History and Political Science lessons
- Identify the different methods and skills of teaching History and Political Science for transacting the contents effectively.
- Explain the importance of time sense and prepare / utilize timelines for effecting teaching of History
- Prepare Unit Plans and Lesson Plans in History and Political science
- Develop diagnostic achievement test, administer them and analyse the results for providing feedback

### UNIT 1: Concept, Learning Objectives and Values Of Teaching Social Science

- (i) Meaning, Nature and Scope of Social Science as NCF-2005
- (ii) Learning Objectives of teaching Social Science at elementary and secondary levels
- (iii) Importance of teaching Social Science In School Education
- (iv) Identification of values/ competencies/ skills to be developed through Social Sciences

### UNIT 2: Methods and Approaches to Teaching-Learning Social Science

- (i) Story-telling
- (ii) Narration-cum-discussion
- (iii) Dramatization
- (iv) Source Method
- (v) Project method
- (vi) Field Trips
- (vii) Observation

### UNIT 3: Curricular Activities in Social Sciences

#### Pedagogic analysis:

- (i) Content analysis- analysis of topics of social science text book .
  - (ii) Learning Objectives,
  - (iii) methods and strategies,
  - (iv) teaching learning materials including ICT materials
  - (v) learning activities including student and teacher activities
  - (vi) assessment strategies
  - (vii) Preparing lesson plan following Herbart, 5E and Interpretation Construction Design Model(ICON)
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**UNIT 4: Development of Resource Materials and Assessment in Social Science**

- (i) Teaching-learning materials – Maps, Atlas, Globes, Charts, Graphs, Models, Filmstrips, T.V. Video, OHP, and Computer
- (ii) Timeline – Concept, Aspects, Type and Use
- (iii) Types of Assessment-self assessment, peer assessment, teacher assessment, internal assessment and external assessment
- (iv) Techniques of Assessment in history and political science: Continuous Assessment of Learners performance in history and political science, preparation of different types of objective-based test-
- (v) Items (Extended Response Type, Restrictive Response Type and Objective Type)

**PRACTICAL**Credit : **02****25 Marks**

- School internship (delivery of 5 Lessons following Herbatian /5E/ ICON model) NB: It will be evaluated by both Internal and External examiners.

**Text Books**

- Kochhar, S.K. (1970). *Methods of Teaching Social Studies*. New Delhi, India: Sterling Publication.
- Mamgal, S.K. & Mangal, U. (2008). *Teaching of Social Studies*. New Delhi: PHI Learning Pvt, Ltd.
- Sharma, R.A. (2014). *Teaching of Social Science*. Meerut: R Lal Book Depot.

**Reference Books**

- Kochhar, S.K. (1970). *Teaching of History*. New Delhi, India: Sterling Publishers Pvt. Ltd.
- Banks James, A. (1997). *Teaching Strategies for the Social Studies Enquiry, Valuing and Decision Making*. Massachusetts, USA: Addison- Westely Publishing Co. Reading.
- Bining & Binning. (1952). *Teaching of Social Studies in Secondary Schools*. New York, USA: Mc Graw Hills.
- Burston, W.H. (1963). *Principles of History Teaching*. New Fetter Lance : Methuen & Co. Ltd. II.
- Burton W.H. (1972). *Principles of history teaching*, London: Methuen.
- Carretero, Mario, & Voss, James F. (Eds.) (1994). *Cognitive and instructional processes in history and the social sciences*. Hillsdale: Lawrence Erlbaum Associate.
- Choudhury, K.P. (1975). *The effective Teaching of History*. New Delhi, India: NCERT.
- Dhamiaja Neelam. (1993). *Multimedia Approaches in Teaching Social Studies*. New Delhi, India: Harmer Publishing House.
- Drake, Frederick D. & Lynn, R. Nelson (2005). *Engagement in teaching history: Theory and practices for middle and secondary teachers*. Columbus, OH: Pearson.
- Ghate, V.D. (1956). *Teaching of history*. Bombay: Oxford University Press. Gunnin, Dennis (1978). *The teaching of history*. Goom Helm Ltd. London.
- James H. (1953). *The Teaching of Social Studies in Secondary Schools*. London, UK: Longman Green & Co.
- James, T. H., Arthur, J. and Hunt, M. (2001). *Learning to teach history in the secondary school: A companion to school experience*. London: Routledge Falme.
- Kochhar, S.K. (1970). *Teaching of political science*. New Delhi: Sterling Publishers
- NCERT. (1970). *Teaching of History of Secondary Schools*. New Delhi, India: Author.
- NCERT. (1966). *A Handbook for History Teachers*. Bombay: India: Allied Publishers.
- Taneja, V.R. (1970). *Fundamentals of Teaching Social Studies*. Mahendra Capital Publishers.

- Verma, O.P.(1984). New Delhi, India: Sterling Publishers Pvt. Ltd.
- Verma,O.P. & Vedanayagam E.G. *Geography Teaching*. New Delhi,India: Sterling Publishers Pvt. Ltd.
- Yagnik, K.S.(1966). *The Teaching of Social Studies in India*. Bombay,India: Orient Longman Ltd.

**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 3**  
**B. PEDAGOGY OF MATHEMATICS**

Time : 3 Hrs.

End Semester Theory : 60 Marks

Credit : 04

Mid Semester Theory : 15 Marks

*(A student has to choose ANY ONE from Pedagogy of Social Science and Mathematics under DSE-II)*

**Learning Objectives:**

On completion of this course, the students will

- Narrate the evolution and nature of Mathematics and its importance in the school curriculum in the context of the recent curricular reforms.
- Use various methods and approaches of teaching and learning mathematics especially suitable for the secondary school classes.
- Plan lessons in Mathematics using traditional and constructivist approaches for effective classroom transactions.
- Develop and collect activities and resource materials for their use in enhancing the quality of learning Mathematics at the secondary level.
- Conduct continuous and comprehensive assessment for enhancing the quality of Mathematics learning.
- Explain the concepts in Mathematics included in the secondary school curriculum and make pedagogical analysis of those concepts

**UNIT 1: Foundations of Mathematics Education**

- (i) Nature and Scope of Mathematics,
- (ii) Learning of Mathematics: Importance of Mathematics at elementary and secondary level, Learning Objectives of teaching-learning Mathematics at the two levels,
- (iii) Curriculum Reforms in School Mathematics: Rationale, Learning Objectives, principles, designs and materials in Mathematics, recent curricular reforms at the National and State levels (NCF 2005).

**UNIT 2: Methods of Teaching-learning Mathematics**

- (i) Learning by Discovery: Nature and purpose of learning by discovery; guided discovery strategies in teaching Mathematical concepts.
  - (ii) Teaching for Understanding Proof: Proof by induction and deduction; proof by analysis and synthesis.
  - (iii) Problem Solving in Mathematics: Importance of problem solving in Mathematics, Steps of problem solving in Mathematics.
  - (iv) Constructivist approaches: Self-learning and peer learning strategies, Collaborative strategies; 5E and ICON Models.
-

**UNIT 3: Curricular Activities in Mathematics**

- (i) Pedagogic analysis :
- (ii) Content analysis- analysis of topics of mathematics text book .
- (iii) Learning Objectives,
- (iv) methods and strategies,
- (v) teaching learning materials including ICT materials
- (vi) learning activities including student and teacher activities
- (vii) assessment strategies
- (viii) Process of preparing lesson plan following Herbatian, 5E and Interpretation Construction Design Model(ICON)

**UNIT 4: Assessment In Mathematics**

- (i) Assessment of Mathematics learning: Unit test – Designing blue print, item construction, marking schemes.
- (ii) Assessment for Mathematics Learning: Assignments, Projects and portfolios in Mathematics, group and collaborative assessment in Mathematics,
- (iii) Non-testing methods of assessment of/for Mathematics Learning: Observation of learners in action, rating of participation in various Mathematics tasks and activities,
- (iv) Diagnosis of difficulties in learning Mathematics concepts, Remediation of the difficulties, enrichment programmes in Mathematics learning –National Mathematics Talent Search, Mathematics Olympiad.
- (v) Planning for continuous assessment of classroom learning in Mathematics.

**PRACTICAL**Credit : **02****25** Marks

- School internship (Delivery of 5 Lessons following Herbatian/5E/ICON model)

**NB:** It will be evaluated by both Internal and External examiners.

**Text Books**

- Sidhu, K.S (1985). *Teaching of mathematics*. New Delhi: Sterling publication.
- James, A. (2003). *Teaching of mathematics*. Neel Kamal Publication: Hyderabad. NCERT (2011). *Pedagogy of mathematics for two year B.Ed. course*. New Delhi:

**Reference Books**

- Cooney, Thomas J. et al. (1975). *Dynamics of Teaching Secondary School Mathematics*. Boston: Houghton Mifflin.
- Cooper, B. (1985). *Renegotiating secondary school mathematics*. The Hamer Press: East Sussex.
- Michel. (1982). *Teaching mathematics*. Nicholos Publication Co: New York.
- NCF (2005). *National curriculum framework*. NCERT: New Delhi
- NCERT (2006). *Position paper: National focus group (NFG) on teaching Mathematics*. NCERT: New Delhi.
- NCERT (2005). *Position paper: national focus group (NFG) on examination reform*. NCERT: New Delhi. Scopes, P.G. (1973). *Mathematics in secondary schools- a teaching approach*. Cambridge: Cambridge University Press
- Driscoll, M., Egan, M., Nikula, J., & DiMatteo, R. W. (2007). *Fostering geometric thinking: A guide for teachers, grades 6-10*. Portsmouth, NH: Heinemann.

- Driscoll, M. (1999). *Fostering algebraic thinking: A guide for teachers, grades 5-10*. Portsmouth, NH: Heinemann.
- Grouws, D.A. (ed) (1992). *Handbook of research on mathematics teaching and learning*. New York: Macmillan Publishing.
- Malone, J. and Taylor, P. (eds) (1993). *Constructivist interpretations of teaching and learning mathematics*. Perth: Curtin University of Technology.
- Marshall, S.P. (1995). *Schemes in problem-solving*. New York: Cambridge University Press.
- Moon, B. & Mayes, A.S. (eds.) (1995). *Teaching and learning in secondary school*. London: Routledge.
- NCERT (1998). *A textbook of content-cum-methodology of teaching mathematics*. New Delhi: NCERT.
- NCERT (2005). *National curriculum framework 2005*. New Delhi: NCERT.
- NCERT (2006). *Position paper: National focus group on teaching mathematics*. New Delhi: NCERT.
- TESS India (2015). *Key resources*. The Open University U.K. (<http://creativecommons.org/licenses/> and <http://www.tess-india.edu.in/>)

### **+3 THIRD YEAR SIXTH SEMESTER DSE - 3**

#### **A. POLICY AND PRACTICES IN SCHOOL EDUCATION IN INDIA**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

*(A student has to choose any one from A & B under DSE-III)*

#### **Learning Objectives**

On completion of this course, the student will:

- Analyse various policies on education for school education in India
- Evaluate progress of schools education
- Examine the problems in implementation of the policies on school education
- Explore status of women education and education for SC, ST and Minorities in Indian

#### **UNIT 1: Policies in School Education**

- National education policy, 1986, revised in 1992 and its corresponding document Programme of Action with reference to Elementary Education and Secondary Education.
- Implementation of Elementary Education with reference to RTE Act-2009 and Policy issues.
- Implementation of Secondary Education with reference to Rashtriya Madhyamik Siksha Abhiyan (RMSA) and policy issues
- Guiding principles of NCF-2005 and curriculum revision at the school level.

#### **UNIT 2: Policies for Vocationalisation of Education**

- Vocationalisation of education- A policy analysis with reference to the report of Patel Committee (1977), Adisheshia Committee (1978) and National Policy on Education (1986) revised NPE (1992)
- Vocational Education at Higher Secondary level: Policy challenges
- Work education in schools –concept to implementation

**UNIT 3: Policies for Inclusive Education**

- (i) Education of Children with Special Needs (CWSN): Policy perspectives with reference to NPE, 1986, 1992, Mental Health Act, 1987, Persons with Disabilities Act, 1995, Rehabilitation Council of India Act, 1992, National Trust Act, 1999
- (ii) Inclusive education- Policies, Progress and Problems.

**UNIT 4: Policy on Access and equity in Education**

- (i) Women's education and empowerment of women with reference to National Policy on Women Empowerment, , NPE-1986
- (ii) Progress of Women Education and Problems.
- (iii) Access and Equity in Education with focus to SC, ST and Minorities
- (iv) Policy for SC children- Implementation, Progress and Problems.
- (v) Policy for ST children- Implementation, Progress and Problems with reference to Mother Tongue based Multilingual Education
- (vi) Policy for Minority Children- Implementation, Progress and Problems.

**PRACTICAL**Credit : **02****25 Marks**

- Analysis of any Policy documents being implemented at School Education level

NB: It will be evaluated by both Internal and External examiners

**Text Books**

- Aggarwal, J.C. (2010). Landmarks in the history of modern Indian education (7th Ed) New Delhi: Vikash Publishing Pvt. Ltd.
- Rawat, P.L. (1989). History of Indian education New Delhi: Ram Prasad & Sons.

**Reference Books**

- Das, K.K. (1993). *Development of education in India*. New Delhi: Kalyani Publishers
- Dash, B.N. (1991). *Development of education in India*. New Delhi: Ajanta Prakashan
- Keay, F. E. & Mitra, Sukumar (1978). *A history of education in India*. New Delhi: Oxford University Press
- Mukherjee, R.K. (1988). *Ancient Indian education*. New Delhi: Motilal Banarsidass
- Mukherjee, R.K. (1989). *The Gupta Empire*. New Delhi: Motilal Banarsidass
- Naik, J.P. & Narullah, S. (1996). *A student's history of education in India*. New Delhi: Mc Millan India Ltd
- Ghosh, S.C. (1989). *Education policy in India since warren Hastings, Calcutta: N-Prakashan.*
- Reference Books
- Altekar, A.S. (1934), *Education in ancient India, Banaras: Indian book Shop.*
- Das Gupta, S.N. (1988). *A history of Indian philosophy. (5 Vols.)* Delhi: Motilal Banarasi Dass.
- MHRD, GOI (1986). *National policy on education*. New Delhi: The Author
- MHRD, GOI (1993). *Learning without burden. Yashpal Committee Report (1993)*. New Delhi: The Author
- Ministry of Education, GOI (1964-66). *Education and national development. (Report of education commission (1964-66)*. New Delhi: The Author
- Sen, Bimal (1989). *Development of technical education in India and state policy-a historical perspective*. *Indian Journal of History of Science*, 24 (2): 224-248, *Indian National Science Academy*.

- Sen, S.N. (1988). Education in ancient and medieval India. Indian Journal of History of Science, 23 (1): 1-32.
- Shanker, Uday (1984). Education of Indian teachers. New Delhi: Sterling Publishers Pvt. Ltd.
- Singh. R.P. (1970). Education in ancient and medieval India. Delhi: Arya Book Depot.
- Rao, K.Sudha (Ed.) (2002). Educational policies in India: Analysis and review of promise and performance. New Delhi: NUEPA.
- NCERT (2005). *National curriculum framework*, New Delhi: NCERT.
- MHRD, Gov. of India (1986). *National policy on education*. New Delhi: Gol.
- MHRD, Gov. of India (1992), *National policy on education* (revised) New Delhi: Gol. MHRD, (1992), *Programme of action.*, New Delhi: Govt. of India.
- NCTE (1998b). *Curriculum Framework for Quality Teacher Education*. New Delhi:NCTE.
- NCTE (2009). *National Curriculum Framework for Teacher Education Towards Preparing Professional and Humane Teacher*. New Delhi:NCTE.
- Ministry of Law Justice (2009). The Right of Children to Free and Compulsory Education Act, 2009. *The Gazette of India*, Ministry of Law Justice, Govt. of India.
- Kurrien, J (1983). *Elementary Education in India*. New Delhi: Vikas. MHRD (). *Report to the People on Education 2011-12*. New Delhi: Author. MHRD (1986): *National Policy on Education*. New Delhi: MHRD.
- MHRD (2000). *Sarva Shiksha Abhiyan: A program for Universal Elementary Education A framework for implementation*. New Delhi: Author.
- Government of India, Ministry of Human Resource Development (2005), Report of the CUBE Committee on Autonomy of Higher Education Institutions, Department of Secondary and Higher Education, New Delhi, June.

**Websites to be referred:**

- <http://www.rehabcouncil.nic.in/>
- [writereaddata/RCI\\_Amendments\\_ACT.pdf](http://writereaddata/RCI_Amendments_ACT.pdf)
- <http://socialjustice.nic.in/pwdact1995.php>
- <http://mhrd.gov.in/rmsa>

**+3 THIRD YEAR SIXTH SEMESTER  
DSE - 4  
DISSERTATION/ RESEARCH PROJECT**

Credit : **06**

Full Mark : **100** Marks

The students will select a research project on any Educational issue or problem or topic and prepare a report. The project will be prepared based on proposal already developed in Semester-III, Core-6. Distribution of Marks will be as follows:

**Item Total**

Report	80
Viva-voce	20

**Total            100**

The assessment of students' performance will be made jointly by the external and internal examiners.

**+3 SECOND YEAR THIRD SEMESTER**  
**GE - 3**  
**EDUCATIONAL PHILOSOPHY**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Learning Objectives:**

On completion of this course, the learners shall be able to:

- State and analyse the meaning of education and form own concept on education
- Explain philosophy as the foundation of education
- Analyse aims of education
- Describe the essence of different formal philosophies and draw educational implications
- Compare and contrast Indian and western philosophies of education

**UNIT 1: Education in Philosophical Perspective**

- (i) Etymological meaning of education
- (ii) Narrower and broader meaning of education, Lifelong Education
- (iii) Aims of Education- Individual and Social Aims of Education
- (iv) Meaning and nature of philosophy
- (v) Branches of Philosophy- Metaphysics, Epistemology and Axiology, and its educational implications
- (vi) Functions of Philosophy in relation to education

**UNIT 2: Formal Schools of Philosophy and their Educational Implications**

- (i) Idealism, Naturalism, Pragmatism with reference to:
- (ii) Aims of Education, Curriculum, Methods of Teaching, Role of Teacher, Discipline

**UNIT 3: Indian Schools of Philosophy and their Educational Implications**

- (i) Common Characteristics of Indian Philosophy
- (ii) Sankhya, Vedanta, , Buddhism, Jainism with reference to:
- (iii) Philosophical tenets, Aims of education, Curriculum, Methods of Teaching, Role of Teacher

**UNIT 4: Educational Thought of Western and Indian Thinkers**

- (i) Plato
  - (ii) Dewey
  - (iii) Gopabandhu Das
  - (iv) Gandhi
  - (v) Tagore
  - (vi) Aurobindo
-



**PRACTICAL**Credit : **02****25 Marks**

- Preparing a term paper on any topic under GE-3.

NB: It will be evaluated by both the internal and External examiners.

**Text Books**

- Safaya, R.N. & Shaida, B.D. (2010). *Modern Theory and Principles of Education*. New Delhi: Dhanpatrai Publishing Company Pvt. Ltd.
- Nayak, B.K. (2018).
- Ravi, Samuel.S. (2015). *A Comprehensive Study of Education*. Delhi: PHI Learning Pvt. Ltd.
- Nayak, B.K. (ND). *Text Book of Foundation of Education*. Cuttack, Odisha: Kitab Mhal.

**Reference Books**

- Aggrawal, J.C. (2013). *Theory and principle of education*. New Delhi: Vikash Publishing House Pvt Ltd.
  - Anand, C.L. *et.al.* (1983). *Teacher and education in emerging in Indian society*, New Delhi: NCERT.
  - Brubacher, John.S.(1969). *Modern philosophies of education*. New York: McGraw Hill Co.
  - Clarke, P. (2001). *Teaching and learning: The Culture of pedagogy*. New Delhi: Sage Publication.
  - Dash, B.N. (2011) *Foundation of education*, New Delhi; Kalyani Publishers.
  - Dewey, John (1956). *The Child and the curriculum, school and society*. Chicago, Illinois: University of Chicago Press.
  - Dewey, John (1997). *Experience and education*. New York: Touchstone.
  - Ganesh, Kamala & Thakkar, Usha (Ed.) (2005). *Culture and making of identity in India*. New Delhi: Sage Publications.
  - Krishnamurthy, J. (1953). *Education and significance of life*. New Delhi: B.I. Publications
  - Kumar Krishna (1996). *Learning from conflict*. New Delhi: Orient Longman.
  - Ministry of Education (1966). *Education and national development*. New Delhi: Ministry of Education, Government of India.
  - Ornstein, Allan C. & Levine, Daniel U. (1989). *Foundations of education (4th Edn.)*. Boston: Houghton Mifflin Co.
  - Pathak, R. P. (2012). *Philosophical and sociological principles of education*. Delhi: Pearson.
  - Pathak, Avijit (2002). *Social implications of schooling*. New Delhi: Rainbow Publishers.
  - Peters, R.S. (1967). *The Concept of education*. London: Routledge Kegan & Paul.
  - Radhakrishnan, S. *Indian philosophy Vol. I and Vol. II*
  - Ross, James S.(1981). *Ground work of educational theory*.Delhi: Oxford University Press
  - Rusk, Robert R., *Philosophical bases of education*, London: Oxford University Press.
  - Salamatullah, (1979). *Education in social context*. New Delhi: NCERT.
  - Srinivas, M.N., (1986). *Social changes in modern India*. Bombay: Allied Publishers.
  - Taneja, V.R. (2000). *Educational thought and practice*, New Delhi: Sterling Publishers Pvt. Limited.
  - Wingo, G. Max (1975). *Philosophies of education*. New Delhi: Sterling Publisher Pvt. Limited.
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**+3 SECOND YEAR FOURTH SEMESTER****GE - 4****EDUCATIONAL PSYCHOLOGY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Learning Objectives**

On completion of this course, the students will:

- Explain the concept of educational psychology and its relationship with psychology.
- Understand different methods of educational psychology.
- Explain the concepts of growth and development of child and adolescence, and underlined general principles of growth and development.
- Describe briefly the periods and the typical characteristics of growth and development during childhood and adolescence.
- Explain the theory of cognitive development and its educational implications.
- State the different forms and characteristics of individual differences and the ways of meeting the classroom issues arising out of the differences.
- Identify the learning needs during the different stages of development and adopt appropriate strategies in and out of school to meet the learning needs.

**UNIT 1: Educational Psychology in Developmental Perspective**

- (i) Meaning, nature, scope and relevance of educational psychology
- (ii) Methods of educational psychology- observation, experimentation, and case study
- (iii) Application of educational psychology in understanding learner
- (iv) Growth and Development-Concept, difference between growth and development, and principles of growth and development
- (v) Characteristics of development during adolescence in different areas: (vi) Physical, social, emotional and intellectual (with reference to Piaget)

**UNIT 2: Intelligence, Creativity and Individual difference**

- (i) Individual difference-concept, nature, factors and role of education
- (ii) Intelligence- meaning and nature of intelligence, concept of I.Q, theories of intelligence- Two factor theories, Guildford's structure of intelligence (SI) model, Gardner's multiple theory of intelligence.
- (iii) Measurement of intelligence- individual and group test, verbal, non-verbal test
- (iv) Creativity- meaning, nature and stages of creative thinking, strategies for fostering creativity

**UNIT 3: Learning and Motivation**

- (i) Learning- meaning, nature and factors of learning
  - (ii) Theories of learning with experiment and educational implications-
-

- (iii) Classical conditioning, operant conditioning, insightful learning and constructivist approach to learning
- (iv) Motivation – concepts, types, and techniques of motivation

#### **UNIT 4: Personality and Mental health**

- (i) Personality- meaning and nature of personality
- (ii) Theories- type theory(Jung), trait theory(Allport)
- (iii) Assessment of personality- subjective, objective and projective techniques
- (iv) Mental health-concept, factors affecting mental health and role of teacher, mental health of teacher.
- (v) Adjustment mechanism: Concept and Types

### **PRACTICAL**

Credit : **02**

**25 Marks**

- Case study of an exceptional child and reporting  
**N.B:** It will be evaluated by both the Internal and External examiners.

#### **Text Books**

- Chauhan, S.S. (1978). *Advanced educational psychology*. New Delhi: Vikas Publishing House Pvt. Ltd.
- Mangal, S.K. (2002). *Advanced educational psychology*. New Delhi: Prentice Hall of India.
- Woolfolk, A. (2015). *Educational psychology (9th Ed.)*. New Delhi: Pearson Publication

#### **Reference Books**

- Aggarwal, J.C. (2014). *Essentials of Educational Psychology*. New Delhi: Vikas Publishing House Pvt. Ltd.
  - Attri, A.K. (2015). *Psychology of development and learning*. New Delhi: APH Publishing Corporation.
  - Bernard, P.H. (1970). *Mental Health in the class room*. New York: McGraw Hill.
  - Biehler, R.F. & Snowman, J., (1997). *Psychology applied to teaching*. New York: Houghton Mifflin.
  - Bigge, M.L., *Psychological foundations of education*, Harper and Row, New York, 1985.
  - Chandraiah, K. (2011). *Emotional intelligence*. New Delhi: APH Publishing Corporation.
  - Dececco, J.P. & Crawford, W.R. (1997). *Psychology of learning and institution*. New Delhi: Prentice Hall of India.
  - Good T., (1990). *Educational psychology*. Longman, New York, 1990.
  - Lindgren, H.C. (1980). *Educational psychology in the classroom*. New York: Oxford University Press.
  - Moully, G.J. (1982). *Psychology for teaching*. Allyn & Bacon, Boston.
  - Rothstein, P.R. (1990). *Educational psychology*. New York: McGraw Hill..
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- Salvin, R, (1990). *Educational psychology: theory into practice*, N.J.: Prentice hall, Englewood Cliffs,
  - Snowman and Biehler (—). *Psychology applied to teaching*.....
  - Sprint hall, RC. & Sprint hall, NA, (1990). *Educational psychology, development approach*, New York: McGraw Hill.
-

# ENGLISH

## +3 FIRST YEAR FIRST SEMESTER

### Core Paper - 1

#### BRITISH POETRY AND DRAMA : 14TH TO 17TH CENTURIES

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### INTRODUCTION :

The paper seeks to introduce the students to British poetry and drama from the 14th to the 17th century. It helps students sample and explore certain seminal texts from the early modern period, covering the genesis of modern English poetry and the Renaissance that set British poetry and drama on their glorious course to greatness.

#### UNIT 1: Historical overview

The period is remarkable in many ways: 14th century poetry evokes an unmistakable sense of “modern” and the spirit of Renaissance is marked in the Elizabethan Drama. The Reformation brings about sweeping changes in religion and politics. A period of expansion of horizons: intellectual and geographical.

#### UNIT 2: Geoffrey Chaucer

*The Pardoner's Tale*

#### UNIT 3: Spenser: “Sonnet 34 (Amoretti)”

- (i) Shakespeare: ‘That time of the year...’ (Sonnet 73)
- (ii) Ben Jonson: “Song to Celia”
- (iii) John Donne: “Sunne Rising”

#### UNIT 4: Shakespeare

- (i) *Macbeth*

#### Text Books

- Texts as prescribed in Units 2,3,4

#### Reference Books

- *The Pelican Guide to English Literature*. Ed. Boris Ford. Vol 1
  - *The Age of Chaucer English Literature in Context*. Paul Poplawski. Cambridge UP, 2008
  - *Routledge History of Literature in English*. Ronald Carter & John Mc Rae. London: Routledge, 1997
  - Shakespeare for Beginners by Brandon Toropov
  - English Literature by Jonathan Bate (Ch. 7 “Shakespeare and the Dramatic Literature”)
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**+3 FIRST YEAR FIRST SEMESTER**  
**Core Paper - 2**  
**BRITISH POETRY**  
**AND DRAMA : 17TH AND 18TH CENTURY**

Time : 3 Hrs.  
 Credit : 06

End Semester Theory : 80 Marks  
 Mid Semester Theory : 20 Marks

**INTRODUCTION :**

The Introduction of this paper is to acquaint students with the Jacobean and the 18th century British poetry and drama, the first a period of the acid satire and the comedy of humours, and the second a period of supreme satiric poetry and the comedy of manners.

**UNIT 1: Historical overview**

- (i) 17th C: Period of the English Revolution (1640–60); the Jacobean period; metaphysical poetry; cavalier poetry; comedy of humors; masques and beast fables
- (ii) 18th C: Puritanism; Restoration; Neoclassicism; Heroic poetry; Restoration comedy; Comedy of manners

**UNIT 2: Milton: “Lycidas”**

- (i) Andrew Marvell: ‘To His Coy Mistress’ (ii) Alexander Pope: “Ode On Solitude”
- (iii) Aphra Behn: “I Led my Silvia to a Grove” (iv) Robert Herrick: “His Return to London”

**UNIT 3 : Ben Jonson**

- (i) *Volpone*

**UNIT 4: Dryden**

- (i) *All For Love*

**Text Books**

- Texts prescribed in units 2, 3, 4 (All the texts are freely available on the sites such as [www.poetryfoundation.org](http://www.poetryfoundation.org), [www.bartleby.com](http://www.bartleby.com), <http://www.poemhunter.com> etc. In addition, the following anthologies may be consulted.)

**Reference Books**

- *Routledge History of Literature in English*. Ronald Carter & John Mc Rae. London: Routledge, 1997
- Black, Joseph (Ed). : *The Broadview Anthology of British Literature Concise Edition*, Vol. A. Broadview Press, London, 2007.
- Corns, T N( ed.) *The Cambridge Companion to English Poetry*. Cambridge: University Press, 1973
- Ford, Boris ed. *The Pelican Guide to English Literature*. Vol 3. From *Donne to Marvell* in. Harmondsworth: Penguin Books, 1976.
- Parry, G.: *The Seventeenth Century: The Intellectual and Cultural Context of English Literature*. Harlow: Longman, 1989.
- Sherwood, T. G: *Fulfilling the Circle : A Study of John Donne’s Thought*, Toronto, Toronto Press, 1984.

**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 3**  
**BRITISH PROSE : 18TH CENTURY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

The Introduction of the paper is to acquaint the students with a remarkable, newly evolved form of literature: the essay. The period is also known for its shift of emphasis from reason to emotion

**UNIT 1: Historical overview:**

Restoration, Glorious Revolution, Neo-classicism, And Enlightenment.

**UNIT 2: Mary Wollstonecraft**

"The Rights and Involved Duties of Mankind Considered" (Chapter 1, *A Vindication of the Rights of Women*)

**UNIT 3: Joseph Addison: Essays**

"Friendship," "Good Nature," "Six Papers on Wit" (From *Joseph Addison: Essays and Tales*, <<http://www.biblioteca.org.ar/libros/167707.pdf>>)

**UNIT 4 : Samuel Johnson**

"Narratives of Travellers Considered," and "Obstructions of Learning" from *Samuel Johnson's Essays* < <http://www.johnsonessays.com/>>

**Text Books**

- Texts prescribed in Units 2, 3, 4. Web sources are indicated against the texts in brackets.

**Reference Books**

- *Routledge History of Literature in English*. Ronald Carter & John Mc Rae. London : Routledge, 1997
- Norton Anthology of English Literature. Vol 2 (Head notes on the periods and authors featured in the paper)
- *English Literature* by Jonathan Bate (Ch. 4 "The Study of English")
- *Pelican Guide to English Literature*. Ed. Boris Ford. Vol 4. *From Dryden to Johnson* O.M. Myres, "Introduction" to *The Coverley Papers*

**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 4**  
**INDIAN WRITING IN ENGLISH**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**INTRODUCTION :**

Indian writing in English has been the fastest growing branch of Indian literature in the last one hundred years. It has produced a rich and vibrant body of writing spanning all genres. As a 'twice born' form of writing, it partakes of both the indigenous and the foreign perspectives and

---

has an inherent tendency to be postcolonial. This paper seeks to introduce the students to the field through a selection of representative poems, novel and play.

#### UNIT 1: Historical overview

Indian writing in English, the key points of which are East India Company's arrival in India, Macaulay's 1835 Minutes of Education, India's first war of independence and the establishment of colleges to promote Western education and the evolution of Indian writing in English in 20th century.

#### UNIT 2 :

- (i) Sarojini Naidu "The Bangle Sellers",
- (ii) A.K.Ramanujan "Obituary",
- (iii) Jayanta Mahapatra "Grandfather",
- (iv) Nissim Ezekiel "Night of the Scorpion"

#### UNIT 3: R.K Narayan

*The Guide*

#### UNIT 4: Mahesh Dattani

*Final Solutions*

#### Text Books

- Texts prescribed in Units 2, 3, 4.

#### Reference Books

- Mehrotra, Arvind Krishna. *Concise History of Indian Literature in English*, Permanent Black, 2010.
- K. Srinivas Ayenger. *A History of Indian Writing in English*
- M.K. Naik. *History of Indian Writing in English*
- Vinay Dharwadker. "The Historical Formation of Indian English Literature" in Sheldon Pollock (ed) *Literary Cultures in History*
- *Modern Indian Drama: Issues and Interventions* (ed) Lakshmi Subramanyam

### +3 SECOND YEAR THIRD SEMESTER

#### Core Paper - 5

#### BRITISH ROMANTIC LITERATURE

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

#### INTRODUCTION :

The paper aims at acquainting the students with the Romantic period and some of its representative writers. The students will be able to sample some seminal works of the Romantic age which gave expression to the key ideas of the period such as return to nature, subjectivity, desire for personal freedom and the defiance of classicism-imposed restrictions on poetic form.



**UNIT 1: Historical overview**

The period otherwise known as The Romantic Revival; The Age of Revolution as it owes its origin to the epoch making French Revolution of 1789. The emphasis on the organic relationship between man and Nature, individual liberty and unbridled desire free from the shackles of classicism made this period unique—Romanticism vs Classicism

**UNIT 2:**

Thomas Gray: "Elegy Written in a Country Churchyard," (ii) William Blake: "A Poison Tree" and "Chimney Sweeper"

**UNIT 3:**

- (i) William Wordsworth's "Tintern Abbey"
- (ii) S. T. Coleridge: "Kubla Khan,"
- (iii) John Keats: "Ode to a Nightingale,"
- (iv) P. B. Shelley: "Ode to the West Wind,"

**UNIT 4:**

William Wordsworth's *Preface* to the 2nd edition of *Lyrical Ballads*

**Text Books**

- Texts prescribed in Units 2, 3, 4

**Reference Books**

- Paul Poplawski, *English Literature in Context*, "The Romantic Period"
- *Routledge History of Literature in English*. Ronald Carter & John Mc Rae. London: Routledge, 1997
- Norton Anthology of English Literature. Vol 2 (Head notes on the periods and authors featured in the paper)
- *Pelican Guide to English Literature. Vol 5. From Blake to Byron*. Ed. Boris Ford
- Maurice Bowra, *The Romantic Imagination*
- *English Literature*. Jonathan Bate (Ch. 5 "Periods and Movements")

**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 6**  
**BRITISH LITERATURE 19TH CENTURY**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**INTRODUCTION :**

This paper seeks to introduce the students to the exploits of the 19th century British Literature in prose, especially fiction and cultural criticism. It also includes samples of Victorian poetry.

**UNIT 1: Historical overview**

The 19th century British literature though mainly famous for the Romantic Movement, was also a witness to major socio-political developments like industrialization, technological advancements and large scale mobilization of people from the rural to the urban centers.

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**UNIT 2 : Poetry**

Tennyson; "Break, Break, Break", Robert Browning, "My Last Duchess" (ii) Criticism: Matthew Arnold: "The Study of Poetry"

**UNIT 3: Jane Austen**

*Pride and Prejudice*

**UNIT 4: Charles Dickens**

*Hard Times*

**Text Books:**

- Texts prescribed in Units 2, 3, 4

**Reference Books:**

- *English Literature in Context*. Paul Poplawski. Cambridge UP, 2008
- *Routledge History of Literature in English*. Ronald Carter & John Mc Rae. London: Routledge, 1997
- Norton Anthology of English Literature. Vol 2 (Head notes on the periods and authors featured in the paper)
- *English Literature*. Jonathan Bate (Ch. 4 "The Study of English", Ch. 5 "Periods and Movements")
- Terry Eagleton, *The English Novel*

**+3 SECOND YEAR THIRD SEMESTER  
Core Paper - 7  
BRITISH LITERATURE: EARLY 20TH CENTURY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**INTRODUCTION :**

The paper aims at acquainting the students with the literature of Britain in the early 20th century, focusing on the modernist canon in poetry, novel, and literary criticism.

**UNIT 1: Historical overview**

Developments in society and economy, leading to a crisis in western society known as the First World War and the resultant change in the ways of knowing and perceiving. Marx's concept of class struggle, Freud's theory of the unconscious are to be discussed.

**UNIT 2: Poetry**

- (i) T.S. Eliot "Love Song of J. Alfred Prufrock",
- (ii) Yeats: "Second Coming",
- (iii) Wilfred Owen: "Strange Meeting",
- (iv) Siegfried Sassoon, "Suicide in the Trenches"
- (v) Criticism: T.S. Eliot: "Tradition and the Individual Talent"

**UNIT 3:**

Virginia Woolf: *Mrs. Dalloway*

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**UNIT 4:**

J M Synge *Ryders to the Sea*

**Text Books**

- Texts prescribed in Units 2, 3, 4

**Reference Books:**

- *Pelican Guide to English Literature: Vol. 7. The Modern Age* (ed.) Boris Ford
- *Routledge History of Literature in English*. Ronald Carter & John Mc Rae. London: Routledge, 1997
- *English Literature*. Jonathan Bate (Ch. 5 “Periods and Movements”)
- *Modernism. Critical Idiom*. By Peter Faulkner
- *Modernism. New Critical Idiom*. By Peter Childs

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 8**  
**AMERICAN LITERATURE**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**INTRODUCTION:**

This is a survey paper providing an overview of canonical authors from American Literature in the established genres.

**UNIT 1: Historical overview**

Genesis and evolution, and the defining myths of American Literature—city on a hill, the frontier spirit, the American Dream, manifest destiny, *e pluribus unum*

**UNIT 2:**

- (i) Walt Whitman: “Out of the Cradle Endlessly Rocking”,
- (ii) Robert Frost: “Stopping by the Woods in a Snowy Evening”,
- (iii) Emily Dickinson: “Because I could not stop for death”
- (iv) Maya Angelou: “I Know Why the Caged Birds Sing”

**UNIT 3:**

Arthur Miller: *The Death of a Salesman*

**UNIT 4:**

Ernest Hemingway: *A Farewell to Arms*

**Text Books**

- Texts prescribed in Units 2, 3, 4 (All texts are available on the Internet.)

**Reference Books:**

- *Pelican Guide to English Literature*. Vol. 9. *American Literature*. Ed. Boris Ford
  - *Highlights of American Literature*. Dr. Carl Bode (USIS)
-

- *A Short History of American Literature*, Krishna Sen and Ashok Sengupta. Orient BlackSwan, 2017
- *The Story of American Literature*. By Ludwig Lewisohn
- *Norton Anthology of American Literature*. (Head notes on authors and periods to be read)

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 9**  
**EUROPEAN CLASSICAL LITERATURE**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**INTRODUCTION :**

This paper seeks to introduce the students to European Classical literature, commonly considered to have begun in the 8th century BC in ancient Greece and continued until the decline of the Roman Empire in the 5th century AD. The paper seeks to acquaint the students with the founding texts of the European canon.

**UNIT 1: Historical Review**

Classical Antiquity: ancient Greece, the rise and decline of the Roman Empire; Geographical space: cultural history of the Greco-Roman world centered on the Mediterranean Sea

**UNIT 2: Epic poetry**

Homer: *Odyssey* (Book I)

**UNIT 3: Tragedy:**

Sophocles: *Oedipus the King*

**UNIT 4: Criticism:**

Aristotle: *Poetics* (Chapters: 6,7,8)

**Text Books**

- Texts prescribed in Units 2, 3, 4 (All texts are available for free access on Project Gutenberg [https:// www.gutenberg.org/](https://www.gutenberg.org/))

**Reference Books:**

- H.D.F. Kitto, *Form and Meaning in Greek Drama*
  - H.D.F. Kitto, *The Greeks*
  - Eric Auerbach, *Mimesis: The Representation of Reality in Western Literature*
  - Gilbert Murray, *A History of Ancient Greek Literature*, Andesite Press, 2017.
  - *Classicism: A Very Short Introduction* OUP
-

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 10**  
**WOMEN'S WRITING**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**INTRODUCTION:**

The paper seeks to acquaint the students with the works of women writers from different cultures and nations in various genres. Further, it seeks to make them critically aware of the issues relating to the workings of patriarchy, issues of gender, and relations of desire and power.

**UNIT 1: Virginia Woolf**

“Chapter 1” from *A Room of One's Own*

**UNIT 2: Charlotte Bronte**

*Jane Eyre*

**UNIT 3:**

- (i) Kamala Das, ‘An Introduction’, ‘The Sunshine Cat’
- (ii) Sylvia Plath, ‘Mirror’, ‘Barren Woman’
- (iii) Eunice de Souza, ‘Women in Dutch Painting’, ‘Remember Medusa’
- (iv) Shanta Acharya, ‘Homecoming’, ‘Shringara’

**UNIT 4 :**

Ashapura Devi, *The Distant Window*

**Text Books**

- Texts prescribed in Units 1, 2, 3, 4

**Reference Books:**

- Toril Moi, *Sexual/Textual Politics*
  - Elaine Showalter, *A Literature of Their Own*
  - Sandra Gilbert and Susan Gubar, *The Mad Woman in the Attic*
  - *The Distant Window*, Prachi Prakashan, Tr. Anima Bose, 1997
  - Helen Carr, ‘A History of Women's Writing’ in *A History of Feminist Literary Criticism* by Gill Plain and Susan Sellers
  - Mary Eagleton, ‘Literary Representations of Women’ in *A History of Feminist Literary Criticism* by Gill Plain and Susan Sellers
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**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 11**  
**MODERN EUROPEAN DRAMA**

Time : 3 Hrs.  
 Credit : 06

End Semester Theory : 80 Marks  
 Mid Semester Theory : 20 Marks

**INTRODUCTION:**

The aim of this paper is to introduce the students to the best of experimental and innovative dramatic literature of modern Europe.

**UNIT 1: Historical Review**

Politics, social change and the stage; text and performance; European Drama: Realism and Beyond; Tragedy and Heroism in Modern European Drama; The Theatre of the Absurd

**UNIT 2: Henrik Ibsen**

*Ghosts*

**UNIT 3: Eugene Ionesco**

*Chairs*

**UNIT 4: Bertolt Brecht**

*Life of Galileo*

**Text Books**

- Texts prescribed in Units 1, 2, 3, 4

**Web Resources**

- Ionesco: <http://www.kkoworld.com/kitablar/ejen-ionesko-kergedan-eng.pdf>
- Ibsen: <http://www.gutenberg.org/files/8121/8121-h/8121-h.htm>

**Reference Books:**

- Constantin Stanislavski, *An Actor Prepares*, Chap. 8,
- 'Faith and the Sense of Truth', tr. Elizabeth Reynolds Hapgood (Harmondsworth: Penguin, 1967) sections 1,2, 7,8,9, pp. 121-5, 137-46.
- Bertolt Brecht, 'The Street Scene', 'Theatre for Pleasure or Theatre for Instruction', and 'Dramatic Theatre vs Epic Theatre', in *Brecht on Theatre: The Development of an Aesthetic*, ed. and tr. John Willet (London: Methuen, 1992) pp.68-76, 121-8.
- George Steiner, 'On Modern Tragedy', in *The Death of Tragedy* (London: Faber, 1995) pp. 303-24.
- Raymond Williams, *Drama from Ibsen to Brecht*
- Jean Genet, *Reflections on Theatre* (London: Faber & Faber) Chapter 2: "The Strange World Urb..." pp. 63-74.
- *Theatre of Absurd*. Martin Esslin

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 12**  
**NDIAN CLASSICAL LITERATURE**  
**(Training of teachers essential for teaching this course)**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**INTRODUCTION:**

This paper seeks to create awareness among the students of the rich and diverse literary and aesthetic culture of ancient India.

**UNIT 1: Introduction to the history and genesis of Indian Classical Literature**

**UNIT 2: Sanskrit Drama –1**

Kalidasa, *Abhijnanasakuntalam*, Act IV, tr. M.R Kale, Motilal Banarasi Dass, New Delhi

**UNIT 3: Sanskrit Drama-2**

*Mrcchakatika* by Sudraka, Act I, tr. M.M. Ramachandra Kale (New Delhi: Motilal Banarasidass, 1962)

**UNIT 4: Aesthetics and Maxims**

Bharata's *Natyasastra*, Chapter VI on Rasa theory

**Text Books**

- Texts prescribed in units II,III, IV

**Reference Books:**

- Kalidasa. Critical Edition. Sahitya Akademi
- Bharata's *Natyashastra*. English Translation by M.M. Ghosh. Vol 1. 2nd edition. Asiatic Society, Kolkata, 1950. Ch. 6 "Sentiments". Pp. 158-95
- J.A.B. Van Buitenen, "Dharma and Moksa" in Roy W. Perrett. Ed. *Indian Philosophy*. Vol 5, *Theory of Value: A Collection of Readings*. New York: Garland, 2000. Pp. 33-40
- Vinay Dharwadkar, "Orientalism and the Study of Indian Literature", *Orientalism and the Postcolonial Predicament: Perspectives on South Asia*. Ed. Carol A. Breckenridge and Peter Van der Veer. New Delhi: OUP, 1994. Pp. 158-95
- Haldhar Panda, *Universals of Poetics*

**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 13**  
**POSTCOLONIAL LITERATURES**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**INTRODUCTION:**

This paper seeks to introduce the students to postcolonial literature – a body of literature that responds to European colonialism and empire in Asia, Africa, Middle East, the Pacific and elsewhere. The paper aims to provide the students with the opportunity to think through the layered response – compliance, resistance, mimicry, subversion – that is involved in the production of post-independence literature

**UNIT 1:**

Postcolonialism: Elleke Boehmer ( From *Literary Theory and Criticism* Ed. Patricia Waugh)

- (a) The post in Postcolonial,
- (b) Movements and theories against Empire
- (c) Leading Postcolonial Thinkers ( Frantz Fanon, Edward Said, Gayatri Spivak, Homi Bhabha)

**UNIT 2: Raja Rao**

Kanthapura

**UNIT 3: Jean Rhys**

Wide Sargasso Sea

**UNIT 4: Athol Fugard**

Blood Knot

**Text Books**

- Texts prescribed in Units 1, 2, 3, 4

**Reference Books:**

- Chinua Achebe: "English and the African Writer" (Available online)
  - Ngũgĩ wa Thiong'o: "The Quest for Relevance" from *Decolonizing the Mind: The Politics of Language in African Literature*
  - Leela Gandhi, *Postcolonial Theory: An Introduction*. OUP, 1998.
  - Bill Ashcroft, Gareth Griffin, Helen Tiffin, *The Empire Writes Back: Theory and Practice of Post-Colonial Literature*.
  - Edward Said. *Orientalism*.
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**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 14**  
**POPULAR LITERATURE**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**INTRODUCTION:**

This paper seeks to introduce the students to genres such as children's literature, detective fiction and campus fiction, which have a "mass" appeal, and can help us gain a better understanding of the popular and folk roots of literature.

**UNIT 1: Introduction to the concept**

- (i) What is popular literature?
- (ii) Debate between popular and high cultures ('high brow' v/s 'low brow')
- (iii) What is Genrefiction?
- (iv) Debate between genre fiction and literary fiction

**Essays for discussion:**

- Lev Grossman: "Literary Revolution in the Supermarket Aisle: Genre Fiction is Disruptive Technology" <http://entertainment.time.com/2012/05/23/genre-fiction-is-disruptive-technology/>
- Arthur Krystal: "Easy Writers: Guilty pleasures without guilt" <http://www.newyorker.com/magazine/2012/05/28/easy-writers>
- Joshua Rothman: "A Better Way to Think About the Genre Debate" <http://www.newyorker.com/books/joshua-rothman/better-way-think-genre-debate>
- Stephen Marche: "How Genre Fiction Became More Important than Literary Fiction" <http://www.esquire.com/entertainment/books/a33599/genre-fiction-vs-literary-fiction/>

**UNIT 2: Children's Literature**

Lewis Carroll: *Alice in Wonderland*

**UNIT 3: Detective Fiction**

Arthur Conan Doyle: *The Hound of the Baskervilles*

**UNIT 4: Campus Fiction**

Chetan Bhagat: *Five Point Someone*

**Text Books**

- Essays given for discussion under unit I and Texts prescribed in Units 2, 3, 4

**Reference Books**

- Leslie Fiedler, "Towards a Definition of Popular Literature" in *Super Culture: American Popular Culture and Europe*. Ed. C.W.E. Bigsby. pp. 29-38
  - Leo Lowenthal, *Literature, Popular Culture and Society*
  - Felicity Hughes, "Children's Literature: Theory and Practice" in *English Literary History*. Vol. 45, 1978. pp. 542-61.
  - Raymond Chandler, "The Simple Art of Murder", *Atlantic Monthly*. Dec. 1944 (available at <<http://www.en.utexas.edu/amlitprivate/scans/chandlerart.html>>
-

- *Popular Fiction: Essays in Literature and History* by Peter Humm, Paul Stigant, Peter Widdowson
- Sumathi Ramaswamy, "Introduction", in *Beyond Appearances?: Visual Practices and Ideologies in Modern India*. Pp.xiii-xxix

### +3 THIRD YEAR FIFTH SEMESTER

#### DSE - 1

#### LITERARY THEORY

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

#### INTRODUCTION:

This paper seeks to expose the students to the basic premises and issues of major theoretical approaches to literary texts.

#### UNIT 1:

New Criticism ("Language of Paradox" by Cleanth Brooks)

#### UNIT 2:

Marxist Criticism (Terry Eagleton: "Literature and Ideology" from *Marxism and Literary Criticism*)

#### UNIT 3:

Feminist Criticism (*Second Sex*, Vol 1 Introduction "Facts and Myths")

#### UNIT 4:

Structuralism ("The Nature of Linguistic Sign" by Saussure)

#### Text Books

- Texts prescribed in Units 1, 2, 3, 4

#### Reference Books :

- Peter Barry, *Beginning Theory*
- Terry Eagleton, *Literary Theory*
- David Lodge, ed. *Twentieth Century Criticism*
- David Lodge, ed. *Modern Criticism and Theory: A Reader*
- Jonathan Culler, "In Pursuit of Signs"
- Tony Bennett, *Formalism and Marxism* (New Accents)

### +3 THIRD YEAR FIFTH SEMESTER

#### DSE - 2

#### WORLD LITERATURE

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

#### INTRODUCTION:

This paper proposes to introduce the students to the study of world literature through a representative selection of texts from around the world. The idea is to read beyond the classic

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European canon by including defining literary texts from other major regions/countries—except the United States of America—written in languages other than English, but made available to the readers in English translation.

#### **UNIT 1: European**

Albert Camus: *The Outsider*

#### **UNIT 2: Caribbean**

V S Naipaul: *A Bend in the River*

#### **UNIT 3: Canadian Short Fiction**

Alice Munroe: “The Bear Came Over the Mountain”, “Face”

#### **UNIT 4: Latin American Poetry**

- (i) Pablo Neruda :”Tonight I can Write” and “Every day you play”
- (ii) Octavio Paz: “Between going and staying the day wavers” and “Motion”

#### **Text Books**

- Texts prescribed in Units 1, 2, 3, 4

#### **Web Resources:**

- Alice Munro’s short Stories <http://www.newyorker.com/magazine/2013/10/21/the-bear-came-over-the-mountain-2>, <http://www.newyorker.com/magazine/2008/09/08/face>
- Poems of Octavio Paz [http://www.poetrysoup.com/famous/poems/best/octavio\\_paz](http://www.poetrysoup.com/famous/poems/best/octavio_paz)

#### **Reference Books:**

- *Weltliteratur*. John Wolfgang von Goethe in *Essays on Art and Literature* Goethe : The Collected Works Vol.3
- Rabindranath Tagore “World Literature”: *Selected Writings On Literature and Language: Rabindranath Tagore* Ed. Sisir Kumar Das and Sukanta Chaudhuri
- Goethe’s “World Literature Paradigm and Contemporary Cultural Globalization” by John Pizer “Something Will Happen to You Who Read”:Adrienne Rich, Eavan Boland’by Victor Luftig .JSTOR iv. *Comparative Literature* University of Oregon.
- “WLT and the Essay” *World Literature Today* Vol. 74, No. 3, 2000. JSTOR Irish University Review, Vol.23 Spring 1, Spring-Summer.
- What is world Literature? (Introduction) David Damrosch <http://press.princeton.edu/chapters/i7545.html>
- Tagore’s comparative world literature <https://www.academia.edu/4630860/Rabindranath-Tagores-Comparative-World-Literature>

**+3 THIRD YEAR SIXTH SEMESTER****DSE - 3****PARTITION LITERATURE**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**INTRODUCTION:**

This paper seeks to expose the students to some significant writings on Indian partition, which brought untold miseries to those who lost lives and homes. The issues of loss, trauma, communalism etc. are explored by the texts.

**UNIT 1 : Defining partition literature**

Ritu Menon and Kamla Bhasin, 'Introduction' from *Borders and Boundaries* (New Delhi: Kali for Women, 1998)

**UNIT 2 :**

W.H. Auden "Partition", Agha Shahid Ali, "Learning Urdu", "The Dawn of Freedom" Faiz Ahmad Faiz

**UNIT 3: Bapsi Sidhwa**

*Ice-candy-man*

**UNIT 4:**

- (i) Sadat Hassan Manto, 'Toba Tek Singh' (from *Mottled Dawn*, Penguin India) (ii) Rajinder Singh Bedi, "Lajwanti" ( Trans. Khushwant Singh)
- (iii) Lalithambika Antharajanam, "A Leaf in the Storm"

**Text Books**

- Texts prescribed in Units 1, 2, 3, 4
- (*Mottled Dawn* for Manto and Bedi in Unit 4, Penguin India)
- *Borders and Boundaries*. New Delhi: Kali for Women, 1998

**Reference Books:**

- Sukrita P. Kumar, "Narrating Partition" (Delhi: Indialog, 2004)
- Urvashi Butalia, "The Other Side of Silence: Voices from the Partition of India" (Delhi: Kali for Women, 2000)
- Sigmund Freud, "Mourning and Melancholia" in *The Complete Psychological Works of Sigmund Freud*, tr. James Strachey (London: Hogarth Press, 1953) pp. 3041-53.

**+3 THIRD YEAR SIXTH SEMESTER****DSE - 4****WRITING FOR MASS MEDIA**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**UNIT 1:**

History of English in India, Brief history of Journalism in English in India , Status of English in India, Indian writers of English and their treatment of the English language a non-native variety

**UNIT 2:**

Writing for the Print Media: News Stories, Features, Editorials (The teacher is required to cite examples and use material from mass media)

**UNIT 3:**

- (i) Writing for the Electronic Media
- (ii) Advertisement caption writing and tag lines (print and electronic)

**UNIT 4:**

- (i) Email, Blogs, Social networking
- (ii) Internet Journalism

**Reference Books**

- Rangaswamy Parthasarathy, *Journalism in India: From the earliest times to the present day*, Sterling.
- S V Parasher, *Indian English: Functions and Form*, Bahri Publications.
- Stephen McLaren, *Easy Writer*
- A R Parhi, *Indian English through Newspapers*, Concept Publications.
- G L Labru, *Indian Newspaper English*, B R Publishing House.
- Vinod Dubey, *Newspaper English in India*, Bahri Publications.
- Kachru, Braj: *from Indianization of English*
- Dutta and Parhi, 'Prospect of Electronic Media as Curriculum in Non-Native Contexts', *I-Manager's Journal on English Language Teaching*. (2014)
- Aijaz Ahmed: 'Disciplinary English: Third-Worldism and Literature'.
- Narasimhaih; C.D. (ed.): *Awakened Consciousness: Studies in Commonwealth Literature*, New Delhi: Sterling.
- Omkar N. Koul: *English in India: Theoretical and Applied Issues*. New Delhi: Creative Publishers.

**DSE – 4****DISSERTATION/ RESEARCH PROJECT****INTRODUCTION AND OUTCOME :**

A project is an individual or collaborative activity that is carefully planned to achieve a particular aim. An undergraduate project is individual research by students to i. understand in-depth a particular topic or fact in their field of study, and ii. strengthen their understanding of research processes and methods.

Undergraduate research is inquiry-based learning that involves practical work, and not just listening to classroom teaching and personal reading. Students learn to apply what they study in their courses to appreciate different aspects of their field better by working independently on the projects. At the same time, they contribute something original to the courses they study.

An undergraduate research project is expected to explore specific topics within the field of study of the students. The project should make an original contribution to the discipline in some manner. The results of quality undergraduate research can be presented in seminars and conferences, and published in research journals dedicated specifically to such work or in traditional academic journals with the student as a co- author.

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There are many benefits of undergraduate research including, but not limited to, real world applications, research and professional experience, and better relationships between faculty and students. The objective is to relate course work to out-of-class experiences, to train students to work and think independently, take responsibility for their own learning, and take initiative to solve problems on their own rather than relying on experts for answers. They also learn to work in collaboration in interdisciplinary research. Most of all, projects help students learn a variety of skill sets to make them confident and competent in their future career.

### The research process

Typically, all research answer three questions: *what*, *why* and *how*. The *what* states the research question to be investigated in a project. The *why* explains the purpose of the research and also every step undertaken to conduct the research. The *how* describes the stages of the research procedure. To understand the process of research and to practically conduct any requires a good background in research methodology. Students may study research methodology before undertaking their projects.

### Pattern of examination MID-SEMESTER ASSESSMENT

Presentation of the project synopsis

#### Synopsis to include :

- i. Research statement/question and its rationale
- ii. Review of literature stating the validity of the project
- iii. Discussion of the research steps
- iv. Possible conclusion/s
- v. Contribution of the project to the existing body of research
- vi. References

#### Semester final examination

A project of at least 3000 words to be submitted in the following structure:

- Research question - a short statement
- Rationale of the research
- Introductions of the research
- Review of literature relating the reviews to the research question and the research Introductions
- Data collection and interpretation
- Discussion of the findings; conclusions drawn
- Contribution of the project to the existing body of research
- Directions for future research
- Works cited section

#### Reference Books

- John Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications. 2009
- K Samantray, *Academic and Research Writing*. Orient Blackswan. 2015
- Sword, H. *Stylish Academic Writing*. Harvard University Press. 2012
- Norman Denzin, *Sage Handbook of Qualitative Research*. Sage Publications. 2005
- Kothari & Garg, *Research Methodology*. New Age Publishers
- Deepak Chawla & Neena Sondhi. *Research methodology: Concepts & Cases*. Vikas Publishing

**+3 FIRST YEAR FIRST SEMESTER  
GE - 1**

**ACADEMIC WRITING AND COMPOSITION**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**INTRODUCTION:**

This paper seeks to train the students in the basic writing skills required for writing competently in the academic context.

**UNIT 1:**

Introduction to the Writing Process: with a focus on Academic Writing

**UNIT 2:**

Writing in one's own words: Summarizing and Paraphrasing

**UNIT 3:**

Critical Thinking: Synthesis, Analysis, And Evaluation

**UNIT 4:**

Citing Resources: Editing, Book and Media Review

**Reference Books:**

- Liz Hamp-Lyons and Ben Heasley, *Study Writing: A Course in Writing Skills for Academic Purposes* (Cambridge UP, 2006)
- Ilona Leki, *Academic Writing: Exploring Processes and Strategies*. New York: CUP, 2nd edn, 1998
- Stanley Fish, *How to Write a Sentence and How to Read One*. Harpar Perennial. 2011.
- *Literature and the art of Communication*, Cambridge University Press
- Gerald Graff and Cathy Birkenstein, *They Say/I Say: The Moves That Matter in Academic Writing*. New York: Norton, 2009

**+3 FIRST YEAR SECOND SEMESTER  
GE - 2**

**GENDER AND HUMAN RIGHTS  
(Faculty training needed)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**INTRODUCTION:**

This paper seeks to familiarize the students with issues of inequality, and oppression of caste, race and gender.

**UNIT 1:**

Unit I and II of *Gender Sensitivity* ( UNESCO Module 5)

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**UNIT 2:**

“Castes in India”: Dr Babasaheb Ambedkar

**UNIT 3:**

*We Should All Be Feminists* by Chimamanda Ngozi Adichie,

**UNIT 4:**

*Sultana’s Dream* (a novella): Rokeya Sakhawat Hossain

**Text Books**

- Texts prescribed in Unit I,II,III, IV

**Reference Books:**

- Babasaheb Ambedkar, *Writings and Speeches*, Vol 1, Compiled by Vasant Moon. Ambedkar Foundation, 2014.
- Chimamanda Ngozi Adichie- *We Should All Be Feminists*. London: Fourth Estate, 2014.
- Rokeya Sakhawat Hossain - *Sultana’s Dream*. Penguin Modern Classics, 2005. UNESCO-Gender Sensitivity, Zambia, 2000. [http://www.unesco.org/education/mebam/module\\_5.pdf](http://www.unesco.org/education/mebam/module_5.pdf)

**+3 SECOND YEAR THIRD SEMESTER****GE - 3****NATION, CULTURE, INDIA**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**INTRODUCTION:**

This paper seeks to introduce students across disciplines to basic ideas about Indian cultural ethos mediated through literature.

**UNIT 1:**

*An Autobiography (My Experiments With Truth)* - M.K. Gandhi. Part V, ‘The First Experience’ (Chapters-I) to ‘Face to Face with Ahimsa’( Chap XIV)

**UNIT 2:**

“Secularism and Its Discontents”- Amartya Sen ( from *The Argumentative Indian*)

**UNIT 3:**

“Nationalism in India”- Rabindranath Tagore (from *Nationalism*)

**UNIT 4:**

“The Renaissance in India”- Sri Aurobindo ( from *The Renaissance in India and Other Essays*)

**Text Books**

- Texts prescribed in Units 1, 2, 3, 4

**Reference Books:**

- A.L. Basham, *Wonder that was India*
- D.D. Kosambi, *Culture and Civilization of Ancient India in Historical Outline*
- Romila Thapar, *Time as a Metaphor in Human History*
- Pawan K. Verma, *The Great Indian Middleclass*



**+3 SECOND YEAR FOURTH SEMESTER****GE - 4****LANGUAGE AND LINGUISTICS**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**INTRODUCTION:**

This paper aims to offer the students some fundamental knowledge in Linguistics and English Language Teaching (ELT). It also seeks to acquaint the students with the variety of English that people come in contact with in contemporary times with a special emphasis on Asia and in particular, India.

**UNIT 1:**

Language : What is Language, Linguistics, Branches and Scope, Applied Linguistics Global Englishes: Who Speaks English today? Standard Language and Language Standards, Language Variation, Postcolonial English, Pidgin and Creole, English in Asia and Europe

**UNIT 2:**

Phonology and Morphology

**UNIT 3:**

Syntax

**UNIT 4:**

Semantics

**Reference Books**

- *Introductory book on Linguistics and Phonetics* by R L Varshney
- *Global Englishes: A Resource Book for Students*, Jennifer Jenkins, 3rd Edn, Special Indian Edition, Routledge, 2016
- *An Introduction to Language and Communication*,
- A R Parhi, 'Localising the Alien: Newspaper English and the Indian Classroom', *English Studies in India*, Springer, 2018.
- Adrian Akmajian, R. A. Demers, Ann K Farmer and R, M. Harnish, Prentice Hall of India, 2012
- David Crystal, *Linguistics*
- Braj B Kachru, *The Indianization of English* (OUP)
- David Crystal, *English as a World Language*

**GE - 4 (Tutorial )****(20 marks: 1 credit)****INTRODUCTION:**

This paper seeks to reinforce learning of the theory paper by way of engaging the students in remedial teaching and doubt clearing classes.

**Scheme of Examination-**

Internal Assessment will be done by tutors through 10 multiple choice questions (10 x 1 = 10) and very short answer-type questions (5 x 2 = 10)

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# GEOGRAPHY

## +3 FIRST YEAR FIRST SEMESTER

### Core Paper - 1

### GEOMORPHOLOGY

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

#### Unit - I:

Geomorphology: Meaning, Nature & Scope, Field of Geomorphology, Earth: Interior Structure and Isostasy (Airy and Pratt's view), Rocks-Types

#### Unit - II:

Earth Movements: Continental Drift, Plate Tectonics. Types of Folds and Faults, Earthquakes and Volcanoes (Types and Landforms).

#### Unit - III:

Geomorphic Processes: Weathering, Mass Wasting, Cycle of Erosion (Davis and Penck).

#### Unit - IV:

Evolution of Landforms: (Erosional and Depositional): Fluvial, Karst, Aeolian, Glacial and Coastal

### PRACTICAL

Credit : 02

25 Marks

1. Construction and use of Graphical scale RF Statement Scale, Diagonal Scale
2. Drawing of Latitude and Longitude
3. Calculation of time of place with reference to GMT
4. Practical Record and Viva-voce (10% of marks)

#### Text Book

1. Singh, S (2009): Bhautik Bhugol ka Swaroop, Prayag Pustak, Allahabad

#### Reading List:

- Bloom A. L., 2003: Geomorphology: A Systematic Analysis of Late Cenozoic Landforms, Prentice-Hall of India, New Delhi.
  - Bridges E. M., 1990: World Geomorphology, Cambridge University Press, Cambridge.
  - Christopherson, Robert W., (2011), Geosystems: An Introduction to Physical Geography, 8 Ed., Macmillan Publishing Company
  - Kale V. S. and Gupta A., 2001: Introduction to Geomorphology, Orient Longman, Hyderabad.
  - Knighton A. D., 1984: Fluvial Forms and Processes, Edward Arnold Publishers, London.
  - Richards K. S., 1982: Rivers: Form and Processes in Alluvial Channels, Methuen, London.
  - Selby, M.J., (2005), Earth's Changing Surface, Indian Edition, OUP
  - Skinner, Brian J. and Stephen C. Porter (2000), The Dynamic Earth: An Introduction to physical Geology, 4th Edition, John Wiley and Sons
  - Thornbury W. D.. 1968: Principles of Geomorphology, Wiley.
  - Gautam, A (2010): Bhautik Bhugol, Rastogi Publications, Meerut
  - Tikkaa, R N (1989): Bhautik Bhugol ka Swaroop, Kedarnath Ram Nath, Meerut
-

- Singh, S (2009): Geomorphology, Prayag Pustak Bhawan, Allahabad.
- Steers, J. A. - Unstable Earth, Kalyani Publisher.

**+3 FIRST YEAR FIRST SEMESTER**  
**Core Paper - 2**  
**CARTOGRAPHY**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Unit - 1: Cartography-Nature and scope**

- (a) Scientific basis of Cartography, needs of map making, characteristics and types of maps,
- (b) Cartography as a science of human communication
- (c) Branches of Cartography, Scope of cartography

**Unit - II: Basic Geodesy, Scale - Concept and application**

- (a) Spherical Earth, Ellipsoidal Earth. Geoid Earth
- (b) Geographical Coordinates (Latitude and Longitude), Graticules
- (c) Scale, Construction of types of Scales (Plain, Comparative and Diagonal Scale)

**Unit - III: Map Projections:**

- (a) Meaning and Use, Brief Historical aspect.
- (b) Transformation of area, Distance and Direction
- (c) Simple Cylindrical Projection, Conical Projection with one standard parallel

**Unit - IV: Slope Analysis and Geological Map Gradient and slope**

- (a) Interpretation of Bedding plane, Strike and Dip structure & stratigraphy of Geological map.
- (b) Slope defined and methods of determination of slope (Wentworth's method and Smith)

**PRACTICAL**

Credit : 02

25 Marks

1. Cartograms -Complex bar, wheel diagram, sphere diagram
2. Maps drawing -Dot maps - Uniform & Multiple
3. Choropleth maps
4. Practical record and viva-voce

**Text Book**

1. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers.
2. Mishra R.P. and Ramesh, A., 1989: Fundamentals of Cartography, Concept, New Delhi.

**Reference Books**

- Anson R. and Ormelling F. J., 1994: International Cartographic Association: Basic Cartographic Vol. Pergamon Press.
  - Monkhouse F. J. and Wilkinson H. R., 1973: Maps and Diagrams, Methuen, London.
  - Robinson A. H., 2009: Elements of Cartography, John Wiley and Sons, New York.
  - Sarkar, A. (2015) Practical geography: A systematic approach. Orient Black Swan Private Ltd.. New Delhi.
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**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper- 3**  
**HUMAN GEOGRAPHY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Unit-I:**

**Introduction:** Defining Human Geography Nature and Scope, Evolution of Human Geography, Man-nature relationship.

**Unit-II:**

**Society:** Evolution of man, Bases of racial classification, Classification of race, Religion and language of the world.

**Unit-III:**

**Population:** Factors affecting population distribution, World population distribution, Determinants of population growth, Demographic Transition Theory, Population composition.

**Unit-IV:**

**Settlement:** Types and pattern of Rural settlement, Central place Theory by Christaller, Trends of world urbanization.

**PRACTICAL**

Credit : 02

25 Marks

1. Drawing of age sex pyramid
2. Population distribution by circle method (district)
3. Pair Bar Diagram.
4. Enlargement and reduction of map by square method.
5. Practical records and viva -voce

**Text Book**

1. Hussain, Majid (2012) Human Geography. Rawat Publications, Jaipur

**Reference Books**

- Human & Economic Geography- Go cheng leong
  - Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
  - Daniel, P.A. and Hopkinson, M.F. (1989). The Geography of Settlement, Oliver & Boyd, London. Human Geography, Rupa Publication
  - Human Geography, B.S. Negi
  - Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
  - Hassan, M.I. (2005) Population Geography, Rawat Publications, Jaipur
  - Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
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**+3 FIRST YEAR SECOND SEMESTER****Core Paper - 4****CLIMATOLOGY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Unit - I:**

Atmospheric Composition and Structure - Insolation and Temperature Factors and Distribution. Heat Budget. Temperature Inversion.

**Unit - II:**

Atmospheric Pressure and Winds - Planetary Winds, Forces affecting Winds, General Circulation, Jet Streams.

**Unit - III:**

Atmospheric Moisture Evaporation, Humidity. Condensation, Fog and Clouds, Precipitation Types. Stability and Instability, Climatic Regions (Koppen)

**Unit - IV:**

Cyclones - Tropical Cyclones. Extra Tropical Cyclones, Monsoon - Origin and Mechanism.

**PRACTICAL**

Credit : 02

25 Marks

1. Interpretation of weather map. Weather forecasting.
2. Drawing of Climograph and Hythergraph. Wind rose diagram.
3. Drawing of Isotherm/ Isobar
4. Record & Viva-Voce carries 10% of marks

**Text Book**

1. Lai, D S (2006): Jalvayu Vigyan, Prayag Pustak Bhavan, Allahabad

**Reading List -**

- Barry R. G. and Carleton A. M., 2001: *Synoptic and Dynamic Climatology*, Routledge, UK.
  - Barry R. G. and Corley R. J., 1998: *Atmosphere, Weather and Climate*, Routledge, New York.
  - Critchfield H. J., 1987: *General Climatology*, Prentice-Hall of India. New Delhi
  - Lutgens F. K., Tarbuck E. J. and Tasa D., 2009: *The Atmosphere: An Introduction to Meteorology*, Prentice-Hall, Englewood Cliffs, New Jersey.
  - Oliver J. E. and Hidore J. J., 2002: *Climatology: An Atmospheric Science*, Pearson Education, New Delhi.
  - Trewartha G. T. and Home L. H., 1980: *An Introduction to Climate*, McGraw-Hill.
  - Gupta L S(2000): Jalvayu Vigyan, Hindi Madhyam Karyanvay Nidishalya, Delhi Vishwa Vidhyalaya, Delhi
  - Vatal, M (1986): Bhautik Bhugol, Central Book Depot, Allahabad
  - Singh, S (2009): Jalvayu Vigyan, Prayag Pustak Bhawan, Allahabad
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**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 5  
OCEANOGRAPHY**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****Unit - I** : Bottom Relief of Ocean, Atlantic, Indian and Pacific**Unit - II** : Temperature and salinity of ocean - determinants and distribution. T-S Diagram**Unit - III** : Movement of Ocean water- Waves, Currents (Atlantic, Pacific and Indian) Tides: Types and Theories**Unit - IV**: Ocean Deposits: Types and Distribution, Coral Reefs: Types, Theory of Origin (Darwin and Dana, Louis Agassiz and Murray)**PRACTICAL**Credit : **02****25 Marks**

1. Interpretation of Topographical Maps and Drawing of Profiles.
2. Drawing of Cross-section from Geological Maps and interpretation.
3. Enlargement and reduction of maps ,
4. Practical records and viva -voce

**Text Book**

1. Sharma R. C. and M. Vital: Oceanography 2. Lai, D. S. - Oceanography.

**Reference Book:**

- King, L. C. : Oceanography
- Singh, S. - Physical Geography

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 6  
STATISTICAL METHODS IN GEOGRAPHY**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****Unit - I:**

Use of Data in Geography: Geographical Data Matrix, Types and Sources of Data, Scales of Measurement (Nominal, Ordinal, Interval, Ratio).

**Unit - II:**

Tabulation and Descriptive Statistics: Frequencies. Distribution &amp; measures of Central Tendency (Mean, Median and Mode)

**Unit - III:**

Measures of Dispersion (mean Deviation, Standard Deviation, Variance and Coefficient of Variation).

**Unit - IV:**

Measures of Association and Correlation: Rank correlation, Product moment correlation and Simple linear Regression.

**PRACTICAL**Credit : **02****25 Marks**

1. Drawing of histogram, frequency curve, frequency polygon, ogive
2. Drawing of graphs showing mean, median, mode
3. Drawing of scatter diagram and Drawing of regression line.
4. Practical records and viva -voce

**Class Record:**

Each student will submit a record containing five exercises:

1. Tabular and graphical representation of frequency distribution.
2. Exercises on mean, median, mode in grouped Data.
3. Exercises on Drawing of scatter diagram, correlation and regression.
4. Record & Viva-voce carries 10% of marks.

**Text Book:**

1. Mahmood A., 1977: *Statistical Methods in Geographical Studies*, Concept.
2. Sarkar. A. (2013) *Quantitative geography: techniques and presentations*. Orient Black Swan Private Ltd., New Delhi

**Reference Book:**

- Hammond P. and McCullagh P. S.. 1978: *Quantitative Techniques in Geography: An Introduction*, Oxford University Press.
- Yeates M., 1974: *An Introduction to Quantitative Analysis in Human Geography*, McGraw Hill, New York
- Silk J., 1979: *Statistical Concepts in Geography*, Allen and Unwin, London
- King L. S., 1969: *Statistical Analysis in Geography*. Prentice-Hall
- Pal S. K., 1998: *Statistics for Geoscientists*, Tata McGraw Hill, New Delhi
- Ebdon D., 1977: *Statistics in Geography: A Practical Approach*.

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 7****GEOGRAPHY OF ODISHA**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****Unit - I:**

Physiography of Odisha, Drainage, Climate, Soil, Natural Vegetation

**Unit - II:**

Agriculture: (a) Production and Distribution of Rice, Cotton, Oil seeds; (b) Agricultural Problems and Prospects

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**Unit - III:**

Minerals and power resources:

- (a) Distribution of Iron Ore, Bauxite, Coal
- (b) Iron and steel industry, Aluminum Industry, Cotton Textile

**Unit - IV:**

- (a) Population: Distribution and Growth
- (b) Transport : Roadways & Railways

**PRACTICAL**

Credit : **02**

**25 Marks**

1. Drawing of maps to show the relief, soil and vegetation.
2. Drawing of maps to show the amenities of the area
3. Representation of population data by small squares, proportionate circle, divided rectangle
4. Practical records and viva -voce

**Text Book:**

1. Sinha, B. N. - Geography of Odisha

**Reading List:**

- Roy, G. C.- Geography of Odisha

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 8****EVOLUTION OF GEOGRAPHICAL THOUGHT**

Time : **3 Hrs.**

End Semester Theory : **60 Marks**

Credit : **04**

Mid Semester Theory : **15 Marks**

**Unit - I:**

Geographical concepts of ancient and classical period: Greek, Roman & Indian.

**Unit - II:**

Founders of modern geographical thought: Alexander Von Humboldt, Carl Ritter, Ratzel, Vidal Dela Blache.

**Unit - III:**

Dichotomy in Geography— Environmental Determinism and Possibilism, Systematic and Regional. Ideographic and Nomenothetic.

**Unit - IV:**

Recent - Quantitative Revolution in Geography, Behavioural approach in Geography, radicalism in Geography, Feminism.

**Practical**

1. Drawing of projection (Cylindrical- simple and cylindrical equal area)
  2. Drawing of projection (simple Conical with one standard parallel and two standard parallel).
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3. Drawing of projection (Gnomonic, Stereographic, Orthographic)
4. Practical records and viva -voce

**Text Book:**

1. Evolution of Geographical Thought- Majid Hussain

**Reference Books:**

- Dikshit R. D., 1997: *Geographical Thought: A Contextual History of Ideas*, Prentice-Hall India.
- Hartshorn R., 1959: *Perspectives of Nature of Geography*, Rand MacNally and Co.
- Martin Geoffrey J., 2005: *AH Possible Worlds: A History of Geographical Ideas*, Oxford.
- Holt-Jensen A., 2011: *Geography: History and Its Concepts: A Students Guide*, SAGE.
- Kapur A., 2001: *Indian Geography Voice of Concern*, Concept Publications.

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 9****ECONOMIC GEOGRAPHY**

Time : 3 Hrs.

End Semester Theory : 60 Marks

Credit : 04

Mid Semester Theory : 15 Marks

**Unit-I:**

Concept and classification of economic activity, Factors Affecting location of Economic Activity with special reference to Agriculture, Location of Economic Activity: Von Thunen Theory and Weber's theory.

**Unit-II:**

Primary Activities: Types and problems and agriculture, agricultural regions of the world, -forestry and fishing.

**Unit-III:**

Secondary Activities: Manufacturing (Cotton Textile. Iron and Steel), Industrial Regions of the world: with special reference to India, The Dragons

**Unit-IV:**

Tertiary Activities: Transport. Roads and Railways, Air and Water, Trade

**PRACTICAL**

Credit : 02

25 Marks

1. Drawing of maps to show crop production.
2. Drawing of Isotims and Isodapane,
3. Pie diagram showing occupational structure.
4. Practical records and viva -voce

**Class Record:** Each student will submit a record containing five exercises:

1. Determination of Agricultural efficiency - Bhatia & Kendal
  2. Drawing of Traffic flow diagram, Isochrone
  3. Drawing of Isotim & Isodapane
  4. Practical record and viva-voce 10% of mark
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**Text Book**

1. Roy, Pritish: *Economic Geography 2*. Gautam, Alaka: *Economic Geography*,

**Reference Book**

- Alexander J. W., 1963: *Economic Geography*, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
- Wheeler J. O., 1998: *Economic Geography*, Wiley.
- Durand L., 1961: *Economic Geography*, Crowell.
- Willington D. E., 2008: *Economic Geography*, Husband Press.
- Clark, Gordon L.; Feldman, M.P. and Gertler, M.S., eds. 2000: *The Oxford*

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 10****ENVIRONMENTAL GEOGRAPHY**

Time : 3 Hrs.

End Semester Theory : 60 Marks

Credit : 04

Mid Semester Theory : 15 Marks

**Unit - I:**

Environmental Geography - Concept and Scope, Environmental contrast (Biotic Abiotic, Global, Continental. Local) Environmental control of (light. Temperature, Water, topography and edaphic factors)

**Unit - II:**

Ecosystem - Concept, Structure and Functions. Trophic level, Food Chain, Bio- geo-chemical Cycle (Nitrogen and Carbon), Energy flow in Ecosystem.

**Unit- III:**

Environmental Problems in Tropical, Temperate and Polar Ecosystems. Environmental pollution (water and air)

**Unit - IV:**

Environmental Programmes and Policies — Major Global & National programme and policies, concept of spaceship earth, earth summit 1992, wildlife act of India 1972, water pollution control act of India 1974, National Environmental tribunal - 1995 of India.

**PRACTICAL**

Credit : 02

25 Marks

**(Project)**

**Submission of report on any environmental problem of global, national and local level by individual student.**

**Text Book:**

1. Santra, S.C *Environmental Science*
2. Singh S., 1997: *Environmental Geography*, Prayag Pustak Bhawan. Allahabad.

**Reference Book:**

- Chandna R. C., 2002: *Environmental Geography*, Kalyani, Ludhiana.
- Cunningham W. P. and Cunningham M. A., 2004: *Principals of Environmental Science: Inquiry and Applications*, Tata Macgraw Hill, New Delhi.
- Goudie A., 2001: *The Nature of the Environment*, Blackwell, Oxford.

- Miller G. T., 2004: *Environmental Science: Working with the Earth*, Thomson BrooksCole, Singapore.
- Odum, E. P. et al, 2005: *Fundamentals of Ecology*, Ceneage Learning India.

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 11**  
**REGIONAL PLANNING AND DEVELOPMENT**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Unit- I** : Definition of Region, Evolution and Types of Regional planning: Formal, Functional, and Planning Regions, Need for Regional Planning; Characteristics of an Ideal Planning Region

**Unit- II** : Delineation of Planning Region; Approaches and Methods, Planning Regions of India

**Unit- III** : Theories and Models for Regional Planning: Growth Pole Model of Perroux; Myrdal, Hirschman, Rostow.

**Unit- IV** : Policies and Programs for Rural and Regional Development Planning in India, Concept of Human development Index

**PRACTICAL**

Credit : 02

25 Marks

1. Transport network analysis -Alfa, Beta, Gama
2. Nearest neighbour analysis
3. Traffic flow diagram
4. Practical record and viva-voce

**Text Book**

1. Chand, Mahesh and V. K. Puri: Regional Planning
2. Mishra R. P : Regional Planning, Concept Publishers, New Delhi

**Reference Book:**

- Friedmann J. and Alonso W. (1975): *Regional Policy - Readings in Theory and Applications*, MIT Press. Massachusetts.
  - Haynes J., 2008: *Development Studies*, Polity Short Introduction Series.
  - Peet R., 1999: *Theories of Development*, The Guilford Press, New York.
  - UNDP 2001-04: *Human Development Report*. Oxford University Press.
  - World Bank 2001-05: *World Development Report*, Oxford University Press, New
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**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 12**  
**REMOTE SENSING AND GIS**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Unit - I:**

Remote Sensing and GIS: Definition and Components, Platforms and Types, Advantages of Remote Sensing, Limitation of Remote Sensing & Principle of Remote Sensing

**Unit - II:**

Aerial Photography and Satellite Remote Sensing: Principles, Types and Geometry of Aerial Photograph; EMR Interaction with Atmosphere and Earth Surface; Satellites and Types of Sensors.

**Unit - III:**

GIS definition, components, History and development, Application of GIS.

**Unit - IV:**

GIS Data Structures: Types (spatial and Non-spatial), Raster and Vector Data Structure, GPS elements and Uses.

**PRACTICAL**

Credit : 02

25 Marks

**(Project)**

A project file consisting of two exercises will be done from aerial photos and satellite images (scale, orientation and interpretation) or 3 exercises on using any GIS Software on above mentioned themes

**Or**

Submission of project report on any topic from the course Record & Viva-voce carries 10% of marks

**Text Book**

1. Lillesand T. M., Kiefer R. W. and Chipman J. W., 2004: *Remote Sensing and Image Interpretation*, Wiley. (Wiley Student Edition).

**Reference Book:**

- Bhatta, B. (2008) *Remote Sensing and GIS*, Oxford University Press, New Delhi.
  - Campbell J. B., 2007: *Introduction to Remote Sensing*, Guildford Press
  - Chauniyal, D. (2010) *Sudur Samvedana Avam Bhaugolik Suchna Pranali*, Sharda Pustak Bhawan, Allahabad.
  - Jensen, J. R. (2005) *Introductory Digital Image Processing: A Remote Sensing Perspective*, Pearson Prentice-Hall.
  - Joseph, G. 2005: *Fundamentals of Remote Sensing* United Press India.
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**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 13**  
**GEOGRAPHY OF INDIA**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Unit - I:**

Physiographic Divisions, soil and vegetation, climate (characteristics and classification)

**Unit - II:**

Population: Distribution. Demographic structure, trend of population growth

**Unit - III:**

Mineral and power resources distribution and utilisation of iron ore. coal, petroleum, Natural gas;

**Unit - IV:**

Agricultural production and distribution of rice and wheat, industrial development: Iron & Steel, Cotton and Textile Industry, Automobile

**PRACTICAL**

Credit : 02

25 Marks

1. Use of instrument - measurement of length of river or road and area by the help of Planimeter and Rotameter.
2. Chain and tape survey
3. Plane table survey
4. Practical record and viva-voce.

**Text Book**

1. Sharma, T.C. (2013) Economic Geography of India. Rawat Publication, Jaipur
2. Khullar, D. R. India: A Comprehensive Geography

**Reference Book:**

- Deshpande C. D., 1992: *India: A Regional Interpretation*, ICSSR, New Delhi.
  - Mandal R. B. (ed.), 1990: *Patterns of Regional Geography - An International Perspective. Vol. 3 - Indian Perspective.*
  - Sharma, T. C. 2003: *India - Economic and Commercial Geography*. Vikas Publ., New Delhi.
  - Singh R. L., 1971: *India: A Regional Geography*, National Geographical Society of India.
  - Singh, Jagdish 2003: *India - A Comprehensive & Systematic Geography*, Gyanodaya Prakashan, Gorakhpur.
  - Spate O. H. K. and Learmonth A. T. A., 1967: *India and Pakistan: A General and Regional Geography*, Methuen.
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**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 14**  
**DISASTER MANAGEMENT**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Unit - I:**

Concept of Hazards, Disasters, Natural and manmade hazards, Types of hazards, Concept of disaster management, Vulnerability and risk.

**Unit - II:**

Disaster management cycle, Pre disaster management, During disaster management, Post Disaster review and management, Prevention, mitigation, preparedness, Adaptation.

**Unit - III:**

Detail study of nature and characteristics of hazards: Flood, Cyclone, Drought, Earthquake. Manmade hazards - Industrial and Fire.

**Unit - IV:**

Indigenous community based disaster preparedness. Role of NDMA, NIDM, NDRF, OSDMA & ODRAF, Disaster working system. Role of NGOs and GOs in disaster management.

**PRACTICAL**

Credit : 02

25 Marks

**Project work**

Preparation of a report on a specific hazard/ disaster

**Text books**

1. Singh, Savindar (2009): Disaster Management

**Reference books:**

1. Mishra B.J : Natural hazards and disaster management
  2. Sundar I & Sezuiyan T : Disaster management
  3. Verma : Encyclopedia of Disaster management
  4. Eye Publication : Vulnerable India
  5. Sinha. A. - Disaster management, United Press
  6. Singh R.B - Risk Assessment and Vulnerability analysis.
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**+3 THIRD YEAR FIFTH SEMESTER****DSE - 1****POPULATION GEOGRAPHY**Time : **3 Hrs.**Credit : **04**End Semester Theory : **60 Marks**Mid Semester Theory : **15 Marks****Unit - I:**

Defining the Field - Nature and Scope; Sources of Data with special reference to India (Census, Vital Statistics and NSS), Population problems.

**Unit - II:**

Population Size, Distribution and Growth - Determinants and Patterns; Theories of Growth - Malthusian Theory and Demographic Transition Theory.

**Unit - III:**

Population Dynamics: Fertility, Determinants and Implications. Mortality and Migration Measures,

**Unit - IV:**

Population Composition and Characteristics Age-Sex Composition; Rural and Urban Composition; Literacy, Contemporary Issues - Ageing of Population; Declining Sex Ratio; HIV/AIDS, Population Problems.

**PRACTICAL**Credit : **02****25 Marks**

1. Population projection: AP, GP method
2. Drawing of triangular diagram and Lorenz curve
3. Construction of compound and superimposed pyramids
4. Practical record and viva-Voce

**Text book**

1. Chandna R. C. and Sidhu M. S., 1980: *An Introduction to Population Geography*, Kalyani Publishers.

**Reading List:**

- Barrett H. R.. 1995: *Population Geography*, Oliver and Boyd.
- Bhende A. and Kanitkar T.. 2000: *Principle\* of Population Studies*, Himalaya Publishing House.
- Clarke J. I., 1965: *Population Geography*, Pergamon Press, Oxford.
- Jones, H. R.. 2000: *Population Geography*, 3rd ed. Paul Chapman, London.
- Lutz W., Warren C. S. and Scherbov S., 2004: *The End of the World Population Growth in the 21st Century*, Earthscan.
- Newbold K. B., 2009: *Population Geography: Tools and Issues*, Rowman and Littlefield Publishers.
- Pacione M., 1986: *Population Geography: Progress and Prospect*, Taylor and Francis.
- Wilson M. G. A., 1968: *Population Geography*, Nelson.
- Panda B P (1988): *Janasankya Bhugol*, M P Hindi Granth Academy, Bhopal
- Maurya S D (2009) *Jansankya Bhugol*, Sharda Putak Bhawan, Allahabad
- Chandna, R C (2006), *Jansankhya Bhugol*, Kalyani Publishers, Delhi

**+3 THIRD YEAR FIFTH SEMESTER**  
**DSE - 2**  
**RESOURCE GEOGRAPHY**

Time : 3 Hrs.

End Semester Theory : 60 Marks

Credit : 04

Mid Semester Theory : 15 Marks

**Unit - I:**

Natural Resource: Concept, Types, Classification , Functional Theory of Resource.

**Unit - II:**

Distribution, Utilization of soil Resource and Water Resources, Distribution, Utilization, of Forest and Energy Resources

**Unit - III:**

Problem and management of Soil, Water, Forest & Energy Resources

**Unit - IV:**

Sustainability of Resources, Resource management & conservation, Resource Scarcity Hypothesis

**PRACTICAL**

Credit : 02

25 Marks

1. Survey by Prismatic Compass
2. Survey by Theodolite (horizontal and vertical)
3. Levelling by Dumpy level
4. Practical record and viva-voce

**Text book**

1. Singh, R.L. 1988 (Reprint) - India: A Regional Geography

**Reading List:**

- Cutter S. N., Renwick H. L. and Renwick W., 1991: *Exploitation, Conservation, Preservation: At Geographical Perspective on Natural Resources Use*, John Wiley and Sons, New York.
- Gadgil M. and Guha R., 2005: *The Use and Abuse of Nature: Incorporating This Fissured Land: An Ecological History of India and Ecology and Equity*, Oxford University Press. USA.
- Holechek J. L. C., Richard A., Fisher J. T. and Valdez R., 2003: *Natural Resources: Ecology, Economics and Policy*, Prentice Hall, New Jersey.
- Jones G. and Hollier G., 1997: *Resources, Society and Environmental Management*, Paul Chapman, London.
- Klee G., 1991: *Conservation of Natural Resources*, Prentice Hall, Englewood.
- Mather A. S. and Chapman K., 1995: *Environmental Resources*, John Wiley and Sons, New York.
- Mitchell B., 1997: *Resource and Environmental Management*, Longman Harlow, England.
- Owen S. and Owen P. L., 1991 : *Environment, Resources and Conservation*, Cambridge University Press, New York.
- Rees J., 1990: *Natural Resources: Allocation, Economics and Policy*, Routledge. London.



**+3 THIRD YEAR SIXTH SEMESTER****DSE - 3****RURAL DEVELOPMENT**Time : **3 Hrs.**Credit : **04**End Semester Theory : **60 Marks**Mid Semester Theory : **15 Marks****Unit-I:**

Rural development: Meaning and concept, indicators and objectives, Problems of rural development, Interdependence of rural and urban sector, Gandhian concept of rural development.

**Unit-II:**

Sectoral approach: Agriculture and allied sectors, problem faced by agricultural sector, National agricultural policy, Pradhan Mantri Fasal Bima Yojana (PMFBY), Lab to land approach

**Unit-III:**

Area based approach: Hill Area Development Programme, Command Area Development Programme. Tribal Area Development programme, Drought prove Area Development Programme.

**Unit-IV:**

Target group approach: Integrated Rural Development Programme (IRDP), Training Rural Youth for self-employment (TRYSEM), Swarna Jayanti Gram Swarozgar Yojana (SJGSY), Development of women and children in Rural Areas.

**PRACTICAL**Credit : **02****25 Marks**

- Project on any slum area or village area survey

**Books:**

1. Rural Geography - B.S. Nege
2. Yojana Monthly magazines on rural development
3. Kurukhetra monthly magazine on rural development

**+3 THIRD YEAR SIXTH SEMESTER****DSE - 4****DISSERTATION / PROJECT WORK**Credit : **04****100 Marks**

A project report may be given in view of discific papers. It is considered as a special course involving application of knowledge solving exploring a real life situation and difficult problem.

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**+3 SECOND YEAR THIRD SEMESTER****GE - 3****GEOGRAPHY OF INDIA**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Unit I:**

Physical: Physiographic Divisions, soil and vegetation, climate (characteristics and classification)

**Unit II:**

Population: Distribution and growth, Structure, Social: Distribution of population by race, caste, religion, language, tribes

**Unit III:**

Economic: Mineral and power resources distribution and utilisation of iron ore, coal, Petroleum, gas; agricultural production and distribution of rice and wheat, industrial development: automobile and Information technology

**Unit IV:**

Transport in India: Road, Rail and Airways, Waterways

**Project:** Submission of project on any topic related to India.**OR****Project: Submission of Project report on any topic from the course Text books**

1. Sharma, T.C. (2013) Economic Geography of India. Rawat Publication, Jaipur
2. Khullar, D. R. India: A Comprehensive Geography

**Reading List**

1. Deshpand C. D., 1992: India: A Regional Interpretation, 1CSSR, New Delhi
2. Johnson, B. L.C., ed. 2001. Geographical Dictionary of India, Vision Books, New Delhi
3. Sdyasuk Galina and P. Sengupta (1967): Economic Regionalisation of India, Census of India

**+3 SECOND YEAR FOURTH SEMESTER****GE - 4****GEOGRAPHY OF ODISHA**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Unit I:** Physiography of Odisha, Drainage, Climate, Soil, Natural Vegetation**Unit II:** Agriculture:

- (a) Production and Distribution of Rice, Pulses, Oil seeds;
  - (b) Agricultural Problems and Prospects
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**Unit III:** Minerals and power resources:

- (a) Distribution of Iron Ore, Bauxite, Coal
- (b) Iron and steel industry, Aluminum Industry, Cotton Textile

**Unit IV:**

- (a) Population: Distribution and Growth
- (b) Transport: Roadways & Railways

**Project:** Submission of project report on any topic related to Odisha.

**PRACTICAL**

Credit : **02**

**25 Marks**

**Project:**

Interaction with a community and report on socio cultural status.

**Text Book**

Hussain, Majid (2012) Human Geography. Rawat Publications, Jaipur

**Reading List:**

1. Hassan, M.I. (2005) Population Geography, Rawat Publications, Jaipur
  2. Daniel, P.A. and Hopkins, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
  3. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
  4. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
  5. Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut.
  6. Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad.
  7. Hussain, Majid (2012) Manav Bhugol. Rawat Publications, Jaipur
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# HINDI

## +3 FIRST YEAR FIRST SEMESTER

### Core Course - 1

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

## हिन्दी साहित्य का इतिहास (भाग-1)

### UNIT-I

हिन्दी साहित्य के प्रमुख इतिहास ग्रन्थ (केवल परिचय), काल विभाजन एवं नामकरण।

### UNIT-II

आदिकाल की पृष्ठभूमि, आदिकाल के प्रमुख कवि, आदिकाल की प्रमुख रचनाएँ, आदिकाल की प्रमुख काव्य प्रवृत्तियाँ।

### UNIT-III

भक्तिकाल की पृष्ठभूमि और प्रवृत्तियाँ, निर्गुण काव्यधारा (ज्ञान मार्ग एवं प्रेम मार्ग), निर्गुण काव्यधारा के प्रमुख कवि एवं रचनाएँ।

सगुण काव्यधारा की प्रवृत्तियाँ और विशेषताएँ, राम भक्ति शाखा, कृष्ण भक्ति शाखा, प्रमुख कवि एवं रचनाएँ।

### UNIT-IV

रीतिकाल की पृष्ठभूमि, रीति काव्य का परिचय, प्रमुख कवि और उनकी रचनाएँ, प्रवृत्तियाँ।

अंक विभाजन :	(क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे	
	जिनमें से 10 का उत्तर लिखना होगा -	2 x 10 = 20
	(ख) सभी यूनिट से दो - दो प्रश्न पूछे जाएँगे	
	जिनमें 04 का उत्तर लिखना होगा -	15 x 4 = 60

### सहायक ग्रंथ :

1.	हिन्दी साहित्य का इतिहास-	आचार्य रामचन्द्र शुक्ल, नागरी प्रचारणी सभा, काशी
2.	हिन्दी साहित्य का उदभव और विकास-	आचार्य हजारी प्रसाद द्विवेदी
3.	हिन्दी साहित्य का दूसरा इतिहास -	डॉ. बच्चन सिंह
4.	भक्ति काव्य और लोक जीवन -	शिवकुमार मिश्र
5.	Social Life and Concepts in Medieval Hindi Bhakti Poetry-Dr. Savitri Chandra	
6.	भारतीय चिंतन परंपरा -	के. दामोदरन
7.	हिन्दी साहित्य का इतिहास -	लक्ष्मीसागर वार्ष्णेय
8.	हिन्दी साहित्य का आलोचनात्मक इतिहास	डा. रामकुमार वर्मा

**+3 FIRST YEAR FIRST SEMESTER  
Core Course - 2**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**भक्तिकालीन हिन्दी कविता  
(निर्गुण एवं रामभक्ति काव्यधारा)**

**UNIT-I**

निर्गुण भक्ति काव्य का स्वरूप, ज्ञानमार्ग और प्रेम मार्ग, रामभक्ति काव्य का स्वरूप, प्रमुख कवि और प्रवृत्तियाँ।

**UNIT-II**

कबीर - पद संख्या :- २. रहना नहिं देस बिराना है, ४. साधो, देखा जग बौराना, ५. तोको पीव मिलेंगे।  
साखी - १ से २१ तक।

**UNIT-III**

मलिक मुहम्मद जायसी - नागमती वियोग - वर्णन।

**UNIT-IV**

तुलसी दास - भरत महिमा।

**पाठ्य पुस्तक :**

1. हिन्दी काव्य संग्रह, सं. रामवीर सिंह, केन्द्रीय हिन्दी संस्थान, आगरा

**अंक विभाजन :** (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे  
जिनमें से 10 का उत्तर लिखना होगा -

2 x 10 = 20

(ख) यूनिट 1 से 02 प्रश्न एवं यूनिट 2, 3 एवं 4 से  
काव्यगत विशेषताओं सहित व्याख्या के 06 प्रश्न  
पूछे जाएँगे जिनमें 04 का उत्तर लिखने होंगे -

15 x 4 = 60

**सहायक ग्रंथ :**

- |   |   |                       |
|---|---|-----------------------|
| 1. भक्ति आंदोलन और सूरदास का काव्य                    | - | मैनेजर पाण्डेय        |
| 2. हिंदी सूफी काव्य की भूमिका                         | - | रामपूजन तिवारी        |
| 3. राष्ट्रीय एकता, वर्तमान समस्याएँ और भक्ति साहित्य- |   | कैलाश नारायण तिवारी   |
| 4. कबीर की विचारधारा                                  | - | गोविंद त्रिगुणायत     |
| 5. भक्ति काव्य यात्रा                                 | - | रामस्वरूप चतुर्वेदी   |
| 6. तुलसीदास   | - | रामचन्द्र शुक्ल       |
| 7. कबीर   | - | हजारी प्रसाद द्विवेदी |

## +3 FIRST YEAR SECOND SEMESTER Core Course - 3

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

### हिन्दी साहित्य का इतिहास (भाग-2)

#### UNIT-I

आधुनिक काल की सामाजिक, सांस्कृतिक एवं राजनैतिक पृष्ठभूमि। गद्य का उदभव एवं विकास। खड़ी बोली का साहित्य।

#### UNIT-II

भारतेन्दु युगीन काव्य, द्विवेदी युगीन काव्य तथा छायावादी कविता (केवल कविता की प्रमुख प्रवृत्तियाँ)।  
प्रगतिवाद, प्रयोगवाद, नयी कविता, समकालीन कविता (केवल काव्य प्रवृत्तियाँ)।

#### UNIT-III

गद्य की प्रमुख विधाओं का विकास : उपन्यास और कहानी।

#### UNIT-IV

- (क) नाटक, एकांकी, निबंध (उदभव और विकास)।  
(ख) अस्मिता विमर्श - दलित, स्त्री, आदिवासी विमर्श।

अंक विभाजन :	(क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे जिनमें से 10 का उत्तर लिखना होगा -	2 x 10 = 20
	(ख) सभी यूनिट से दो - दो प्रश्न पूछे जाएँगे जिनमें 04 का उत्तर लिखना होगा -	15 x 4 = 60

#### सहायक ग्रंथ :

- |   |  |
|---|--|
| 1. हिन्दी साहित्य का इतिहास-  | आचार्य रामचन्द्र शुक्ल, नागरी प्रचारणी सभा, काशी |
| 2. हिन्दी साहित्य का उदभव और विकास-   | आचार्य हजारी प्रसाद द्विवेदी                     |
| 3. हिन्दी साहित्य का दूसरा इतिहास -   | डॉ. बच्चन सिंह                                   |
| 4. हिन्दी साहित्य : बीसवीं शताब्दी -  | नन्द दुलारे वाजपेयी, इलाहाबाद                    |
| 5. भारतेन्दु हरिश्चन्द्र और हिन्दी नवजागरण की समस्याएँ-रामविलास शर्मा, राजकमल, दिल्ली |  |
| 6. हिन्दी दलित साहित्य -  | मोहनदास नैमिशराय, साहित्य अकादेमी                |
| 7. अस्मितामूलक विमर्श और हिंदी साहित्य -  | डॉ. रजत रानी 'मीनू' वाणी प्रकाशन, नई दिल्ली      |
| 8. समकालीन हिन्दी साहित्य : विविध विमर्श -  | प्रो. श्रीराम शर्मा                              |

**+3 FIRST YEAR SECOND SEMESTER  
Core Course - 4**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**कृष्णभक्ति एवं रीतिकालीन हिन्दी कविता**

**UNIT-I**

कृष्णभक्ति काव्य का स्वरूप, कृष्ण भक्ति के प्रमुख कवि।

सूरदास : विनय के पद - १ से ५ एवं भ्रमरगीत - ६ से १०।

**UNIT-II**

रसखान - पद

३- मानुष हो तो वही,

४- या लकुटि और कमरिया,

६- सेस गनेस महेस,

१०- मोरपखा सर उपर एवं

१२- कान्हा भये बस बाँसुरी के....।

**UNIT-III**

बिहारी : भक्ति, ऋतु वर्णन एवं नीति के दोहे (१ से २६)।

**UNIT-IV**

धनानन्द : प्रेम - साधना, प्रेम की अनन्यता, उपालंभ के पद (१, २, ३, ४ और ५)

**पाठ्य पुस्तक :**

1. हिन्दी काव्य संग्रह, सं. रामवीर सिंह, केन्द्रीय हिन्दी संस्थान, आगरा

**अंक विभाजन :** (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे

जिनमें से 10 का उत्तर लिखना होगा -

2 x 10 = 20

(ख) 04 आलोचनात्मक प्रश्न एवं काव्यगत विशेषताओं सहित

व्याख्या के 04 प्रश्न पूछे जाएँगे जिनमें 04 का उत्तर लिखना होगा -15 x 4 = 60

**सहायक ग्रंथ :**

1. रीतिकाव्य की भूमिका - डॉ. नगेंद्र
2. हिन्दी साहित्य का उत्तर मध्यकाल - महेंद्र कुमार
3. बिहारी - विश्वनाथ प्रसाद मिश्र
4. धनानन्द और स्वच्छन्द काव्य धारा - मनोहर लाल गौड़

**+3 SECOND YEAR THIRD SEMESTER**  
**Core Course -5**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**अनुवाद सिद्धान्त**

**UNIT-I**

अनुवाद की परिभाषा एवं स्वरूप, अनुवाद के क्षेत्र, अनुवाद कला अथवा विज्ञान।

**UNIT-II**

अनुवाद की प्रक्रिया और प्रवृद्धि, अनुवाद तथा समतुल्यता का सिद्धान्त।

**UNIT-III**

अनुवाद के प्रकार : साहित्यिक अनुवाद (भाषा अनुवाद), कार्यालयी अनुवाद, सारानुवाद, भावानुवाद।

**UNIT-IV**

व्यावहारिक अनुवाद :

- (क) किसी अंग्रेजी अवतरण का हिन्दी में अनुवाद। (केवल कार्यालयी अनुच्छेद ही दिया जाएगा)  
(ख) किसी हिन्दी अवतरण का अंग्रेजी में अनुवाद (केवल कार्यालयी अनुच्छेद ही दिया जाएगा)

- अंक विभाजन :**
- (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे  
जिनमें से 10 का उत्तर लिखना होगा - 2 x 10 = 20
- (ख) यूनिट 1, 2 और 3 से 06 प्रश्न पूछे जाएँगे  
एवं यूनिट 4 से कार्यालयी अनुवाद का दो अनुच्छेद  
1(हिन्दी) 7½ अंक + 1 (अंग्रेजी) 7½ अंक पूछा जाएगा - 15 x 4 = 60

**सहायक ग्रंथ :**

- |                                  |                            |
|----------------------------------|----------------------------|
| १. अनुवाद के भाषिक सिद्धान्त-    | कैटफोट                     |
| २. अनुवाद प्रविधि-               | प्रो. बालेन्दु शेखर तिवारी |
| ३. अनुवाद के सिद्धान्त -         | आर. आर. रेड्डी             |
| ४. अनुवाद प्रक्रिया एवं प्रयोग   | छबिल कुमार मेहेर           |
| ५. अनुवाद विज्ञान                | डा. भोलानाथ तिवारी         |
| ६. अनुवाद प्रक्रिया एवं परिदृश्य | रीतारानी पालीवाल           |



**+3 SECOND YEAR THIRD SEMESTER**  
**Core Course - 6**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**हिन्दी कथा साहित्य (उपन्यास)**

**UNIT-I**

हिन्दी उपन्यास अदभव और विकास, प्रेमचन्द का उपन्यास साहित्य, प्रेमचन्द के उपन्यासों में भारतीय समाज एवं मेहनतकश वर्ग।

**UNIT-II**

हिन्दी का महिला उपन्यास साहित्य, स्त्री विमर्श की अवधारणा और संभावनाएँ।

**UNIT-III**

गबन - प्रेमचंद

**UNIT-IV**

आपका बंटी - मन्नू भण्डारी

अंक विभाजन :	(क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे जिनमें से 10 का उत्तर लिखना होगा -	2 x 10 = 20
	(ख) सभी यूनिट से 08 प्रश्न पूछे जाएँगे जिनमें 04 का उत्तर लिखना होगा -	15 x 4 = 60

**सहायक ग्रंथ :**

१.	प्रेमचंद और उनका युग -	रामविलास शर्मा, राजकमल प्रकाशन
२.	विरासत का सवाल -	शिवकुमार मिश्र
३.	हिंदी उपन्यास एक अंतर्गता -	रामदरश मिश्र
४.	उपन्यास के पहलू -	ई. एम. फोस्टर
५.	आधुनिक हिंदी उपन्यास -	सं. भीष्म साहनी, राम जी मिश्र, भगवतीप्रसाद निदारिया, राजकमल प्रकाशन।
६.	मन्नू भण्डारी और आपका बंटी -	डा. मालविका

**+3 SECOND YEAR THIRD SEMESTER**  
**Core Course - 7**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**हिन्दी कथा साहित्य (कहानी)**

**UNIT-I**

१. उसने कहा था - चंद्रधर शर्मा गुलेरी
२. पूस की रात- प्रेमचन्द
३. पुरस्कार - प्रसाद

**UNIT-II**

४. मुगलों ने सल्तनत बख्श दी - भगवतीचरण वर्मा
५. वापसी - उषा प्रियंवदा
६. कलाकार - राजेन्द्र यादव

**UNIT-III**

७. मानसरोवर के हंस - कमलेश्वर
८. भोलाराम का जीव - हरिशंकर परसाई
९. रानी माँ का चबुतरा - मन्नू भंडारी

**UNIT-IV**

१०. पोष्टमैन - शैलेश मटियानी
११. पंचलाईट - फणीश्वरनाथ रेणु
१२. सुबह की सैर - निर्मल वर्मा

**पाठ्य पुस्तक :**

१. आधुनिक कहानी संग्रह - सं. सरोजिनी शर्मा, केन्द्रीय हिन्दी संस्थान, आगरा

**अंक विभाजन :** (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे

जिनमें से 10 का उत्तर लिखना होगा -

2 x 10 = 20

(ख) सभी यूनिट से 08 प्रश्न पूछे जाएँगे

जिनमें 04 का उत्तर लिखना होगा -

15 x 4 = 60

**सहायक ग्रंथ :**

- |                             |   |                |
|-----------------------------|---|----------------|
| १. कहानी नयी कहानी          | - | नामवर सिंह     |
| २. नयी कहानी की भूमिका      | - | कमलेश्वर       |
| ३. हिन्दी कहानी का इतिहास   | - | गोपाल राय      |
| ४. कहानी स्वरूप एवं संवेदना | - | राजेन्द्र यादव |

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Course - 8**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**कथा इत्तर गद्य साहित्य**

**UNIT-I**

जीवनी - उद्देश्य, प्रस्तावना, जीवनी का स्वरूप  
जीवनी साहित्य : परंपरा और विकास

**UNIT-II**

आत्मकथा - उद्देश्य, प्रस्तावना, आत्मकथा का स्वरूप,  
आत्मकथा साहित्य : परंपरा और विकास

**UNIT-III**

रेखाचित्र - 'रेखाएँ और रेखाएँ'  
संपादक - सुधाकर पाण्डेय, अनुराग प्रकाशन, वाराणसी  
१. रजिया - रामवृक्ष बेनीपुरी  
२. रामा - महादेवी वर्मा

**UNIT-IV**

निबंध

**पाठ्य पुस्तक :**

आधुनिक निबंध संग्रह : सं. सुरेश कुमार, केन्द्रीय हिन्दी संस्थान, आगरा।

१. नाखून क्यों बढ़ते हैं - हजारी प्रसाद द्विवेदी
२. नये वर्ष के शुभ संकल्प - रामविलास शर्मा
३. अमरनाथ की महायात्रा - कन्हैयालाल नंदन
४. छायावादी काव्य शैली - नामवर सिंह

**अंक विभाजन :** (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे  
जिनमें से 10 का उत्तर लिखना होगा - 2 x 10 = 20

(ख) सभी यूनिट से 06 आलोचनात्मक एवं 3, 4 से  
साहित्यिक विशेषताओं सहित व्याख्या के 2 प्रश्न  
पूछे जाएँगे जिनमें से 04 के उत्तर लिखने होंगे - 15 x 4 = 60

**सहायक ग्रंथ :**

१. प्रतिनिधि हिंदी निबंधकार - विभुराम मिश्र, ज्योतिश्वर मिश्र, लोकभारती प्रकाशन।
२. यात्रा साहित्य विद्या: शास्त्र और इतिहास - बापूराम देशाई, विकास प्रकाशन, कानपुर।
३. हिंदी का गद्य साहित्य - रामचंद्र तिवारी।
४. आधुनिक हिन्दी गद्य साहित्य का विकास और विश्लेषण - डा. विजय मोहन सिंह

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Course - 9**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**आधुनिक हिन्दी कविता ( १ )**

**UNIT-I**

यशोधरा : मैथिलीशरण गुप्त : कविता सं.

- |                               |                            |
|-------------------------------|----------------------------|
| १. घूम रहा है कैसा चक्र,      | २. सखि वे मुझसे कहकर जाते  |
| ३. आर्यपुत्र दे चुके परीक्षा, | ४. चुप रह चुप रह हाय अभागे |
| ५. रूदन का हसना ही तो गान     |                            |

**UNIT-II**

जयशंकर प्रसाद -

- |                           |
|---------------------------|
| १. आँसू - १ से २०         |
| २. ले चल मुझे भुलावा देकर |

**UNIT-III**

निराला -

- |                   |                          |
|-------------------|--------------------------|
| १. तोड़ती पत्थर,  | २. बादल राग              |
| ३. संध्या सुन्दरी | ४. पंत : प्रथम रशिम, ताज |

**UNIT-IV**

महादेवी :

मैं नीर भरी दुःख की बदली, पंथ होने दो अपरिचित, मधुर-मधुर मेरे दीपक जल।

**पाठ्य पुस्तक :**

हिन्दी काव्य संग्रह - सं. रामवीर सिंह, के. हि. सं. आगरा

- अंक विभाजन :** (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे  
जिनमें से 10 का उत्तर लिखना होगा - 2 x 10 = 20
- (ख) सभी यूनिट से 04 आलोचनात्मक एवं 04 व्याख्यात्मक  
प्रश्न पूछे जाएँगे जिनमें से ०४ के उत्तर लिखने होंगे - 15 x 4 = 60

**सहायक ग्रंथ :**

- |   |  |
|---|--|
| १. छायावाद                              | - नामवर सिंह, राजकमल प्रकाशन, दिल्ली     |
| २. आधुनिक हिंदी साहित्य की प्रवृत्तियाँ | - नामवर सिंह, लोकभारती प्रकाशन, इलाहाबाद |
| ३. निराला : आत्महंता आस्था              | - दूधनाथ सिंह                            |
| ४. जयशंकर प्रसाद                        | - नंददुलारे बाजपेयी                      |
| ५. महादेवी वर्मा                        | - जगदीश गुप्त                            |

**+3 SECOND YEAR FOURTH SEMESTER  
Core Course -10**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**भाषा विज्ञान और हिन्दी भाषा**

**UNIT-I**

भाषा की परिभाषा एवं स्वरूप, भाषा परिवर्तन के कारण। लिपि की परिभाषा एवं स्वरूप, भारत में लिपि का विकास, देवनागरी लिपि की विशेषताएँ एवं मानकीकरण।

**UNIT-II**

भाषा विज्ञान की परिभाषा एवं स्वरूप, ज्ञान की अन्य शाखाओं से संबंध।

**UNIT-III**

दक्खिनी हिन्दी भाषा का साहित्य, खड़ी बोली और साहित्यिक भाषा के रूप में हिन्दी का उदभव और विकास।  
फोर्ट विलियम कॉलेज की भाषा - नीति

**UNIT-IV**

हिन्दी के विविध रूप : राजभाषा, राष्ट्रभाषा, सम्पर्क भाषा, संचार भाषा।

- अंक विभाजन :**
- |     |  |             |
|-----|--|-------------|
| (क) | सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे |             |
|     | जिनमें से 10 का उत्तर लिखना होगा -               | 2 x 10 = 20 |
| (ख) | सभी यूनिट से 08 प्रश्न पूछे जाएँगे               |             |
|     | जिनमें 04 के उत्तर लिखना होगा -                  | 15 x 4 = 60 |

**सहायक ग्रंथ :**

- |    |                               |  |
|----|-------------------------------|--|
| १. | भाषा विज्ञान की भूमिका        | - देवेन्द्रनाथ शर्मा, दीप्ति शर्मा, राधाकृष्ण प्रकाशन, नई दिल्ली |
| २. | हिन्दी : अदभव, विकास और रूप   | - हरदेव बाहरी, किताब महल, नई दिल्ली                              |
| ३. | हिन्दी भाषा का इतिहास         | - धीरेन्द्र वर्मा  |
| ४. | भाषा और समाज                  | - रामविलास शर्मा, राकमल प्रकाशन, नई दिल्ली                       |
| ५. | भाषा और लिपि का इतिहास        | - धीरेन्द्र वर्मा  |
| ६. | आधुनिक भाषा विज्ञान           | - डा. रामणि शर्मा  |
| ७. | भाषा विज्ञान एवं भाषा शास्त्र | - कपिलदेव द्विवेदी   |

**+3 THIRD YEAR FIFTH SEMESTER  
Core Course - 11**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**हिन्दी नाटक और रंगमंच**

**UNIT-I**

हिंदी नाटक और रंगमंच का परिचय, भारतीय रंगमंच, पाश्चात्य रंगमंच, जयशंकर प्रसाद का नाट्य साहित्य।

**UNIT-II**

आषाढ़ का एक दिन' - मोहन राकेश

**UNIT-III**

'माधवी' - भीष्म साहनी

**UNIT-IV**

आधुनिक एकांकी संग्रह - सं सुरेश कुमार, केंद्रीय हिंदी संस्थान, आगरा

१. भोर का तारा - जगदीश चंद्र माथुर
२. औरंगजेब की आखिरी रात - रामकुमार वर्मा
३. जुलूस - कणादि ऋषि भटनागर
४. धीरे बहो गंगा - लक्ष्मीनारायण लाल

- अंक विभाजन :**
- (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे  
जिनमें से 10 का उत्तर लिखना होगा - 2 x 10 = 20
- (ख) सभी यूनिट से 05 आलोचनात्मक एवं यूनिट 2, 3  
और 4 से 03 व्याख्यात्मक प्रश्न पूछे जाएँगे जिनमें से  
04 के उत्तर लिखने होंगे - 15 x 4 = 60

**सहायक ग्रंथ :**

१. नाटककार जयशंकर प्रसाद - सं. सत्येन्द्र कुमार तनेजा, राधाकृष्ण प्रकाशन।
२. हिन्दी नाटक - बच्चन सिंह, लोकभारती प्रकाशन, इलाहाबाद।
३. आधुनिकता और मोहन राकेश - डॉ. उर्मिला मिश्र, विश्वविद्यालय प्रकाशन, वाराणसी।
४. आधुनिक हिंदी नाटक और रंगमंच - सं. नेमिचंद जैन।

## +3 THIRD YEAR FIFTH SEMESTER Core Course - 12

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

### भारतीय काव्य शास्त्र

#### UNIT-I

काव्य लक्षण, काव्य प्रयोजन, शब्द शक्ति।

#### UNIT-II

रस सिद्धान्त : परिभाषा एवं स्वरूप, रसके प्रकार।  
रीति सिद्धान्त : परिभाषा एवं स्वरूप, रीति के भेद।

#### UNIT-III

अलंकार : परिभाषा एवं स्वरूप, प्रमुख भेद, लक्षण एवं उदाहरण : उपमा, रूपक, अनुप्रास, उत्प्रेक्षा, अन्योक्ति यमक, श्लेष, भ्रान्तिमान, अतिसयोक्ति, वक्रोक्ति।

#### UNIT-IV

छंद : लक्षण एवं उदाहरण : दोहा, चौपाई, सवैया रोला, छप्पय, बरवै, सोरठा, मन्दाक्रान्ता, धनाक्षरी, कुंडलिया।

#### अंक विभाजन :

(क)	सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे जिनमें से 10 का उत्तर लिखना होगा -	2 x 10 = 20
(ख)	यूनिट 1, 2 से 04 प्रश्न पूछे जाएँगे जिनमें से 02 के उत्तर लिखने होंगे -	15 x 2 = 30
(ख)	यूनिट 3, 4 से 06 अलंकार एवं ०६ छन्द (लक्षण एवं उदाहरण) पूछे जाएँगे जिनमें से 03-03 के उत्तर लिखने होंगे -	05 x 3 = 15 05 x 3 = 15

#### सहायक ग्रंथ :

१. भारतीय काव्यशास्त्र - भगीरथ मिश्र
२. भारतीय काव्यशास्त्र - सत्यदेव चौधरी, अलंकार प्रकाशन, दिल्ली
३. भारतीय काव्यशास्त्र - नगेंद्र, नैशनल पब्लिशिंग हाउस, दिल्ली
४. अलंकार मुक्तावली - देवेन्द्रनाथ शर्मा

**+3 THIRD YEAR SIXTH SEMESTER  
Core Course -13**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**आधुनिक हिन्दी कविता ( २ )**

**UNIT-I**

रामधारी सिंह दिनकर

जनतन्त्र का जन्म, अभिनव मनुष्य

बच्चन : पथ की पहचान

**UNIT-II**

अज्ञेय : हिरोशिमा, कलगी बाजरे की

भवानी प्रसाद मिश्र : गीतफरोश, अभिव्यक्ति।

**UNIT-III**

धर्मवीर भारती : कस्बे की शाम

नागार्जुन : बहुत दिनों के बाद, प्रेत का बयान।

**UNIT-IV**

घूमिल - मोचीराम

रघुवीर सहाय - राम दास

शमशेर - एक पीली शाम

**पाठ्य पुस्तक :**

हिन्दी काव्य संग्रह - केन्द्रीय हिन्दी संस्थान, आगरा

<b>अंक विभाजन :</b>	(क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे जिनमें से 10 का उत्तर लिखना होंगे -	2 x 10 = 20
	(ख) 08 प्रश्न जिनमें व्याख्या भी शामिल हो पूछे जाएँगे जिनमें 04 के उत्तर लिखने होंगे -	15 x 4 = 60

**सहायक ग्रंथ :**

१. आधुनिक हिन्दी कविता का विकास - हेतुभारद्वाज
२. कविता के नये प्रतिमान- नामवर सिंह, राजकमल प्रकाशन, नई दिल्ली
३. नयी कविता और अस्तित्ववाद- रामविलास शर्मा, राजकमल प्रकाशन, नई दिल्ली
४. समकालीन कविता का यथार्थ- परमानंद श्रीवास्तव
५. समकालीन हिन्दी कविता- रवींद्र भ्रमर
६. स्वातन्त्रोत्तर हिन्दी कविता में राजनैतिक चेतना - डॉ. उसमान ख़ाँन



**+3 THIRD YEAR SIXTH SEMESTER  
Core Course - 14**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**पाश्चात्य काव्य शास्त्र**

**UNIT-I**

प्लेटो : काव्य, सत्य और अनुकरण  
आरस्तू के काव्य सिद्धान्त।

**UNIT-II**

लोगिनुस : काव्य में उदात्त  
विलियम बड्सवर्थ : काव्य संबंधी विचार।

**UNIT-III**

मैथ्यू आर्नल्ड : कविता और जीवन, कविता और समाज  
आई.ए.रिचर्ड्स : मूल्य सिद्धान्त।

**UNIT-IV**

बिम्बवाद, प्रतीकवाद  
स्वच्छंदतावाद, मार्क्सवाद।

<b>अंक विभाजन :</b>	(क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे जिनमें से 10 के उत्तर लिखने होंगे -	2 x 10 = 20
	(ख) सभी इकाइयों से 08 प्रश्न पूछे जाएँगे जिनमें 04 के उत्तर लिखने होंगे -	15 x 4 = 60

**सहायक ग्रंथ :**

१. पाश्चात्य साहित्य-चिंतन : निर्मला जैन, राधाकृष्ण प्रकाशन, नई दिल्ली।
२. पाश्चात्य काव्यशास्त्र - इतिहास सिद्धांत और वाद : भगीरथ मिश्र, विश्वविद्यालय प्रकाशन, वाराणसी
३. पाश्चात्य समीक्षा दर्शन : जगदीश चंद्र जैन, हिंदी प्रचारक संस्थान, वाराणसी
४. भारतीय एवं पाश्चात्य काव्यशास्त्र की रूपरेखा : रामचंद्र तिवारी, लोकभारती प्रकाशन, इलाहाबाद।

## +3 THIRD YEAR FIFTH SEMESTER DSE - 1

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

### तुलसीदास

#### UNIT-I

तुलसी और उनका युग / तुलसी की भक्ति भावना । रामकाव्य की परम्परा और तुलसी ।

#### UNIT-II

तुलसी की प्रमुख रचनाएँ / तुलसी के नारी संबंधी विचार / तुलसी का समन्वयवाद ।

#### UNIT-III

पाठ्यपुस्तक: रामचरितमानस : तुलसीदास, गीता प्रेस, गोरखपुर (अयोध्याकाण्ड पद सं. १ से ५०)

#### UNIT-IV

विनयपत्रिका : तुलसीदास, गीता प्रेस, गोरखपुर, प्रथम १ - २० पद ।

- अंक विभाजन :**
- (क) सभी इकाइयों से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे  
जिनमें से 10 के उत्तर लिखने होंगे - 2 x 10 = 20
- (ख) यूनिट 1 और 2 से 04 प्रश्न एवं यूनिट 3 और 4 से  
कवि की काव्यगत विशेषताओं सहित व्याख्या के 04 पद  
पूछे जाएँगे । कुल 04 प्रश्नों के उत्तर लिखने होंगे - 15 x 4 = 60

#### सहायक ग्रंथ :

१. तुलसीदास : डॉ. माताप्रसाद गुप्त, हिन्दी परिषद प्रयाग
२. तुलसी और उनका युग : डॉ. राजपति दीक्षित, ज्ञानमण्डल, काशी
३. तुलसी आधुनिक वातायन से : रमेश कुन्तल मेध
४. गोस्वामी तुलसीदास की दृष्टि में नारी और उसका महत्व : ज्ञानवती त्रिवेदी, काशी हिन्दु विश्व विद्यालय प्रकाशन ।

**+3 THIRD YEAR FIFTH SEMESTER  
DSE - 2**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**प्रेमचन्द**

**UNIT-I**

प्रेमचन्द और उनका युग। प्रेमचन्द का जीवन। प्रेमचन्द और भारतीय स्वतन्त्रता आंदोलन।

**UNIT-II**

प्रेमचन्द और भारतीय किसान। उपन्यासकार के रूप में प्रेमचन्द। सेवासदन - प्रेमचन्द।

**UNIT-III**

कहानीकार प्रेमचन्द

मानसरोवर, भाग - १

- १) अलगयोझा
- २) ईदगाह
- ३) बड़े भाई साहब
- ४) ठाकुर का कुआँ
- ५) पूस की रात

**UNIT-IV**

कुछ विचार : प्रेमचन्द, लोकभारती प्रकाशन

१. साहित्य का उद्देश्य,
२. राष्ट्रभाषा हिन्दी और उसकी समस्याएँ,
३. उर्दू, हिन्दी और हिन्दुस्तानी

**अंक विभाजन :** (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे

जिनमें से 10 के उत्तर लिखना होगा - 2 x 10 = 20

(ख) सभी यूनिट से 08 प्रश्न पूछे जाएँगे

जिनमें 04 का उत्तर लिखना होगा - 15 x 4 = 60

**सहायक ग्रंथ :**

१. प्रेमचन्द और उनका युग - रामविलास शर्मा, राजकमल, नयी दिल्ली
२. हिन्दी उपन्यास - आचार्य रामचन्द्र तिवारी, विश्वविद्यालय प्रकाशन
३. प्रेमचन्द : एक विवेचन - इन्द्रनाथ मदान
४. कहानीकार प्रेमचन्द : रचनादृष्टि और रचना शिल्प - शिवकुमार मिश्र, लोकभारती प्रकाशन, इलाहाबाद

## +3 THIRD YEAR SIXTH SEMESTER DSE - 3

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

### कार्यालयी हिन्दी

#### UNIT-I

राजभाषा हिन्दी :

संवैधानिक प्रावधान : राजभाषा, अष्टम अनुसूची, राजभाषा अधिनियम १९६३, राजभाषा नियम १९७६।

#### UNIT-II

टिप्पण एवं आलेखन :

टिप्पण : स्वरूप, टिप्पण की प्रक्रिया एवं उद्देश्य, प्रारूपलेखन : स्वरूप एवं परिचय, प्रारूप तैयार करने की विधि, प्रारूप लेखन की रूपरेखा, प्रारूप लेखन के क्षेत्र।

संक्षेपण : परिभाषा, संक्षेपण की प्रक्रिया एवं भेद

पत्रलेखन : अर्थ एवं स्वरूप, पत्रलेखन की विशेषताएँ, सरकारी पत्रों के प्रकार।

#### UNIT-III

कंप्यूटर में हिन्दी का अनुप्रयोग :

कंप्यूटर : अर्थ, स्वरूप एवं परिभाषा, कंप्यूटर के मुख्यभाग, कंप्यूटर प्रणाली, कार्यालयों में कंप्यूटर का प्रयोग।

#### UNIT-IV

प्रशासनिक शब्दावली- प्रमुख वाक्यांश तथा पदनाम।

अंक विभाजन :	(क) यूनिट ४ से 05 अंग्रेजी के एवं 05 हिन्दी के शब्द पूछे जाएँगे :	अंग्रेजी से हिन्दी -	02 x 5 = 10
		हिन्दी से अंग्रेजी -	02 x 5 = 10
	(ख) यूनिट 1, 2 एवं 3 से 08 प्रश्न पूछे जाएँगे	जिनमे 04 का उत्तर लिखना होगा -	15 x 4 = 60

#### सहायक ग्रंथ :

१. प्रयोजनमूलक हिन्दी : संरचना और अनुप्रयोग - रामप्रकाश, दिनेशगुप्त
२. प्रयोजनमूलक हिन्दी : सिद्धांत और प्रयोग - दंगल झाल्टे, वाणी, दिल्ली
३. प्रयोजनमूलक हिन्दी - विनोद गोदरे, वाणी प्रकाशन, नई दिल्ली

**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 4**

**Time : 3 Hrs.**  
**Credit : 6**

**End Semester Theory : 80 Marks**  
**Mid Semester Theory : 20 Marks**

**विज्ञापन : अवधारणा और प्रयोजनमूलक आयाम**

**UNIT-I**

विज्ञापन : स्वरूप एवं अवधारणा

- (१) विज्ञापन : अर्थ व परिभाषा
- (२) विज्ञापन का महत्त्व
- (३) विज्ञापन के सामाजिक तथा व्यावसायिक उद्देश्य, मार्केटिंग और ब्रांड निर्माण
- (४) विज्ञापन के नए संदर्भ (प्रायोजित कार्यक्रम)।

**UNIT-II**

विज्ञापन : विविध माध्यम

- (१) सामान्य परिचय
- (२) विज्ञापन माध्यम का चयन
- (३) प्रिंट, रेडियो एवं टेलीविजन के लिए कापी लेखन।

**UNIT-III**

विज्ञापन की भाषा

- (१) विज्ञापन की भाषा का स्वरूप
- (२) विज्ञापन की भाषागत विशेषताएँ
- (३) विज्ञापन की भाषा के विभिन्न पक्ष, सादृश्य विधान, अलंकरण, तुकांतता, समानांतरता, विचलन, मुहावरे, लोकोक्तियाँ, भाषा संकर
- (४) हिंदी विज्ञापनों की भाषा।

**UNIT-IV**

विज्ञापन - निर्माण का अभ्यास

- (१) प्रिंट माध्यम : वर्गीकृत एवं सजावटी विज्ञापन - निर्माण
- (२) रेडियो जिंगल लेखन
- (३) टेलीविजन के लिए स्टोरी बोर्ड निर्माण

**अंक विभाजन :** (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे

जिनमें से 10 का उत्तर लिखना होगा -

2 x 10 = 20

(ख) सभी यूनिट से 08 प्रश्न पूछे जाएँगे

जिनमें 04 का उत्तर लिखना होगा -

15 x 4 = 60

**सहायक ग्रंथ :**

- |                                     |                              |
|-------------------------------------|------------------------------|
| १. जनसंपर्क, प्रचार एवं विज्ञापन    | - विजय कुलश्रेष्ठ            |
| २. जनसंचार माध्यम : भाषा और साहित्य | - सुधीर पचौरी                |
| ३. डिजिटलयुग में विज्ञापन           | - सुधा सिंह, जगदीश चतुर्वेदी |
| ४. आधुनिक विज्ञापन और जनसंपर्क      | - डा. तारेश भाटिया           |

**+3 THIRD YEAR SIXTH SEMESTER  
DSE - 5**

Time : 3 Hrs.  
Credit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**परियोजना कार्य**

परियोजना कार्य / लघु शोध प्रबंध - संभावित पृष्ठ संख्या 40 से 50 पृष्ठों के बीच हो / निम्नलिखित विषयों पर आलोचनामूलक / शोधात्मक कार्य किया जा सकता है।

- (क) अनुवाद  
(ख) पुस्तक समीक्षा  
(ग) किसी जटिल अथवा गहन विषय को हल करने की दिशा में,

**अथवा**

- (घ) किसी साहित्यिक मान्यता की स्थापना / पुनः स्थापना हेतु किया गया मौलिक कार्य।

**+3 FIRST YEAR FIRST SEMESTER  
GE - 1**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**मध्यकालीन इतिहास और भक्ति कविता**

**UNIT-I**

मध्यकाल सामान्य परिचय, भक्तिकाल की पृष्ठभूमि, भक्तिकालीन साहित्य की प्रमुख प्रवृत्तियाँ।

**UNIT-II**

भक्तिकाल की प्रमुख काव्य धाराएँ  
निर्गुण काव्य - ज्ञानाश्रयी शाखा एवं प्रेममार्गी शाखा  
सगुण काव्य - कृष्णभक्ति शाखा एवं रामभक्ति शाखा

**UNIT-III**

पाठ्य पुस्तक : हिन्दी काव्य संग्रह : सं. रामवीर सिंह, केन्द्रीय हिन्दी संस्थान, आगरा  
कबीर दास - साखी 1 से 21  
मलिक मुहम्मद जायसी - नागमति वियोग वर्णन 01 से 08  
सुरदास - भ्रमरगीत 6 से 10

**UNIT-IV**

तुलसी दास - भरत-महिमा 1 से 10

- अंक विभाजन :** (क) सभी इकाइयों से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे  
जिनमें से 10 के उत्तर लिखने होंगे -  $2 \times 10 = 20$
- (ख) यूनिट 1 और 2 से 04 दीर्घ उत्तरमूलक एवं यूनिट 3  
और 4 से 04 कवि की काव्यगत विशेषताओं सहित व्याख्या  
के पद पूछे जाएँगे। कुछ 04 प्रश्नों के उत्तर लिखने होंगे -  $15 \times 4 = 60$

**अनुमोदित ग्रंथ :**

१. मध्यकालीन भारत राजनीति, समाज और संस्कृति - प्रो. सतीश चन्द्र, ओरियंट लॅगमैन।
२. Mediaval India - Prof Yusuf Hussain
३. हिन्दी साहित्य की भूमिका - आचार्य हजारी प्रसाद द्विवेदी, राजकमल, दिल्ली।
४. हिन्दी सूफी काव्य की भूमिका - डा. रामपूजन तिवारी

**+3 FIRST YEAR SECOND SEMESTER  
GE - 2**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**साहित्य और सन्दर्भ : विविधवाद**

**UNIT-I**

1. स्वच्छंदतावाद,
2. अभिव्यंजनावाद

**UNIT-II**

3. अस्तित्ववाद,
4. मार्क्सवाद,

**UNIT-III**

5. उत्तरआधुनिकतावाद,
6. विम्ब, फैंटासी

**UNIT-IV**

7. मिथक,
8. प्रतीक

- अंक विभाजन :** (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएँगे  
जिनमें से 10 के उत्तर लिखना होगा -  $2 \times 10 = 20$
- (ख) सभी यूनिट से 08 प्रश्न पूछे जाएँगे  
जिनमे 04 का उत्तर लिखना होगा -  $15 \times 4 = 60$

**अनुमोदित ग्रंथ :**

1. भारतीय व पाश्चात्त्व काव्यशास्त्र तथा हिन्दी आलोचना- डॉ. रामचंद्र तिवारी, विश्वविद्यालय प्रकाशन, वारणासी।
2. आलोचना से आगे - सुधीश पचौरी।
3. हिन्दी आलोचना के बीज शब्द - डॉ. बच्चन सिंह।
4. हिन्दी आलोचना का विकास - नन्दकिशोर नवल।

# HISTORY

## +3 FIRST YEAR FIRST SEMESTER Core Paper - 1 HISTORY OF INDIA- I

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

### Unit-I: Reconstructing Ancient Indian History

1. Early Indian notions of History
2. Sources of Historical Writings
3. Historical Geography (Major Harappan Sites and Sixteen Mahajanapadas).

### Unit-II: Pre-historic Hunter-Gatherers and Food Production

1. Paleolithic Culture: Upper, Middle and Lower; Tool making habit
2. Mesolithic Culture: New developments in Technology and Economy;
3. Neolithic and Chalcolithic Settlements
4. Food Production : Beginning of Agriculture

### Unit-III: The Harappan Civilization

1. Origins; Settlement Patterns and Town Planning;
2. Economic Life: Agriculture, Craft Productions and Trade;
3. Social and Political Organization; Religious Beliefs and Practices; Art;

### Unit-IV: Cultures in Transition

1. Early Vedic Age: Society, Polity, Religion and Literature
2. Later Vedic Age: Social Stratification (Varna and Gender), Polity, Religion, and Culture

### Reading List:

1. R. S. Sharma, Material Culture and Social Formations in Ancient India, 1983.
2. Upinder Singh, A History of Ancient and Early Medieval India.

### Suggested Reading:

1. Romila Thapar, Early India: From Beginning to 1300 CE, Penguin.
  2. A.L. Basham, The Wonder that was India, Vol.1
  3. B. Fagan, Digging from the Earth
  4. H.D. Sankhalia, Prehistory of India.
  5. B.R. Alchin, The Birth of Indian Civilization.
-



**+3 FIRST YEAR FIRST SEMESTER**  
**Core Paper - 2**  
**SOCIAL FORMATIONS AND CULTURAL PATTERNS OF THE ANCIENT WORLD**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Unit-I:**

1. Evolution of Man;
2. Paleolithic Cultures
3. Mesolithic Cultures.

**Unit-II: Neolithic Culture:**

1. Food Production
2. Development of Agriculture
3. Animal Husbandry

**Unit-III: Bronze Age Civilizations**

1. Egypt
2. Mesopotamia (Sumeria & Babylonia)
3. China (Shang)

**Unit-IV: Ancient Greece:**

1. Athens and Sparta
2. Politics, Economic
3. Culture

**Reading List:**

1. Burns and Ralph. World Civilizations, Vol. A.
2. V. Gordon Childe, What Happened in History?

**Suggested Reading:**

1. G. Clark, World Prehistory: A New Perspective.
  2. Bisman Basu, The Story of Man
  3. H.Neil & M.C.Willam, A World of History, Oxford, New York, 1907.
  4. H.R. Hall, Ancient History of the Near East, 1932.
  5. H.S. Baghela, World of Civilization
-

**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 3**  
**HISTORY OF INDIA-II (300BCE-750CE)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I: Economy and Society (circa 300 BCE to circa CE 300):**

1. Expansion of Agrarian Economy: Production relations.
2. Urban growth: Trade & Commerce
3. Social stratification: Class, Varna, Jati, Gender

**Unit-II: Changing political formations (circa 300 BCE to circa CE 300):**

1. The Mauryan Empire: Chandragupta Maurya and Asoka-Conquest and Administration
2. Post-Mauryan Polities: Kushanas, and Satavahanas
3. The Cholas

**Unit-III: Towards Early Medieval India [circa CE fourth century to CE 750]:**

1. Gupta Age: Agrarian Expansion, Land Grants, Graded Land Rights and Peasantry.
2. Varna, Proliferation of Jatis: changing norms of marriage and property.
3. The Nature of Polities: The Gupta Empire
4. Post- Gupta Polities - Pallavas, Chalukyas, and Vardhanas

**Unit-IV: Religion, Culture, Philosophy and Society**

1. Consolidation of the Brahmanical Tradition: Dharma, Varnashram, Purusharthas,
2. Buddhism: Hinayan and Mahayana
3. Jainism: It's major Principles
4. Development of Art and Architecture: Mauryan, and Gupta

**Reading List:**

1. D. D. Kosambi, An Introduction to the Study of Indian History, 1975.
2. A. L. Basham, Wonder That Was India, Rupa.

**Suggested Reading:**

1. Romila Thapar, Early India: From the Origins to 1300, 2002.
  2. Dharma Kumar and Irfan Habib, Cambridge Economic History of India, vol-I.
  3. Romila Thapar, Ancient India.
  4. K.M. Ashraf, Life and Condition of the People of Hindustan.
  5. D.N. Jha (ed.), Feudal Social Formation in Early India.
-

**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 4**  
**SOCIAL FORMATIONS AND CULTURAL PATTERNS OF THE MEDIEVAL WORLD**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Unit-I: Polity and Economy in Ancient Rome**

1. Polity and Empire in Ancient Rome
2. Crises of the Roman Empire-Rise and fall of Julius Caesar
3. Agrarian Economy
4. Urbanization and Trade

**Unit-II: Economic Developments in Europe from 7th to 14th Centuries:**

1. Agricultural Production
2. Towns and Trade,
3. Feudalism- Origin, Growth and Decline

**Unit-III: Religion and Culture in Medieval Europe:**

1. Medieval Church,
2. Monastic Communities
3. Papacy

**Unit-IV: Societies in Central Islamic Lands:**

1. The Tribal background, Rise of Islam; Rise of Sultanates
2. Religious Developments: the Origins of Shariah,

**Reading List:**

1. PerryAnderson, Passages from Antiquity to Feudalism.
2. Marc Bloch, Feudal Society, 2 Vols.

**Suggested Reading:**

1. J. Barrowclough, The Medieval Papacy.
  2. Cambridge History of Islam, 2 Vol.
  3. Will Durant, The Story of Civilization (vols. I & II).
  4. T.W. Wallbank & N.M. Bailey, Civilization –Past and Present.
  5. R. Coulborne, Feudalism in History.
-

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 5****HISTORY OF INDIA-III (c. 750 -1206)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit –I: Studying Early Medieval India: Political Structures**

1. Sources: Literary and Archaeology
2. Evolution of Political structures: Rajputs and Cholas
3. Legitimization of Kingship; Brahmanas and Temples
4. Arab conquest of Sindh: Causes and Impact

**Unit-II: Agrarian Structure and Social Change:**

1. Agricultural Expansion; Crops
2. Landlords and Peasants
3. Proliferation of Castes
4. Peasantization of Tribes

**Unit-III: Trade and Commerce:**

1. Inter-regional Trade
2. Maritime Trade and Forms of Exchange
3. Process of Urbanization
4. Merchant Guilds of South India

**Unit-IV: Religious and Cultural Developments:**

1. Puranic Traditions; Buddhism and Jainism
2. Islamic Intellectual Traditions: Al-Biruni
3. Regional Languages and Literature
4. Art and Architecture: Evolution of Regional styles: Kalingan and Dravidian style of Temple Architecture

**Reading List:**

1. B.D. Chattopadhyaya, The Making of Early Medieval India.
2. R.S. Sharma and K.M. Shrimali, (eds), Comprehensive History of India, Vol. IV (A & B).

**Suggested Reading:**

1. Satish Chandra, Medieval India, Vol. I, Har Anand.
  2. D. D. Koasambi, The Culture and Civilization of Ancient India: In Historical outline New Delhi; Vikas 1971.5th Print.
  3. K. A. Nilakantha Sastri, The Colas, South Indian History.
  4. Mittal, Socio-Cultural History of India.
  5. R.C.Majumdar (ed) History and Culture of Indian people. Bombay; Bharatiya Vidya Bhavan 1960.Relevant Vol.
-

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 6****RISE OF THE MODERN WEST - I**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I: Transition from feudalism to capitalism:**

1. The problems of Transition: Economic Expansion, Industrial production
2. Trade and Commerce
3. Urban Development, Town Life

**Unit-II: Early Colonial Expansion:**

1. Motives, Voyages and Explorations.
2. The Conquests of America
3. Mining and Plantation, The African Slaves.

**Unit-III: Renaissance and Reformation:**

1. Its Social Roots Spread of Humanism in Europe.
2. The Renaissance: Art, Architecture, Sculpture, Painting and Literature
3. Origins and Spread of Reformation Movements.
4. Emergence of European State system: Spain, France, England, Russia

**Unit-IV: Economic Developments of the Sixteenth Century:**

1. Shift of economic balance from the Mediterranean to the Atlantic.
2. Commercial Revolution- Causes and Nature
3. Growth of Industries and its Impact

**Reading List:**

1. Charles A. Nauert, Humanism and the Culture of the Renaissance (1996).
2. Harry Miskimin, The Economy of Later Renaissance Europe: 1460 û1600.

**Suggested Reading:**

1. Meenaxi Phukan, Rise of the Modern West: Social and Economic History of Early Modern Europe.
  2. F. Rice, The Foundation of Early Modern Europe.
  3. Toynbee, A.J, A Study of History (12 volumes).
  4. Maurice Dobb, Transition from Feudalism to Capitalism.
  5. Wallbank, T.W. & Bailey, N.M. Civilization: Past and Present.
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**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 7**  
**HISTORY OF INDIA IV (c.1206 - 1526)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I: Sultanate: Political Structures**

1. Survey of Sources: (a) Persian Tarikh Tradition, (b) Vernacular Histories; (c) Epigraphy.
2. Consolidation of the Sultanate of Delhi: Balban, Alauddin Khalji and Mahammad-bin Tughluq.
3. Theories of kingship: The Ruling Elites: Ulema, Sufis and the Imperial Monuments

**Unit-II: Emergence of Regional Identities**

1. Bahamanis, Vijayanagar and Odisha.
2. Regional Art, Architecture and Literature in Vijayanagar and Odisha

**Unit-III: Society and Economy:**

1. Iqta and the Revenue-free Grants.
2. Agricultural production, Technology.
3. Market Regulations, Growth of Urban Centers.
4. Trade and Commerce, Indian Overseas Trade.

**Unit-IV: Religion, Society and Culture:**

1. Sufi Silsilas: Chishtis and Suhrawardis; doctrines and practices, Social roles
2. Bhakti Movements and Monotheistic Traditions: Kabir, Nanak, Ravidas and Sri Chaitanya.
3. Social Impact of the Bhakti Tradition: Rise of Liberal Thought, Ideology of Equality and Gender Relations

**Reading List:**

1. Satish Chandra, Medieval India, Vol. I, Har Anand Publications, New Delhi.
2. J.L. Mehta, An Advanced Study of the History of Medieval India, Vol.I.

**Suggested Reading:**

1. Irfan Habib, Medieval India: The Study of a Civilization, NBT, New Delhi.
  2. ABM Habibullah, The Foundation of Muslim Rule in India.
  3. SBP Nigam, Nobility under the Sultans of Delhi.
  4. R.P. Tripathy, Some Aspects of Muslim Administration in India.
  5. R.S.Sharma, Early Medieval Indian Society: Orient Blackswan 2001.
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**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 8****RISE OF THE MODERN WEST - II**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I: The English Revolution and European politics in the 18th century:**

1. Background: Socio-Economic and Political Crisis in 17th Century Europe.
2. Major Issues-Political and Intellectual Currents;
3. Parliamentary Monarchy;
4. Patterns of Absolutism in Europe

**Unit-II: Rise of Modern Science**

1. Development of Science from Renaissance to the 17th century
2. Impact of Modern Science on European society

**Unit-III: Mercantilism and European Economics**

1. Origin and spread of Mercantilism
2. Impact of Mercantilism on European economy
3. Agricultural and Scientific Background to the Industrial Revolution

**Unit-IV: The American Revolution**

1. Political currents
2. Socio-Economic Issues
3. Significance of the American Revolution

**Reading List:**

1. H. Butterfield, The Origins of Modern Science.
2. Meenaxi Phukan, Rise of the Modern West: Social and Economic History of Early Modern Europe.

**Suggested Reading:**

1. Harry Miskimin, The Economy of Later Renaissance Europe: 1460 - 1600.
  2. C.A Fisher, History of Modern Europe.
  3. F. Rice, The Foundation of Early Modern Europe
  4. David Thomson, Europe since Napoleon, Pelican Books, 1985
  5. Swain, J.E., A History of World Civilization, Eurasia Publishing House Pvt. Ltd., New Delhi, 1994
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**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 9**  
**HISTORY OF INDIA V (c. 1526 - 1750)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I: Establishment of Mughal rule:**

1. India on the eve of advent of the Mughals
2. Military Technology: Fire Arms,
3. Sher Shah: Administrative and Revenue Reforms

**Unit-II: Consolidation of Mughal rule:**

1. Incorporation of Rajputs and other Indigenous Groups in Mughal Nobility
2. Evolution of Administrative Institutions: zabti, mansab, jagir, madad-i-maash
3. Emergence of the Marathas; Shivaji; Expansion under the Peshwas

**Unit-III: Society and Economy:**

1. Land rights and Revenue system: Zamindars and Peasants
2. Trade Routes and patterns of Internal Commerce; overseas trade
3. Urban Centres, Craft and Technology

**Unit-IV: Cultural ideals:**

1. Religious tolerance and sulh-i-kul; Sufi mystical and Intellectual Interventions
2. Art and Architecture
3. Mughal and Rajput Paintings: Themes and Perspectives

**Reading List:**

1. J.L. Mehta, An Advanced Study of the History of Medieval India, Vol.II.
2. Satish Chandra, Medieval India, vol.2, Har Anand Publications, New Delhi.

**Suggested Reading:**

1. Irfan Habib, Agrarian System of Mughal India, 1526-1707.
  2. A.B.Pandey, Later Medieval Period.
  3. R.P.Tripathi, Rise and Fall of the Mughal Empire
  4. S.Nurul Hassan, Thoughts on Agrarian Relations in Mughal India.
  5. Ishwari Prasad, Life and Times of Humayun.
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**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 10**  
**HISTORICAL THEORIES & METHOD**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I: Meaning and Scope of History**

1. Definition, Nature and Scope of History.
2. Object and Value of History.
3. History, Science and Morality.

**Unit-II: Traditions of Historical Writing**

1. Ancient Greek Traditions – Herodotus, Thucydides
2. Ancient Roman Traditions - Polybius, Livy and Tacitus
3. Medieval Understanding: Western – St. Augustine, Arabic – Ibn Khaldun.

**Unit-III: History as Interdisciplinary Practice**

1. History and Archaeology, History and Anthropology.
2. History and Psychology, History and Literature.
3. History and Political Science

**Unit-IV: Historical Methods**

1. Sources of History: Written, Oral. Visual & Archaeological.
2. Historical facts.
3. Historical Causation.
4. Historical Objectivity

**Reading List:**

1. B. Sheik Ali, History: Its Theory and Method, Macmillan, Reprinted, 1996.
2. E. H. Carr, What is History? , Penguin Books, Reprinted, 1983.

**Suggested Reading:**

1. E. Sreedharan, A Text Book of Historiography, Orient Longman, Reprinted, 2004.
  2. Marc Bloch, The Historians Craft.
  3. R.G. Collingwood, The Idea of History
  4. G.T.Reiner, History: Its Purpose and Method.
  5. K.Rajayyan, History: it's Theory & Method
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**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 11**  
**HISTORY OF MODERN EUROPE-9 (C.1780-1880)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I: The French Revolution (1789):**

1. Socio, Religious, Economic and Political Conditions
2. Intellectual Currents.
3. Role of the Middle Classes

**Unit-II: Revolution and its European Repercussions:**

1. National Constituent Assembly
2. National Legislative Assembly
3. Napoleonic Consolidation- Reform and Empire

**Unit-III: Restoration and Revolution: c. 1815 - 1848:**

1. Congress of Vienna Restoration of old Hierarchies
2. Revolutionary and Radical Movements- A) July Revolution (1830) and B) February Revolution (1848)

**Unit-IV: Socio-Economic Transformation and Remaking of States (Late 18th Century to Late 19th Century)**

1. Process of Capitalist Development: Agrarian and Industrial Revolutions in England and German States.
2. Evolution of Social Classes: Land Owners, Peasantry: Bourgeoisie and Proletariat
3. Popular Movements and the Formation of National Identities in Germany and Italy, Ireland

**Reading List:**

1. T.S. Hamerow, Restoration, Revolution and Reaction: Economics and Politics in Germany [1815 - 1871].
2. Anthony Wood, History of Europe, 1815 to 1960 (1983).

**Suggested Reading:**

1. E.J. Hobsbawm, Nations and Nationalism.
  2. A. Wesley Rohem, The Record of Mankind, Health and Company, Boston, 1952.
  3. CMD Ketelbey, History of Modern Times since 1789, OUP, 2009.
  4. David Thomson, Europe since Napoleon, Pelican Books, 1985.
  5. Edward Mac Nall Burns et al, World Civilizations, vols. A,B,C,Goyal Saab, New Delhi.
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**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 12**  
**HISTORY OF INDIA VII (c. 1750 - 1857)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I: Expansion and Consolidation of Colonial Power:**

1. Foreign Trade and Early forms of Economic Exploitations in Bengal
2. Dynamics of Expansion, with special reference to Bengal, Mysore and Odisha

**Unit-II: Colonial State and Ideology:**

1. Arms of the Colonial state: army, Police, Law.
2. Imperial Ideology: Orientalism and Utilitarianism
3. Education: Indigenous and Modern.

**Unit-III: Economy and Society:**

1. Land revenue systems- Permanent, Ryotwari and Mahalwari.
2. Commercialization of Agriculture- Consequences
3. Drain of Wealth- Causes and Consequences
4. Growth of Modern Industry

**Unit-IV: Popular Resistance:**

1. Santhal Uprising (1856-57)
2. Indigo Rebellion (1860)
3. Movement of 1857- Causes and Consequences

**Reading List:**

1. Dharma Kumar and Tapan Raychaudhuri, (ed.), The Cambridge Economic History of India, Vol. II.
2. Bipan Chandra, K.N. Panikkar, Mridula Mukherjee, Sucheta Mahajan and Aditya Mukherjee, India's Struggle for Independence.

**Suggested Reading:**

1. Sumit Sarkar, Modern India (1885-1947), Mac Milan.
  2. A.R.Desai, Social Background of Indian Nationalism
  3. R. Vlyanovsky, Agrarian India between the World Wars.
  4. Sekhar Bondhapadhaya, From Plessey to Partition.
  5. G.Kaushal, Economic History of India, 1757-1956
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**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 13**  
**HISTORY OF INDIA VIII (c. 1857 - 1950)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I: Cultural Changes, Socio and Religious Reform Movements:**

1. The advent of Printing and its Implications
2. Reform and Revival: Brahmo Samaj, Arya Samaj, Aligarh Movement.
3. Emancipation of Women, Sanskritization and Anti-Caste Movements

**Unit-II: Nationalism: Trends up to 1919:**

1. Political Ideology and Organizations, Formation of INC
2. Moderates and Extremists.
3. Swedish Movement
4. Revolutionaries

**Unit-III: Gandhian Nationalism after 1919: Ideas and Movements:**

1. Mahatma Gandhi: His Perspectives and Methods
2. Non- Cooperation, Civil Disobedience, Quit India,
3. Subhas Chandra Bose and INA
4. Nationalism and Social Groups: Peasants, Tribes, Dalits and Women

**Unit-IV: Communalism and Partition:**

1. Ideologies and Practices, Muslim League
2. Hindu Maha Sabha
3. Partition and Independence
4. Making of the Constitution

**Reading List:**

1. Sumit Sarkar, Modern India, 1885-1947.
2. Bipan Chandra, K.N. Panikkar, Mridula Mukherjee, Sucheta Mahajan and Aditya Mukherjee, India's, Struggle for Independence, Penguin

**Suggested Reading:**

1. Sekhar Bandopadhyaya, From Plessey to Partition
  2. N.S. Bose, Indian Awakening and Bengal
  3. A. R. Desai, Social Background of Indian Nationalism, Popular, Bombay.
  4. S.Gopal, British Policy in India, 1858-1905.
  5. Bipan Chandra, Indian National Movement.
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**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 14**  
**HISTORY OF MODERN EUROPE II (c. 1880 - 1939)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I: Liberal Democracy, Working Class Movements and Socialism in the 19th and 20th Centuries:**

1. The Struggle for Parliamentary Democracy and Civil Liberties in Britain.
2. Forms of Protest during early Capitalism: Food Riots in France and England: Luddites and Chartism.
3. Early Socialist Thought; Marxian Socialism

**Unit-II: The Crisis of Feudalism in Russia and Experiments in Socialism:**

1. Emancipation of Serfs
2. Revolutions of 1905; the Bolshevik Revolution of 1917.
3. Programme of Socialist Construction.

**Unit-III: Imperialism, War, and Crisis: c. 1880-1939:**

1. Growth of Militarism; Power Blocks and Alliances: Expansion of European Empires – First World War (1914 – 1918)
2. Fascism and Nazism.
3. The Spanish Civil War.
4. Origins of the Second World War.

**Unit-IV: Intellectual Developments since circa 1850: Major Intellectual Trends:**

1. Mass Education and Extension of Literacy.
2. Institutionalization of Disciplines: History, Sociology and Anthropology.
3. Darwin and Freud.

**Reading List:**

1. C.M. Cipolla, Fontana Economic History of Europe, Volume II the Present (1981). I : The Industrial Revolution.
2. T.S. Hamerow, Restoration, Revolution and Reaction: Economics and Politics in Germany [1815 - 1871].

**Suggested Reading:**

1. George Lichtheim, A Short History of Socialism.
  2. K.B. Keswani, International Relations in Modern World (1990-1995).
  3. C.D.M. Ketelby, A History of Modern Times.
  4. Carr.E.H., International Relations between the Two World Wars, 1919-1939, New York, 1966.
  5. Garden Green Wood, The Modern World –A History of Our Times.
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**+3 THIRD YEAR FIFTH SEMESTER**  
**DSE - 1**  
**HISTORY AND CULTURE OF ORISSA - I**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Units: I**

1. Historical Geography: Kalinga, Utkal, Kosal
2. Kalinga War (261 B.C.) and its Significance.
3. Kharavela –Career and Achievements

**Unit: II**

1. Matharas and Eastern Gangas and Sailodbhavas
2. Bhaumakaras
3. Somavamsis

**Unit: III**

1. Imperial Gangas
2. Suryavamsi Gajapatis
3. Post- Gajapati Political developments upto 1568.

**Unit: IV**

1. Social and Cultural Life in Early and Medieval Odisha
2. Growth and Decay of Urban Centres
3. Trade and Commerce
4. Taxation and Land Revenue

**Reading List:**

1. K.C. Panigrahi, History of Odisha, Kitab Mahal.
2. Sahu, Mishra & Sahu, History of Odisha.

**Suggested Reading:**

1. S.K. Panda, Political and Cultural History of Odisha.
  2. A. C Pradhan, A Study of History of Orissa
  3. B.K. Mallik, etal (eds) Odia Identity, Page Maker Publications, Bhubaneswar, 2019.
  4. R. D Banarjee, History of Orissa, 2 vols.
  5. M.N. Das(ed), Sidelights on History and Culture of Orissa, Vidyapuri,Cuttack, 1977
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**+3 THIRD YEAR FIFTH SEMESTER**  
**DSE - 2**  
**HISTORY AND CULTURE OF ORISSA - II**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Units: I**

1. Afghan Conquest and Mughal Rule in Odisha- Administration
2. Maratha rule in Odisha – Administration
3. British Occupation and Early Colonial Administration: Land Revenue, Salt Policy, Jail and Police Administration.

**Unit: II**

1. Resistance Movements: Ghumsar Rebellion, Paik rebellion, Revolt of 1857 and Surendra Sai, Keonjhar Uprisings.
2. Famine of 1866 – Causes and Consequences
3. Growth of Education and Language Movement

**Unit: III**

1. Growth of Nationalism
2. Formation of Separate Province of Orissa.
3. Prajamandal Movement

**Unit: IV**

1. Nationalist Politics in Odisha
2. Quit India Movement
3. Merger of Princely States

**Reading List:**

1. P.K. Mishra & J.K. Samal, A Comprehensive History and Culture of Orissa- Vol. I & II.
2. A. C. Pradhan, Sidelights on Freedom Struggle in Orissa.

**Suggested Reading:**

1. K.M. Patra, Freedom Struggle in Odisha.
  2. J.K.Samal, Orissa under the British Crown.
  3. K.M.Patra, Orissa State Legislature & Freedom Struggle.
  4. B.C. Ray, Orissa under the Mughals, Punthi Pustak.
  5. B.C. Ray, Orissa under the Marathas, Punthi Pustak.
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**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 3**  
**HISTORY AND CULTURE OF ORISSA - III**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit: I**

1. Buddhism in Odisha
2. Jainism in Odisha
3. Shaivism in Odisha

**Unit: II**

1. Saktism and Tantricism in Odisha
2. Growth of Vaishnavism in Odisha and Cult of Jagannath
3. Growth of Odia Literature : Sarala Mahabharata
4. Pancha-Sakha Literature

**Unit: III**

1. Buddhist Art and Architecture
2. Jaina Art
3. Evolution of Temple Architecture -Parsurameswar, Mukteswar, Lingaraja, Jagannath and Konarka

**Unit: IV**

1. Christian Missionaries – Education and Health
2. Mahima Movement and its Impact
3. Neo-Hindu Movements – Brahmo, Arya Samaj.

**Reading List:**

1. A.C. Pradhan, A Study of the History of Odisha, Panchasheel.
2. B.K. Mallik, Paradigm of Dissent and Protest :- Social Movements in Eastern India (1400-1700 AD)

**Suggested Reading:**

1. K.S. Behera, Temples of Orissa.
  2. P.K. Mishra(ed), Comprehensive History and Culture of Orissa, Vol-I Pt. II.
  3. N.K. Bose, Canons of Orissan Architecture
  4. M.N. Das (ed), Sidelights on History and Culture of Orissa.
  5. N.K. Sahu, Buddhism in Orissa.
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**+3 THIRD YEAR SIXTY SEMESTER**  
**DSE - 4 (Optional/ Project)**  
**HISTORY OF CONTEMPORARY ODISHA (1947-1980)**

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

**Unit I: Political Developments**

1. Second Congress Ministry (1946-1950):
  - a) Integration of Princely States with Odisha
  - b) New Capital
  - c) Hirakud Dam Project
2. Years of Uncertainties (1950-1980)
  - a) Third Congress Ministry and Abolition of Zamindari System
  - b) Biju Patnaik's First Ministry Achievements

**Unit II: United Political Initiatives**

1. Coalition Politics- Achievements and Challenges
  - a) R.N. Singdeo,
  - b) Sadasiba Tripathy
2. Panchayati Raj Institutions-Its Working and Impacts.
  - a) Rural Stages
  - b) Urban Stages

**Unit III: Economic Development**

- a) Growth of Industries- Rourkela Steel Plant and Odisha Sponge Iron Ltd.
- b) Irrigation and Agricultural Infrastructure
- c) Development in Transport and State communication- National and State High Ways in Odisha

**Unit IV: Social Developments and Problems**

- a) Government Community Development Programmes- Its Impact
- b) Peasant Movements: Causes and Effects
- c) Growth of Art and Craft: Raghunathpur, Pipli and Bargarh

**Reading List:**

1. Hemant K. Mohapatra, Odisara Etihasha (Odia), Friends Publishers, Cuttack, 2019.
2. Sukadeva Nanda, Coalition Politics in Odisha, Sterling Publishers, Delhi.

**Suggested Reading:**

1. Sunit Ghosh, Orissa in Turmoil: A Study in Political Developments, Bookland International, Bhubaneswar, 1991.
2. Basant Das, Odisha Rajanitira Gopan Katha (Odia), Anusandhan Publication, Bhubaneswar, 2001.
3. B.B. Jena & J.K. Baral (eds), Government and Politics in Orissa, Print House (India), Lucknow, 1988.
4. Chittaranjan Das, Nabakrushna Chaudhury, NBT, New Delhi.
5. Dasarathi Bhuyan, Orissa Politics: From 1936 to Contemporary Politics, Mangalam Publishers, New Delhi, 2010.

**OR**  
**PROJECT REPORT**

The Students may be allotted topics of their interest in the beginning of 5th Semester Classes. They may write the Project Reports on local History and Culture, local personalities with their significant contribution to change the Society and economy with historical perspective containing

up to 50 double spaced typed pages. The students may consult the sources like local archaeology, manuscripts, community documents, oral traditions, oral narratives, local biographies and family sources for writing the project dissertation. The Teachers will guide the students to complete their Project assignments. The students may be allowed to fill up their forms after their submission of the projects assigned to them. The student has to secure fifty percent of marks from the evaluation of the project and fifty percent of the marks in the viva voce test which are compulsory.

**+3 FIRST YEAR FIRST SEMESTER**  
**GE - 1**  
**HISTORY OF INDIA - I (EARLY TIMES TO 1750)**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Unit – I : Reconstructing Ancient Indian History**

1. Sources of Historical Writings.
2. Vedic Age : Society, Polity and Culture
3. Buddhism and Jainism : Principles and Impact

**Unit – II : Polity and Administration**

1. The Mauryan Empire : Conquest and Administration
2. Gupta Society : Land Grants, Peasantry and beginning of Feudal Society
3. Gupta Polity : Conquests and Administration
4. Harshavardhan : Achievements

**Unit – III: Early Medieval Society, Economy and Culture**

1. Post Gupta Trade and Commerce
2. Delhi Sultanate : Conquests and Administration
3. Bhakti and Sufi Movements in India
4. Development of Regional Language and Literature

**Unit – IV: India on the eve of the advent of the Mughals**

1. Sher Shah : Administration and Reforms
2. Mughal Administrative Institutions : Zabt, Mansab and Jagir
3. Religious Tolerance Sulh-i- Kul
4. Mughal Art and Architecture

**Reading List:**

1. Upindra Singh, History of Ancient & Early Medieval India.
2. Romila Thappar, The Early India

**Suggested Reading:**

1. Irfan Habib, Medieval India, NBT, New Delhi
2. R.S. Sharma, India's Ancient Past
3. S.A.A. Rizvi, Wonder that was India, Vol.II, Rupa
4. Cultural Heritage of India, Bharatiya Vidyabhaban Series, Vol-1-IV
5. A.L. Basheon (ed), Cultural History of India, OUP, New Delhi, 2011

**+3 FIRST YEAR SECOND SEMESTER****GE - 2****HISTORY OF INDIA - II (1750-1950)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit – I Foundation and Expansion of British Rule**

1. Battle of Plassey (1757) and Conquest of Bengal
2. Conquest of Mysore and Maharashtra
3. Expansion through Diplomacy : Subsidiary Alliance and Doctrine of Lapse

**Unit – II Consolidation of British Rule and Indian Responses**

1. Peasant & Tribal Resistance against British Rule: Sanyasi Rebeallion (1763); Kondh Rebellion in Ghumusar, Santal Rebellion
2. Revolt of 1857 : Nature and Significance
3. Land Revenue Settlements : Permanent Settlement, Ryotwari and Mahalwari Settlement

**Unit – III – Social and Cultural Policies**

1. Socio-Religious Reform Movements: Brahmo Samaj, Arya Samaj, Theosophical Society, Aligarh Movement.
2. Growth of Press and Education
3. Issues of Caste and Gender : Jyotiba Phule- Women Question and Issues, Depressed Class.

**Unit – IV – Indian National Movement**

1. Politics of Moderates and Extremists (1885-1920)
2. Gandhian Mass Movements (Non-Cooperation, Civil Disobedience and Quit India Movements), (1920-1940)
3. Communal Politics and Partition
4. Making of the Democratic Constitution

**Reference**

1. A.R. Desai, Social Background of Indian Nationalism, Popular, Mumbai
2. Priyadarshi Kar, Comprehensive History of Modern India.

**Suggested Reading:**

1. Sumit Sarkar, Modern India : 1885-1947, Mac Millon.
  2. B.R.Mani, Debrahminising History: Dominance and Resistance in Indian Society, Manohar, New Delhi, First Published 2005.
  3. Chandra Bharil, Social and Political Ideas of B.R.Ambedkar, Aalekh Publishers, Jaipur, 1977.
  4. Sumit Sarkar, Modern India (1885-1947), Mac Millan, Delhi, First Published 1983.
  5. Hirendra N.Mukherjee, Gandhi, Ambedkar and the Extirpation of Untouchability, PPT, New Delhi.
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# MATHEMATICS

## +3 FIRST YEAR FIRST SEMESTER

### Core Paper - 1

### CALCULUS

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

#### Objective:

The main emphasis of this course is to equip the student with necessary analytic and technical skills to handle problems of mathematical nature as well as practical problems. More precisely, main target of this course is to explore the different tools for higher order derivatives, to plot the various curves and to solve the problems associated with differentiation and integration of vector functions.

#### Expected Outcomes:

After completing the course, students are expected to be able to use Leibnitz's rule to evaluate derivatives of higher order, able to study the geometry of various types of functions, evaluate the area, volume using the techniques of integrations, able to identify the difference between scalar and vector, acquired knowledge on some the basic properties of vector functions.

#### UNIT-I

Hyperbolic functions, higher order derivatives, Leibnitz rule and its applications to problems of the type  $e^{ax+b} \sin x$ ,  $e^{ax+b} \cos x$ ,  $(ax+b)^n \sin x$ ,  $(ax+b)^n \cos x$ , concavity and inflection points, asymptotes, curve tracing in Cartesian coordinates, tracing in polar coordinates of standard curves, L' Hospital's rule, Application in business, economics and life sciences.

#### UNIT-II

Riemann integration as a limit of sum, integration by parts, Reduction formulae, derivations and illustrations of reduction formulae of the type

$\int \sin^n x dx$ ,  $\int \cos^n x dx$ ,  $\int \tan^n x dx$ ,  $\int \sec^n x dx$ ,  $\int (\log x) dx$ ,  $\int \sin^n x \cos^n x dx$ , definite integral, integration by substitution.

#### UNIT-III

Volumes by slicing, disks and washers methods, volumes by cylindrical shells, parametric equations, parameterizing a curve, arc length, arc length of parametric curves, area of surface of revolution, techniques of sketching conics, reflection properties of conics, rotation of axes and second degree equations, classification into conics using the discriminant, polar equations of conics.

#### UNIT-IV

Triple product, introduction to vector functions, operations with vector-valued functions, limits and continuity of vector functions, differentiation and integration of vector functions, tangent and normal components of acceleration.

**Core Paper - 1**  
**PRACTICAL**

Credit : **02**

25 Marks

**(Using any software/ MATLAB to be performed on a Computer)**

1. Plotting the graphs of the functions  $e^{ax+b}$ ,  $\log(ax + b)$ ,  $1/ax + b$ ,  $\sin(ax + b)$ ,  $\cos(ax + b)$  and  $|ax+b|$  to illustrate the effect of  $a$  and  $b$  on the graph.
2. Plotting the graphs of the polynomial of degree 4 and 5.
3. Sketching parametric curves (E.g. Trochoid, cycloid, hypocycloid).
4. Obtaining surface of revolution of curves.
5. Tracing of conics in Cartesian coordinates /polar coordinates.
6. Sketching ellipsoid, hyperboloid of one and two sheets (using Cartesian co-ordinates).

**BOOKS RECOMMENDED:**

1. H. Anton, I. Bivens and S. Davis, *Calculus*, 10thEd., John Wiley and Sons (Asia)P. Ltd. Singapore, 2002.
2. Shanti Narayan, P. K. Mittal, *Differential Calculus*, S. Chand, 2014.
3. Shanti Narayan, P. K. Mittal, *Integral Calculus*, S. Chand, 2014.

**BOOKS FOR REFERENCE:**

1. James Stewart, *Single Variable Calculus, Early Transcendentals*, Cengage Learning, 2016.
2. G.B. Thomas and R.L. Finney, *Calculus*, 9th Ed., Pearson Education, Delhi, 2005.

**+3 FIRST YEAR FIRST SEMESTER**  
**Core Paper - 2**  
**DISCRETE MATHEMATICS**

Time : **3 Hrs.**End Semester Theory : **80 Marks**Credit : **06**Mid Semester Theory : **20 Marks****Objective:**

This is a preliminary course for the basic courses in mathematics and all its applications. The objective is to acquaint students with basic counting principles, set theory and logic, matrix theory and graph theory.

**Expected Outcomes:**

The acquired knowledge will help students in simple mathematical modeling. They can study advance courses in mathematical modeling, computer science, statistics, physics, chemistry etc.

**UNIT-I**

Sets, relations. Equivalence relations, partial ordering, well ordering, axiom of choice, Zorn's lemma, Functions, cardinals and ordinals, countable and uncountable sets, statements, compound statements, proofs in Mathematics, Truth tables, Algebra of propositions, logical arguments, Well-ordering property of positive integers, Division algorithm, Divisibility and Euclidean algorithm, Congruence relation between integers, modular arithmetic, Chinese remainder theorem, Fermats little theorem.

**UNIT-II**

Principles of Mathematical Induction, pigeonhole principle, principle of inclusion and exclusion Fundamental Theorem of Arithmetic, permutation, combination, circular permutations, binomial and multinomial theorem, Recurrence relations, generating functions, generating function from recurrence relations.

**UNIT-III**

Matrices, algebra of matrices, determinants, fundamental properties, minors and cofactors, product of determinant, adjoint and inverse of a matrix. Rank and nullity of a matrix, Systems of linear equations, row reduction and echelon forms, solution sets of linear systems, applications of linear systems, Eigen values, Eigen vectors of a matrix.

**UNIT-IV**

Graph terminology, types of graphs, sub-graphs, isomorphic graphs, Adjacency and incidence matrices, Paths, Cycles and connectivity, Eulerian and Hamiltonian paths, Planar graphs.

**BOOKS RECOMMENDED:**

1. Edgar G. Goodaire and Michael M. Parmenter, Discrete Mathematics with Graph Theory, 3rd Ed., Pearson Education (Singapore) P. Ltd., Indian Reprint, 2005.
2. Kenneth Rosen Discrete mathematics and its applications Me Graw Hill Education 7<sup>th</sup> edition.
3. V Krishna Murthy, V. P. Mainra, J. L. Arora, An Introduction to Linear Algebra, Affiliated East-West Press Pvt. Ltd.

**BOOKS FOR REFERENCE:**

1. J. L. Mott, A. Kendel and T.P. Baker: Discrete mathematics for Computer Scientists and Mathematicians, Prentice Hall of India Pvt Ltd, 2008.

**+3 FIRST YEAR SECOND SEMESTER****Core Paper - 3  
REAL ANALYSIS**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Objective:**

The objective of the course is to have the knowledge on basic properties of the field of real numbers, studying Bolzano-Weierstrass Theorem, sequences and convergence of sequences, series of real numbers and its convergence etc. This is one of the core courses essential to start doing mathematics.

**Expected Outcome:**

On successful completion of this course, students will be able to handle fundamental properties of the real numbers that lead to the formal development of real analysis and understand limits and their use in sequences, series, differentiation and integration. Students will appreciate how abstract ideas and rigorous methods in mathematical analysis can be applied to important practical problems.

**UNIT-I**

Review of Algebraic and Order Properties of  $R$ ,  $\varepsilon$ -neighborhood of a point in  $R$ , Bounded above sets, Bounded below sets, Bounded Sets, Unbounded sets, Suprema and Infima, The Completeness Property of  $R$ , The Archimedean Property, Density of Rational (and Irrational) numbers in  $R$ ., Intervals, Interior point, Open Sets, Closed sets, Limit points of a set, Illustrations of Bolzano-Weierstrass theorem for sets, closure, interior and boundary of a set.

**UNIT-II**

Sequences and Subsequences, Bounded sequence, Convergent sequence, Limit of a sequence. Limit Theorems, Monotone Sequences,. Divergence Criteria, Bolzano Weierstrass Theorem for Sequences, Cauchy sequence, Cauchy's Convergence Criterion. Infinite series, convergence and divergence of infinite series, Cauchy Criterion, Tests for convergence: Comparison test, Limit Comparison test, Ratio Test, Cauchy's nth root test, Integral test, Alternating series, Leibniz test, Absolute and Conditional convergence.

**UNIT-III**

Limits of functions (epsilon-delta approach), sequential criterion for limits, divergence criteria. Limit theorems, one sided limits. Infinite limits and limits at infinity, Continuous functions, sequential criterion for continuity & discontinuity. Algebra of continuous functions, Continuous functions on an interval, Boundedness Theorem, Maximum Minimum Theorem, Bolzano's Intermediate value theorem, location of roots theorem, preservation of intervals theorem. Uniform continuity, non-uniform continuity criteria, uniform continuity theorem, Monotone and Inverse Functions.

**UNIT-IV**

Differentiability of a function at a point & in an interval, Caratheodory's theorem, chain Rule, algebra of differentiable functions, Mean value theorem, interior extremum theorem. Rolle's theorem, intermediate value property of derivatives, Darboux's theorem. Applications of mean value theorem to inequalities.

**BOOKS RECOMMENDED:**

1. R.G. Battle and D. R. Sherbert. Introduction to Real Analysis (3<sup>rd</sup> Edition), John Wiley and Sons (Asia) Pvt. Ltd., Singapore,2002.
2. G. Das and S. Pattanayak, Fundamentals of Mathematical Analysis, TMH Publishing Co.

**BOOKS FOR REFERENCE:**

1. S.C. Mallik and S. Arora-Mathematical Analysis, New Age International Publications.
  2. A.Kumar, S. Kumaresan, *A basic course in Real Analysis*, CRC Press, 2014.
  3. Brian S. Thomson, Andrew. M. Bruckner, and Judith B. Bruckner, *Elementary Real Analysis*, Prentice Hal 1,2001.
  4. Gerald G. Bilodeau, Paul R. Thie, G.E. Keough, *An Introduction to Analysis*, Jones & Bartlett, Second Edition, 2010.
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**+3 FIRST YEAR FIRST SEMESTER****Core Paper - 4****DIFFERENTIAL EQUATIONS**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Objective:**

Differential Equations introduced by Leibnitz in 1676 models almost all Physical, Biological, Chemical systems in nature. The objective of this course is to familiarize the students with various methods of solving differential equations and to have a qualitative applications through models. The students have to solve problems to understand the methods.

**Expected Outcomes:**

A student completing the course is able to solve differential equations and is able to model problems in nature using Ordinary Differential Equations. This is also prerequisite for studying the course in Partial Differential Equations and models dealing with Partial Differential Equations.

**UNIT-I**

Differential equations and mathematical models, General, Particular, explicit, implicit and singular solutions of a differential equation. Exact differential equations and integrating factors, separable equations and equations reducible to this form, linear equations and Bernoulli's equation, special integrating factors and transformations.

**UNIT-II**

Introduction to compartmental models, Exponential decay radioactivity (case study of detecting art forgeries), lake pollution model (with case study of Lake Burley Griffin), drug assimilation into the blood (case study of dull, dizzy and dead), exponential growth of population, Density dependent growth, Limited growth with harvesting.

**UNIT-III**

General solution of homogeneous equation of second order, principle of superposition, Wronskian, its properties and applications, method of undetermined coefficients, Method of variation of parameters, Linear homogeneous and non-homogeneous equations of higher order with constant coefficients, Eulers equation.

**UNIT-IV**

Equilibrium points, Interpretation of the phase plane, predatory-pray model and its analysis, epidemic model of influenza and its analysis, battle model and its analysis.

**Core Paper - 4****PRACTICAL**

Credit : 02

25 Marks

**Practical / Lab work to be performed on a computer:**

Modeling of the following problems using *Matlab /Mathematica /Maple* etc.

1. Plotting of second & third order solution family of differential equations.
  2. Growth & Decay model (exponential case only).
  3. (a) Lake pollution model (with constant/seasonal flow and pollution concentration)/
-



- (b) Case of single cold pill and a course of cold pills.
- (c) Limited growth of population (with and without harvesting).
- 4. (a) Predatory- prey model (basic volterra model, with density dependence, effect of DDT, two prey one predator).
- (b) Epidemic model of influenza (basic epidemic model, contagious for life, disease with carriers).
- (c) Battle model (basic battle model, jungle warfare, long range weapons).
- 5. Plotting of recursive sequences.

**BOOKS RECOMMENDED:**

1. J. Sinha Roy and S Padhy: A course of Ordinary and Partial differential equation Kalyani Publishers. New Delhi.
2. Belinda Barnes and Glenn R. Fulford, *Mathematical Modeling with Case Studies, A Differential Equation Approach using Maple and Matlab*, 2ndEd., Taylor and Francis group, London and New York, 2009.

**BOOKS FOR REFERENCE:**

1. Simmons G F, Differential equation, Tata Me Graw Hill, 1991.
2. Martin Braun, Differential Equations and their Applications, Springer International, Student Ed.
3. S. L. Ross, Differential Equations, 3<sup>rd</sup> Edition, John Wiley and Sons, India.
4. C.Y. Lin, Theory and Examples of Ordinary Differential Equations, World Scientific, 2011.

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 5****THEORY OF REAL FUNCTIONS**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Objective:**

The objective of the course is to have knowledge on limit theorems on functions, limits of functions, continuity of functions and its properties, uniform continuity, differentiability of functions, algebra of functions and Taylor's theorem and, its applications. The student how to deal with real functions and understands uniform continuity, mean value theorems.

**Expected Outcome:**

On the completion of the course, students will have working knowledge on the concepts and theorems of the elementary calculus of functions of one real variable. They will work out problems involving derivatives of function and their applications. They can use derivatives to analyze and sketch the graph of a function of one variable, can also obtain absolute value and relative extrema of functions. This knowledge is basic and students can take all other analysis courses after learning this course.

**UNIT-I**

L' Hospital's Rules, other Intermediate forms, Cauchy's mean value theorem, Taylor's theorem with Lagrange's form of remainder. Taylor's theorem with Cauchy's form of remainder, application of Taylor's theorem to convex functions, Relative extreme, Taylor's series and Maclaurin's series, expansions of exponential and trigonometric functions.

**UNIT-II**

Riemann integration; inequalities of upper and lower sums; Riemann conditions of integrability. Riemann sum and definition of Riemann integral through Riemann sums; equivalence of two definitions; Riemann integrability of monotone and continuous functions; Properties of the Riemann integral; definition and integrability of piecewise continuous and monotone functions. Intermediate Value theorem for Integrals; Fundamental theorems of Calculus.

**UNIT-III**

Improper integrals: Convergence of Beta and Gamma functions. Pointwise and uniform convergence of sequence of functions, uniform convergence, Theorems on continuity, derivability and integrability of the limit function of a sequence of functions.

**UNIT-IV**

Series of functions; Theorems on the continuity and derivability of the sum function of a series of functions; Cauchy criterion for uniform convergence and Weierstrass M-Test Limit superior and Limit inferior. Power series, radius of convergence, Cauchy Hadamard Theorem, Differentiation and integration of power series; Abel's Theorem; Weierstrass Approximation Theorem.

**BOOKS RECOMMENDED:**

1. R.G. Bartle & D. R. Sherbert, Introduction to Real Analysis, John Wiley & Sons.
2. G. Das and S. Pattanayak, *Fundamentals of mathematics analysis*, TMH Publishing Co.
3. S. C. Mallik and S. Arora, *Mathematical analysis*, New Age International Ltd., New Delhi.

**BOOK FOR REFERENCES:**

1. A. Kumar, S. Kumaresan, *A basic course in Real Analysis*, CRC Press, 2014
2. K. A. Ross, *Elementary analysis: the theory of calculus*, Undergraduate Texts in Mathematics, Springer (SIE), Indian reprint, 2004A. Mattuck, Introduction to Analysis, Prentice Hall
3. Charles G. Denlinger, *Elements of real analysis*, Jones and Bartlett (Student Edition), 2011.

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 6****GROUP THEORY-I**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Objective:**

Group theory is one of the building blocks of modern algebra. Objective of this course is to introduce students to basic concepts of group theory and examples of groups and their properties. This course will lead to future basic courses in advanced mathematics, such as Group theory-II and ring theory.

**Expected Outcomes:**

A student learning this course gets idea on concept and examples of groups and their properties. He understands cyclic groups, permutation groups, normal subgroups and related results. After this course he can opt for courses in ring theory, field theory, commutative algebras, linear classical groups etc. and can be apply this knowledge to problems in physics, computer science, economics and engineering.

**UNIT-I**

Symmetries of a square. Dihedral groups, definition and examples of groups including permutation groups and quaternion groups (illustration through matrices), elementary properties of groups, Subgroups and examples of subgroups, centralizer, normalizer, center of a group,

**UNIT-II**

Product of two subgroups. Properties of cyclic groups, classification of subgroups of cyclic groups, Cycle notation for permutations, properties of permutations, even and odd permutations, alternating group,

**UNIT-III**

Properties of cosets, Lagrange's theorem and consequences including Fermat's Little theorem, external direct product of a finite number of groups, normal subgroups, factor groups.

**UNIT-IV**

Cauchy's theorem for finite abelian groups, group homomorphisms, properties of homomorphisms, Cayley's theorem, properties of isomorphisms, first, second and third isomorphism theorems.

**BOOKS RECOMMENDED:**

1. Joseph A. Gallian, *Contemporary Abstract Algebra* (4<sup>th</sup> Edition), Narosa Publishing House, New Delhi
2. John B. Fraleigh, *A First Course in Abstract Algebra*, 7th Ed., Pearson, 2002.

**BOOK FOR REFERENCES:**

1. M. Artin, *Abstract Algebra*, 2nd Ed., Pearson, 2011.
2. Joseph I. Rotman, *An Introduction to the Theory of Groups*, 4th Ed., Springer Verlag, 1995.
- 3.1. N. Herstein, *Topics in Algebra*, Wiley Eastern Limited, India, 1975.

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 7****PARTIAL DIFFERENTIAL EQUATIONS AND SYSTEM OF ODEs**

Time : 3 Hrs.

End Semester Theory : 60 Marks

Credit : 04

Mid Semester Theory : 15 Marks

**Objective:** The objective of this course is to understand basic methods for solving Partial Differential Equations of first order and second order. In the process, students will be exposed to Charpit's Method, Jacobi Method and solve wave equation, heat equation, Laplace Equation etc. They will also learn classification of Partial Differential Equations and system of ordinary differential equations.

**Expected Outcomes:** After completing this course, a student will be able to take more courses on wave equation, heat equation, diffusion equation, gas dynamics, non linear evolution equations etc. All these courses are important in engineering and industrial applications for solving boundary value problem.

**UNIT-I**

Partial Differential Equations - Basic concepts and Definitions, Mathematical Problems. First-Order Equations: Classification, Construction and Geometrical Interpretation. Method of

Characteristics for obtaining General Solution of Quasi Linear Equations. Canonical Forms of First-order Linear Equations. Method of Separation of Variables for solving first order partial differential equations.

#### UNIT-II

Derivation of Heat equation, Wave equation and Laplace equation. Classification of second order linear equations as hyperbolic, parabolic or elliptic. Reduction of second order Linear Equations to canonical forms.

#### UNIT-III

The Cauchy problem, Cauchy problem of an infinite string. Initial Boundary Value Problems, Semi-Infinite String with a fixed end, Semi-Infinite String with a Free end. Equations with non-homogeneous boundary conditions, Non-Homogeneous Wave Equation. Method of separation of variables, Solving the Vibrating String Problem, Solving the Heat Conduction problem

#### UNIT-IV

Systems of linear differential equations, types of "linear systems, differential operators, an operator method for linear systems with constant coefficients, Basic Theory of linear systems in normal form, homogeneous linear systems with constant coefficients: Two Equations in two unknown functions, The method of successive approximations.

### Core Paper - 7 PRACTICAL

Credit : 02

25 Marks

#### LIST OF PRACTICALS (USING ANY SOFTWARE)

- (i) Solution of Cauchy problem for first order PDE.
- (ii) Finding the characteristics for the first order PDE.
- (iii) Plot the integral surfaces of a given first order PDE with initial data.
- (iv) Solution of wave equation  $\frac{\partial^2 u}{\partial t^2} = c^2 \frac{\partial^2 u}{\partial x^2}$  for the following associated conditions
  - (a)  $u(x,0) = \phi(x), u_t(x,0) = \Psi(x), x \in \mathbb{R}, t > 0$
  - (b)  $u(x,0) = \phi(x), u_t(x,0) = \Psi(x), u(0,t) = 0, x \in (0, \infty), t > 0$
  - (c)  $u(x,0) = \phi(x), u_t(x,0) = \Psi(x), u_x(0,t) = 0, x \in (0, \infty), t > 0$
  - (d)
- (v) Solution of wave equation  $\frac{\partial u}{\partial t} - k \frac{\partial^2 u}{\partial x^2} = 0$  for the following associated conditions
  - (a)  $u(x,0) = \phi(x), u(0,t) = a, u(1,t) = b, 0 < x < 1, t > 0$
  - (b)
  - (c)

#### BOOKS RECOMMENDED :

1. Tyn Myint-U and Lokenath Debnath, *Linear Partial Differential Equations for Scientists and Engineers*, 4th edition, Birkhauser, Indian reprint, 2014.
2. S.L. Ross, *Differential equations*, 3rd Ed., John Wiley and Sons, India,

**BOOK FOR REFERENCES:**

1. J Sinha Roy and S Padhy: A course of Ordinary and Partial differential equation Kalyani Publishers, New Delhi,
2. Martha L Abell, James P Braselton, *Differential equations with MATHEMATICA*, 3rd Ed., Elsevier Academic Press, 2004.
3. Robert C. Me Owen: Partial Differential Equations, Pearson Education Inc.
4. T Amarnath: An Elementary Course in Partial Differential Equations, Narosa Publications.

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 8**  
**NUMERICAL METHODS AND SCIENTIFIC COMPUTING**  
**Use of Scientific Calculator is allowed**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Objective:**

Calculation of error and approximation is a necessity in all real life, industrial and scientific computing. The objective of this course is to acquaint students with various numerical methods of finding solution of different type of problems, which arises in different branches of science such as locating roots of equations, finding solution of systems of linear equations and differential equations, interpolation, differentiation, evaluating integration.

**Expected Outcome:**

Students can handle physical problems to find an approximate solution. After getting trained a student can opt for advance courses in numerical analysis in higher mathematics. Use of good mathematical software will help in getting the accuracy one need from the computer and can assess the reliability of the numerical results, and determine the effect of round off error or loss of significance.

**UNIT-I**

Rate of convergence, Algorithms, Errors: Relative, Absolute, Round off, Truncation. Approximations in Scientific computing, Error propagation and amplification, conditioning, stability and accuracy, computer arithmetic mathematical software and libraries, visualisation. Numerical solution of non-linear equations: Bisection method, Regula- Falsi method, Secant method, Newton- Raphson method, Fixed-point Iteration method.

**UNIT-II**

Rate of convergence of the above methods. System of linear algebraic equations: Gaussian Elimination and Gauss Jordan methods. Gauss Jacobi method, Gauss Seidel method and their convergence analysis. Computing eigen-values and eigenvectors

**UNIT-III**

Polynomial interpolation: Existence uniqueness of interpolating polynomials. Lagrange and Newtons divided difference interpolation, Error in interpolation, Central difference & averaging operators, Gauss-forward and backward difference interpolation. Hermite and Spline interpolation, piecewise polynomial interpolation.

**UNIT-IV**

Numerical Integration: Some simple quadrature rules, Newton-Cotes rules, Trapezoidal rule, Simpsons rule, Simpsons  $3/8th$  rule, Numerical differentiation and integration, Chebyshev differentiation and FFT, Richardson extrapolation.

## Core Paper - 8 PRACTICAL

Credit : **02**

25 Marks

### PRACTICAL/LAB WORK TO BE PERFORMED ON A COMPUTER:

Use of computer aided software (CAS), for example *Matlab / Mathematica / Maple / Maxima* etc., for developing the following Numerical programs:

- (i) Calculate the sum  $1/1 + 1/2 + 1/3 + 1/4 + \dots + 1/N$ .
- (ii) To find the absolute value of an integer.
- (iii) Enter- 100 integers into an array and sort them in an ascending' order.
- (iv) Any two of the following
  - (a) Bisection Method
  - (b) Newton Raphson Method
  - (c) Secant Method
  - (d) Regular Falsi Method
- (v) Gauss-Jacobi Method
- (vi) SOR Method or Gauss-Siedel Method
- (vii) Lagrange Interpolation or Newton Interpolation
- (viii) Simpson's rule.

**Note:**For any of the CAS *Matlab / Mathematica / Maple / Maxima* etc., Data types-simple data types, floating data types, character data types, arithmetic operators and operator precedence, variables and constant declarations, expression, input/output, relational operators, logical operators and logical expressions, control statements and loop statements, Arrays should be introduced to the students.

### BOOKS RECOMMENDED:

1. M. K. Jain, S. R. K. Iyengar and R. K. Jain, '*Numerical Methods for Scientific and Engineering Computation*, New age International Publisher, India,
2. Michael Heath: *Scientific Computing : An introductory Survey*.

### BOOK FOR REFERENCES:

1. B. Bradie, *A Friendly Introduction to 'Numerical Analysis*, Pearson Education, India, 2007.
2. Kendall E. Atkinson: *An Introduction to Numerical Analysis*
3. C. F. Gerald and P. O. Wheatley, *App. Ied Numerical Analysis*, Pearson Education, India, 7\* Edition, 2008
4. S. D. Conte & S. de Boor: *Elementary Numerical Analysis: An Algorithmic Approach*.

## +3 SECOND YEAR FOURTH SEMESTER

### Core Paper - 9

#### TOPOLOGY OF METRIC SPACES

Time : **3 Hrs.**Credit : **06**End Semester Theory : **80 Marks**Mid Semester Theory : **20 Marks**

### Objective:

This is an introductory course in topology of metric spaces. The objective of this course is to impart knowledge on open sets, closed sets, continuous functions, connectedness and compactness in metric spaces.

**Expected Outcomes:**

On successful completion of the course students will learn to work with abstract topological spaces. This is a foundation course for all analysis courses in future.

**UNIT-I**

Metric spaces, sequences in metric spaces, Cauchy sequences, complete metric spaces, open and closed balls, neighborhood, open set, interior of a set, limit point of a set, closed set, diameter of a set, Cantor's theorem,

**UNIT-II**

Subspaces, Countability Axioms and Separability, Baire's Category theorem

**UNIT-III**

Continuity: Continuous mappings, Extension theorems, Real and Complex valued Continuous functions, Uniform continuity, Homeomorphism, Equivalent metrics and isometry, uniform convergence of sequences of functions.

**UNIT-IV**

Contraction mappings and applications, connectedness, Local connectedness, Bounded sets and compactness, other characterization of compactness, continuous functions on compact spaces,

**BOOKS RECOMMENDED:**

1. Satish Shirali & Harikishan L. Vasudeva. *Metric Spaces*, Springer Verlag London (2006) (First Indian Reprint 2009)

**BOOK FOR REFERENCES:**

1. S. Kumaresan, *Topology of Metric Spaces*, Narosa Publishing House, Second Edition 2011.

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 10****RING THEORY**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Objective:**

This is a second course in modern algebra which deals with ring theory. Some basics of ring theory like rings, subrings, ideals, ring homomorphisms and their properties and. This course is an integral part of any course on Modern algebra the others being Group theory and Field Theory.

**Expected Outcomes:**

After completing this course, this will help students to continue more courses in advanced Ring theory modules, Galois groups.

**UNIT-1**

Definition and examples of rings, properties of rings, subrings, integral domains and fields, characteristic of a ring, Ideals, ideal generated by a subset of a ring, factor rings, operations on ideals.

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**UNIT-II**

Prime and maximal ideals. Ring homomorphisms, properties of ring homomorphisms, Isomorphism theorems I, II and III, field of quotients.

**UNIT-III**

Polynomial rings over commutative rings, division algorithm and consequences, principal ideal domains, factorization of polynomials, reducibility tests, irreducibility tests, Eisenstein criterion, Unique factorization in  $\mathbb{Z}[x]$ .

**UNIT-IV**

Divisibility in integral domains, irreducibles, primes, unique factorization domains, Euclidean domains.

**BOOKS RECOMMENDED:**

1. Joseph A. Gallian, *Contemporary Abstract Algebra* (4th Edition), Narosa Publishing House, New Delhi.
2. John B. Fraleigh, *A First Course in Abstract Algebra*, 7th Ed., Pearson, 2002.

**BOOK FOR REFERENCES:**

1. M. Artin, *Abstract Algebra*, 2nd Ed., Pearson, 2011.
2. Joseph I. Rotman, *An Introduction to the Theory of Groups*, 4th Ed., Springer Verlag, 1995.
3. I. N. Herstein, *Topics in Algebra*, Wiley Eastern Limited, India, 1975.

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 11**  
**MULTIVARIATE CALCULUS**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Objective:**

The objective of this course is to introduce functions of several variables to a student after he has taken a course in one variable calculus. The course will introduce partial derivatives and several of its consequences and will introduce double and triple integrals along with line integrals which are fundamental to all streams where calculus can be used.

**Expected Outcomes:**

After reading this course a student will be able to calculate partial derivatives, directional derivatives, extreme values and can calculate double, triple and line integrals. He will have an idea of basic vector calculus including Green's theorem, divergence theorem and Stokes theorem. He can take courses in calculus on manifolds, Differential geometry and can help in numerical computations involving several variables.

**UNIT-I**

Functions of several variables, limit and continuity of functions of two variables. Partial differentiation, total differentiability and differentiability, sufficient condition for differentiability. Chain rule for one and two independent parameters, directional derivatives, the gradient, maximal and normal property of the gradient, tangent planes.

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**UNIT-II**

Extrema of functions of two variables, method of Lagrange multipliers, constrained optimization problems. Definition of vector field, divergence and curl, Double integration over rectangular region, double integration over nonrectangular region. Double integrals in polar co-ordinates,

**UNIT-III**

Triple integrals, Triple integral over a parallelepiped and solid regions. Volume by triple integrals, cylindrical and spherical co-ordinates. Change of variables in double integrals and triple integrals.

**UNIT-IV**

Line integrals, Applications of line integrals: Mass and Work. Fundamental theorem for line integrals, conservative vector fields, independence of path. Green's theorem, surface integrals, integrals over parametrically defined surfaces. Stokes' theorem, The Divergence theorem.

**BOOKS RECOMMENDED:**

1. M. J, Strauss, G. L. Bradley and K. J. Smith, *Calculus* (3rd Edition), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education), Delhi, 2007.
2. S C Mallik and S Arora: *Mathematical Analysis*, New Age International Publications

**BOOK FOR REFERENCES:**

1. G.B. Thomas and R.L. Finney, *Calculus*, 9th Ed., Pearson Education, Delhi, 2005.
2. E. Marsden. A.J. Tromba and A. Weinstein, *Basic Multivariable Calculus*, Springer(SIE). Indian reprint, 2005.
3. James Stewart, *Multivariable Calculus, Concepts and Contexts, 2<sup>nd</sup> Ed.*, Brooks/Cole, Thomson Learning, USA, 2001.
4. S Ghorpade, B V Limaye, *Multivariable calculus*, Springer international edition

**+3 THIRD YEAR FIFTH SEMESTER****Core Paper - 12****LINEAR ALGEBRA**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Objective:**

Linear algebra is a basic course in almost all branches of science. A full course in undergraduate program will help students in finding real life applications later.. The objective of this course is to introduce a student the basics of linear algebra and some of its application

**Expected Outcomes:**

The student will use this knowledge wherever he/She goes after undergraduate program. It has applications in computer science, finance mathematics, industrial mathematics, bio mathematics and what not.

**UNIT-I**

Vector spaces, subspaces, examples, algebra of subspaces, quotient spaces, linear combination of vectors, linear span, linear independence, basis and dimension, dimension of subspaces. Linear transformations, null space, range, rank and nullity of a linear transformation.

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**UNIT-II**

Matrix representation of a linear transformation, Algebra of linear transformations. Isomorphisms, Isomorphism theorems, invertibility and isomorphisms, change of coordinate matrix, Dual spaces, dual basis, double dual, transpose of a linear transformation and its matrix in the dual basis, annihilators, Basics of Fields.

**UNIT-III**

Eigenspaces of a linear operator, diagonalizability. Invariant subspaces and Cayley-Hamilton theorem, the minimal polynomial for a linear operator, Inner product spaces and norms, Gram-Schmidt orthogonalization process.

**UNIT-IV**

Orthogonal complements, Bessel's inequality, the adjoint of a linear operator, Least Squares Approximation, minimal solutions to systems of linear equations, Normal and self-adjoint operators, Orthogonal projections and Spectral theorem.

**BOOKS RECOMMENDED:**

1. Stephen H. Friedberg, Arnold J. Insel, Lawrence E. Spence, *Linear Algebra* (4th Edition), Pearson, 2018.

**BOOKS FOR REFERENCE:**

1. Rao A R and Bhim Sankaram Linear Algebra Hindustan Publishing house.
2. Gilbert Strang, Linear Algebra and its Applications, Thomson, 2007.

**+3 THIRD YEAR SIXTH SEMESTER****Core Paper - 13  
COMPLEX ANALYSIS**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Objectives:**

The objective of the course is aimed to provide an introduction to the theories for functions of a complex variable. The concepts of analyticity and complex integration are presented. The Cauchy's theorem and its applications, the calculus of residues and its applications are discussed in detail.

**Expected Outcomes:**

Students will be able to handle certain integrals not evaluated earlier and will know a technique for counting the zeros of polynomials. This course is prerequisite to many other advance analysis courses.

**UNIT-I**

Complex Numbers and Complex plane: Basic properties, convergence, Sets in the Complex plane, Functions on the Complex plane: Continuous functions, holomorphic functions, power series, Integration along curves.

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**UNIT-II**

Cauchy's Theorem and Its Applications: Goursat's theorem, Local existence of primitives and Cauchy's theorem in a disc, Evaluation of some integrals, Cauchy's integral formulas.

**UNIT-III**

Morera's theorem, Sequences of holomorphic functions, Holomorphic functions defined in terms of integrals, Schwarz reflection principle, Zeros and poles.

**UNIT-IV**

Meromorphic Functions and the Logarithm: The residue formula, Examples, Singularities and meromorphic functions, The argument principle and applications, The complex logarithm.

**BOOKS RECOMMENDED:**

1. Elias M. Stein & Rami Shakarchi, *Complex Analysis*, Princeton University press, Princeton and Oxford, 2003.

**BOOKS FOR REFERENCE:**

1. James Ward Brown and Ruel V. Churchill, *Complex Variables and Applications* (Eighth Edition), McGraw - Hill International Edition, 2009.
2. G. F. Simmons, *Introduction to Topology and Modern Analysis*, McGraw-Hill, Edition 2004.
3. Joseph Bak and Donald 1. Newman, *Complex analysis* (2nd Edition), Undergraduate Texts in Mathematics, Springer-Verlag New York, Inc., New York, 1997.

**+3 THIRD YEAR SIXTH SEMESTER****Core Paper - 14  
GROUP-THEORY-II**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Objective:**

The objective of this course is to be exposed to more advanced results in group theory after completing a basic course. The course introduces results on automorphism, commutator subgroup, group action Sylow theorems etc.

**Expected Outcomes:**

The knowledge of automorphism helps to study more on field theory. Students learn on direct products, group actions, class equations and their applications with proof of all results. This course helps to opt for more advanced courses in algebra and linear classical groups.

**UNIT-I**

Automorphism, inner automorphism, automorphism groups, automorphism groups of finite and infinite cyclic groups, applications of factor groups to automorphism groups, characteristic subgroups.

**UNIT-II**

Commutator subgroup and its properties, Properties of external direct products, the group of units modulo  $n$  as an external direct product, internal direct products, Fundamental Theorem of finite abelian groups.

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**UNIT-III**

Group actions, stabilizers and kernels, permutation representation associated with a given group action, Application of group actions: Generalized Cayley's theorem, Index theorem.

**UNIT-IV**

Groups acting on themselves by conjugation, class equation and consequences, conjugacy in  $S_n$ ,  $p$ -groups, Sylow's theorems and consequences, Cauchy's theorem. Simplicity of  $A_n$  for  $n > 5$ , non-simplicity tests.

**BOOKS RECOMMENDED:**

1. John B. Fraleigh, *A First Course in Abstract Algebra*, Narosa Publishing House, New Delhi.
2. Joseph A. Gallian *Contemporary Abstract Algebra* (4th Edition), Narosa Publishing House, New Delhi.

**BOOK FOR REFERENCES:**

1. M. Artin, *Abstract Algebra*, 2nd Ed., Pearson, 2011.
2. David S. Dummit and Richard M. Foote, *Abstract Algebra*, 3rd Ed., John Wiley and Sons (Asia) Pvt. Ltd., Singapore, 2004.
3. J.R. Durbin, *Modern Algebra*, John Wiley & Sons, New York Inc., 2000.

**+3 THIRD YEAR FIFTH SEMESTER  
DSE - 1  
LINEAR PROGRAMMING**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Objective:**

The objective of this course is to familiarize industrial problems to students with various methods of solving Linear Programming Problems, Transportation Problems, Assignment Problems and their applications. Also, students will know the application of linear Programming method in Game Theory.

**Expected Outcomes:**

More knowledge on this topic in higher studies will help students to deal industrial models. This is also prerequisite for studying advanced courses in Nonlinear Programming Problems, Inventory Control Problem and Queuing Theory etc.

**UNIT-I**

Introduction to linear Programming problem, Theory of simplex method, optimality and unboundedness, the simplex algorithm, simplex method in tableau format, introduction to artificial variables, two-phase method, Big-M method and their comparison.

**UNIT-II**

Duality, formulation of the dual problem, primal-dual relationships, Fundamental Theorem of Duality, economic interpretation of the dual.

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**UNIT-III**

Transportation problem and its mathematical formulation, northwest-corner method least cost method and Vogel approximation method for determination of starting basic solution, algorithm for solving transportation problem. Assignment problem and its mathematical formulation, Hungarian method for solving assignment problem.

**UNIT-IV**

Game theory: formulation of two person zero sum games, solving two person zero sum games, games with mixed strategies, graphical solution procedure, linear programming solution of games.

**BOOKS RECOMMENDED:**

1. Kanti Swarup, Operations Research, Sultan Chand & Sons, New Delhi. Books.

**BOOKS FOR REFERENCE:**

1. S. Hillier and G.J. Lieberman, *Introduction to Operations Research- Concepts and Cases* (9th Edition), TataMcGraw Hill, 2010.
2. Mokhtar S. Bazaraa, John J. Jarvis and Hanif D. Sherali, *Linear Programming and Network Flows* (2nd edition), John Wiley and Sons, India, 2004.
3. G. Hadley, *Linear Programming*, Narosa Publishing House, New Delhi, 2002.
4. Hamdy A. Taha, *Operations Research: An Introduction* (10th edition), Pearson, 2017.

**+3 THIRD YEAR FIFTH SEMESTER  
DSE - 2  
PROBABILITY AND STATISTICS**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Objective:**

The objective of the course is to expertise the student to the extensive role of statistics in everyday life and computation, which has made this course a core course in all branches of mathematical and engineering sciences.

**Expected Outcome:**

The students shall learn probability and statistics for various random variables, multivariate distributions, correlations and relations. He shall learn law of large numbers and shall be able to do basic numerical calculations.

**UNIT-II**

Probability: Introduction, Sample spaces. Events, probability of events, rules of probability, conditional probability, independent events, Bayes's theorem, Probability distributions and probability densities: random variables, probability distributions, continuous random variables, probability density functions, Multivariate distributions, joint distribution function, joint probability density function, marginal distributions, conditional distributions, conditional density, The theory in practice, data analysis, frequency distribution, class limits, class frequencies, class boundary, class interval, class mark, skewed data, multimodality, graphical representation of the data, measures of location and variability. Population, sample, parameters

**UNIT-II**

Mathematical Expectation: Introduction, expected value of random variable, moments, Chebyshev's theorem, moment generating functions, product moments, moments of linear combinations of random variables, conditional expectations, the theory in practice, measures of location, dispersion

**UNIT-III**

Special probability distributions: Discrete Uniform distribution, binomial distribution, Negative binomial, geometric, hypergeometric, poisson, multinomial distribution, multinomial. Special probability densities; Uniform distribution, gamma, exponential, gamma, chi-square, beta distribution, normal, normal approximation to binomial, bivariate normal. Functions of random variables, distribution function technique, transformation technique-one variable, several variables, moment generating function technique,

**UNIT-IV**

Sampling distributions: population distribution, random sample, sampling distribution of mean, Central Limit theorem, Sampling distribution of the mean: finite populations, chi-square, t, F distributions, regression and correlation: Bivariate regression, regression equation, Linear regression, method of least squares.

**BOOKS RECOMMENDED:**

1. Irwin Miller and Marylees Miller, *John E. Freund's Mathematical Statistics with Applications* (8<sup>th</sup> Edition), Pearson, Asia, 2014.

**BOOK FOR REFERENCES:**

1. Robert V. Hogg, Joseph W. McKean and Allen T. Craig, *Introduction to Mathematical Statistics*, Pearson Education, Asia, 2007.
2. Alexander M. Mood, Franklin A. Graybill and Duane C. Boes, *Introduction to the Theory of Statistics*, (3rd Edition), Tata McGraw- Hill, Reprint 2007.
3. Sheldon Ross, *Introduction to Probability Models* (9th Edition), Academic Press, Indian Reprint, 2007.

**+3 THIRD YEAR SIXTH SEMESTER  
DSE - 3  
DIFFERENTIAL GEOMETRY**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Objective:**

After learning methods on curve tracing and Analytic Geometry, the objective of this course is to teach Differential geometry of curves and surfaces which trains a student using tools in calculus to derive intrinsic properties of plain curves and space curves.

**Expected Outcome:**

After completing this course a student will learn on serret-Frenet formulae, relation between tangent, normal and binormals, first and second fundamental forms and ideas on various curvatures. He has scope to take more advanced courses in surface theory and geometry.

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**UNIT-I**

Theory of Space Curves: Space curves, Planer curves, Curvature, torsion and Serret-Frenet formulae. Osculating circles, Osculating circles and spheres. Existence of space curves.

**UNIT-II**

Evolutes and involutes of curves. Theory of Surfaces: Parametric curves on surfaces, surfaces of revolution, helicoids, Direction coefficients. First and second Fundamental forms.

**UNIT-III**

Principal and Gaussian curvatures. Lines of curvature, Euler's theorem. Rodrigue's formula, Conjugate and Asymptotic lines. Developables: Developable associated with space curves and curves on surfaces, Minimal surfaces.

**UNIT-IV**

Geodesics: Canonical geodesic equations. Nature of geodesics on a surface of revolution. Clairaut's theorem. Normal property of geodesics. Torsion of a geodesic. Geodesic curvature. Gauss-Bonnet theorem. Surfaces of constant curvature.

**BOOKS RECOMMENDED:**

1. T.J. Willmore, *An Introduction to Differential Geometry*, Dover Publications, 2012.

**BOOK FOR REFERENCES:**

1. A. Pressley, *Elementary Differential Geometry*, Springer International Edition, 2014.
2. O'Neill, *Elementary Differential Geometry*, 2nd Ed., Academic Press, 2006.
3. C.E. Weatherburn, *Differential Geometry of Three Dimensions*, Cambridge University Press 2003.
4. D.J. Struik, *Lectures on Classical Differential Geometry*, Dover Publications, 1988.

**+3 THIRD YEAR SIXTH SEMESTER  
DSE - 4  
NUMBER THEORY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Objective:**

The main objective of this course is to build up the basic theory of the integers, prime numbers and their primitive roots, the theory of congruence, quadratic reciprocity law and number theoretic functions. Fermat's last theorem, to acquire knowledge in cryptography specially in RSA encryption and decryption.

**Expected Outcomes:**

Upon successful completion of this course students will able to know the basic definitions and theorems in number theory, to identify order of an integer, primitive roots, Euler's criterion, the Legendre symbol, Jacob! symbol and their properties, to understand modular arithmetic number-theoretic functions and apply them to cryptography.

**UNIT- I**

Linear Diophantine equation, prime counting function, statement of prime number theorem, Goldbach conjecture, linear congruences, complete set of residues, Chinese remainder theorem, Fermat's little theorem, Wilson's theorem.

**UNIT-II**

Number theoretic functions, sum and number of divisors, totally multiplicative functions, definition and properties of the Dirichlet product, the Mobius inversion formula, the greatest integer function, Euler's phi-function, Euler's theorem, reduced set of residues, some properties of Euler's phi-function.

**UNIT-III**

Order of an integer modulo  $n$ , primitive roots for primes, composite numbers having primitive roots, Euler's criterion, the Legendre symbol, Jacobi symbol and their properties, quadratic reciprocity, quadratic congruences with composite moduli.

**UNIT-IV**

Affire ciphers, Hill ciphers, public key cryptography, RSA encryption and decryption, the equation  $x^2+y^2=z^2$ , Fermat's Last Theorem.

**BOOKS RECOMMENDED:**

1. David M. Burton, *Elementary Number Theory* (6th Edition), TataMcGraw-Hill Edition, Indian reprint, 2007.

**BOOK FOR REFERENCES:**

1. Thomas Koshy, *Elementary Number Theory with Applications* (2<sup>nd</sup> Edition), Academic Press, 2007.
2. Neville Robinns, *Beginning Number Theory* (2nd Edition), Narosa Publishing House Pvt. Limited, Delhi, 2007.

OR

### Discipline Specific Elective Paper-IV PROJECT

**Guidelines for +3 (CBCS) Under Graduate(B.A./B.Sc.) Mathematics (Honours) Project**

1. Any student registering for doing project is required to inform the HOD, Mathematics the name of his/her project supervisor(s) at the time of pre-registration.
  2. By the last date of add and drop, the student must submit the "Project Registration Form", appended as Annexure-I to this document, to the HOD, Mathematics. This form requires a project title, the signature of the student, signature(s) of the supervisor(s) and the signature of the HOD, Mathematics of the college/university.
  3. The project supervisor(s) should normally be a faculty member(s) of the Department of Mathematics and the topic of the project should be relevant to Mathematical Sciences. If a student desires to have a Project Supervisor from another department of the institute, the prior approval for the same should be sought from the HOD, Mathematics.
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4. A student may have at the most two Project Supervisors. If a student desires to have two supervisors, at least one of these should be from the Department of Mathematics.
5. The student(s) will be required to submit one progress report and a final report of the Project to the HOD, Mathematics. The progress report is to be submitted in the sixth week of the semester in which the project is undertaken. The hard copy and an electronic version of the final report of the project should be submitted two weeks before the end semester examination of the sixth semester. In addition the student will be required to make an oral presentation in front of a committee (Under Graduate (B.A./ B.Sc.) Mathematics (Honours) Project committee of the college in which supervisor is one of the members) constituted for this purpose by the Department of Mathematics of the college.
6. The student is expected to devote about 100 hours. The project will be evaluated by a committee of faculty members at the end of the sixth semester. The committee will be constituted by the Under Graduate (B.A./B.Sc.) Mathematics (Honours) Project committee of the college keeping in mind the areas of project they will cover.
7. In each semester the grade of a student will be awarded by the committee in consultation with his/her project supervisor(s). The project is evaluated on the basis of the following components: First Progress Reports: 20%; second/Final Report: 30%; Presentation: 30%; Viva: 20%.
8. Project progress reports should normally be no longer than 250 words and final report should not be longer than 40 A4 size pages in double spacing. Each final project report need to contain the following: (i) Abstract (ii) Table of contents (iii) Review of literature (iv) Main text(v) List of references. It may be desirable to arrange the main text as an introduction, the main body and conclusions.

### **GUIDELINES FOR STRUCTURING CONTENTS**

#### **Sequence of Contents:**

The following sequence for the thesis organization should be followed:

- |                          |  |
|--------------------------|--|
| (i) Preliminaries        | Title Page<br>Certificate<br>Abstract/Synopsis<br>Acknowledgement and/ or Dedication<br>Table of Contents<br>List of Figures, Tables, Illustrations,<br>Symbols, etc (wherever applicable) |
| (ii) Text of Thesis      | Introduction<br>The body of the thesis, summary and conclusions  |
| (iii) Reference Material | List of References, Bibliography   |
| (iv) Appendices          |  |

#### **NOTE:**

1. *Synopsis/Abstract* should be self-complete and contain no citations for which the thesis has to be referred.
  2. The Text of the Thesis
-

(a) *Introduction:*

Introduction may be the first chapter or its first major division. In either case, it should contain a brief statement of the problem investigated. It should outline the scope, aim, general character of the research and the reasons for the student's interest in the problem.

(b) *The body of Thesis*

This is the substance of the dissertation inclusive of all divisions, subdivisions, tables, figures, etc.

(c) *Summary and conclusions*

If required, these are given as the last major division (chapter) of the text. A further and final subdivision titled "Scope for Further Work" may follow.

(d) *Reference material*

The list of references should appear as a consolidated list with references listed either alphabetically or sequentially as they appear in the text of the thesis.

For referencing an article in a scientific journal the suggested format should contain the following information: authors, title, name of journal, volume number, page numbers and year. For referencing an article published in a book, the suggested format should contain, authors, the title of the book, editors, publisher, year, page number of the article in the book being referred to. For referencing a thesis the suggested format should contain, author, the title of thesis, where thesis was submitted or awarded, year.

**ANNEXURE - I****Department of Mathematics  
Project Registration Form**

Name of the college/university :  
 Name of the student :  
 Roll No. :  
 e-mail :  
  
 Name of the supervisor(s) :  
 Department(s) :  
 e-mail(s) :  
 Title of the Project :  
 Signature of the Student :  
 Signature of supervisor(s) : (i)  
 (ii)  
 Signature of HOD, Mathematics :

**+3 FIRST YEAR FIRST SEMESTER**  
**GE - 1**  
**CALCULUS AND DIFFERENTIAL EQUATIONS**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Objective:**

Calculus invented by Newton and Leibnitz is powerful analytical tool to solve mathematical problems which arise in all branches of science and engineering. The main emphasis of this course is to equip the student with necessary analytic and technical skills to handle problems of a mathematical nature as well as practical problems using calculus and differential equation. The aim should be to expose the students to basic ideas quickly without much theoretical emphasis with importance on applications.

**Excepted Outcomes:**

After completing the course, students are expected to be able to apply knowledge of calculus and differential equations in the areas of their own interest.

**UNIT-I**

Curvature, Asymptotes, Tracing of Curves (Catenary, Cycloid, Folium of Descartes), Rectification, Quadrature, Elementary ideas about Sphere, Cones, Cylinders and Conicoids.

**UNIT-II**

Review of limits, continuity and differentiability of functions of one variable and their properties, Rolle's theorem, Mean value theorems, Taylor's theorem with Lagrange's theorem and Cauchy's form of remainder, Taylor's series, Maclaurin's series of  $\sin x$ ,  $\cos x$ ,  $e^x$ ,  $\log(1+x)$ ,  $(1+x)^m$ , L'Hospital's Rule, other Intermediate forms.

**UNIT-III**

Limit and Continuity of functions of several variables. Partial derivatives, Partial derivatives of higher orders. Homogeneous functions. Change of variables, Mean value theorem, Taylor's theorem and Maclaurin's theorem for functions of two variables (statements & applications), Maxima and Minima of functions of two and three variables. Implicit functions, Lagrange's multipliers (Formulae & its applications). Concepts of Multiple integrals & its applications.

**UNIT-IV**

Ordinary Differential Equations of order one and degree one (variables separable, homogeneous, exact and linear). Equations of order one but of higher degree. Second order linear equations with constant coefficients, homogeneous forms, Second order equations with variable coefficients, Variation of parameters.

**BOOKS RECOMMENDED:**

1. Shanti Narayan, P. K. Mittal, Differential Calculus, S. Chand, 2014.
  2. Shanti Narayan, P. K. Mittal, Integral Calculus, S. Chand, 2014.
  3. S.C. Mallik and S. Arora-Mathematical Analysis, New Age International Publications.
  4. J. Sinharoy and S. Padhy: A Course of Ordinary and Partial Differential Equations, Kalyani Publishers.
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**BOOK FOR REFERENCES:**

1. H.Anton, I.Bivens and S.Davis, *Ca/cw/M<sup>^</sup>*, 10<sup>\*</sup> Ed., John Wiley and Sons (Asia) P. Ltd., Singapore, 2002.
2. Shanti Narayan and P.K. Mittal-*Analytical Solid Geometry*, S. Chand & Company Pvt. Ltd., New Delhi.
3. Martin Braun-*Differential Equations and their Applications*-Martin Braun, Springer International.
4. B. P.Acharya and D. C.Sahu: *Analytical Geometry of Quadratic Surfaces*, Kalyani Publishers.

**+3 FIRST YEAR SECOND SEMESTER****GE - 2  
ALGEBRA**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Objective:**

This is a preliminary course for the basic courses in mathematics like, abstract algebra and linear algebra. The objective is to acquaint students with the properties of natural numbers i.e. Euclidean algorithm, congruence relation, fundamental theorem of arithmetic, etc. The basics of linear algebra i.e. vector spaces, matrices are introduced here.

**Expected Outcomes:**

The acquired knowledge will help students to study further courses in mathematics like, group theory, ring theory and field theory and linear algebra. It has applications not only in higher mathematics but also in other science subjects like computer science, statistics, physics, chemistry etc.

**UNIT-I**

Sets, relations, Equivalence relations, partial ordering, well ordering, Functions, Composition of functions, Invertible functions, One to one correspondence and cardinality of a set, statements, compound statements, proofs in Mathematics, Truth tables, Algebra of propositions, logical arguments

**UNIT-II**

Well-ordering property of positive integers, Division algorithm, Divisibility and Euclidean algorithm, Congruence relation between integers, Principles of Mathematical Induction, statement of Fundamental Theorem of Arithmetic.

**UNIT-III**

Matrices, algebra of matrices, determinants, fundamental properties, minors and cofactors, product of determinant, adjoint and inverse of a matrix, Rank and nullity of a matrix, Systems of linear equations, row reduction and echelon forms, solution sets of linear systems, applications of linear systems,.

**UNIT-IV**

Vector spaces and subspaces, examples, linear independence, linear dependence, basis, dimension, examples, Introduction to linear transformations, matrix representation of a linear transformation, Eigen values, Eigen vectors of a matrix.

**BOOKS RECOMMENDED:**

1. Edgar G. Goodaire and Michael M. Parmenter, Discrete Mathematics with Graph Theory, 3<sup>rd</sup> Ed., Pearson Education (Singapore) P. Ltd., Indian Reprint, 2005.
2. V Krishna Murthy, V P Mainra, J L Arora, An Introduction to Linear Algebra, Affiliated East-West Press Pvt. Ltd

**BOOKS FOR REFERENCE:**

1. David C. Lay, Linear Algebra and its Applications, 3<sup>rd</sup> Ed., Pearson Education Asia, Indian Reprint, 2007.
2. B S Vatsa and Suchi Vatsa Theory of Matrices New age International third edition 2010.
3. Ward Cheney, David Kincaid. Linear algebra theory and applications, Jones and Bartlett, 2010.

**+3 SECOND YEAR THIRD SEMESTER**  
**GE - 3**  
**CALCULUS AND DIFFERENTIAL EQUATIONS**

Time : 3 Hrs.  
 Credit : 06

End Semester Theory : 80 Marks  
 Mid Semester Theory : 20 Marks

**Objective:**

Calculus invented by Newton and Leibnitz is powerful analytical tool to solve mathematical problems which arise in all branches of science and engineering. The main emphasis of this course is to equip the student with necessary analytic and technical skills to handle problems of a mathematical nature as well as practical problems using calculus and differential equation. The aim should be to expose the students to basic ideas quickly without much theoretical emphasis with importance on applications.

**Excepted Outcomes:**

After completing the course, students are expected to be able to apply knowledge of calculus and differential equations in the areas of their own interest.

**UNIT-I**

Curvature, Asymptotes, Tracing of Curves (Catenary, Cycloid, Folium of Descartes). Rectification. Quadrature, Elementary ideas about Sphere, Cones, Cylinders and Conicoids.

**UNIT-II**

Review of limits, continuity and differentiability of functions of one variable and their properties, Rolle's theorem, Mean value theorems, Taylor's theorem with Lagrange's theorem and Cauchy's form of remainder, Taylor's series, Maclaurin's series of  $e^x$ ,  $\log(1+x)$ ,  $(1+x)^n$ , L'Hospital's Rule, other Intermediate forms.

**UNIT-III**

Limit and Continuity of functions of several variables, Partial derivatives, Partial derivatives of higher orders, Homogeneous functions, Change of variables, Mean value theorem, Taylor's theorem and Maclaurin's theorem for functions of two variables (statements & applications), Maxima and Minima of functions of two and three variables, Implicit functions, Lagrange's multipliers (Formulae & its applications), Concepts of Multiple integrals & its applications.

**UNIT-IV**

Ordinary Differential Equations of order one and degree one (variables separable, homogeneous, exact and linear). Equations of order one but higher degree. Second order linear equations with constant coefficients, homogeneous forms, Second order equations with variable coefficients, Variation of parameters.

**BOOKS RECOMMENDED:**

1. Shanti Narayan, P. K. Mittal, Differential Calculus, S. Chand, 2014.
2. Shanti Narayan, P. K. Mittal, Integral Calculus, S. Chand, 2014.
3. S.C. Mallik and S. Arora-Mathematical Analysis, New Age International Publications.
4. J. Sinharoy and S. Padhy: A Course of Ordinary and Partial Differential Equations. Kalyani Publishers.

**BOOKS FOR REFERENCE:**

1. H. Anton, I. Bivens and S. Davis, *Calculus*, 10<sup>th</sup> Ed., John Wiley and Sons (Asia) P. Ltd., Singapore, 2002.
2. Shanti Narayan and P.K. Mittal-Analytical Solid Geometry, S. Chand & Company Pvt Ltd., New Delhi.
3. Martin Braun-Differential Equations and their Applications-Martin Braun, Springer International.
4. B. P. Acharya and D. C. Sahu: Analytical Geometry of Quadratic Surfaces, Kalyani Publishers.

**+3 SECOND YEAR FOURTH SEMESTER****GE - 4  
ALGEBRA**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Objective:**

This is a preliminary course for the basic courses in mathematics like, abstract algebra and linear algebra. The objective is to acquaint students with the properties of natural numbers i.e. Euclidean algorithm, congruence relation, fundamental theorem of arithmetic, etc. The basics of linear algebra i.e. vector spaces, matrices are introduced here.

**Expected Outcomes:**

The acquired knowledge will help students to study further courses in mathematics like, group theory, ring theory and field theory and linear algebra. It has applications not only in higher mathematics but also in other science subjects like computer science, statistics, physics, chemistry etc.

**UNIT-I**

Sets Relations. Equivalence relations, partial ordering, well ordering, Functions, Composition of functions, Invertible functions, One to one correspondence and cardinality of a set, statements, compound statements, proofs in Mathematics, Truth tables, Algebra of propositions, logical arguments

**UNIT-II**

Well-ordering property of positive integers, Division algorithm. Divisibility and Euclidean algorithm, Congruence relation between integers, Principles of Mathematical Induction, statement of Fundamental Theorem of Arithmetic.

**UNIT-III**

Matrices, algebra of matrices, determinants, fundamental properties, minors and cofactors, product of determinant, adjoint and inverse of a matrix, Rank and nullity of a matrix, Systems of linear equations, row reduction and echelon forms, solution sets of linear systems, applications of linear systems,.

**UNIT-IV**

Vector spaces and subspaces. examples, linear independence, linear dependence, basis, dimension, examples. Introduction to linear transformations, matrix representation of a linear transformation, Eigen values, Eigen vectors of a matrix.

**BOOKS RECOMMENDED:**

1. Edgar G. Goodaire and Michael M. Parmenter, Discrete Mathematics with Graph Theory, 3rd Ed., Pearson Education (Singapore) P. Ltd., Indian Reprint, 2005.
2. V Krishna Murthy, V P Mainra, J L Arora, An Introduction to Linear Algebra, Affiliated East-West Press Pvt. Ltd

**BOOKS FOR REFERENCE:**

1. David C. Lay, Linear Algebra and its Applications, 3<sup>rd</sup> Ed., Pearson Education Asia, Indian Reprint, 2007.
  2. B S Vatsa and Suchi Vatsa Theory of Matrices New age International third edition 2010.
  3. Ward Cheney, David Kincaid. Linear algebra theory and applications, Jones and Bartlett, 2010
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# MUSIC

## +3 FIRST YEAR FIRST SEMESTER Core Paper - 1 (SWARA SADHANA & SANGEETA PARICHAYA)

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

### UNIT-I

Knowledge about various Alankars. (Suddha & Vikruta)

### UNIT-II Definitions

Nada, Dhvani, Shruti, Swara, Saptaka, Sangeeta, Raga, Thaata, Alaap, Taan, Tala, Laya, Matra, Abartan, Badi, Sambadi, Anubadi, Bibadi & Jaati.

### UNIT-III Shastriya Parichaya of the Ragas

Bhupali, Kalyan, Kafi, Khamaj, Brindabani Sarang.

### UNIT-IV Detail Knowledge of Talas

Teental, Ektal

## PRACTICAL

Credit : 02

25 Marks

### Unit - 1

Learning of various Alankars with an ability of playing Harmonium.

### Unit - 2 Chhota Khayal Gaykee

Bhupali, Kalyan, Kafi, Khamaj, Brindabani Sarang.

### Unit - 3 Demonstration of Talas

Teental, Ektal

### Unit - 4

Candidate has to learn one Sargam geet or Laksyan geet in any Raga from this core.

### PRESCRIBED BOOKS :-

- \* Hindustani Sangeet Lahari, Part - 1 & 2 (odia) by Dr. Damodar Hota.
- \* Raga Parichaya (Hindi), Part - 1 & 2 by Dr. Harish Chandra Srivastab.
- \* Raga Darshan (Odia), Part - 1 by Sri Chandan Kumar Jena.



**+3 FIRST YEAR FIRST SEMESTER**  
**Core Paper - 2**  
**(PRABANDHA PARICHAYA & ANGA VARNAN OF TAANPURA)**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**UNIT-I** Knowledge about following terms  
Dhrupad, Dhamar, Khayal, Thumri, Sargamgeet, Lakshyan geet, Bhajan.

**UNIT-II**  
(A) Life Sketch of Pt. B.N. Bhatkhande & Pt. B.D. Paluskar.  
(B) Pt. B.N. Bhatkhande's 10 thaats and the Ragas derived from the thaats.

**UNIT-III**  
Physical structure of "Taanpura".

**UNIT-IV**  
Similarities & Dis-similarities of the Ragas of Core - 1 & 2.

**PRACTICAL**

Credit : 02

25 Marks

Unit - I Detail Gayakee of these Ragas  
Bhupali, Kalyan

Unit - II Chhota Khayal Gayakee of these Ragas  
Desh, Bihag, Bhairab, Tilang

Unit - III  
Candidate has to learn One Dhrupad or Dhamar & Sargamgeet, Lakshyangee, Bhajan in any Raga of Core - 1 & 2.

Unit - IV Demonstration of Talas with Dugun laykari  
Teental, Ektal, Chautal, Dhamar, Dadra & Kaharawa.

**PRESCRIBED BOOKS :**

- \* Hindustani Sangeet Lahari (odia) , Part - 1 & 2 by Dr. Damodar Hota.
- \* Raga Parichaya (Hindi), Part - 1, by Dr. Harish Chandra Srivastab.
- \* Sangeet Visharad (Hindi) - By Vasant.
- \* Bharatiya Sangeeta Khayal Saili (odia) by Dr. Chittaranjan Pani.

**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 3**  
**(RAGA-TALA PARICHAYA & DHWANI NADA)**

Time : **3 Hrs.**  
 Credit : **04**

End Semester Theory : **60 Marks**  
 Mid Semester Theory : **15 Marks**

- UNIT-I** Detail Knowledge of the followings  
 Dhvani, Nada, Shruti, Swara, Purvanga, Uttaranga, Alpatwa, Bahutwa, Sandhiprakash Raga.
- UNIT-II** Characteristics of the Ragas.  
 Bhairav, Bageshree, Durga, Shankara, Asavari, Allhaya Bilawal.
- UNIT-III** Characteristics of the talas.  
 Jhaptal & Rupak
- UNIT-IV** Life Sketch  
 Swami Haridas  
 Mian Taansen

**PRACTICAL**

Credit : **02**

**25 Marks**

- Unit - I** Detail Knowledge of the Ragas  
 Bhairab, Bageshree
- Unit - II** Chhota Khayal Gaykee of the Ragas  
 Durga, Shankara, Asavari, Allheya Bilawal.
- Unit - III** Demonstration of the talas (Dugun, Tigun, Chaugun)  
 Teental, Ektal, Choutal, Dhamar, Jhamptal, Rupak, Dadra, Kaharawa
- Unit - IV**  
 Candidate has to learn One Hori & ONE Bhajan.

**PRESCRIBED BOOKS :**

- \* Raga Sangeeta (Odia) Part - 1 & 2 by Dr. Mohan Charan Senapati.
- \* Hindustani Sangeet Lahari (odia), Part - 1, 2, 3, 4 by Dr. Damodar Hota.
- \* Raga parichaya (Hindi), Part - 1, 2, 3 by Dr. Harish Chandra Srivastab
- \* Raga Shastra Siddhanta (Odia), by Sri Rajanikant Padhi.

**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 4**  
**(SANGEETOPATTI & SWARALIPI PADDHATI)**

Time : **3 Hrs.**  
Credit : **06**

End Semester Theory : **60 Marks**  
Mid Semester Theory : **15 Marks**

**UNIT-I** (A) Basic knowledge of the followings  
Bol-Bant, Sargam-Bant, Tarana, Dadra, Kajree, Hori  
(B) Comparative studies  
Shruti - Swara  
Thaat - Raga

**UNIT-II** Characteristics of the Ragas.  
Kedar, Hameer, Tilak Kamod, Bhimpalasi, Pattdeep.

**UNIT-III** Knowledge of Indian notation system.  
Pt. B.N. Bhatkhande & Pt. B.D. Paluskar.

**UNIT-IV** Essay  
(a) Origin of Music (b) Evolution of Hindustani Music.

**PRACTICAL**

Credit : **02**

**25 Marks**

**Unit - 1** Detail knowledge of the Ragas.  
Kedar, Hameer

**Unit - 2** Chhota Khayal Gayakee of the Ragas  
Tilakkamod, Bhimpalasi, Pattadeep.

**Unit - 3**  
Candidate has to learn One "Tarana".

**Unit - 4**  
Candidate has to learn One Kajree or Chaiti from any Raga.

**PRESCRIBED BOOKS :-**

- \* Raga Darshan (Odia) Part - 1 & 2 by Sri Chandan Kumar Jena.
- \* Sangeet Kaibalya (Odia) by Dr. Chittaranjan Pani.
- \* Sangeet Visharad (Hindi) By. Vasant.
- \* Raga Parichaya (Hindi) Part -1, 2, 3 by Dr. Harish Chandra Srivastab.
- \* Raga Sangeeta (odia) Part - 1, 2, 3 by Dr. Mohan Charan Senapati.
- \* Sangeetanjali (Hindi) Part - 1, 2, 3 by Pt. Omkarnath Thakur.

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 5****(SWARALIPI 'O' LAYAKRIYA)**Time : **3 Hrs.**Credit : **06**End Semester Theory : **60 Marks**Mid Semester Theory : **15 Marks****UNIT-I**

Characteristics of the Ragas with Badakhayal Notation of the Bandish.  
Malkauns, Bihag

**UNIT-II**

Characteristics of the Ragas with Chhotakhayal Notation of the Bandish.  
Bibhas, Jaunpuri, Jajiwanti.

**UNIT-III**

Knowledge about Hindustani (NorthIndia) and Carnatic (SouthIndia) paddhati in India.

**UNIT-IV**

Characteristics of the following Talas with Dugun, Tigun & Chaugun.  
Jhamptal, Sooltal, Jhoomra, Tewra.

**PRACTICAL**Credit : **02****25 Marks****Unit - 1**

Detail gaykee of the following Ragas.  
Malkauns, Bihag

**Unit - 2**

Chhotakhayal gaykee of the following Ragas.  
Bibhas, Jaunpuri, Jajiwanti

**Unit - 3**

One Dhrupad & Dhamar in any Raga from the core -5.

**Unit - 4**

Demonstration of the talas with Dugun, Tigun & Chaugun.  
Jhamptal, Sooltal, Jhoomra, Tewra

**PRESCRIBED BOOKS :-**

- \* Sangeet Visharad (Hindi) by Vasant.
- \* Raga Parichaya (Hindi) Part - 1,2,3 by Dr. Harish Chandra Srivastab.
- \* Sangeetanjali (Hindi) Part - 1, 2, 3 by Pt. Omkar Nath Thakur.
- \* Sangeet Kaibalya(o) by Dr. Chittaranjan Pani.

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 6**  
**(SWARA SAMBAD)**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**UNIT-I**

Knowledge about Swara Sambad.  
Sadaj Pancham & Sadaj Madhyam Bhav)

**UNIT-II**

- (a) Detail knowledge of the Ragas Rageshree & Todi.  
(b) Basic knowledge of the Ragas Puriya, Suddhkalyan, Hindol, Deshkar.

**UNIT-III**

Knowledge of the following light classical genres.  
Tappa, chaiti, Ghazal, Folksong.

**UNIT-IV** Life Sketch

Pt. Omkarnath Thakur.  
Pt. Binayak Rao Pattawardhan  
Pt. Dr. Damodar Hota.

**PRACTICAL**

Credit : 02

25 Marks

**Unit - 1**

Detail knowledge of the Ragas.  
Rageshree, Todi.

**Unit - 2**

Chhota Khayal Gaykee of the Ragas  
Puriya, Suddhkalyan, Hindol, Deshkar

**Unit - 3**

One light classical composition in any Raga.  
Chaiti, Ghazal, Folk Song

**Unit - 4**

Demonstration of the following talas with different laykaries.  
Teental, Ektal, Jhampal, Dhamar, Tewra.

**PRESCRIBED BOOKS :-**

- \* Bharatiya Sangeetara Khayal Saili (Odia) by Dr. Chittaranjan Pani.
- \* Raga Parichaya (Hindi) by Dr. Harish Chandra Srivastab.
- \* Hamare Sangeet Ratna (Hindi) by Prof. Laxminarayan Garg.
- \* Kramik Pustak Malika (Hindi) Part - 1, 2 & 3 by Pt. B. N. Bhatkhande.

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 7  
(SWARA ALANKARANA)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**UNIT-I**

- (a) Qualities & Defects of the Vocalist.
- (b) Knowledge about Swara Prastaar.

**UNIT-II**

Bada Khayal Notation of the following Ragas.  
Suddhakalyan, Jaijaiwanti.

**UNIT-III**

Chhota Khayal Notation of the following Ragas.  
SuddhSarang, Kamod, Multan, Marwa.

**UNIT-IV**

Detail Knowledge of Shruti Swara Sthapana in Indian Music according to Ancient & Mediaval period.

**PRACTICAL**

Credit : 02

25 Marks

**Unit - 1**

Detail knowledge of the Ragas.  
Suddha Kalyan, Jaijaiwanti.

**Unit - 2**

Chhota Khayal Gaykee of the Ragas  
Suddh Sarang, Kamod, Multani, Marwa

**Unit - 3**

Tarana gaykee in any Ragas of this Core.

**Unit - 4**

Basic knowledge of Indian Music, Major Music festivals, Awards for Music, Pen-name of the vocalist, Traditional compositions.

**PRESCRIBED BOOKS :-**

- \* Sangeetanjali (Hindi) Part - 1, 2, 3, 4 by Pt. Omkarnath Thakur.
- \* Raga Parichaya (Hindi) Part - 1, 2, 3, 4 by Pt. Harish Chandra Srivastab.
- \* Raga Sangeeta (Odia) Part - 1, 2, 3, 4 by Dr. Mohan Charan Senapati.
- \* Sangeet Visharad (Hindi) by Vasant.

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 8**  
**(SAMAYA SIDDHANTA & VADYA VARGIKARANA)**

Time : **3 Hrs.**  
 Credit : **06**

End Semester Theory : **60 Marks**  
 Mid Semester Theory : **15 Marks**

**UNIT-I**

Knowledge about following Terms. Upaj, Badhat, Phirat, Khatka, Swar Sangati, Kaku, Abirbhab, Tirobhab, Meend, Kan, Gamak, Murki.

**UNIT-II**

Time theory of Raga. Roll of Purvanga & Uttaranga Raga in time theory & knowledge of Adhawadarshak Swara.

**UNIT-III**

Characterstics of the following Ragas with Notations of the Bandishes. Puriya Dhanashree, Goud Sarang, Purvi, Adana, Bhairabi & Darbari Kanada.

**UNIT-IV**

Classification of Indian Musical Instruments.

**PRACTICAL**

Credit : **02**

**25 Marks**

**Unit - 1**

Detail gaykee of the following Ragas.  
 Puriya Dhanashree, Goud Sarang.

**Unit - 2**

Chhota khayal gaykee of the following Ragas.  
 Purvi, Adana, Bhairabi & Darbari Kanada.

**Unit - 3**

Demonstration of the following Talas. Tilwada, Deepchandi, Ada Choutal, Punjabi Addha.

**Unit - 4**

Knowledge of following gaykee styles. Dhruwad/Dhamar, Thumre Kajree, Tappa, Hori.

**PRESCRIBED BOOKS :-**

- \* Sangeet Visharad (Hindi) by Vasant.
- \* Raga Parichaya (Hindi) Part - 1, 2, 3, 4 by Dr. Harish Chandra Srivastab.
- \* Raga Bigyan (Hindi) Part - 1, 2, 3, 4 by Pt. Binayak Rao Pattwardhan.
- \* Kramik Pustak Malika (Hindi) Part - 1, 2, 3, 4 by Pt. B.N. Bhatkhande.

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 9**  
**(UTKRISTA RAGA GAYANA)**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**UNIT-I**

Detail knowledge of the following Ragas.  
Puriya, Multani.

**UNIT-II**

Chhota Khayal with Notations Chhayant, Miyan Mallhar, Bahar, Ramkali.

**UNIT-III**

Knowledge about Grama - Murrchhana.

**UNIT-IV**

Comparative Studies of the following Ragas.  
Miyan Mallhar - Bahar  
Puriya - Marwa  
Bhupali - Deshkar  
Kedar - Hameer

**PRACTICAL**

Credit : 02

25 Marks

**Unit - 1**

Detail knowledge of the following Raga.  
Puriya, Multani

**Unit - 2**

Chhota Khayal Gaykee of the following Ragas. Chhayanat, Miyan Mallhar, Bahar, Ramkali.

**Unit - 3**

Knowledge about Swara Sangatis in Raga. (Practical Demonstration)

**Unit - 4**

Characteristics of the following Talas. Pancham Sawari, Gajajhampa.

**PRESCRIBED BOOKS :-**

- \* Raga Parichay (Odia) All parts by Dr. Harish Chandra Srivastab.
  - \* Raga Sangeeta (odia) All parts By Dr. Mohan Charan Senapati.
  - \* Sangeetanjali (Hindi) Part - 1, 2, 3, 4, 5 by Pt. Omkar Nath Thakur.
  - \* Raga Bigyan (Hindi) Part - 1,2,3, 4 by Pt. Binayak Rao Pattwardhan.
-



**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 10**  
**(GAYKEE IN GHARANA)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**UNIT-I**

Studies on different Gharana.

**UNIT-II**

Detail knowledge of following Gharanas Gwalior Gharan, Agra Gharama, Kirana Gharana, Patiala Gharana.

**UNIT-III** Essay

- (a) Your aim of learning Music.
- (b) Necessity of Music to the Society.

**UNIT-IV** Life Sketch

Pandit Balwant Rai Bhatt  
Ustad Faiyaz Khan  
Dr. Mohan Charan Senapati

**PRACTICAL**

Credit : 02

25 Marks

**Unit - 1**

Detail knowledge of the following Ragas. Darbari Kanada, Miyan Mallhar.

**Unit - 2**

Chhota Khayal Gaykee of the following. Sohini, Maru Bihag, Ahir Bhairab, Basant.

**Unit - 3**

Comparison of different Ragas of all previous Cores.

**Unit - 4**

One Thumree & Tarana in any Raga.

**PRESCRIBED BOOKS :-**

- \* Bharatiya Sangeeta Khayal Saili (Odia) by Dr. Chitaranjan Pani.
  - \* Raga Sangeeta (Odia) Part - 1, 2, 3, 4, 5 by Dr. Mohan Charan Senapati.
  - \* Bhabrang Lahari (Hindi) Part - 1, 2 by Pt. Balwant Rai Bhatt.
  - \* Raga Shastra Siddhanta (odia) by Sri Rajanikant Padhi.
-

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 11**  
**(BHARATIYA SANGEET ITIHAS)**

Time : 3 Hrs.  
 Credit : 06

End Semester Theory : 60 Marks  
 Mid Semester Theory : 15 Marks

**UNIT-I**

- (a) Detail knowledge of Varna (Sthayi, Arohi, Abarohi, Sanchari)
- (b) Classification of Raga (Suddha, Chhayalag, Sankirna)

**UNIT-II**

Tala System in Hindustan & Carnatic Music.

**UNIT-III**

History of Indian Music Vedic Music, Ramayana, Mahabharata, Mediaeval Period, Modern age (Pre & Post independence)

**UNIT-IV**

Knowledge about ancient Jati & Prabandha Gayana.

**PRACTICAL**

Credit : 02

25 Marks

**Unit - I**

Detail gayakee of the following Ragas Chayanat, Bhimpalasi.

**Unit - II**

Chhota Khayal of the following Ragas. Goud Mallhar, Paraj, Kalingada.

**Unit - III**

Knowledge of following layakaries 2/3, 3/2, 3/4, 4/3.

**Unit - IV**

One Dhrupad/Dhamar and Tappa/Chaiti in any Raga.

**PRESCRIBED BOOKS :-**

- \* Raga Parichaya (Hindi) Part - 1, 2, 3, 4 by Dr. Harish Chandra Srivastab.
- \* Raga Bigan (Hindi) Part - 1, 2, 3, 4, 5 by Pt. Binayak Rao Pattwardhan.
- \* Bhabrang Lahari (Hindi) Part - 1, 2 by Pt. Balwant Rai Bhatt
- \* Sangeetajali (Hindi) by Pt Omkarnath Thakur.

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 12**  
**(SWARA RACHANA & NIBANDHA)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

Applied & General Theories

**UNIT-I**

Detail knowledge of Raga Vargikaranam in Indian Music System.

**UNIT-II**

Capability to write notation of own Composition in any Raga Set to any Tala.

**UNIT-III** Life Sketch

Pt. Balakrishna Bua Echalkaranjkar and Bharat Ratna Pt. Bhimsen Joshi.

**UNIT-IV** Essay

- \* Spiritualism in Music
- \* A classical Music Evening
- \* Contribution of Odisha to Hindustani Music.

**PRACTICAL**

Credit : 02

25 Marks

**Unit - I**

Detail knowledge of the following Ragas. Marwa, Goud Mallhar.

**Unit - II**

Chhota Khayal gaykee of the followings Hansadhwani, Megh, Shree.

**Unit - III**

Laykaries of all prescribed Talas from 1st sem to 4th sem.

**Unit - IV**

Presentation of own Composition in any Raga.

**PRESCRIBED BOOKS :-**

- \* Hamare Sangeet Ratna (Hindi) by Prof. Laxminarayan Garg.
  - \* Nibandh Sangeet (Hindi) Published by Sangeet Karyalaya, Hathras.
  - \* Bhabrang Lahari (Hindi) Part- 1, 2, 3 by Pt. Balwant Rai Bhatt.
  - \* Bharatiya Sangeetara Itihasa (Odia) by Dr. Damodar Hota.
-

**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 13**  
**(UPASHASTRIYA GAYANA)**

Time : 3 Hrs.  
 Credit : 06

End Semester Theory : 60 Marks  
 Mid Semester Theory : 15 Marks

**UNIT-I**

Detail studies of different Semi-Classical Musical forms of Hindustani music.

**UNIT-II**

Bada Khayal Notations with detail characteristic of the Ragas. Megh, Lalit.

**UNIT-III**

Chhota Khayal Notations with detail characteristic of the Ragas Bairagi, Nand, Charukeshi, Jog.

**UNIT-IV** Life Sketch

Ustad Bade Ghulam Ali Khan.  
 Pandit Ravi Shankar.  
 Ustad Bismillah Khan.

**PRACTICAL**

Credit : 02

25 Marks

**Unit - I**

Detail gayakee of the following Ragas Megh, Lalit.

**Unit - II**

Chhota Khayal of the following Ragas. Bairagi, Nand, Charukeshi, Jog.

**Unit - III**

Demonstration of the following Talas. Rudra, Ganesh, Bramha.

**Unit - IV**

One Dhrupad or Dhamar in any Prescribed Raga.

**PRESCRIBED BOOKS :-**

- \* Sangeet Visharad (Hindi), by Vasant.
- \* Hamare Sangeet Ratna (Hindi) by Prof. Laxminarayan Garg.
- \* Bharatiya Sangeeta re Khayal Saili (Odia) by Dr. Chittaranjan Pani.
- \* Nibandh Sangeet (Hindi) Published by Sangeet Karyalaya, Hatras.

**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 14**  
**ATI - TAAR, (SHASTRAM & VIDHANA)**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**UNIT-I**

Detail study of Sri Geeta Govinda of Kavi Jayadev.

**UNIT-II**

Contribution of Natyashastra & Sangeeta Ratnakara to Indian Classical Music.

**UNIT-III**

Fourty basic principles of Raga in Hindustani Sangeet Paddhati.

**UNIT-IV**

Life Sketch  
Ustad Amir Khan  
Vidushi Sunanda Pattnaik

**PRACTICAL**

Credit : 02

25 Marks

**Unit - I**

Detail knowledge of following Ragas. Jaunpuri, Basant.

**Unit - II**

Chhota Khayal gaykee of the following Ragas.  
Gorakh Kalyan, Kalawati, Bhinnasadaj.

**Unit - III**

Knowledge of kuad laya & Biad Laya with different Tyahis.

**Unit - IV**

Any Astapadi of Shri Geeta Govinda of Kavi Jaydev.

**PRESCRIBED BOOKS :-**

- \* Hamare Sangeet Ratna (Hindi) by Prof. Laxminarayan Garg.
  - \* Bharat Ke Sangeet Siddhant (Hindi) by Pt. K.C. Brihaspati.
  - \* Bharatiya Sangeeta re Khayal Saili (Odia) by Dr. Chittaranjan Pani.
  - \* Raga Parichaya (Hindi) Part - 3, 4 by Dr. Harish Chandra Srivastab.
-

**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 1**  
**TABLA**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**UNIT-I**

Origin & Historical development of "Tabla".

**UNIT-II**

Physical structure of Tabla.

**UNIT-III**

Knowledge about basic "Varnas", "Bols" & Thekas.

**UNIT-IV**

Knowledge about following terms. Kaida, Mukhda, Rela, Tyahi.

**PRACTICAL**

Credit : 02

25 Marks

**Unit - I**

Ability of Playing Theka in Teental, Ektal, Jhamptal.

**Unit - II**

Ability of playing two simple Kaida in Tal-Teental.

**Unit - III**

One Mukhuda & Tukuda in Tal - Teental.

**Unit - IV**

Playing two tyahi (Damdar & Bedamdar) set to Teental.

**PRESCRIBED BOOKS :-**

- \* Tala Prakash (Hindi) by Pt. Laxminarayan Garg.
- \* Tala Martand (Hindi) by Satya Narayan Basist.
- \* Tala Kosh (Hindi) by G.R. Srivastab.
- \* Tala Binod (Odia) Binod Bihari Rout.

**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 2**  
**TABLA**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**UNIT-I**

Brief Knowledge about Abanaddha Vadya (Percussion Instrument).

**UNIT-II**

Brief knowledge about all Gharanas of Tabla.

**UNIT-III**

Comparative Study of Delhi Gharana & Banaras Gharana.

**UNIT-IV** Life Sketch

Pt. Shanta Prasad (Gudei Maharaj)  
Ustad Karamatullah Khan

**PRACTICAL**

Credit : 02

25 Marks

**Unit - I**

Two Kaida each set to Teental & Jhamptal.

**Unit - II**

One Tukda set to Jhamptal.

**Unit - III**

Playing two tyahis (Damdar & Bedamdar) Set to Jhamptal.

**Unit - IV**

Playing Different Thekas of Teental, Ektal, Choutal, Dadra, Dhamar, Rupak, Kaharawa.

**PRESCRIBED BOOKS :-**

- \* Tala Prakash (Hindi) by Pt. Laxminarayan Garg.
  - \* Tala Martand (Hindi) part - 1, 2, 3 by G.R. Srivastab.
  - \* Tala Kosh (Hindi) by G.R. Srivastab.
  - \* Tala Binod (Odia) Binod Bihari Rout.
-

**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 3**  
**HARMONIUM**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**UNIT-I**

Origin of the Harmonium.

**UNIT-II**

Physical structure of the Harmonium.

**UNIT-III**

Importance of the Harmonium as an accompanying instrument with classical & light music.

**UNIT-IV** Life Sketch

Pandit Gyan Prakash Ghosh.  
Pandit Tulsidas Borker.

**PRACTICAL**

Credit : 02

25 Marks

**Unit - I**

Knowledge of playing basic alankars & Ragas.

**Unit - II**

Knowledge of Playing basic chords according to Western Music system.

**Unit - III**

Idea of accompanying with "Khayal".

**Unit - IV**

Knowledge of playing Some famous compositions in Indian Music system.

**PRESCRIBED BOOKS :-**

- \* Learn to play on Harmonium (English) by Pankaj Publication.
  - \* The Harmonium Handbook (English) by Satyaki Kraig Brockschidt.
  - \* Raga Shastra Siddhanta (Odia) by Sri Rajanikant Padhi.
-



**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 4**  
**PROJECT & VIVA**

Time : 3 Hrs.

Credit : 06

Project paper work presentation	-	80 Marks
Viva	-	20 Marks

**+3 SECOND YEAR THIRD SEMESTER**  
**GE - 3**  
**HINDUSTANI VOCAL**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**UNIT-I**

- a) Definitions -  
Dhwani, Nada, Swara, Sangeeta, Raga, Thaata, Alaap, Taan, Badi, Sambadi, Tala, Laya.
- b) Detail Knowledge of the following forms  
Khayal, Dhrupad, Dhamar, Thumree, Kajree, Bhajan.

**UNIT-II**

Shastriya parichaya with notations of the Bandish of the following Ragas Kalyan, Bhupali, Khamaj, Kafi, Durga, Brindabani Sarang, Bhairab.

**UNIT-III**

Detail knowledge of following Talas. Teental, Ektal, Jhamptal, Choutal.

**UNIT-IV**

Knowledge about Indian Notation system. (Pt. B.N. Bhatkhande & Pt. B.D. Paluskar Notation System)

**PRACTICAL**

Credit : 02

25 Marks

**Unit - I**

Bilambit Bandish of the following Ragas. Kalyan, Bhupali.

**Unit - II**

Chhotakhayal gayakee of the following Ragas.  
Kafi, Durga Khamaj, Bhairab, Brindabani Sarang.

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**Unit - III**

Demonstration of the following Talas- Teental, Ektal, Choutal, Jhamptal, Dhamar.

**Unit - IV**

One Bhajan or Patriotic Song in any Raga.

**PRESCRIBED BOOKS :-**

- \* Raga Darshan (Odia) Part - 1, 2 by Sri Chandan Kumar Jena.
- \* Raga Parichaya (Hindi) Part - 1, 2 by Dr. Harish Chandra Srivastab.

**+3 SECOND YEAR FOURTH SEMESTER****GE - 4****HINDUSTANI VOCAL**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**UNIT-I**

Characterstics of the following Ragas. Asawari, Tilang, Bihag, Pattdeep, Desh, Malkauns, Bageshree, Bhairabi.

**UNIT-II**

Characterstics of the following Talas. Rupak, Sooltal, Tewra, Jhamptal.

**UNIT-III** Life Sketch

Pt. Bishnu Narayan Bhatkhande

Pt. Bishnu Digamber Paluskar

Pt. Dr. Damodar Hota.

**UNIT-IV**

Origin & Evolution of Indian Music.

**PRACTICAL**

Credit : 02

25 Marks

**Unit - I**

Detail knowledge of the following Ragas.

Kalyan, Bhupali.

**Unit - II**

Chhota khayal gaykee of the following Ragas.

Asawari, Tilang, Bihag, Pattadeep, Desh, Malkauns, Bageshree, Bhairabi.

**Unit - III**

Demonstration of the following Talas with Dugun & Chaugun Layakaries.  
Rupak, Sooltal, Teental, Jhamptal, Choutal, Tewra, Dhamar, Ektal.

**Unit - IV**

Candidate has to learn one Dhrupad in any Prescribed Ragas.

**PRESCRIBED BOOKS :-**

- \* Raga Darshan (Odia) Part - 1, 2 by Sri Chandan Kumar Jena.
  - \* Hindustani Sangeet Lahari (Odia) Part - 1, 2, 3 by Dr. Damodar Hota.
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# ODIA

## +3 FIRST YEAR FIRST SEMESTER Core Course - I (C-1)

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

### ଓଡ଼ିଆ ସାହିତ୍ୟର ଇତିହାସ (ସପ୍ତମରୁ ଷୋଡ଼ଶ ଶତାବ୍ଦୀ ପର୍ଯ୍ୟନ୍ତ) ପ୍ରଥମ ପତ୍ର

- ୧ମ ଏକକ / ଯୁନିଟ୍ - ୧ : ପ୍ରାକ୍-ସାରଳା ସାହିତ୍ୟ (ଚର୍ଯାଗୀତିକା, ନାଥ ସାହିତ୍ୟ) । ସାମାଜିକ, ଧାର୍ମିକ, ସାହିତ୍ୟିକ ଓ ଭାଷାତାତ୍ତ୍ୱିକ ମୂଲ୍ୟାୟନ ।
- ୨ୟ ଏକକ / ଯୁନିଟ୍ - ୨ : ସାରଳା ସାହିତ୍ୟର ସାମାଜିକ, ସାଂସ୍କୃତିକ ଓ ସାହିତ୍ୟିକ ମୂଲ୍ୟ ।
- ୩ୟ ଏକକ / ଯୁନିଟ୍ - ୩ : ବଳରାମ ଦାସ ଓ ଜଗନ୍ନାଥ ଦାସ (ବିଶେଷ ଅଧ୍ୟୟନ) ।
- ୪ର୍ଥ ଏକକ / ଯୁନିଟ୍ - ୪ : ଅନନ୍ତ ଦାସ, ଯଶୋବନ୍ତ ଦାସ ଓ ଅଚ୍ୟୁତାନନ୍ଦ ଦାସ (ବିଶେଷ ଅଧ୍ୟୟନ) ।

ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :

୧. ଓଡ଼ିଆ ସାହିତ୍ୟର ଇତିହାସ - ସୂର୍ଯ୍ୟନାରାୟଣ ଦାଶ (୧ମ ଓ ୨ୟ ଭାଗ) - ଗ୍ରନ୍ଥ ମନ୍ଦିର, କଟକ ।
୨. ଓଡ଼ିଆ ସାହିତ୍ୟର ଆଦିପର୍ବ - ସୁରେନ୍ଦ୍ର ମହାନ୍ତି - କଟକ ଷ୍ଟୁଡେଣ୍ଟସ୍ ଷୋର, କଟକ ।
୩. ଚର୍ଯା ଗୀତିକା - ଖଗେଶ୍ୱର ମହାପାତ୍ର, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୪. ଓଡ଼ିଶାର ନାଥ ସାହିତ୍ୟ - ବଂଶୀଧର ମହାନ୍ତି, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୫. ଓଡ଼ିଆ ସାହିତ୍ୟର ସଂକ୍ଷିପ୍ତ ପରିଚୟ - ବୃନ୍ଦାବନ ଚନ୍ଦ୍ର ଆଚାର୍ଯ୍ୟ, ଗ୍ରନ୍ଥ ମନ୍ଦିର, କଟକ ।
୬. ଓଡ଼ିଆ ସାହିତ୍ୟର ଇତିହାସ, ପ୍ରଥମ ଭାଗ, ବୈଷ୍ଣବ ଚରଣ ସାମଲ, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୭. ଓଡ଼ିଆ ସାହିତ୍ୟର ମଧ୍ୟପର୍ବ - ସୁରେନ୍ଦ୍ର ମହାନ୍ତି, କଟକ ଷ୍ଟୁଡେଣ୍ଟସ୍ ଷୋର, କଟକ ।
୮. ପଞ୍ଚସଖା ଓଡ଼ିଆ ସାହିତ୍ୟ - ଦେବେନ୍ଦ୍ର ମହାନ୍ତି, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୯. ଓଡ଼ିଆ ସାହିତ୍ୟର ଉନ୍ନେଷ ଓ ଉତ୍ତରଣ - ଦେବେନ୍ଦ୍ର ମହାନ୍ତି, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୧୦. ଓଡ଼ିଆ ସାହିତ୍ୟର ଇତିହାସ - ବଂଶୀଧର ମହାନ୍ତି (୧ମ ଓ ୨ୟ ଭାଗ), ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।

## +3 FIRST YEAR FIRST SEMESTER Core Course - II (C-2) - Odia

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

### ମଧ୍ୟଯୁଗୀୟ ଓଡ଼ିଆ ସାହିତ୍ୟ ଦ୍ୱିତୀୟ ପତ୍ର

- ୧ମ ଏକକ / ଯୁନିଟ୍ - ୧ : ମଧ୍ୟଯୁଗୀୟ ଓଡ଼ିଆ ସାହିତ୍ୟର ପୃଷ୍ଠଭୂମି (ସାମାଜିକ, ସାଂସ୍କୃତିକ, ରାଜନୈତିକ ଓ ଧର୍ମୀୟ ପୃଷ୍ଠଭୂମି) ।
- ୨ୟ ଏକକ / ଯୁନିଟ୍ - ୨ : ମଧ୍ୟଯୁଗୀୟ କାବ୍ୟର ଆଜିକାଲି ବୈଚିତ୍ର୍ୟ (ବିଷୟ ବିନ୍ୟାସ, ଭାଷା, ଛନ୍ଦ ବୈଚିତ୍ର୍ୟ, ବର୍ଣ୍ଣନା ବୈଚିତ୍ର୍ୟ ଓ ଆଳଂକାରିକତା) ।

- ୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ମଧ୍ୟଯୁଗୀୟ କାବ୍ୟର ଆଦିକ ବିଭବ (ରସ, ସୌନ୍ଦର୍ଯ୍ୟଚେତନା ଓ ଭାବାଦର୍ଶ) ।  
 ୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ମଧ୍ୟଯୁଗୀୟ ଓଡ଼ିଆ ଗୀତି ପରମ୍ପରା (ଚଂପୁ, ଚଉପଦୀ, ଚଉତିଶା, ଭଜନ ଓ ଜଣାଣ) ।

**ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :**

୧. ଓଡ଼ିଆ ସାହିତ୍ୟର ଇତିହାସ - ସୂର୍ଯ୍ୟନାରାୟଣ ଦାଶ (୪ର୍ଥ ଭାଗ) - ଗ୍ରନ୍ଥ ମନ୍ଦିର, କଟକ ।
୨. ଭଞ୍ଜୀୟ କାବ୍ୟ ଭାବନା - ବେଣୀମାଧବ ପାଢ଼ୀ, ବୁକ୍ସ ପୁର ।
୩. ଉପେନ୍ଦ୍ର ଭଞ୍ଜ ସାହିତ୍ୟ ଏକ ଅଧ୍ୟୟନ - ଜୟକୃଷ୍ଣ ମିଶ୍ର, ଓଡ଼ିଶା ରାଜ୍ୟ ପାଠ୍ୟ ପୁସ୍ତକ ପ୍ରଣୟନ ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ୱର ।
୪. ମଧ୍ୟକାଳୀନ ଓଡ଼ିଆ ସାହିତ୍ୟ - କୃଷ୍ଣ ଚରଣ ସାହୁ, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୫. ଭଞ୍ଜ ସାହିତ୍ୟର ବିଭା ଓ ବିଭବ - ସଚ୍ଚିଦାନନ୍ଦ ମିଶ୍ର, ଓଡ଼ିଶା ବୁକ୍ ଷୋର ।
୬. ଓଡ଼ିଆ ଗୀତିକାବ୍ୟ - ଜାନକୀବଲ୍ଲଭ ମହାନ୍ତି, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୭. କାବ୍ୟକୌଶଳ - ସୁଦର୍ଶନ ଆଚାର୍ଯ୍ୟ, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।

**+3 FIRST YEAR SECOND SEMESTER  
Core Course - III (C-3) - Odia**

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**ଆଧୁନିକ ଓଡ଼ିଆ ସାହିତ୍ୟ  
ତୃତୀୟ ପତ୍ର**

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ଆଧୁନିକ ଓଡ଼ିଆ ସାହିତ୍ୟର ପୃଷ୍ଠଭୂମି ଓ ନବଜାଗରଣ (ଇଂରାଜୀ ଶିକ୍ଷା ବିସ୍ତାର, ପତ୍ରପତ୍ରିକା ପ୍ରକାଶନ, ମୁଦ୍ରଣଯନ୍ତ୍ର ପ୍ରତିଷ୍ଠା ଓ ଭାଷା ସୁରକ୍ଷା ଆନ୍ଦୋଳନ)
- ୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ଆଧୁନିକ ଓଡ଼ିଆ ସାହିତ୍ୟର ପ୍ରମୁଖ ସ୍ରଷ୍ଟା (ରାଧାନାଥଙ୍କ କାବ୍ୟ, ଗଙ୍ଗାଧରଙ୍କ କାବ୍ୟ, ମଧୁସୂଦନ ରାଓଙ୍କ କବିତା ଓ ଫକୀରମୋହନଙ୍କ ଉପନ୍ୟାସ ଓ ଗଳ୍ପ)
- ୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ଓଡ଼ିଆ ସାହିତ୍ୟରେ ସତ୍ୟବାଦୀ ଧାରା ।
- ୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ଓଡ଼ିଆ ସାହିତ୍ୟରେ ସବୁଜ ଧାରା ଓ ପ୍ରଗତିବାଦୀ ଧାରା ।

**ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :**

୧. ଓଡ଼ିଆ ସାହିତ୍ୟର ଇତିହାସ (୧୮୦୩-୧୯୨୦) ନଟବର ସାମନ୍ତରାୟ, ବାଣୀ ଭବନ, ଭୁବନେଶ୍ୱର ।
୨. ଓଡ଼ିଆ ସାହିତ୍ୟର ଇତିହାସ-ପ୍ରେମାନନ୍ଦ ମହାପାତ୍ର, ସାତ୍ୟନାରାୟଣ ବୁକ୍ ଷୋର, କଟକ ।
୩. ମେହେର ସାହିତ୍ୟରେ ମାନବୀୟ ମହନୀୟତା - ମଣୀନ୍ଦ୍ର କୁମାର ମେହେର, ଗ୍ରନ୍ଥମନ୍ଦିର, କଟକ ।
୪. କାବ୍ୟଶିଳ୍ପ ଗଙ୍ଗାଧର - ଗୋବିନ୍ଦଚନ୍ଦ୍ର ଉଦ୍‌ଗାତା ।
୫. ଓଡ଼ିଆ ସାହିତ୍ୟରେ ରାଧାନାଥ ଓ ସତ୍ୟବାଦୀ ଯୁଗ, ବୈଷ୍ଣବ ଚରଣ ସାମଲ, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୬. ସବୁଜରୁ ସାଂପ୍ରତିକ - ନିତ୍ୟାନନ୍ଦ ଶତପଥୀ, ଗ୍ରନ୍ଥ ମନ୍ଦିର, କଟକ ।
୭. ଓଡ଼ିଆ ସାହିତ୍ୟର ପ୍ରଗତିବାଦୀ ଧାରା - ବିଜୟ କୁମାର ଶତପଥୀ, ଓଡ଼ିଶା ବୁକ୍ ଷୋର, କଟକ ।

**+3 FIRST YEAR SECOND SEMESTER**  
**Core Course - IV (C-4) - Odia**

Time : 3 Hrs.  
Credit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**ସ୍ଵାଧୀନତା ପରବର୍ତ୍ତୀ ଓଡ଼ିଆ ସାହିତ୍ୟ**  
**ଚତୁର୍ଥ ପଢ଼**

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ସ୍ଵାଧୀନତା ପରବର୍ତ୍ତୀ ଓଡ଼ିଆ କବିତା ।  
୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ସ୍ଵାଧୀନତା ପରବର୍ତ୍ତୀ ଓଡ଼ିଆ କଥା ସାହିତ୍ୟ ।  
୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ସ୍ଵାଧୀନତା ପରବର୍ତ୍ତୀ ଓଡ଼ିଆ ନାଟକ ଓ ଏକାଙ୍କିକା ।  
୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ସ୍ଵାଧୀନତା ପରବର୍ତ୍ତୀ ଓଡ଼ିଆ ଗଦ୍ୟ ସାହିତ୍ୟ (ପ୍ରବନ୍ଧ, ଜୀବନୀ, ଆତ୍ମଜୀବନୀ ଓ ସମାଲୋଚନା) ।

ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :

୧. ସବୁଜରୁ ସାଂପ୍ରତିକ - ନିତ୍ୟାନନ୍ଦ ଶତପଥୀ, ଗ୍ରନ୍ଥ ମନ୍ଦିର, କଟକ ।
୨. ସତୁରୀରୁ ସହସ୍ରାଳୀ - ନିତ୍ୟାନନ୍ଦ ଶତପଥୀ ।
୩. ଶହେ ବର୍ଷର ଓଡ଼ିଆ କ୍ଷୁଦ୍ରଗଳ୍ପ ଏକ ତାତ୍ତ୍ଵିକ ବିଶ୍ଳେଷଣ - କବିତା ବାରିକ, ବିଦ୍ୟାପୁରୀ, କଟକ ।
୪. ଉପନ୍ୟାସ ସାହିତ୍ୟର ପରିଚୟ - ସଂକଳନ - ପଠାଣି ପର୍ଯ୍ୟନ୍ତନାୟକ ଓ ଭୋଳାନାଥ ରାଉତ (୧ମ ଓ ୨ୟ ଭାଗ) ଓଡ଼ିଶା ବୁକ୍ ଷୋର, କଟକ ।
୫. ଓଡ଼ିଆ କ୍ଷୁଦ୍ର ଗଳ୍ପର ଇତିବୃତ୍ତ - ବୈଷ୍ଣବ ଚରଣ ସାମଲ, ବୁକ୍ ଆଣ୍ଡ୍ ବୁକ୍, କଟକ ।
୬. ସ୍ଵାଧୀନତା ପରବର୍ତ୍ତୀ ଓଡ଼ିଆ ସାହିତ୍ୟର ଭୂମି ଓ ଭୂମିକା - ସଂ. ବୈଷ୍ଣବ ଚରଣ ସାମଲ, ଓଡ଼ିଶା ବୁକ୍ ଷୋର, କଟକ ।
୭. ଓଡ଼ିଆ ନାଟକର ଉତ୍ତର ଆଧୁନିକ ପର୍ବ - ହେମନ୍ତ କୁମାର ଦାସ, ବିଦ୍ୟାପୁରୀ, କଟକ ।
୮. ସ୍ଵାଧୀନତାପରେ ଓଡ଼ିଆ ନାଟକ - ନାରାୟଣ ସାହୁ, ଓ.ରା.ପା.ପ୍ର. ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ଵର ।
୯. ଓଡ଼ିଆ ନାଟ୍ୟସାହିତ୍ୟ - ସର୍ବେଶ୍ଵର ଦାସ, ଓ.ରା.ପା.ପ୍ର. ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ଵର ।
୧୦. ଓଡ଼ିଆ ନାଟକର ଉତ୍ତର ଓ ବିକାଶ - ରତ୍ନାକର ଚକ୍ରନ୍ତି ।
୧୧. ଓଡ଼ିଆ ଐତିହାସିକ ନାଟକର ମୂଳସୂତ୍ର - ନୀଳାଦ୍ରିଭୂଷଣ ହରିଚନ୍ଦନ ।
୧୨. ନାଟକର ବ୍ୟାପ୍ତି ଓ ଦୀପ୍ତି - ସଂଘମିତ୍ରା ମିଶ୍ର, ଅଗ୍ରଦୂତ, କଟକ ।
୧୩. ନାଟ୍ୟସୂତ୍ର ଓ ନାଟ୍ୟଦୃଷ୍ଟି - ବିଷ୍ଣୁପ୍ରିୟା ଓତା, ଶିଶୁକଳ୍ପ, ଭୁବନେଶ୍ଵର ।
୧୪. ଓଡ଼ିଆ ସାହିତ୍ୟର ଇତିହାସ - ବାଉରୀ ବନ୍ଧୁ କର, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୧୫. ଓଡ଼ିଆ ଚରିତ ସାହିତ୍ୟ - ଲାବଣ୍ୟ ନାୟକ ।
୧୬. ଓଡ଼ିଆ ସମାଲୋଚନା ସାହିତ୍ୟ - ଅସିତ କବି ।

**+3 SECOND YEAR THIRD SEMESTER  
Core Course - V (C-5) - Odia**

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**ଓଡ଼ିଆ ଭାଷା ଓ ଲିପିର ଐତିହାସିକ ବିକାଶକ୍ରମ  
ପଞ୍ଚମ ପଠ**

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ଓଡ଼ିଆ ଭାଷାର ଉତ୍ତର ଓ ବିକାଶକ୍ରମ ।  
୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ଓଡ଼ିଆ ଲିପିର ଐତିହାସିକ ବିବର୍ତ୍ତନ ।  
୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ଓଡ଼ିଆ ଅଭିଲେଖର ଭାଷା (ଶିଳାଲେଖ, ତାମ୍ବୁଲେଖ ଓ ପ୍ରାଚୀନ ସମୟ) ।  
୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ଚର୍ଯ୍ୟାପଦ ଓ ସାରଳା ସାହିତ୍ୟର ଭାଷା ।

**ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :**

୧. ଓଡ଼ିଆ ଭାଷାର ଉନ୍ନେଷ ଓ ବିକାଶ - ବାସୁଦେବ ସାହୁ, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୨. ଓଡ଼ିଆ ଧ୍ୱନିତତ୍ତ୍ୱ ଓ ଶବ୍ଦ ସଂଭାର - ଧନେଶ୍ୱର ମହାପାତ୍ର, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୩. ଓଡ଼ିଆ ଭାଷା ଓ ଲିପିର କ୍ରମବିକାଶ - କୁଞ୍ଜବିହାରୀ ତ୍ରିପାଠୀ, ଓ.ରା.ପା.ପ୍ର. ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ୱର ।
୪. ଓଡ଼ିଆ ଭାଷାତତ୍ତ୍ୱର ରୂପଚିତ୍ର - ନଟବର ଶତପଥୀ, ବିଜୟିନୀ ପବ୍ଲିକେଶନ, କଟକ ।
୫. ଧ୍ୱନିବିଜ୍ଞାନ, ଗୋଲୋକ ବିହାରୀ ଧଳ, ଓ.ରା.ପା.ପ୍ର. ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ୱର ।

**+3 SECOND YEAR THIRD SEMESTER  
Core Course - VI (C-6) - Odia**

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**ଭାଷାର ସଂଜ୍ଞା, ସ୍ୱରୂପ, ଓଡ଼ିଆ ଭାଷାର ବୈଶିଷ୍ଟ୍ୟ ଓ ବିବିଧତା  
ଷଷ୍ଠ ପଠ**

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ଭାଷାର ସଂଜ୍ଞା, ସ୍ୱରୂପ ଓ ପ୍ରକାରଭେଦ ।  
୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ଭାଷା ଉତ୍ପତ୍ତି ସଂପର୍କୀୟ ବିଭିନ୍ନ ସିଦ୍ଧାନ୍ତ ।  
୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ଓଡ଼ିଆ ଭାଷାର ଆଞ୍ଚଳିକ ରୂପ ।  
୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ଓଡ଼ିଆ ଭାଷା ଉପରେ ବିଭିନ୍ନ ଭାଷାର ପ୍ରଭାବ (ଦ୍ରାବିଡ଼, ଅଷ୍ଟ୍ରିକ୍, ଯାବନିକ ଓ ଜଂରାଜୀ) ।

**ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :**

୧. ଭାଷାବିଜ୍ଞାନର ରୂପରେଖ - ବାସୁଦେବ ସାହୁ, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୨. ଭାଷାଶାସ୍ତ୍ର ପରିଚୟ - ଗୋଲୋକ ବିହାରୀ ଧଳ, ଓ.ରା.ପା.ପ୍ର. ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ୱର ।

୩. ଓଡ଼ିଆ ଭାଷାର ସୃଷ୍ଟି ଓ ବିକାଶ - ଉପେନ୍ଦ୍ର ପ୍ରସାଦ ଦଳାଇ, ଏ.କେ.ମିଶ୍ର ପବ୍ଲିଶର୍ସ, କଟକ ।  
 ୪. ଓଡ଼ିଆ ଭାଷାର ଉନ୍ନେଷ ଓ ବିକାଶ - ବାସୁଦେବ ସାହୁ, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।  
 ୫. ଭାଷା ଭାବନା - ସଂ. ବିଜୟଲକ୍ଷ୍ମୀ ମହାନ୍ତି, ବିଦ୍ୟା ପ୍ରକାଶନୀ, ଭୁବନେଶ୍ୱର ।  
 ୬. ଓଡ଼ିଆ ଭାଷା ଓ ଭାଷା ବିଜ୍ଞାନ - ଦେବୀ ପ୍ରସନ୍ନ ପଟ୍ଟନାୟକ, ଗ୍ରହମନ୍ଦିର, କଟକ ।

### +3 SECOND YEAR THIRD SEMESTER Core Course - VII (C-7) - Odia

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### ଓଡ଼ିଆ ବ୍ୟାବହାରିକ ବ୍ୟାକରଣ ସସ୍ତମ ପତ୍ର

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ଓଡ଼ିଆ ବର୍ଣ୍ଣ ବିଚାର, ବାକ୍ୟର ଗଠନ ରୀତି ଓ ପ୍ରକାରଭେଦ ।  
 ୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : କାରକ, ବିଭକ୍ତି, କୃଦନ୍ତ ଓ ତତ୍ତ୍ୱ ।  
 ୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ଉପସର୍ଗ, ସନ୍ଧି ଓ ସମାସ ।  
 ୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ଓଡ଼ିଆ ଶବ୍ଦ ସମାହାର ।

#### ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :

୧. ସର୍ବସାର ବ୍ୟାକରଣ - ନାରାୟଣ ମହାପାତ୍ର ଓ ଶ୍ରୀଧର ଦାସ, ନିୟୁ ଷ୍ଟୁଡେଣ୍ଟସ୍ ଷୋର, କଟକ ।  
 ୨. ଆଧୁନିକ ଓଡ଼ିଆ ବ୍ୟାକରଣ - ଧନେଶ୍ୱର ମହାପାତ୍ର, କିତାବ ମହଲ, କଟକ ।  
 ୩. ବ୍ୟାବହାରିକ ଓଡ଼ିଆ ବ୍ୟାକରଣ - ବିଜୟ ପ୍ରସାଦ ମହାପାତ୍ର, ବିଦ୍ୟାପୁରୀ, କଟକ ।  
 ୪. ଓଡ଼ିଆ ଭାଷା ଚର୍ଚ୍ଚାର ପରଂପରା - ପ୍ରଫେସର ଗଗନେନ୍ଦ୍ର ନାଥ ଦାସ, ଓଡ଼ିଆ ଗବେଷଣା ପରିଷଦ, କଟକ ।

### +3 SECOND YEAR FOURTH SEMESTER Core Course - VIII (C-8) - Odia

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### ଓଡ଼ିଆ ଲୋକସଂସ୍କୃତି ଓ ଲୋକସାହିତ୍ୟ ଅଷ୍ଟମ ପତ୍ର

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ଲୋକ ସଂସ୍କୃତି ଓ ଲୋକସାହିତ୍ୟର ସଂଜ୍ଞା, ସ୍ୱରୂପ ଓ ପ୍ରକାରଭେଦ ।  
 ୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ଓଡ଼ିଆ ଲୋକଗୀତର ସ୍ୱରୂପ, ପ୍ରକାରଭେଦ ଓ ବିଭିନ୍ନ ଦିଗ ।  
 ୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ଓଡ଼ିଆ ଲୋକକାହାଣୀର ସ୍ୱରୂପ ଓ ପ୍ରକାରଭେଦ ।



୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ଓଡ଼ିଆ ଲୋକନାଟକର ସ୍ୱରୂପ ଓ ପ୍ରକାରଭେଦ (ପାଲା, ଦାସକାଠିଆ, ଦଣ୍ଡନାଟ, ଛଉନାଟ, ଲାଲା, ଦଧି, ଡାଲଖାଇ ଓ କରମା) ।

**ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :**

୧. ଲୋକଧାରା, ଲୋକସଂସ୍କୃତି ଓ ଲୋକସାହିତ୍ୟ - କୁମୁଦ ରଞ୍ଜନ ପାଣିଗ୍ରାହୀ, ସୁଖଦୁର୍ଗ ପବ୍ଲିକେଶନ, ସମ୍ବଲପୁର ।
୨. ଲୋକସଂସ୍କୃତି ଓ ଲୋକ ସାହିତ୍ୟ - କୃଷ୍ଣଚନ୍ଦ୍ର ପ୍ରଧାନ, ବିଦ୍ୟାପୁରୀ, କଟକ ।
୩. ଲୋକସାହିତ୍ୟ ତତ୍ତ୍ୱ - ଶ୍ୟାମ ସୁନ୍ଦର ମହାପାତ୍ର, ଓଡ଼ିଶା ବୁକ୍ ଷୋର, କଟକ ।
୪. ଓଡ଼ିଆ ଲୋକଗୀତି ସଂଚୟନ - କୁଞ୍ଜବିହାରୀ ଦାସ, ବିଶ୍ୱ ଭାରତୀ ପ୍ରକାଶନ ।
୫. ପଲ୍ଲୀଗୀତି ସଂସ୍ଥାନ - କୁଞ୍ଜବିହାରୀ ଦାସ, (୧ମ-୨ୟ ଓ ୩ୟ ଭାଗ) ।
୬. ଲୋକସଂସ୍କୃତି - ଲୋକସାହିତ୍ୟ - ନାରାୟଣ ସାହୁ, ଚିନ୍ମୟ ପ୍ରକାଶନ, କଟକ ।
୭. ଓଡ଼ିଶାର ଦଣ୍ଡ ନାଟ - ସନ୍ତୋଷ କୁମାର ଶତପଥୀ, କେଦାର ପ୍ରିଣ୍ଟିଙ୍ଗ୍ ପ୍ରେସ୍, ଭୁବନେଶ୍ୱର ।
୮. ଓଡ଼ିଆ ଲୋକନାଟ୍ୟ - କଳଚରାଳ ଏକାଡେମୀ, ରାଉରକେଲା ।
୯. ପର୍ଯ୍ୟନ୍ତ ଓଡ଼ିଶାର ଲୋକସଂସ୍କୃତି - ଡ. ସୁଶୀଳ କୁମାର ବାର୍ ।
୧୦. ପର୍ଯ୍ୟନ୍ତ ଓଡ଼ିଶାର ଲୋକଗୀତ - ଦ୍ୱାରିକାନାଥ ନାୟକ, ଓଡ଼ିଶା ବୁକ୍ ଷୋର, କଟକ ।
୧୧. ଲୋକବିଶ୍ୱାସ ଓ ଲୋକାଚାର - ଡ. ସଦାନନ୍ଦ ନାୟକ, ବିଜୟ ବୁକ୍ ଷୋର, ବ୍ରହ୍ମପୁର ।
୧୨. ଉତ୍କଳ ଗାଉଁଲି ଗୀତ - ଚକ୍ରଧର ମହାପାତ୍ର, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୧୩. ଉତ୍କଳ ଗ୍ରାମ୍ୟ ଗୀତି - ଚକ୍ରଧର ମହାପାତ୍ର, ଓଡ଼ିଆ ସାହିତ୍ୟ ଏକାଡେମୀ ।

### +3 SECOND YEAR FOURTH SEMESTER Core Course - IX (C-9) - Odia

Time : 3 Hrs.  
Credit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### ସାହିତ୍ୟ ତତ୍ତ୍ୱ (ପ୍ରାଚ୍ୟ ଓ ପାଶ୍ଚାତ୍ୟ) ୯ମ ପତ୍ର

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ରସ ଓ ଧ୍ୱନି ।
- ୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ରୀତି, ବକ୍ତୃତ୍ୱ ଓ ଅଳଂକାର ।
- ୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : କ୍ଲୀରସିଦ୍ଧି, ରୋମାଞ୍ଚସିଦ୍ଧି ।
- ୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ପ୍ରତୀକବାଦ, ଚିତ୍ରକଳ୍ପ ।

**ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :**

୧. ଅଳଙ୍କାର ପ୍ରସଙ୍ଗ - ଗୋବିନ୍ଦ ଚନ୍ଦ୍ର ଉଦ୍‌ଗାତା, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୨. ଭାରତୀୟ ସାହିତ୍ୟ ତତ୍ତ୍ୱ - ବନମାଳୀ ରଥ, ଓ.ରା.ପା.ପ୍ର. ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ୱର ।
୩. ଓଡ଼ିଆ କାବ୍ୟ କୌଶଳ - ସୁଦର୍ଶନ ଆଚାର୍ଯ୍ୟ, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୪. ପାଶ୍ଚାତ୍ୟ ସାହିତ୍ୟ ଓ ସମୀକ୍ଷା ତତ୍ତ୍ୱ - କୃଷ୍ଣଚନ୍ଦ୍ର ପ୍ରଧାନ, ପ୍ରୀତି ସାହିତ୍ୟ ପ୍ରତିଷ୍ଠାନ, କଟକ ।
୫. ସାହିତ୍ୟର ସୂତାପତ୍ର - ବିଭୂତି ପଟ୍ଟନାୟକ, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।

**+3 SECOND YEAR FOURTH SEMESTER  
Core Course - X (C-10) - Odia**

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**ଓଡ଼ିଆ କବିତା ପ୍ରାଚୀନରୁ ଆଧୁନିକ  
ଦର୍ଶନ ପତ୍ର**

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ସାରଳା ମହାଭାରତ (ଦୁର୍ଯ୍ୟୋଧନଙ୍କ ରକ୍ତନଦୀ ସନ୍ତରଣ) ।
- ୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ଭାଗବତ (୨୪ ଗୁରୁ ପ୍ରସଙ୍ଗ) - ଜଗନ୍ନାଥ ଦାସ ।
- ୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ଦାନକୃଷ୍ଣ ଦାସଙ୍କ ରସକଲ୍ଲୋଳ (୧ମ ଛାନ୍ଦ) ଓ ଉପେନ୍ଦ୍ର ଭଞ୍ଜଙ୍କ କୋଟି ବ୍ରହ୍ମାଣ୍ଡ ସୁନ୍ଦରୀ (୧ମ ଛାନ୍ଦ) ।
- ୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ଆଧୁନିକ କବିତା ।  
ମହାଯାତ୍ରା (ସପ୍ତମ ସର୍ଗ) - ଅମର୍ଷୀଙ୍କ ଉଦ୍‌ବୋଧନ (ରାଧାନାଥ ରାୟ)  
ମଙ୍ଗଳେ ଅଜଳା ଉଷା - ଗଙ୍ଗାଧର ମେହେର  
ବନ୍ଦୀର ସାକ୍ଷ୍ୟ ଅନୁଚିନ୍ତା - ଗୋପବନ୍ଧୁ ଦାସ  
ପ୍ରତିମା ନାୟକ - ସଚ୍ଚିଦାନନ୍ଦ ରାଉତରାୟ

**ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :**

୧. ସାରଳା ମହାଭାରତ (ଗଦା ପର୍ବ - ସାରଳା ଦାସ) ।
୨. ଅବଧୂତ ଓ ଯଦୁରାଜା ସମ୍ବାଦ - ବୈଷ୍ଣବ ଚରଣ ସାମଲ, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୩. କହେ କୃଷ୍ଣ ଦାସ କବି - କୃଷ୍ଣଚରଣ ସାହୁ, ବିଦ୍ୟାପୁରୀ, କଟକ ।
୪. ରସକଲ୍ଲୋଳ, ସଂପାଦନା - ଦେବେନ୍ଦ୍ର ମହାନ୍ତି ।
୫. ଦୁର୍ଲଭ ଦାନକୃଷ୍ଣ - ଡ. ଜ୍ୟୋତିରଞ୍ଜନ ସାମଲ, ବିଜୟିନୀ ପବ୍ଲିକେଶନ, କଟକ ।
୬. ତପସ୍ବିନୀ ଓ ମେହେର ସାହିତ୍ୟ - ଗୌରୀ କୁମାର ବ୍ରହ୍ମା ।

**+3 THIRD YEAR FIFTH SEMESTER  
Core Course - XI (C-11) - Odia**

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**ଓଡ଼ିଆ ନାଟକ ଓ ଏକାଙ୍କିକା  
ଏକାଦଶ ପତ୍ର**

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ରକ୍ତମାଟି - କାଳୀଚରଣ ପଟ୍ଟନାୟକ ।
- ୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ନନ୍ଦିକା କେଶରୀ - ମନୋରଞ୍ଜନ ଦାସ କିମ୍ବା ତଟ ନିରଞ୍ଜନା - ବିଜୟ ମିଶ୍ର ।
- ୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : କୋକୁଆ - ବିଜୟ କୁମାର ଶତପଥୀ, ଅଗ୍ରଦୂତ, କଟକ କିମ୍ବା ଭୂଷା - ମଙ୍ଗଳୁ ଚରଣ ବିଶ୍ୱାଳ ।
- ୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ଏକାଙ୍କିକା - ସ୍ମୃତି ବିଭ୍ରାଟ - ପ୍ରାଣବନ୍ଧୁ କର ଓ ଛଦ୍ମବେଶୀ - ବିଶ୍ୱଜିତ୍ ଦାସ ।

**ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :**

୧. ରକ୍ତମାଟି - କାଳୀଚରଣ ପଟ୍ଟନାୟକ ।
୨. ନନ୍ଦିକା କେଶରୀ - ମନୋରଞ୍ଜନ ଦାସ କିମ୍ବା ତଟ ନିରଞ୍ଜନା - ବିଜୟ ମିଶ୍ର ।
୩. କୋକୁଆ - ବିଜୟ କୁମାର ଶତପଥୀ, ଅଗ୍ରଦୂତ, କଟକ କିମ୍ବା ଭୂଷା - ମଙ୍ଗଳୁଚରଣ ବିଶ୍ୱାଳ ।
୪. ଅଶ୍ରୁ ନୁହେଁ ଅନଳ - ହେମନ୍ତ କୁମାର ଦାସ ।
୫. ସ୍ୱାଧୀନୋତ୍ତର ଓଡ଼ିଆ ନାଟକର ମନସ୍ତାତ୍ତ୍ୱିକ ବିଶ୍ଳେଷଣ, ରକ୍ଷିତା ରାଉତରାୟ, ବିଜୟିନୀ ପବ୍ଲିକେଶନ, କଟକ ।
୬. ସାହିତ୍ୟ ସାଧକ ମଙ୍ଗଳୁଚରଣ ବିଶ୍ୱାଳ - ଗୌରିଦାସ ପ୍ରଧାନ  
(ଚତୁର୍ଥ ପତ୍ର ନିମନ୍ତେ ପ୍ରଦତ୍ତ ସହାୟକ ପୁସ୍ତକଗୁଡ଼ିକ ଅନୁସରଣୀୟ ।)

**+3 THIRD YEAR FIFTH SEMESTER  
Core Course - XII (C-12) - Odia**

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**ଓଡ଼ିଆ କଥା ସାହିତ୍ୟ  
ଦ୍ୱାଦଶ ପତ୍ର**

- |                         |   |
|-------------------------|---|
| ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ :   | ଓଡ଼ିଆ କଥାସାହିତ୍ୟର ବିକାଶକ୍ରମ ।                               |
| ୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ :   | ଛ'ମାଣ ଆଠଗୁଣ୍ଠ - ଫକୀର ମୋହନ ସେନାପତି ।                         |
| ୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ :   | ଦାନାପାଣି - ଗୋପୀନାଥ ମହାନ୍ତି କିମ୍ବା ନୟନତାରା - ଦୟାନିଧି ମିଶ୍ର । |
| ୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : | ଗନ୍ଧ ସାହିତ୍ୟ -  |
|                         | ପାଠ୍ୟ ଗନ୍ଧ : ଦେବତାର ବିଧାତା - ଗୋଦାବରୀଶ ମହାପାତ୍ର              |
|                         | ମାଂସର ବିଳାପ - କାଳିନ୍ଦୀ ଚରଣ ପାଣିଗ୍ରାହୀ                       |
|                         | ମଧୁବନର ମେୟର - ମନୋଜ ଦାସ                                      |

**ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :**

୧. ଓଡ଼ିଆ ଉପନ୍ୟାସ ସାହିତ୍ୟର ପରିଚୟ, ସଂ ପଠାଣି ପଟ୍ଟନାୟକ ଓ ଭୋଳାନାଥ ରାଉତ, ଓଡ଼ିଶା ବୁକ୍ ଷୋର, କଟକ ।
୨. ଓଡ଼ିଆ ଯୁଦ୍ଧଗନ୍ଧର ଉଦ୍ଦେଶ୍ୟ ଓ ଉତ୍ତରଣ - ବୈଷ୍ଣବ ଚରଣ ସାମଲ, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୩. ଛ'ମାଣ ଆଠଗୁଣ୍ଠ - ଫକୀର ମୋହନ ସେନାପତି ।
୪. ଛ'ମାଣ ଆଠଗୁଣ୍ଠ: ଭିନ୍ନ ଦୃଷ୍ଟି, ଭିନ୍ନ ବ୍ୟାଖ୍ୟା, ପଞ୍ଚାନନ ମିଶ୍ର, ବିଜୟିନୀ ପବ୍ଲିକେଶନ, କଟକ ।
୫. ଦାନାପାଣି - ଗୋପୀନାଥ ମହାନ୍ତି କିମ୍ବା ନୟନତାରା - ଦୟାନିଧି ମିଶ୍ର ।
୬. କଥାଶିଳ୍ପୀ ମନୋଜ ଦାସ - ଶତ୍ରୁଘ୍ନ ପାଣ୍ଡବ, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୭. ମନସ୍କା ମନୋଜ - ମଣୀନ୍ଦ୍ର କୁମାର ମେହେର, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୮. ଓଡ଼ିଆ ଉପନ୍ୟାସର ସମାଜତାତ୍ତ୍ୱିକ ଆଲୋଚନା - କଲକାଶ ପଟ୍ଟନାୟକ, ବିଦ୍ୟାପୁରୀ, କଟକ ।

### +3 THIRD YEAR SIXTH SEMESTER Core Course - XIII (C-13) - Odia

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### ଓଡ଼ିଆ ଗଦ୍ୟ ସାହିତ୍ୟ

##### ତ୍ରୟବିଂଶ ପଠ

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ଆତ୍ମ ଜୀବନୀ, ଭ୍ରମଣ କାହାଣୀ ଓ ସମାଲୋଚନା ତତ୍ତ୍ୱ (ସଂଜ୍ଞା, ସ୍ୱରୂପ ଓ ପ୍ରକାରଭେଦ) ।  
୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ମୋ ଫୁଟା ଡଙ୍ଗାର କାହାଣୀ - ଫତୁରାନନ୍ଦ ।  
୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ପଶ୍ଚିମ ଆଫ୍ରିକାରେ ଓଡ଼ିଆ ଢେଙ୍କି - ଭୁବନେଶ୍ୱର ବେହେରା ।  
୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ପ୍ରବନ୍ଧ - ଭାଷା ଓ ଜାତୀୟତା - ଗୋପବନ୍ଧୁ ଦାସ  
ମୁଁ ସତ୍ୟଧର୍ମା କହୁଛି - ଚନ୍ଦ୍ରଶେଖର ରଥ  
ବିବେକାନନ୍ଦ : ଏକ ଗୁହାମୁକ୍ତିର ପ୍ରୟାସ - ଚିତ୍ତରଞ୍ଜନ ଦାସ

#### ସହାୟକ ଗ୍ରନ୍ଥପୁଂଜୀ :

୧. ମୋ ଫୁଟା ଡଙ୍ଗାର କାହାଣୀ - ଫତୁରାନନ୍ଦ ।
୨. ପଶ୍ଚିମ ଆଫ୍ରିକାରେ ଓଡ଼ିଆ ଢେଙ୍କି - ଭୁବନେଶ୍ୱର ବେହେରା ।
୩. ଜୀବନୀ ସାହିତ୍ୟ ଏକ ଅଧ୍ୟୟନ - ପଠାଣି ପଟ୍ଟନାୟକ, ଓଡ଼ିଶା ପା.ପୁ.ପ୍ର.ଓ.ପ୍ର. ସଂସ୍ଥା, ଭୁବନେଶ୍ୱର ।
୪. ସମାଲୋଚନାର ଦିଗଦିଗନ୍ତ - ଖଗେଶ୍ୱର ମହାପାତ୍ର, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୫. ସାହିତ୍ୟ ଓ ସମାଲୋଚନା - କୁଞ୍ଜବିହାରୀ ଦାଶ, ଓଡ଼ିଶା ବୁକ୍ ଷୋର, କଟକ ।

### +3 THIRD YEAR SIXTH SEMESTER Core Course - XIV (C-14) - Odia

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### ଓଡ଼ିଆ ଭାଷାର ବ୍ୟାବହାରିକ ପ୍ରୟୋଗ

##### ଚତୁର୍ଦ୍ଦଶ ପଠ

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ଭାଷଣ କଳା, ଦଳଗତ ଆଲୋଚନା ଓ ସାକ୍ଷାତ୍‌କାର ।  
୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ସମ୍ବାଦ ପ୍ରସ୍ତୁତି, ଫିଚର୍ ରଚନା ଓ ବିଜ୍ଞାପନ ପ୍ରସ୍ତୁତି ।  
୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : କାର୍ଯ୍ୟାଳୟରେ ଓଡ଼ିଆ ଲିଖନ ବିଧି : ନଥି ପ୍ରସ୍ତୁତି, ଅନୁବିଧି, ଚିତ୍ତଣୀ, ପ୍ରସ୍ତାବ, ଅନୁମୋଦନ, ଚିଠା ପ୍ରସ୍ତୁତି, ଅଧିସୂଚନା, ବିଜ୍ଞପ୍ତି, ଘୋଷଣା ଲିଖନ, ପତ୍ରଲିଖନ (ବ୍ୟକ୍ତିଗତ, ବ୍ୟାବସାୟିକ ଓ ସମ୍ପାଦକଙ୍କୁ ପତ୍ର) ।  
୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ଓଡ଼ିଆ ଭାଷାର କମ୍ପ୍ୟୁଟରୀକରଣ, ସଫ୍ଟୱେୟାର୍ ଏବଂ ହାର୍ଡୱେୟାର୍, ଓଡ଼ିଆ ଫଣ୍ଟ୍, କୀ-ବୋର୍ଡ୍, ଖାର୍ଡ୍ ପ୍ରୋସେସିଂ, ବନାନ ଓ ବ୍ୟାକରଣଯାଞ୍ଚକ ପ୍ରକ୍ରିୟା, ଓଡ଼ିଆରେ ଇଣ୍ଟରନେଟ୍‌ର ବ୍ୟବହାର, ଓଡ଼ିଆ ସାମାଜିକ ଷ୍ଟେସ୍‌ସାଇଟ୍ ।

#### ସହାୟକ ଗ୍ରନ୍ଥପୁଂଜୀ :

୧. ଯୋଗାଯୋଗମୂଳକ ମାତୃଭାଷା - ବିରଞ୍ଚି ନାରାୟଣ ସାମଲ, ସତ୍ୟନାରାୟଣ ବୁକ୍ ଷୋର, କଟକ ।
୨. ଭାଷଣ କଳା ଓ ଅନ୍ୟାନ୍ୟ ପ୍ରସଙ୍ଗ - କୃଷ୍ଣଚନ୍ଦ୍ର ପ୍ରଧାନ, ସତ୍ୟନାରାୟଣ ବୁକ୍ ଷୋର, କଟକ ।
୩. ସମ୍ବାଦପତ୍ର ଓ ଗଣମାଧ୍ୟମ - ମୃଗାଳ ଚାଟାର୍ଜୀ, ଶେଫାଳୀ କମ୍ପ୍ୟୁନିକେଶନ, ସଞ୍ଚାରମାର୍ଗ, ଡେକାନାଲ ।
୪. ପ୍ରାୟୋଗିକ ଭାଷା ଓ ବିଜ୍ଞାପନର ଦିଗବିଦିଗ - କେ.ବି. ପଟ୍ଟନାୟକ, ଓ.ରା.ପା.ପ୍ର.ଓ.ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ୱର ।
୫. ସଂଯୋଗ ଅନୁବିଧି - ସତ୍ୟେଷ କୁମାର ତ୍ରିପାଠୀ, ନାଲନ୍ଦା, କଟକ ।
୬. କାର୍ଯ୍ୟାଳୟ ନଥି - ଓଡ଼ିଆ ଭାଷା ପ୍ରତିଷ୍ଠାନ, ଭୁବନେଶ୍ୱର ।
୭. ଓଡ଼ିଆରେ କମ୍ପ୍ୟୁଟର ଶିକ୍ଷା - ରୁଦ୍ରନାରାୟଣ ମହାପାତ୍ର, ସତ୍ୟନାରାୟଣ ବୁକ୍ ଷୋର, କଟକ ।
୮. ଓଡ଼ିଆ ଭାଷାରେ କମ୍ପ୍ୟୁଟରର ପ୍ରୟୋଗ - ସୁଧୀର ଚନ୍ଦ୍ର ମହାନ୍ତି, ଏ.କେ.ମିଶ୍ର ପବ୍ଲିକେଶନସ, ଭୁବନେଶ୍ୱର ।
୯. କମ୍ପ୍ୟୁଟରରେ ଓଡ଼ିଆ ଭାଷାର ବ୍ୟବହାର ଓ ପ୍ରୟୋଗ, ରୁଦ୍ରପ୍ରସାଦ ମିଶ୍ର, ଆଜିଅନ୍ତା ପବ୍ଲିଶର୍ସ, ଜଗତସିଂହପୁର ।

### +3 THIRD YEAR FIFTH SEMESTER DSE - I - Odia

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### ଶୃଙ୍ଖଳାକୈନ୍ଦ୍ରିକ ଇଚ୍ଛାଧୀନ ପାଠ ଓଡ଼ିଶାର ସାଂସ୍କୃତିକ ଇତିହାସ ଓ ଓଡ଼ିଆ ସାହିତ୍ୟ (ସମ୍ମାନ) ପ୍ରଥମ ପତ୍ର

- |                         |   |
|-------------------------|---|
| ୧ମ ଏକକ / ଯୁନିଟ୍ - ୧ :   | ଓଡ଼ିଶାର ସଂକ୍ଷିପ୍ତ ଇତିହାସ ।                                |
| ୨ୟ ଏକକ / ଯୁନିଟ୍ - ୨ :   | ଓଡ଼ିଶାରେ ବୌଦ୍ଧ ସଂସ୍କୃତି, ଶୈବ ସଂସ୍କୃତି ଓ ବୈଷ୍ଣବ ସଂସ୍କୃତି । |
| ୩ୟ ଏକକ / ଯୁନିଟ୍ - ୩ :   | ଶ୍ରୀଜଗନ୍ନାଥ ସଂସ୍କୃତି ଓ ଆଦିବାସୀ ସଂସ୍କୃତି ।                 |
| ୪ର୍ଥ ଏକକ / ଯୁନିଟ୍ - ୪ : | ଓଡ଼ିଆ ଓଷା ରୂପ ଓ ପର୍ବପର୍ବାଣୀ ।                             |

#### ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :

୧. ଓଡ଼ିଶାର ସାଂସ୍କୃତିକ ଇତିହାସ - ସଂସ୍କୃତି ବିଭାଗ, ଓଡ଼ିଶା ।
୨. ଓଡ଼ିଶାର ସାଂସ୍କୃତିକ ଇତିହାସ - ପ୍ରବୋଧ କୁମାର ମିଶ୍ର, ବିଦ୍ୟାପୁରୀ, କଟକ ।
୩. ଓଡ଼ିଆ ସାହିତ୍ୟର ସାମାଜିକ ଓ ସାଂସ୍କୃତିକ ଇତିହାସ - ଚିତ୍ତରଞ୍ଜନ ଦାସ, ଓ.ରା.ପା.ପ୍ର.ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ୱର ।
୪. ଓଡ଼ିଶାର ଧର୍ମଧାରା - କାହ୍ନୁଚରଣ ମିଶ୍ର, ଓ.ରା.ପା.ପ୍ର. ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ୱର ।
୫. ବୈଷ୍ଣବ ସାହିତ୍ୟ ତତ୍ତ୍ୱ - ଆଶୁତୋଷ ପଟ୍ଟନାୟକ, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୬. ଓଡ଼ିଆ ସାହିତ୍ୟରେ ଶୈବଧର୍ମ - କୃଷ୍ଣଚନ୍ଦ୍ର ପ୍ରଧାନ, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୭. ଓଡ଼ିଆ ସାହିତ୍ୟରେ ଶ୍ରୀଜଗନ୍ନାଥ - ବାସୁଦେବ ସାହୁ, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୮. ଲୀଳାମୟ ନୀଳାଦ୍ରୀଶ - ସଂପାଦନା, ଭୁବନେଶ୍ୱର ଭଞ୍ଜ ଭାରତୀ ( ୧ମ ଭାଗ ଓ ୨ୟ ଭାଗ) ।
୯. ଓଡ଼ିଆ ରୂପ ସାହିତ୍ୟ - ଅରବିନ୍ଦ ପଟ୍ଟନାୟକ, ଓଡ଼ିଶା ସାହିତ୍ୟ ଏକାଡେମୀ ।
୧୦. ଓଡ଼ିଶାର ଧର୍ମଧାରା - ଡ. ପ୍ରଦୀପ୍ତ କୁମାର ପଣ୍ଡା ।
୧୧. ଲୋକଧର୍ମ ଓ ଲୋକସାହିତ୍ୟ - ଡ. ସଦାନନ୍ଦ ନାୟକ, ବିଜୟ ବୁକ୍ ଷୋର, ବ୍ରହ୍ମପୁର ।

### +3 THIRD YEAR FIFTH SEMESTER DSE - II - Odia

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### ଓଡ଼ିଆ ଶିଶୁ ସାହିତ୍ୟ ଓ ବିଜ୍ଞାନଭିତ୍ତିକ ସାହିତ୍ୟ (ସମ୍ମାନ) ଦ୍ୱିତୀୟ ପତ୍ର

- ୧ମ ଏକକ / ଯୁନିଟ୍ - ୧ : ଓଡ଼ିଆ ଶିଶୁ ସାହିତ୍ୟର ସ୍ୱରୂପ ଓ ପ୍ରକାରଭେଦ  
୨ୟ ଏକକ / ଯୁନିଟ୍ - ୨ : ଓଡ଼ିଆ ବିଜ୍ଞାନଭିତ୍ତିକ ସାହିତ୍ୟର ସ୍ୱରୂପ ଓ ବିକାଶଧାରା ।  
୩ୟ ଏକକ / ଯୁନିଟ୍ - ୩ : ପୃଥ୍ୱୀ ବାହାରେ ମଣିଷ - ଗୋକୁଳାନନ୍ଦ ମହାପାତ୍ର ।  
୪ର୍ଥ ଏକକ / ଯୁନିଟ୍ - ୪ : ବିଚିତ୍ର ବିଶ୍ୱ - ଦେବକାନ୍ତ ମିଶ୍ର ।

#### ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :

୧. ଓଡ଼ିଆ ଶିଶୁ ସାହିତ୍ୟର ଇତିବୃତ୍ତ - ମନୀନ୍ଦ୍ର ମହାନ୍ତି, ପ୍ରେକ୍ଷା ପବ୍ଲିଶର୍ସ, କଟକ ।
୨. ପୃଥ୍ୱୀ ବାହାରେ ମଣିଷ - ଗୋକୁଳାନନ୍ଦ ମହାପାତ୍ର ।
୩. ବିଚିତ୍ର ବିଶ୍ୱ - ଦେବକାନ୍ତ ମିଶ୍ର ।
୪. ଓଡ଼ିଆ ସାହିତ୍ୟ - ମହେଶ୍ୱର ମହାନ୍ତି ।
୫. ଆଧୁନିକ ଶିଶୁ ଓଡ଼ିଆ ସାହିତ୍ୟ - ଜାନକୀ ବଲ୍ଲଭ ମହାନ୍ତି, ଗ୍ରନ୍ଥମନ୍ଦିର, କଟକ ।

### +3 THIRD YEAR SIXTH SEMESTER DSE - III - Odia

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### ଓଡ଼ିଆ ପଦ୍ୟ ସାହିତ୍ୟ (ସମ୍ମାନ) ତୃତୀୟ ପତ୍ର

- ୧ମ ଏକକ / ଯୁନିଟ୍ - ୧ : ଜଗନ୍ନାଥ ଜଣାଣ - କବିସୂର୍ଯ୍ୟ ବଳଦେବ ରଥ  
ଆକାଶ ପ୍ରତି - ମଧୁସୂଦନ ରାଓ  
ଯାତ୍ରା ସଂଗୀତ - ବୈକୁଣ୍ଠନାଥ ପଟ୍ଟନାୟକ  
ମୌସୁମୀ - ରାଧାନୋହନ ଗଡ଼ନାୟକ  
୨ୟ ଏକକ / ଯୁନିଟ୍ - ୨ : କ୍ଷୁଦ୍ରଗଳ୍ପ -  
ଡିମିରି ଫୁଲ - ଅଶ୍ୱଳ ମୋହନ ପଟ୍ଟନାୟକ  
ଭଙ୍ଗା ଖେଳନା - କିଶୋରୀ ଚରଣ ଦାଶ

	ଅନ୍ଧ ରାତିର ସୂର୍ଯ୍ୟ - ମହାପାତ୍ର ନୀଳମଣି ସାହୁ
	ବାସୀ ମଢ଼ା - ସୁରେନ୍ଦ୍ର ମହାନ୍ତି
୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ :	ପ୍ରବନ୍ଧ ଓ ସମାଲୋଚନା - ମହାସ୍ତୋତ - ବିଶ୍ଵନାଥ କର ଚିତ୍ରଗ୍ରୀବର ଉଚିତ ଅଭିମାନ - ଗୋଲୋକ ବିହାରୀ ଧଳ ତିନୋଟି ସମାଲୋଚନା - ବାଉରୀବନ୍ଧୁ କର, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ
୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ :	ଉପନ୍ୟାସ - ମାଟିର ମଣିଷ - କାଳିନ୍ଦୀ ଚରଣ ପାଣିଗ୍ରାହୀ

**ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :**

୧. ଓଡ଼ିଆ ଉପନ୍ୟାସ ସାହିତ୍ୟର ପରିଚୟ, ସଂ. ପଠାଣୀ ପଟ୍ଟନାୟକ ଓ ଭୋଳାନାଥ ରାଉତ, ଓଡ଼ିଶା ବୁକ୍ ଷୋର, କଟକ ।
୨. କାଳିନ୍ଦୀ ଚରଣଙ୍କ କଥାସାହିତ୍ୟ - ବିଷ୍ଣୁପ୍ରିୟା ଓଡ଼ା, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ
୩. ଓଡ଼ିଆ ପ୍ରବନ୍ଧ ସାହିତ୍ୟ - ବାଉରୀବନ୍ଧୁ କର ।
୪. ଓଡ଼ିଆ ସମାଲୋଚନା ସାହିତ୍ୟ - ଓଡ଼ିଶା ସାହିତ୍ୟ ଏକାଡେମୀ ।
୫. ମାଟିର ମଣିଷ - କାଳିନ୍ଦୀ ଚରଣ ପାଣିଗ୍ରାହୀ ।

### +3 THIRD YEAR SIXTH SEMESTER DSE - IV - Odia

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### ପ୍ରବନ୍ଧ ପ୍ରସ୍ତୁତି ଓ ଉପସ୍ଥାପନା (ସମ୍ମାନ) ଚତୁର୍ଥ ପତ୍ର

ଅନୁବାଦ ବା ସଂପାଦନା ବା ଓଡ଼ିଆ ସଂସ୍କୃତି ଉପରେ ଅନୁ୍ୟନ ୫୦ ପୃଷ୍ଠା ମଧ୍ୟରେ ନିବନ୍ଧ ପ୍ରସ୍ତୁତି ।  
କିମ୍ବା

ସମାଲୋଚନା, ଅନୁବାଦ, ସମ୍ପାଦନା, ଗବେଷଣା ।

**ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :**

୧. ଗବେଷଣା ଅନୁବାଦ ସମ୍ପାଦନା କଳା - ସଂ ନାରାୟଣ ସାହୁ, ସତ୍ୟନାରାୟଣ ବୁକ୍ ଷୋର, କଟକ ।
୨. ଗବେଷଣା ପ୍ରବିଧି - ଡ. ସୁବୋଧ ଚାଟାର୍ଜୀ, ବିଦ୍ୟାପୁରୀ, କଟକ ।
୩. ଗବେଷଣା ପ୍ରକରଣ - ସଂପାଦନା ଓ ଅନୁବାଦ ପ୍ରବିଧି - କୃଷ୍ଣଚନ୍ଦ୍ର ପ୍ରଧାନ ଓ ନିର୍ମଳା କୁମାରୀ ରାଉତ ।

### +3 SECOND YEAR THIRD SEMESTER GE - III - Odia

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### ଅନ୍ତର୍ଦ୍ଧିଷୟ ଇଚ୍ଛାଧୀନ ପାଠ ଗଣମାଧ୍ୟମ, ବେତାର କଳା ଓ ବିଜ୍ଞାପନ କଳା ତୃତୀୟ ପତ୍ର

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ଗଣମାଧ୍ୟମ ଓ ତା'ର ପ୍ରକାର ଭେଦ ।  
୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ବିଜ୍ଞାପନର ପରିଭାଷା, ପରିସର ଓ ଉଦ୍ଦେଶ୍ୟ ।  
୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ସ୍ତମ୍ଭ ଲିଖନ ଓ ଫିଚର ଲିଖନ ।  
୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ପତ୍ରଲିଖନ (ବାଣିଜ୍ୟିକ, କାର୍ଯ୍ୟାଳୟ ଭିତ୍ତିକ, ବ୍ୟକ୍ତିଗତ ଓ ସମ୍ପାଦକଙ୍କୁ ପତ୍ର) ।

#### ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :

୧. ଓଡ଼ିଆ ସାହିତ୍ୟକୁ ଆକାଶବାଣୀର ଦାନ - ବ୍ରଜମୋହନ ମହାନ୍ତି, ଓଡ଼ିଶା ବୁକ୍ ଷୋର୍ ।
୨. ସମ୍ପାଦକପତ୍ର ଓ ଗଣମାଧ୍ୟମ - ମୃଣାଳ ଚାଟ୍ଟାର୍ଜୀ, ଶେଫାଳୀ କମ୍ପ୍ୟୁନିକେଶନ, ଡେକାନାଲ ।
୩. ସମ୍ପାଦ ଓ ସାମ୍ବାଦିକତା - ଚନ୍ଦ୍ରଶେଖର ମହାପାତ୍ର, ଓ.ରା.ପା.ପ୍ର. ଓ ପ୍ରକାଶନ ସଂସ୍ଥା, ଭୁବନେଶ୍ୱର ।
୪. ସଂଯୋଗ ଅନୁବିଧି - ସନ୍ତୋଷ କୁମାର ତ୍ରିପାଠୀ, ନାଲନ୍ଦା, କଟକ ।
୫. ଯୋଗାଯୋଗମୂଳକ ମାତୃଭାଷା - ବିରଞ୍ଚ ନାରାୟଣ ସାମଲ, ସତ୍ୟନାରାୟଣ ବୁକ୍ ଷୋର୍ ।
୬. ଯୋଗାଯୋଗର ଭାଷା - ସୁଧୀର ଚନ୍ଦ୍ର ମହାନ୍ତି, ପ୍ରାଚୀ ପ୍ରକାଶନ, କଟକ ।

### +3 SECOND YEAR FOURTH SEMESTER GE - IV - Odia

Time : 3 Hrs.  
Crdit : 6

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### ଅନ୍ତର୍ଦ୍ଧିଷୟ ଇଚ୍ଛାଧୀନ ପାଠ ସାହିତ୍ୟ ଅଧ୍ୟୟନ ଚତୁର୍ଥ ପତ୍ର

- ୧ମ ଏକକ / ୟୁନିଟ୍ - ୧ : ଗଳ୍ପ ସାହିତ୍ୟ :  
ବୁଢ଼ା ଶଙ୍ଖାରି - ଲକ୍ଷ୍ମୀକାନ୍ତ ମହାପାତ୍ର  
ମାଗୁଣୀର ଶଗଡ଼ - ଗୋଦାବରୀଶ ମହାପାତ୍ର  
ଶିକାର - ଭଗବତୀ ଚରଣ ପାଣିଗ୍ରାହୀ ।
- ୨ୟ ଏକକ / ୟୁନିଟ୍ - ୨ : ଉପନ୍ୟାସ ସାହିତ୍ୟ :  
ଶାସ୍ତି - କାହ୍ନୁଚରଣ ମହାନ୍ତି, ଫ୍ରେଣ୍ଡସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।



- ୩ୟ ଏକକ / ୟୁନିଟ୍ - ୩ : ନାଟକ :  
ଶେଷ କଥା - ଓଃ ନାରାୟଣ ସାହୁ, ସତ୍ୟନାରାୟଣ ବୁକ୍ ଷୋର, କଟକ ।
- ୪ର୍ଥ ଏକକ / ୟୁନିଟ୍ - ୪ : ରମ୍ୟ ରଚନା :  
ବାଇ ମହାନ୍ତି ପାଞ୍ଜି (ପ୍ରଥମ ବିଡ଼ା) - ଗୋପାଳ ଚନ୍ଦ୍ର ପ୍ରହରାଜ  
ବରୁଆ - ଗୋବିନ୍ଦ ତ୍ରିପାଠୀ  
ସାଧୁ ସଙ୍ଗ - ଚୌଧୁରୀ ହେମକାନ୍ତ ମିଶ୍ର ।

#### ସହାୟକ ଗ୍ରନ୍ଥସୂଚୀ :

୧. କାହ୍ନୁଚରଣ ବିଶେଷାଙ୍କ, କୋଣାର୍କ, ଓଡ଼ିଶା ସାହିତ୍ୟ ଏକାଡେମୀ ।
୨. ଓଡ଼ିଆ କ୍ଷୁଦ୍ରଗଳ୍ପର ଇତିହାସ, ବୈଷ୍ଣବ ଚରଣ ସାମଲ, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୩. ଓଡ଼ିଆ କଥାସାହିତ୍ୟର କଥା ଓ ରମ୍ୟରଚନା - ମହାପାତ୍ର ନୀଳମଣି ସାହୁ, ଓଡ଼ିଶା ବୁକ୍ ଷୋର, କଟକ ।
୪. ଶାସ୍ତି - କାହ୍ନୁଚରଣ ମହାନ୍ତି, ଫ୍ରେଣ୍ଡ୍‌ସ୍ ପବ୍ଲିଶର୍ସ, କଟକ ।
୫. ଉତ୍ତର ସତୁରୀ ଓଡ଼ିଆ ନାଟକ - ହେମନ୍ତ କୁମାର ଦାସ, ଗ୍ରନ୍ଥ ମନ୍ଦିର, କଟକ ।
୬. ଶେଷ କଥା - ନାରାୟଣ ସାହୁ, ସତ୍ୟନାରାୟଣ ବୁକ୍ ଷୋର, କଟକ ।

# PHILOSOPHY

## +3 FIRST YEAR FIRST SEMESTER

### Core Paper - 1

#### GENERAL PHILOSOPHY

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

#### Unit-I:

Definition, Nature & Function of Philosophy, and Philosophy in relation to other modes of thinking like Science & Religion.

#### Unit-II:

Metaphysics: Monism, Pluralism, Realism, Idealism, Metaphysical issues: Substance, Universal, Mind & Body.

#### Unit-III:

Problem of knowledge: What is knowledge? Sources of knowledge: Empiricism, Rationalism, Theories of Truth: Correspondence, coherence and pragmatic theory

#### Unit-IV:

Problems of Ethics: (1) Theories of Goodness: The good and the evil (2) Theories of conduct: Egoism & Altruism.

#### Prescribed Book:

1. John Hospers: An Introduction to Philosophical Analysis(relevant portions)
2. J.N. Sinha : Introduction to Philosophy

#### Reference book:

- (1) G.T.W. Patrick: Introduction to Philosophy
- (2) A.C. Ewing: The Fundamental Questions of Philosophy
- (3) G.W. Cunningham: Problems of Philosophy
- (4) Richard Taylor: Metaphysics
- (5) D.W. Hamlyn: Metaphysics

## +3 FIRST YEAR FIRST SEMESTER

### Core Paper - 2

#### LOGIC AND SCIENTIFIC METHOD

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

#### Unit-I:

Definition of Logic, Laws of Thought, Deductive and Inductive Arguments, Validity & Soundness of Arguments.

#### Unit-II:

Classification of propositions (from stand-point of Quality & Quantity), Distribution of Terms, Square of oppositions, Existential Import of Propositions, Interpretation of categorical proposition.

**Unit-III:**

Inference- Immediate Inference (Conversion and Obversion), Mediate Inference (Syllogism): Figure & Moods, Testing of Validity of Arguments by syllogistic Rules.

**Unit-IV:**

Inductive Reasoning & Scientific Enquiry: Causation & Mills Experimental Methods.

**Prescribed Book:**

1. Cohen & Nagel- Introduction to Logic & Scientific Method.

**Reference Book:**

1. Copi, Cohen & Mac Mahan- Introduction to Logic (14th Edition)
2. Alex Rosenberg- Philosophy of Science: A Contemporary Introduction
3. John Hospers: An Introduction to Philosophical Analysis.

**+3 FIRST YEAR SECOND SEMESTER****Core Paper - 3****SYSTEMS OF INDIAN PHILOSOPHY - I**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I:**

Salient Features of Indian Philosophy, Basic concepts like Rta, Rna, Carvakas - Epistemology and Metaphysics (Lokayatamata)

**Unit-II:**

Jainism - Syadvada, Anekantavada, Jaina ethics (concept of Triratna)

**Unit-III:**

Buddhism: Four Noble Truths, Doctrine of Momentariness, Dependant Origination, No Soul Theory, Nirvana

**Unit-IV:**

Samkhya-Dualistic System: Purusa, Prakriti, Theory of Causation, Theory of Evolution, Astanga Yoga of Patanjali

**Prescribed Books:**

- (1) Dutta&Chatterjee - An Introduction to Indian Philosophy (2) C. D. Sharma - A Critical Survey of Indian Philosophy

**Reference Books:**

- (1) R. K. Puligandla- Fundamentals of Indian Philosophy. (2) M. Hiriyana- Outlines of Indian Philosophy
  - (3) J. N. Sinha- Indian Philosophy
  - (4) S. Radhakrishnan- Indian Philosophy(Vol.1 & 2)
-

**+3 FIRST YEAR SECOND SEMESTER****Core Paper - 4  
SYMBOLIC LOGIC**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Unit-I:**

Chapter- I Introduction  
Chapter- II-The Calculus of Propositions

**Unit- II:**

Chapter-III Calculus of Propositions (Sec 1 to 6)

**Unit-III:**

Chapter-IV Calculus of Propositions (Sec 7 to 9)  
The Elements of Predicate Calculus (Section 1 to 9 of chapter V)

**Unit-IV:**

Appendix (Sec-1 to Sec-4)

**Prescribed Books:**

Basson & O' Corner: Introduction to Symbolic Logic

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 5  
ETHICS**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Unit-I:**

Definition, Nature & Scope of Ethics, Ethics in relation to Politics, Sociology and Religion

**Unit-II:**

Distinction between moral and non-moral action, Moral and factual judgement. Object of Moral judgement.

**Unit-III:**

Theories of Morality: Hedonism, Utilitarianism, Rigorism, Perfectionism

**Unit-IV:**

Theories of punishment; Retributive, Reformative and Preventive theory.

**Prescribed Book:**

(1) J. N. Sinha- A Manual of Ethics

**Reference Books:**

- (1) W. Frankena– Ethics  
(2) William Lily- An Introduction to Ethics
-

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 6****HIISTORY OF GREEK PHILOSOPHY**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I:**

Nature of Greek Philosophy: What is Philosophy ? Origin, development and Salient features of early Greek Thought

**Unit-II:**

Pre-Socratic Thought: The Being of Parmenides, Becoming of Heraclitus and Atomism of Democritus

**Unit-III:**

Socrates: Problem before Socrates, Dialectical method, epistemology and ethics of Socrates.

**Unit-IV:**

Plato: Theory of Knowledge, Theory of Idea, and Theory of Soul Aristotle: Theory of Form and Matter, Theory of Causation.

**Prescribed Book:**

- (1) W. T. Stace - Greek Philosophy

**Reference books:**

- (1) Burnet - Greek Philosophy
- (2) B. A. G, Fuller - A History of Greek Philosophy
- (3) B. Russell - A History of Western Philosophy
- (4) Y. Masih - A Critical History of Philosophy

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 7****SYSTEMS OF INDIAN PHILOSOPHY (II)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I:**

Upanisadic view of Atman and Brahman, Vidya and Avidya, Para vidya and Aparavidya

**Unit-II:**

Nyaya theory of Inference, Prama and Aprama, Concept of God

**Unit-III:**

Vaishesika: Categories (Padarthas),Nyaya: Pramanas

**Unit-IV:**

Sankara and Ramanuja's view on Maya, Jiva, Isvara, Brahman and Liberation

**Prescribed Books: -**

1. Dutta and Chatterjee: An Introduction to Indian Philosophy
2. C.D. Sharma: A Critical Survey of Indian Philosophy
3. M. Hiriyana: Outlines of Indian Philosophy

**Books for Reference: -**

1. J.N Sinha: Indian Philosophy
2. R.K Puligandla: Fundamentals of Indian Philosophy
3. S. Radhakrishnan: Indian Philosophy (Vol-I and II)

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 8****CONTEMPORARY INDIAN PHILOSOPHY**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**UNIT-I:**

Tagore: Nature of man God, Reality and Religion, Vivekananda: The concept of man, Universal Religion and Practical Vedanta

**Unit-II:**

Sri Aurobindo: World, Maya, Evolution and Reality (Sacchidananda), Integral yoga

**Unit- III:**

Gandhi: Truth, God and Non-violence, Ideal social order Dr B.R. Ambedkar: Vision of a just society

**Unit- IV:**

S. Radhakrishnan: Man, Reality and Religion, J Krishnamurti: Man and Nature, Human Crisis

**Prescribed Book: -**

1. B.K Lal: Contemporary Indian Philosophy

**Books for Reference: -**

1. H. Sahoo (Ed): Contemporary Indian Philosophy
2. T.M.P Mahadevan and V. Saroja: Contemporary Indian Philosophy

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 9****HISTORY OF MODERN EUROPEAN PHILOSOPHY**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit- I**

Bacon: Theory of Idola, Inductive Method Descartes: Universal Doubt, Cogito-Ergo-Sum, Existence of God

**Unit-II**

Spinoza: Substance, Attribute and Modes Leibnitz: Theory of Monads, Pre-established harmony

**Unit- III**

Locke: Refutation of Innate ideas, Sources of knowledge Berkeley: Subjective idealism, Eest- percipii Hume: Impression and Idea, Skepticism and Causality

**Unit- IV**

Kant: Reconciliation between empiricism and Rationalism Possibility of Synthetic-a priori judgment

**Prescribed Book: -**

1. R.K. Pati: History of Modern European Philosophy

**Books for Reference: -**

1. Y Masih: History of Western Philosophy
2. Ira Sen Gupta: A History of Western Philosophy
3. Frank Thilly: History of Western Philosophy

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 10****PHILOSOPHY OF LANGUAGE**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I**

Word Meaning: Meaning of the word "meaning", Ambiguity and Vagueness

**Unit- II**

Definitions: Denotative, Connotative and Ostensive Defining and Accompanying Characteristics Stipulative, Reportive and Persuasive definition

**Unit- III**

Sentence Meaning: Proposition and sentence Word Meaning and sentence meaning, Criteria of sentence meaning

**Unit-IV**

Concept: Nature and source Truth: Correspondence, Coherence and Truth as it works

**Prescribed book: -**

1. John Hospers: An Introduction to Philosophical Analysis

**Books for Reference: -**

1. Alston: Philosophy of Language
2. Das P: Life Language & Reality: An Introduction to Philosophy of Language

**+3 THIRD YEAR FIFTH SEMESTER****Core Paper - 11****WESTERN CLASSICS: MEDITATIONS OF RENE DESCARTES**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit- I**

Meditation I: Sceptical Doubts Meditation II: Cogito-ergo-sum, Sum- res-cogitans, The Wax argument

**Unit- II**

Meditation III: Clear and Distinct perceptions Theory of Ideas, Existence of God

**Unit- III**

Meditation IV: God is no deceiver, will, intellect and possibility of Error Meditation V: Essence of Material things, Existence of God

**Unit- IV**

Meditation- VI Mind- body Dualism, Primary and Secondary Quality

**Prescribed Book: -**

1. Rene Descartes: Meditations on first Philosophy

**Books for Reference: -**

1. Rae Langton: A Study Guide to Descartes Meditations
2. Amelie Rorty: Essays on Descartes Meditations

**+3 THIRD YEAR FIFTH SEMESTER  
Core Paper - 12  
INDIAN TEXT: ISA UPANISAD**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I**

What are Upanisads ? Place of Upanisad in Indian Philosophy and Isa Upanisad

**Unit-II**

Mantra 1 to 9

**Unit- III**

Mantra 10 to 14

**Unit- IV**

Mantra 15 to 18

**Prescribed Book: -**

1. Swami Gambhirananda, Eight Upanisads (vol-1) God and Reality, Advaita Ashrama, Calcutta

**Books for Reference: -**

1. S. Radhakrishnan: The Principal Upanisads
2. Satyabadi Mishra: Central Philosophy of the Upanisads
3. Aditya ku. Mohanty: Upanisads Rediscovered



**+3 THIRD YEAR SIXTH SEMESTER****Core Paper - 13****SOCIAL & POLITICAL PHILOSOPHY**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I:**

Sociality, Social science & Social laws, Philosophy of Social Science- Relation between Individual & Society (Mechanical, Organic & Idealistic view)

**Unit- II:**

Political Ideals- Justice, Liberty, Equality Political Doctrines- Humanism, Secularism, Feminism, Philosophy of Ecology.

**Unit- III:**

Democratic Ideals- Democratic Government, Conditions for Successful Functioning of Democracy, Human Rights

**Unit-IV:**

Political Ideologies- (a) Anarchism (b) Marxism (c) Sarvodaya

**Prescribed Books-**

1. O.P. Gauba - An Introduction to Political Philosophy.

**Reference Books-**

1. Mackenzie: Social & Political Philosophy
2. Sukhvir Singh- Social and Political Philosophy
3. Sushila Ramaswamy- Political Theories: Ideas & Concepts
4. D.D. Raphael- Problems of Political Philosophy
5. Patitapaban Das- Social and Political Philosophy

**+3 THIRD YEAR SIXTH SEMESTER****Core Paper - 14****APPLIED ETHICS**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit- I:**

What is Applied Ethics: Nature & Scope of Applied Ethics- Ethical Theories- Deontology, Utilitarianism, Relativism & Subjectivism

**Unit-II:**

Taking Life: Animals- Animals rights, Reverence for life Taking Life: Humans - Types of Euthanasia, Abortion

**Unit-III:**

Environmental Ethics: Anthropocentrism, Non-anthropocentrism, Deep Ecology

**Unit-IV:**

Professional Ethics: (a) Business Ethics- Rights and Obligations, Justice & Honesty in Ethics. (b) Bio-medical Ethics- Hippocratic Oath, Rights and Obligations of Health- Care Professionals, Doctor- Patient-Relationship.

**Prescribed Book-**

1. Peter Singer- Practical Ethics

**Reference Books-**

1. J. Jagadeb- Bio-medical Ethics
2. Tom Regan-Animal Rights
3. J. P. Theroux- Ethics: Theory & Practice
4. P.K Mohapatra :Ethics and Society

**+3 THIRD YEAR FIFTH SEMESTER****DSE - 1****PHILOSOPHY OF BHAGVAD GITA**

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

**Unit-I:**

Dharma:-Varnadharma, Swabhava, Swadharma- Paradhama

**Unit-II:**

Karma:-Classification of Karma; Agency Niskama Karma, Lokasamgraha, Relation between Karma Yoga and Jnana yoga

**Unit-III:**

Jnana:- Distinction between Jnana and Vijnana. Criteria of True Knowledge (Buddhi Yoga &amp; JnanaYoga), Kshetra, Kshetrajna, Purusottama. Sattvika, Rajasika and TamasikaJnana

**Unit-IV:**

Bhakti Yoga:- Four kinds of devotee, Characteristics of Ideal Bhakti- Saranagati &amp; Prapattikrupa(grace); Relation between Bhakti Yoga &amp; Jnana Yoga

**Prescribed Books-**

The Bhagabad Gita- S. Radhakrishnan (Trs&amp;Ed)

**Reference Books-**

1. Concept of Yoga in the Gita- S. C. Panigrahi
2. Bhagabad Gita & Modern Life- K. M. Munshi& R. R. Diwakar
3. The Lord Speaks (2016)- B. K. Tripathy
4. SrimadBhagabad Gita Bhasya of Sri Sankaracharya- A. G. K. Warriar(Trs)
5. The Ethical Philosophy of Gita- P. N. Srinivasachari

**+3 THIRD YEAR FIFTH SEMESTER****DSE - 2****PHILOSOPHY OF RELIGION**

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

**Unit-I:**

Judaic- Christian Concept of God (Chapter-1) Introduction to Philosophy of Religion Grounds for belief in existence of God (Chapter- 2)

**Unit-II:**

Grounds for belief against existence of God (Chapter- 3)

**Unit-III:**

The Problem of Evil (Chapter- 4)

**Unit-IV:**

Problems of Religious Language

**Prescribed Book-**

1. John Hick- Philosophy of Religion

**Reference Books-**

1. Y. Masih-Introduction to Religious Philosophy
2. Arvind Sharma- Philosophy of Religion

**+3 THIRD YEAR SIXTH SEMESTER****DSE - 3****GANDHIAN STUDIES**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Unit-I :**

Gandhi's concept of a Just society. Basic Ideals- Truth, Non-violence, Equality and Human Freedom.

**Unit-II:**

Gandhi's idea of Social Engineering, Constructive Programme. Fight against social Evils (Injustice, Caste system, Untouchability) upliftment of Women.

**Unit-III:**

Social Ideals of Gandhi - Sarvodaya, Criticism of industrial civilization, Grama Swaraj, Anarchism, Trusteeship.

**Unit-IV:**

Method of Social Action, Satyagraha- Kinds of Satyagraha, Methods of Satyagraha. Mercy-Killing, Ideals of Basic Education. Basic Norms & Method of Education, Education for a Happier & Peaceful Society. World Peace.

**Prescribed Book-**

The Philosophy of Mahatma Gandhi, by:D.M Datta

**Reference Books-**

1. Social & Political Thought of M.K. Gandhi-
  2. Jaya Tanuja Bandopadhyay
  3. Mahatma Gandhi- R.R. Diwakar
-

**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 4**  
**RECENT WESTERN PHILOSOPHY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Unit-1:**

Arther, Schopenhauer: The world as representation. The world as will, theory of perception, Ethics

**Unit-2:**

Nietzsche: Critique of enlightenment Perspectivism, Appollonian and Dyonysonian will to power, concept of superman

**Unit-3:**

**Sartre, J.P.:** Concept of Freedom, Bad-faith, Humanism

**Unit-4:**

**William James:** Meaning & Truth, Varieties of Religious experience

**Recommended Text**

1. B.A.G Fuller&McMurrin , A History of Philosophy
2. D.M.Dutta Chief Currents of Contemporary Philosophy
3. Frank Thilly, History of Western Philosophy

**Reference Book**

1. M.K. Bhadra, A critical Survey of Phenomenology & Existentialism
2. H.J. Blackham, Six Existential Thinkers
3. W.Mc. Neil& K.S. Feldman, Continental Philosophy: An Anthology

**Project (Optional)**

**Eligibility:**

Students who have scored more than 60% marks in Semester –I, II, III &IV are eligible to opt for project paper. The student has to prepare a project of his own selecting a topic from philosophical perspective (some broad themes are given below). The dissertation carries 60 marks which will be evaluated by an external examiner and he / she will face a viva-voice test of 40 marks by an external examiner along with his / her supervisor of the concerned project.

1. Philosophy, value and culture
  2. Existentialism and Phenomenology
  3. Philosophy of religion
  4. Philosophy of Language
  5. Socio-Political Philosophy
  6. Indian Philosophy/Contemporary Indian Philosophy
  7. Ethics/Applied ethics
  8. Philosophy of Mind
-

**+3 FIRST YEAR FIRST SEMESTER**  
**GE - 1**  
**SYMBOLIC LOGIC**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Unit 1:**

Chapter 1- Introductory, Chapter II- The Calculus of Propositions

**Unit II:**

Chapter III- The Calculus of Propositions (Sec 1 to 6)

**Unit III:**

Chapter IV- The Calculus of Propositions (Sec 7 to 9), Chapter V- The Elements of Predicate Calculus

**Unit IV:**

Appendix Sec 1 to Sec 4

**Prescribed Book: -**

1. Basson and O. Conner: Introduction to symbolic Logic

**+3 FIRST YEAR FIRST SEMESTER**  
**GE - 2**  
**INDIAN PHILOSOPHY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Unit I:**

Salient features of Indian philosophy and key concepts, Carvaka epistemology and metaphysic, Jainism Syadvada and Anekantavada

**Unit II:**

Buddhism- The Four Noble Truth, Doctrine of Dependent origination, No Soul Theory, Nirvana

**Unit III:**

Samkhya- Purusa, Prakrti, Theory of Evolution Yoga- Patanjali's CittaVrttiNirodha, Astanga Yoga

**Unit IV:**

Nyaya- Theory of Inference, Vaisheshika- Padarthas (Categories)

**Prescribed Books:-**

1. Dutta and Chatterjee: An Introduction to Indian Philosophy

**Reference Books:-**

1. C.D Sharma: A critical Survey of Indian Philosophy
  2. G.C Nayak: Bharatiya Darshana (Odia)
  3. B.B. Choudhury: Bharatiya Darshana Ruparekha( Odia Translated book)
-

**+3 SECOND YEAR THIRD SEMESTER**  
**GE - 3**  
**HISTORY OF MODERN EUROPEAN PHILOSOPHY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Unit I :**

Bacon: Theory of Idolas, Inductive Method Descartes: Methods of Doubt, Cogito ergo Sum

**Unit II:**

Spinoza: Substance, Attributes and Modes Leibnitz: Theory of Monads, Pre-Established Harmony

**Unit III:**

Locke: Refutation of Innate Ideas, Theory of Knowledge Berkeley: Esse est percipi, Subjective Idealism

**Unit IV:**

Hume: Ideas and Impressions Skepticism, Kant: Reconciliation of Empiricism and Rationalism

**Prescribed Books: -**

1. R.K Pati- A History of Modern European Philosophy

**Reference Books: -**

1. Ira Sengupta- A History of Western Philosophy
2. Barlingay and Kulkarni- A History of Western Philosophy
3. Ray and Das-Paschatya Darshanra Itihasa
4. Y. Masih- A Critical History of Western Philosophy
5. Falkenberg- A History of Philosophy

**+3 SECOND YEAR THIRD SEMESTER**  
**GE - 4**

**ETHICS: THEORY AND PRACTICE**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Unit I:**

Definition, Nature and Scope of Ethics, Distinction between moral and Non-moral action.

**Unit II:**

Distinction between factual and moral judgement, objects of moral Judgement.

**Unit III:**

Moral Standards: Hedonism, Mill's Utilitarianism, And Kant's Rigorism and Perfectionism.

**Unit IV:**

Environmental Ethics: Anthropocentrism and Non- Anthropocentrism Bio-centric Egalitarianism, Deep Ecology, Responsibility for future Generation.

**Prescribed Book: -**

1. J.N. Sinha- A Manual of Ethics
2. Peter Singer- Practical Ethics

**Reference Book:**

1. H. Sahoo(ed) Ethics theory and practice.

# POLITICAL SCIENCE

## +3 FIRST YEAR FIRST SEMESTER

### Core Paper - 1

#### UNDERSTANDING POLITICAL THEORY

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

#### Introduction :

This course is divided into two sections. Section 'A' introduces the students to the idea of political theory, its history and approaches and an assessment of its critical and contemporary trends. Section 'B' is designed to reconcile political theory and practices through reflections on the ideas and practices related to democracy.

#### UNIT-I : Introducing Political Theory

- (i) What is Politics: Theorizing the 'Political'
- (ii) Traditions of Political Theory: Liberal, Marxist, Anarchist and Conservative
- (iii) Approaches to Political Theory: Normative, Historical, Behavioural and Post-behavioural

#### UNIT-II : Critical and Contemporary Perspectives in Political Theory

- (i) Theories of Feminism: Feminist and Postmodern
- (ii) Modernism and Post-modernism

#### UNIT-III: The Grammar of Democracy I

- (i) Democracy: Liberal and Marxist.
- (ii) Procedural Democracy and its critique

#### UNIT-IV: The Grammar of Democracy II

- (i) Deliberative Democracy
- (ii) Participation and Representation

#### Text Books

1. Bhargava, R. and Ashok Acharya (2008) '*Political Theory: An Introduction*'. New Delhi: Pearson Longman.
2. Baral JK, Padhi AP, Hazary SC, Baral s (2016), "Political Theory", Vidyapuri Cuttack.
3. Vinod, M.J and Deshpande, Meena ( 2013) '*Contemporary Political Theory*', PHI, New Delhi.
4. Verma, S. P. (1996) '*Modern Political Theory*', Vikash Publishing, 3rd Reprint, New Delhi.
5. Ramaswamy, Sushila (2010), '*Political Theory: Ideas and Concepts*', PHI Learning, New Delhi.
6. Bellamy, R. (1993), (ed.) '*Theories and Concepts of Politics*'. New York: Manchester University Press.
7. Marsh, D. and Stoker, G. (eds.) '*Theory and Methods in Political Science*'. London: Macmillan.
8. Heywood, Andrew (2016) (Reprint) '*Political Theory: An Introduction*', Palgrave, UK.

#### Further Reading

1. Heywood, Andrew (2016) (Reprint) '*Political Theory: An Introduction*', Palgrave, UK.
  2. Kukathas, Ch. and Gaus, G. F. (2004) (eds.) '*Handbook of Political Theory*'. New Delhi, Sage.
  3. Vincent, A. (2004) '*The Nature of Political Theory*'. New York: Oxford University Press.
-

4. Mckinnon, C. (ed.) (2008) 'Issues in Political Theory', New York: Oxford University Press.
5. Arblaster, A. (1994) 'Democracy', (2nd Edition), Buckingham: Open University Press. Parekh, B. (2000), 'Rethinking Multiculturalism: Cultural Diversity and Political Theory', Macmillan Press, London.

### +3 FIRST YEAR FIRST SEMESTER

#### Core Paper - 2

#### CONSTITUTIONAL GOVERNMENT AND DEMOCRACY IN INDIA

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

#### Introduction:

This course acquaints students with the Constitutional design of state structures and institutions, and their actual working over time. The Indian Constitution accommodates conflicting impulses (of liberty and justice, territorial decentralization and a strong union, for instance) within itself. The course traces the embodiment of some of these conflicts in constitutional provisions, and shows how these have played out in political practice. It further encourages a study of state institutions in their mutual interaction, and in interaction with the larger extra-constitutional environment.

#### UNIT-I : The Constituent Assembly and the Constitution

- i) Formation and working of the Constituent Assembly
- ii) The Philosophy of the constitution: The Preamble and its Features.
- iii) Fundamental Rights, Directive Principles of State Policy, Fundamental Duties

#### UNIT-II : Organs of Government

- i) The Legislature and the Executive
- ii) The Judiciary: Supreme Court and High Courts

#### UNIT-III : Federalism

- i) Federalism: Centre-State relations
- ii) Recent trends in federalism

#### UNIT-IV : Decentralization

- i) Panchayati Raj Institutions: Composition, Powers and functions of Gram Panchayat, Panchayat Samiti and Zilla Parishad.
- ii) Municipalities: Composition, Powers and function of Municipal Corporation, Municipal Council and Notified Area Council

#### Text Books

1. G. Austin, (2010) 'The Indian Constitution: Cornerstone of a Nation', New Delhi, Oxford University Press, 15th print.
2. R. Bhargava (ed.) 'Politics and Ethics of the Indian Constitution', New Delhi, Oxford University Press.
3. D. Basu, (2012) 'Introduction to the Constitution of India', New Delhi, Lexis Nexis.
4. S. Chaube, (2009) 'The Making and Working of the Indian Constitution', New Delhi, National Book Trust.



5. G. Austin, (2000) 'Working a Democratic Constitution', New Delhi, Oxford University Press.
6. B. Shankar and V. Rodrigues, (2011), 'The Indian Parliament: A Democracy at Work', New Delhi: Oxford University Press.
7. P. Mehta and N. Jayal (2010) (eds.) 'The Oxford Companion to Politics in India', New Delhi, Oxford University Press.

### Reference Books

1. Mehra and G. Kueck (eds.) 'The Indian Parliament: A Comparative Perspective', New Delhi, Konark.
2. B. Kirpal et.al (eds.) 'Supreme but not Infallible: Essays in Honour of the Supreme Court of India', New Delhi, Oxford University Press.
3. L. Rudolph and S. Rudolph, (2008) 'Explaining Indian Institutions: A Fifty Year Perspective, 1956-2006', Volume 2, New Delhi, Oxford University Press.
4. M. Singh, and R. Saxena (2011) (eds.), 'Indian Politics: Constitutional Foundations and Institutional Functioning', Delhi: PHI Learning Private Ltd.
5. K. Roy, C. Saunders and J. Kincaid (2006) (eds.) 'A Global Dialogue on Federalism', Volume 3 Montreal, Queen's University Press.

## +3 FIRST YEAR SECOND SEMESTER

### Core Paper - 3

#### POLITICAL THEORY-CONCEPTS AND DEBATES

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

#### Introduction:

This course is divided into two sections. Section A helps the student familiarize with the basic normative concepts of political theory. Each concept is related to a crucial political issue that requires analysis with the aid of our conceptual understanding. This exercise is designed to encourage critical and reflective analysis and interpretation of social practices through the relevant conceptual toolkit. Section B introduces the students to the important debates in the subject. These debates prompt us to consider that there is no settled way of understanding concepts and that in the light of new insights and challenges, besides newer ways of perceiving and interpreting the world around us, we inaugurate new modes of Political debates.

#### UNIT-I : Importance of Freedom

- (i) Negative Freedom and Positive Freedom, Freedom of belief, expression and dissent
- (ii) Equality: Meaning and Types, Egalitarianism: Social Exclusion & Affirmative action

#### UNIT-II : Indispensability of Justice

- (i) Justice: Meaning and Types
- (ii) Procedural, Distributive and Global Justice.

#### UNIT-III: The Universality of Rights

- (i) Rights: Natural, Moral and Legal
- (ii) Three Generations of Rights

#### UNIT-IV: Major debates

- (i) Political obligation: Grounds
- (ii) Cultural Relativism and Multiculturalism.

**Text Book**

1. Verma, S. P. (1996) 'Modern Political Theory', Vikash Publishing, 3rd Reprint, New Delhi.
2. Vinod, M.J and Deshpande, Meena (2013) Contemporary Political Theory, PHI, New Delhi
3. Ramaswamy, Sushila (2010), 'Political Theory: Ideas and Concepts', PHI Learning, New Delhi
4. Bellamy, R. (1993), (ed.) *Theories and Concepts of Politics*. New York: Manchester University Press.
5. Marsh, D. and Stoker, G. (eds.) 'Theory and Methods in Political Science'. London, Macmillan.
6. Heywood, Andrew (2016) (Reprint), 'Political Theory: An Introduction', Palgrave, UK.
7. Ront BC and Pradhan Pankaj (20), "Political Theory", Panchshila, Bhubaneswar.

**Reference Books**

1. Bellamy, Richard and Mason, Andrew (1993) (eds.) 'Political Concepts' Manchester, Manchester University Press.
2. Knowles, Dudley. (2001) 'Political Philosophy', London, Routledge.
3. Mckinnon, Catriona (2008) (ed.) 'Issues in Political Theory', New York: Oxford University Press.
4. Swift, Adam. (2001) 'Political Philosophy: A Beginners Guide for Student's and Politicians', Cambridge, Polity Press.
5. La Follett, Hugh (2003) (ed.) 'The Oxford Handbook of Practical Ethic'. New York, Oxford University Press.
6. Knowles, Dudley. (2001) 'Political Philosophy', London, Routledge.

**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 4**  
**POLITICAL PROCESS IN INDIA**

Time : 3 Hrs.  
 Credit : 06

End Semester Theory : 80 Marks  
 Mid Semester Theory : 20 Marks

**Introduction:**

Actual politics in India diverges quite significantly from constitutional legal rules. An understanding of the political process thus calls for a different mode of analysis - that offered by political sociology. This course maps the working of 'modern' institutions, premised on the existence of an individuated society, in a context marked by communitarian solidarities, and their mutual transformation thereby. It also familiarizes students with the working of the Indian state, paying attention to the contradictory dynamics of modern state power.

**UNIT-I: Indian party system**

- (i) Party System in India: Features and Trends
- (ii) Voting Behaviour and Its determinants: Caste, Class, Gender and Religion. (iii) Election Commission: Constitution and Functions, Electoral Reforms

**UNIT-II: Regionalism, Religion and Politics**

- (i) Regionalism: Causes and its trends,
- (ii) Secularism and Communalism: Debates

**UNIT-III: Caste and Politics**

- i) Caste and Politics: Politicisation of Caste
- ii) Affirmative Action: Policies, Women, Caste and Marginalized Class

**UNIT-IV: The Changing Nature of the India State**

- (i) Developmental and Welfare Dimensions
- (ii) Coercive Dimension

**Text books**

1. Kaviraj, Sudipta(2009) 'Politics in India', Oxford University Press, New Delhi
2. Kohli, Atul (2004) (ed.) 'The Success of India's Democracy', New Delhi, Cambridge University Press.
3. Kothari,R (1970) 'Caste in Indian Politics', Delhi, Orient Longman.
4. M. John, (ed) (2008) 'Women in India: A Reader, Penguin , India
5. P. Brass, (1999) 'The Politics of India since Independence, New Delhi, Cambridge University Press and Foundation Books.
6. P. Mehta and N. Jayal (2010) (eds.) 'The Oxford Companion to Politics in India', New Delhi, Oxford University Press.
7. Z. Hasan (2002) (ed.) 'Parties and Party Politics in India', New Delhi: Oxford University Press.
8. Z. Hasan, E. Sridharan and R. Sudarshan (2002) (eds.) 'India's Living Constitution: Ideas, Practices, Controversies', New Delhi, Permanent Black.

**Reference Books**

1. N. Menon and A. Nigam, (2007) 'Power and Contestation: India since 1989', London, Fernwood Publishing, Halifax and Zed Books.
2. R. Vora and S. Palshikar (eds.) 'Indian Democracy: Meanings and Practices', New Delhi, Sage.
3. Shah, G (ed.) 'Social Movements and the State', New Delhi, Sage Publications.
4. P. deSouza and E. Sridharan (eds.) 'India's Political Parties', New Delhi, Sage Publications.
5. A S. Ganguly, L. Diamond and M. Plattner (eds.) 'The State of India's Democracy', Baltimore, John Hopkins University Press.

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 5****INTRODUCTION TO COMPARATIVE GOVERNMENT AND POLITICS**

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

**Introduction:**

This is a foundational course in comparative politics. The purpose is to familiarize students with the basic concepts and approaches to the study of comparative politics. More specifically the course will focus on examining politics in a historical framework while engaging with various themes of comparative analysis in developed and developing countries.

**UNIT-1 : Understanding Comparative Politics**

- (i) Meaning, Nature, scope and Evolution
- (ii) Approaches to the study of Comparative Politics

**UNIT-II: Historical context of modern government**

- (i) Capitalism: meaning and development
  - (ii) Globalization: Features & impact
-

**UNIT-III: Historical context of Modern Government- II**

- (i) Socialism: Meaning, Types and its growth
- (ii) Rise and Decline of Communism as a Ruling Ideology
- (i) Colonialism and decolonization: meaning, context, forms of colonialism

**UNIT-IV: Study of the Govt of USA & China**

- (i) A comparative study of Governments of USA & China
- (ii) US: President, Congress, Supreme Court
- (iii) China: People's Congress, National Assembly, Role of Communist Party of China

**Text books:**

1. Bhagwan, V ishnoo et al (2012) 'World Constitutions', Sterling Publishers , New Delhi
2. Chilcote, Ronald (1994) 'Theories of Comparative Politics: The Search for a Paradigm Reconsidered', Westview Press, Boulder.
3. G. Ritzer, (2002) 'Globalization: A Basic Text'. London, Wiley-Blackwell.
4. Huntington, Samuel, (1968) 'Political Order in Changing Societies', Yale University Press, New Haven.
5. Kapur, A.C and K.K. Mishra (2010) 'Select Constitutions', S. Chand, New Delhi.
6. Suresh. R(2010), 'Economy and Society : Evolution of Capitalism', Sage , New Delhi.

**Reference Books**

1. P. Burnell, et. al, 'Politics in the Developing World'. New Delhi: Oxford University Press,
2. J. McCormick, (2007) 'Comparative Politics in Transition', UK, Wadsworth.
3. L. Barrington et. al (2010) 'Comparative Politics - Structures and Choices', Boston, Wadsworth,
4. M. Kesselman, J. Krieger and William (2010), 'Introduction to Comparative Politics: Political Challenges and Changing Agendas', UK, Wadsworth. J. Kopstein and M. Lichbach. (eds.) 'Comparative Politics: Interest, Identities and Institutions in a Changing Global Order'. Cambridge: Cambridge University Press.

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 6****INTRODUCTION TO PUBLIC ADMINISTRATION**

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

**Introduction:**

The course provides an introduction to the discipline of public administration. This paper encompasses public administration in its historical context with an emphasis on the various classical and contemporary administrative theories. The course also explores some of the recent trends, including feminism and ecological conservation and how the call for greater democratization is restructuring public administration. The course will also attempt to provide the students a comprehensive understanding on contemporary administrative developments.

**UNIT-1 : Public Administration as a Discipline**

- (i) Meaning, Scope and Significance of the Discipline, Public and Private Administration
- (ii) Evolution of Public Administration

**UNIT-II: Theoretical Perspectives: Classical Theories**

- (i) Scientific management (F. W. Taylor), Ideal-type bureaucracy (Max Weber)
- (ii) Administrative Management (Gullick, Urwick and Fayol)

**UNIT-III: Neo-Classical and Contemporary Theories**

- (i) Human Relations theory (Elton Mayo), Rational decision-making (Herbert Simon)
- (ii) Ecological approach (Fred Riggs), Innovation and Entrepreneurship (Peter Drucker)

**UNIT-IV: Public Policy and Major Approaches in Public Administration**

- (i) Public Policy-Concept and approaches, Formulation, implementation and evaluation
- (ii) New Public Administration, New Public Management, New Public Service Approach
- (iii) Good Governance, Feminist Perspectives in Governance.

**Readings**

1. B. Chakrabarty and M. Bhattacharya (eds), 'Administrative Change and Innovation: A Reader', New Delhi, Oxford University Press.
2. Basu, Rumki, (2014) 'Public Administration: Concepts and Theories', Sterling Publishers, New Delhi
3. D. Ravindra Prasad, Y. Pardhasaradhi, V. S. Prasad and P. Satyrnarayana, (2010) (eds.) 'Administrative Thinkers', Sterling Publishers.
4. J. Shafritz, and A. Hyde, (2004) (eds.) 'Classics of Public Administration', 5th Edition. Belmont, Wadsworth.
5. M. Bhattacharya, (2008) 'New Horizons of Public Administration', 5th Revised Edition. New Delhi, Jawahar Publishers.
6. M. Bhattacharya, (2011) 'New Horizons of Public Administration', New Delhi: Jawahar Publishers.
7. M. Bhattacharya, (2012) 'Restructuring Public Administration: A New Look', New Delhi, Jawahar Publishers,
8. N. Henry, (2013) 'Public Administration and Public Affairs', 12th edition. New Jersey, Pearson,
9. Shafritz, J. and Hyde, A. , (1997) (eds.) 'Classics of Public Administration', 4th Edition. Forth Worth, Hartcourt Brace, TX.

**Reference Books**

1. B. Chakrabarty and M. Bhattacharya (2003) (eds.), 'Public Administration: A Reader', New Delhi, Oxford University Press.
  2. B. Chakrabarty, (2007) 'Reinventing Public Administration: The India Experience'. New Delhi, Orient Longman,
  3. B. Miner, (2006) 'Organisational Behaviour: Historical Origins and the Future'. New York,
  4. F. Riggs, (1964) 'Administration in Developing Countries: The Theory of Prismatic Society'. Boston, Houghton Mifflin.
  5. F. Riggs, (1961) 'The Ecology of Public Administration', Part 3, New Delhi, Asia Publishing House.
  6. M. Bhattacharya, (2006) 'Social Theory, Development Administration and Development Ethics', New Delhi, Jawahar Publishers.
  7. Nivedita Menon (1999), (ed.) 'Gender and Politics', New Delhi, Oxford University Press.
  8. Peter F. Ducker, (2006) 'The Practice of Management', Harper Collins.
  - S. Maheshwari, (2009) 'Administrative Thinkers', New Delhi: Macmillan
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**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 7**  
**PERSPECTIVES ON INTERNATIONAL RELATIONS**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Introduction:**

This paper seeks to equip students with the basic intellectual tools for understanding International Relations. It introduces students to some of the most important theoretical approaches for studying international relations. The course begins by historically contextualizing the evolution of the international state system before discussing the agency-structure problem through the levels-of- analysis approach. After having set the parameters of the debate, students are introduced to different theories in International Relations. It provides a fairly comprehensive overview of the major political developments and events starting from the twentieth century. Students are expected to learn about the key milestones in world history and equip them with the tools to understand and analyze the same from different perspectives. A key objective of the course is to make students aware of the implicit Euro-centricism of International Relations by highlighting certain specific perspectives from the Global South.

**UNIT-I: Studying International Relations**

- (i) International Relations: Meaning, Scope and Evolution, Emergence of International State System
- (ii) National Interest-Key Determinant of International Relations
- (iii) Power-Cornerstone of International Relations

**UNIT-II: Theoretical Perspectives**

- (i) Classical Realism & Neo-Realism, Liberalism & Neo-liberalism
- (ii) Marxist Approaches, Feminist Perspectives, Euro- centricism & Perspective from the Global South

**UNIT-III: An Overview of Twentieth Century IR -I**

- (i) World War I: Causes & Consequences, significance of Bolshevik Revolution
- (ii) Rise of Fascism / Nazism, World war II-Causes &Consequences

**UNIT-IV: An Overview of Twentieth Century IR -II**

- (i) Cold War Evolution& Different Phases Disintegration of USSR
- (ii) Emergence of the Third World, End of the Cold War

**Text Books**

1. Basu, Rumki (2012) (ed.) 'International Politics: Concepts, Theories and Issues', New Delhi.
  2. Baylis & S. Smith (2002) (eds.), 'The Globalization of World Politics', Oxford University Press, UK, 4th edition, 2007 W.Bello, Deglobalization, Zed Books, London.
  3. M. Nicholson, (2002) 'International Relations: A Concise Introduction', New York, Palgrave.
  4. Mohanty, Biswaranjan(2010), "International Relations", Atlantic, New Delhi.
  5. Padhi, B (2017) "International Relations", Kaling Prakashan", Bhubaneswar.
  6. P. V iotti and M. Kauppi, (2007) 'International Relations and World Politics: Security, Economy, Identity', Pearson Education.
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7. R. Jackson and G. Sorensen, (2007) 'Introduction to International Relations: Theories and Approaches', 3rd Edition, Oxford, Oxford University Press.
8. S. Joshua. Goldstein and J. Pevehouse,(2007) 'International Relations', New York, Pearson Longman.

### Reference Books

1. Calvocoressi, P. (2001) 'World Politics: 1945—2000'. Essex, Pearson.
2. Dey, Dipankar (2007)(ed.), 'Sustainable Development: Perspectives and Initiatives', ICFAI University Press, Hyderabad,
3. K. Booth and S. Smith, (eds), 'International Relations Theory Today', Pennsylvania, The Pennsylvania State University Press.
4. M. Smith and R. Little (2000) (eds.), 'Perspectives on World Politics', New York, Routledge

## +3 SECOND YEAR FOURTH SEMESTER

### Core Paper - 8

#### POLITICAL PROCESSES AND INSTITUTIONS IN COMPARATIVE PERSPECTIVE

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

#### Introduction:

In this course students will be trained in the application of comparative methods to the study of politics. The course is comparative in both what we study and how we study. In the process the course aims to introduce undergraduate students to some of the range of issues, literature, and methods that cover comparative political.

#### UNIT-I : Approaches to Studying Comparative Politics

- (i) Political Culture –Meaning, Types &relevance.
- (ii) New Institutionalism –Meaning, Background, Significance

#### UNIT-II: Election& Party System

- (i) Definition and procedures: Types of election system (First Past the Post, Proportional Representation, Mixed Representation)
- (ii) Party System -Evolution, Theories and types

#### UNIT-III: Nation-state

- (i) Nation-state; Meaning and Evolution in West Europe
- (ii) Nation and State; Debates in Post-colonial contexts

#### UNIT-IV: Democratization in Post- colonial societies

- (i) Democratization in Post-authoritarian countries and in Post-communist countries
- (ii) Federalism: Meaning and Features, Federation& Confederation: Debates around territorial division of power.

#### Text Books

1. A. Heywood, (2002) 'Politics', New York, Palgrave.
  2. J. Bara and M. Pennington, (eds.) *Comparative politics*. New Delhi: Sage Publications.
  3. J. Bara and Pennington. (2009) (eds.) 'Comparative Politics: Explaining Democratic System', Sage Publications, New Delhi.
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4. J. Ishiyama, and M. Breuning, (2011) (eds) '21st Century Political Science: A Reference Book', Los Angeles, Sage Publications.
5. M. Lichback and A. Zuckerman, (eds.) 'Comparative Political: Rationality, Culture, and Structure'. Cambridge, Cambridge University Press.

#### Reference Books

1. R. Watts, (2008) 'Comparing Federal Systems'. Montreal and Kingston, McGill Queen's University Press.
2. Saxena, R (2011) (eds.) 'Varieties of Federal Governance: Major Contemporary Models', New Delhi, Cambridge University Press.
3. T. Landman, (2003) 'Issues and Methods of Comparative Methods: An Introduction'. London, Routledge.

## +3 SECOND YEAR FOURTH SEMESTER Core Paper - 9 PUBLIC POLICY AND ADMINISTRATION IN INDIA

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

#### Introduction:

The paper seeks to provide an introduction to the interface between public policy and administration in India. The essence of public policy lies in its effectiveness in translating the governing philosophy into programs and policies and making it a part of the community living. It deals with issues of decentralization, financial management, citizens and administration and social welfare from a non-western perspective.

#### UNIT-I : Public Policy

- (i) Definition, characteristics and models
- (ii) Public Policy Process in India

#### UNIT-II : Decentralization

- (i) Meaning, significance, types and approaches to decentralization.
- (ii) Local Self Governance: Rural and Urban

#### UNIT-III : Budget and Social Welfare Administration

- (i) Concept and Significance of Budget, Budget cycle in India, Types of Budgeting
- (i) Concept and Approaches of Social Welfare.
- (ii) Social Welfare Policies:
  - (a) **Education:** Right to Education,
  - (b) **Health:** National Health Mission,
  - (c) **Food:** Right to Food Security,
  - (d) **E mployment:** MNREGA

#### UNIT-IV : Citizen and Administration Interface

- (i) Public Service Delivery System;
- (ii) Redressal of Public Grievances: RTI, Lokpal, Citizens' Charter and e-Governance

#### Text Books

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1. Basu Rumki (2015) 'Public Administration in India Mandates, Performance and Future Perspectives', New Delhi, Sterling Publishers
2. Bidyut Chakrabarty, (2007) 'Reinventing Public Administration: The Indian Experience', Orient Longman,
3. Henry, N. (1999) 'Public Administration and Public Affairs', New Jersey, Prentice Hall
4. Jean Drèze and Amartya Sen, (1995) 'India, Economic Development and Social Opportunity', Oxford, Oxford University Press.
5. R.B. Denhardt and J.V. Denhardt, (2009) 'Public Administration', New Delhi, Brooks/Cole
6. Satyajit Singh and Pradeep K. Sharma (2007) (eds.) 'Decentralization: Institutions and Politics in Rural India', Oxford University Press, New Delhi.
7. Singh, S. and Sharma, P. (2007) (eds.) 'Decentralization: Institutions and Politics in Rural India'. New Delhi, Oxford University Press.
8. Vasu Deva, (2005) 'E-Governance In India: A Reality', Commonwealth Publishers.
9. Vijaya Kumar, (2012) 'Right to Education Act 2009: Its Implementation as to Social Development in India', Delhi: Akansha Publishers.

### Reference Books

1. 'World Development Report', (1992) World Bank, Oxford University Press,.
  2. Anderson, (1975) 'Public Policy Making', New York, Thomas Nelson and sons Ltd.
  3. Gabriel Almond and Sidney Verba, (1965) 'The Civic Culture', Boston, Little Brown.
  4. J.Dreze and Amartya Sen, (1997) 'Indian Development: Selected Regional Perspectives', Oxford, Clarendon Press
  5. Jayal, N.G (1999) 'Democracy and The State: Welfare, Secular and Development in Contemporary India', Oxford, Oxford University Press.
  6. Jugal Kishore, (2005) National Health Programs of India: National Policies and Legislations, Century Publications.
  7. Lee and Mills, (1983) 'The Economic of Health In Developing Countries', Oxford, Oxford University Press.
  8. M. Howlett, M. Ramesh, and A. Perl, (2009), 'Studying Public Policy: Policy Cycles and Policy subsystems', 3rd edition, Oxford University Press, New Delhi
  9. Marma Mukhopadhyay and Madhu Parhar (2007) (ed.) 'Education in India: Dynamics of Development' New Delhi, Shipra Publications.
  10. Noorjahan Bava, (2001) 'Development Policies and Administration in India', Delhi, Uppal Publishers.
  11. R. Putnam, (1993) 'Making Democracy Work', Princeton University Press.
  12. T. Dye, (2002) 'Understanding Public Policy', New Delhi, Pearson
  13. United Nation Development Programme, (1997) 'Reconceptualising Governance', New York
  14. Y. Dror, (1989) 'Public Policy Making Reexamined'. Oxford, Transaction Publication.
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**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 10  
GLOBAL POLITICS**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Introduction:**

This course introduces students to the key debates on the meaning and nature of globalization by addressing its political, economic, social, cultural and technological dimensions. In keeping with the most important debates within the globalization discourse, it imparts an understanding of the working of the world economy, its anchors and resistances offered by global social movements while analyzing the changing nature of relationship between the state and trans-national actors and networks. The course also offers insights into key contemporary global issues such as the proliferation of nuclear weapons, ecological issues, international terrorism, and human security before concluding with a debate on the phenomenon of global governance.

**UNIT-I : Globalization : Conceptions**

- (i) Understanding Globalization and its Alternative Perspectives, Non-Proliferation Regimes
- (ii) Global Economy: Its significance & anchors of Global Political Economy: IMF, World Bank, WTO, TNCs

**UNIT-II: Globalization: Perspectives**

- (i) Political Debates on Sovereignty and Territoriality
- (ii) Cultural and Technological Dimension
- (iii) Global Resistances (Global Social Movements and NGOs)
- (iv) Ecological Issues: International Environmental Agreements, Climate Change

**UNIT-III: Contemporary Global Issues-I**

- (i) Proliferation of Nuclear Weapons
- (ii) International Terrorism: Non-State Actors and State Terrorism; Post 9/11 developments

**UNIT-IV: Contemporary Global Issues-II**

- (i) Migration & Human Security
- (ii) Global Shifts: Power and Governance

**Text Books**

1. G. Ritzer, (2010) 'Globalization: A Basic Text', Sussex: Wiley-Blackwell.
2. M. Strager, (2009) 'Globalization: A Very Short Introduction', London, Oxford University Press.
3. Heywood, (2011) 'Global Politics', New York, Palgrave-McMillan.
4. J. Baylis, S. Smith and P. Owens (2011) (eds.) 'Globalization of World Politics: An Introduction to International Relations', New York, Oxford University Press.
5. W. Ellwood, (2005) 'The No-nonsense Guide to Globalization', Jaipur, Rawat Publications.
6. D. Held and A. McGrew (2000) (eds.) 'The Global Trans-Formations Reader', Cambridge, Polity Press.

**Reference Books**

1. A. Narlikar, (2005) 'The World Trade Organization: A Very Short Introduction', New York, Oxford University Press.
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2. Goldstein, (2006) 'International Relations', New Delhi, Pearson.
3. P. Hirst, G. Thompson and S. Bromley, (2009) 'Globalization in Question', Cambridge, Polity Press.
4. D. Held et al, (1999) 'Global Transformations: Politics, Economics and Culture', California, Stanford University Press.
5. F. Lechner and J. Boli (ed.), (2004) 'The Globalization Reader', London, Blackwell.(WTO).
6. G. Ritzer, (2010) 'Globalization: A Basic Text', Sussex, Wiley-Blackwell.
7. T. Cohn, (2009) 'Global Political Economy', New Delhi, Pearson.
8. D. Held and A. McGrew (eds.), (2002) 'Global Transformations Reader: Politics, Economics and Culture', Cambridge, Polity Press.
9. A. Vanaik, (ed.), (2004) 'Globalization and South Asia: Multidimensional Perspectives', New Delhi, Manohar Publications.

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 11**  
**WESTERN POLITICAL PHILOSOPHY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Introduction:**

This course goes back to Greek antiquity and familiarizes students with the manner in which the political questions were first posed. Machiavelli comes as an interlude inaugurating modern politics followed by Hobbes and Locke, Rousseau, Marx. This is a basic foundation course for students.

**UNIT-I : Text and Interpretation: Antiquity**

- (i) Plato - Justice, Communism, Ideal state
- (ii) Aristotle - State and Govt, Citizenship, Revolution

**UNIT-II**

- (i) Machiavelli - Child of Renaissance, State craft, Ethics and politics
- (ii) Hobbes - Social contract, Sovereignty, Individualism and absolutism

**UNIT-III**

- (i) Locke - Social contract, Rights, Property and consent, Liberalism
- (ii) Rousseau - Social contract, General will, Democracy and individualism

**UNIT-IV**

- (i) J. S. Mill - Utilitarianism and its modification, liberty, Representative Govt.
- (ii) Karl Marx - Dialectical materialism, Historical materialism, Classwar and state.

**Text Books**

1. C. Kukathas and G. Gaus, (eds.) 'Handbook of Political Theory', London, Sage Publications Ltd.
  2. D. Boucher and P. Kelly (2009), (eds) 'Political Thinkers: From Socrates to the Present', Oxford, Oxford University Press.
  3. J. Coleman, (2000) 'A History of Political Thought: From Ancient Greece to Early Christianity, Oxford, Blackwell Publishers.
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4. Mukherjee, Subrato and Susheela Ramaswamy(2011) 'History of political Thought: Plato to Marx', PHI Publishers , New Delhi
5. Okin, S. (1992), 'Women in Western Political Thought', Princeton, Princeton University Press.
6. R. Kraut (1996) (ed.) ' The Cambridge Companion to Plato', Cambridge, Cambridge University Press.

### Reference Books

1. A. Skoble and T. Machan, (2007) 'Political Philosophy: Essential Selections', New Delhi, Pearson Education.
2. J. Barnes (1995) (ed.), 'The Cambridge Companion to Aristotle'. Cambridge, Cambridge University Press.

## +3 THIRD YEAR FIFTH SEMESTER

### Core Paper - 12

#### INDIAN POLITICAL THOUGHT (ANCIENT AND MEDIEVAL)

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

#### Introduction:

This course introduces the specific elements of Indian Political Thought spanning over two millennia. The basic focus of study is on individual thinkers whose ideas are however framed by specific themes. The course as a whole is meant to provide a sense of the broad streams of Indian thought while encouraging a specific knowledge of individual thinkers and texts. Selected extracts from some original texts are also given to discuss in class. The list of Reference books is meant for teachers as well as the more interested students.

#### UNIT-I: Traditions of Pre-colonial Indian Political Thought

- i) Brahmanic and Shramanic
- ii) Islamic and Syncretic.

#### UNIT-II : Ved Vyasa (Shantiparva) and Manu

- (i) Ved Vyasa : Rajadharma
- (ii) Manu : Social Laws

#### UNIT-III: Kautilya, Barani and Aggannasutta

- (i) Kautilya: Theory of State, Foreign Policy, Role of King
- (ii) Aggannasutta- Theory of Kingship
- (iii) Barani: Ideal Polity

#### UNIT-IV :Kabir and Abul Faza

- (i) AbulFazal-Monarchy
- (ii) Kabir: Syncretism

#### Text Books

1. A. Appodoroy, (2002) 'Political Thought in India, Delhi, Khama Publication.
2. A. B. M, (1976), 'The Foundation of Muslim Rule in India', Allahabad, Central Book Depot.
3. Brown, (2003) 'The Verses of Vemana', Asian Educational Services, Delhi.
4. Habib, Irfan.(1995) 'Essays in Indian History', New Delhi, Tulika Publications.

5. Roy, Himanshu and Singh, M. (2017), 'Indian Political Thought: Themes and Thinker', Second Edition, New Delhi, Pearson.
6. S. Saberwal, (2008) 'Spirals of Contention', New Delhi, Routledge,
7. Sharma, R. S (1991) 'Aspects of Political Ideas Institutions in Ancient India, Delhi, Motilal Banarsidas.
8. T. Pantham, and K. Deutsch (1986) (eds.), Political Thought in Modern India, New Delhi, Sage Publications.
9. Thapar, Romila, (1997) 'Ashok and the Decline of the Mauryas, ' New York, Oxford University Press.
10. V. Mehta, (1992) 'Foundations of Indian Political Thought, New Delhi, Manohar Publications.
11. V.P. Varma, (1974) 'Studies in Hindu Political Thought and Its Metaphysical Foundations', New Delhi, Motilal Banarsidass.

#### Reference Books

1. A. Fazl, (1873) 'The Ain-i Akbari ' (translated by H. Blochmann), Calcutta: G. H. Rouse.
2. J. Spellman, (1964) 'Political Theory of Ancient India: A Study of Kingship from the Earliest time to Ceirca AD 300, Oxford, Clarendon Press.
3. L. Hess and S. Singh, (2002) 'The Bijak of Kabir', New Delhi, Oxford University Press.
4. R. Kangle (ed. and trns.), 'Arthasastra of Kautilya', New Delhi, Motilal Publishers.
5. S. Collins, (2001) 'Agganna Sutta: The Discussion on What is Primary (An Annotated Translation from Pali), Delhi, Sahitya Akademi.

### +3 THIRD YEAR SIXTH SEMESTER

#### Core Paper - 13

#### CONTEMPORARY POLITICAL PHILOSOPHY

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

#### Introduction:

Philosophy and politics are closely intertwined. Students will be exposed to the manner in which the questions of politics have been posed in terms that have implications for larger questions of thought and existence. Contemporary political philosophy and debates are introduced to the students here.

#### UNIT-I

Lenin - Revision of Marxism, Imperialism and Capitalism, Party and Revolution, Contribution

#### UNIT-II

Mao Zedong (Mao Tse Tung) - Cultural Revolution, Theory of contradiction New democracy, Revolution, contribution

#### UNIT-III

Antonio Gramsci - Cultural Hegemony, State and civil society, "concept of organic intellectual", Notion of subaltern, Contribution.

#### UNIT-IV

John Rawls - Theory of Justice, Political liberalism, veil of ignorance, contribution.

**Reading List**

1. B. Nelson, (2008) 'Western Political Thought'. New York, Pearson Longman.
2. D. Boucher, and P. Kelly, (2003) (eds.) 'Political Thinkers: From Socrates to the Present'. New York, Oxford University Press.
3. Gramsci, Antonio( 1996), 'Selections from the Prison Notebooks', Orient Longman, Hyderabad
4. Hacker, A. (1961), 'Political Theory: Philosophy, Ideology, Science', Macmillan, New York.
5. Mukherjee, Subrato and Susheela Ramaswamy(2011) 'History of political Thought: Plato to Marx', PHI Publishers , New Delhi
6. Rawls, John (2011), 'A Theory of Justice', Universal Law Publishing Co., New Delhi.
7. Sabine, George, H. (1973). 'A History of Political Theory', Oxford and I.B.H. Publishing, New Delhi.
8. Wayper. C.L (1989), 'Political Thought', B.I. Publications, Bombay.

**Reference Books**

1. D. Germino (1972). Modern Western Political Thought: Machiavelli to Marx, Chicago University Press, Chicago.
2. F.W. Coker (1971). Recent Political Thought, The World Press Pvt. Ltd., Calcutta.
3. J.H. Hallowell (1960). Main Currents in Modern Political Thought, Holt, New York.

**+3 THIRD YEAR SIXTH SEMESTER****Core Paper - 14****MODERN INDIAN POLITICAL THOUGHT**

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

**Introduction:**

Based on the study of individual thinkers, the course introduces a wide span of thinkers and themes that defines the modernity of Indian political thought. The objective is to study general themes that have been produced by thinkers from varied social and temporal contexts. Selected extracts from original texts are also given to discuss in the class. The list of Reference books is meant for teachers as well as the more interested students.

**UNIT-I: Introduction**

- (i) Rammohan Roy: Rights, Reform Movement, Liberalism
- (ii) Pandita Ramabai: Gender, critique of orthodoxy
- (iii) Vivekananda: Ideal Society, Humanism, Nationalism

**UNIT-II: Gandhi & Ambedkar**

- (i) Gandhi: Swaraj, Swadeshi
- (ii) Ambedkar: Social Justice

**UNIT-III : Tagore and Savarkar**

- (i) Tagore : Nationalism
- (ii) Savarkar : Nationalism

**UNIT-IV: Nehru,Lohia and Jay Prakash**

- (i) Nehru: Secularism, Socialism
- (ii) Lohia: Socialism,

(iii) J.P.Narayan: Total Revolution

**Text books:**

1. A. Sen, (2003) 'Swami Vivekananda', Delhi, Oxford University Press.
2. D. Dalton, (1982) 'Indian Idea of Freedom: Political Thought of Swami Vivekananda, Aurobindo Ghose, Rabindranath Tagore and Mahatma Gandhi', Academic Press, Gurgaon.
3. G. Omvedt, (2008) 'Ramabai: Women in the Kingdom of God', in *Seeking Begumpura: The Social Vision of Anti Caste Intellectuals*, New Delhi, Navayana.
4. M. Kosambi (2000) (ed.), 'Pandita Ramabai Through her Own Words: Selected Works', New Delhi, Oxford University Press.
5. Raghuramaraju, (2007) 'Debates in Indian Philosophy: Classical, Colonial, and Contemporary', Delhi, Oxford University Press.
6. S. Sarkar, (1985) 'A Critique on Colonial India', Calcutta, Papyrus.
7. Sh. Kapila (2010) (ed.), 'An intellectual History for India', New Delhi: Cambridge University Press.
8. T. Pantham and K. Deutsch (1986), (eds.) 'Political Thought in Modern India', New Delhi, Sage.
9. V. Mehta and T. Pantham (eds.), (2006) 'A Thematic Introduction to Political Ideas in Modern India: Thematic Explorations, History of Science, Philosophy and Culture in Indian civilization' Vol. 10, Part: 7, New Delhi, Sage Publication.

**Reference Books**

1. P. Chatterjee, (1986) 'Nationalist Thought and the Colonial World: A Derivative Discourse? London, Zed Books.
2. S. Hay (1991) (ed.), 'Sources of Indian Tradition', Vol. 2. Second Edition, New Delhi, Penguin.
3. S. Thorat and Aryama (2007) (eds.), 'Ambedkar in Retrospect - Essays on Economics, Politics and Society', Jaipur, IIDS and Rawat Publications.

**+3 THIRD YEAR FIFTH SEMESTER**

**DSE - 1**

**INTRODUCTION TO HUMAN RIGHTS**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Introduction:**

This course attempts to build an understanding of human rights among students through a study of specific issues in a comparative perspective. It is important for students to see how debates on human rights have taken distinct forms historically and in the contemporary world. The course seeks to anchor all issues in the Indian context, and pulls out another country to form a broader comparative frame.

**UNIT-I: Human Rights: Theory and Institutionalization**

- i) Understanding Human Right
- ii) Three Generations of Rights

**UNIT-II**

Universal Declaration of Human Rights

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**UNIT-III**

Rights in National Constitutions: (i) South Africa (ii) India

**UNIT-IV**

(i) International Refugee Law (ii) International Humanitarian Law

**Text Books**

1. Alston Philip (1995), 'The United Nations and Human Rights-A Critical Appraisal', Oxford, Clarendon.
2. Baxi, Upendra (1995) (ed.), 'The Right to be Human', Delhi, Lancer,
3. Beetham, David (1987) (ed.), 'Politics and Human Rights', Oxford, Blackwell.
4. Desai, A.R. (1986)(ed), 'Violations of Democratic Rights in India', Bombay, Popular Prakashan.
5. Evans, Tony (2001), 'The Politics of Human Rights: A Global Perspective', London, Pluto Press.
6. Hargopal. G.(1999) 'Political Economy of Human Rights', Hyderabad, Himalaya.
7. J. Hoffman and P. Graham, (2006) 'Introduction to Political Theory', Delhi, Pearson.

**Reference Books**

1. Kothari, Smitu and Sethi, Harsh (1991)(eds.), 'Rethinking Human Rights', Delhi, Lokayan.
2. Saksena, K.P. (1999) (ed.), 'Human Rights: Fifty Years of India's Independence', Delhi, Gyan.
3. Subramanian, S.(1997), 'Human Rights: International Challenges', Delhi, Manas Publications.
4. Vistaar Iyer, V.R. Krishna (1999), 'The Dialectics and Dynamics of Human Rights in India', Delhi, Eastern Law House.

**+3 THIRD YEAR FIFTH SEMESTER****DSE - 2****DEVELOPMENT PROCESS AND SOCIAL MOVEMENTS IN CONTEMPORARY INDIA**

(For Project Work)

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Introduction:**

Under the influence of globalization, development processes in India have undergone transformation to produce spaces of advantage and disadvantage and new geographies of power. The high social reproduction costs and dispossession of vulnerable social groups involved in such a development strategy condition new theatres of contestation and struggles. A variety of protest movements emerged to interrogate and challenge this development paradigm that evidently also weakens the democratic space so very vital to the formulation of critical consensus. This course proposes to introduce students to the conditions, contexts and forms of political contestation over development paradigms and their bearing on the retrieval of democratic voice of citizens.

**UNIT-I : Development Process since Independence**

- (i) Welfare State, Development and the role of Planning commission
- (ii) Development in the era of Liberalization and Reforms

**UNIT-II : Development Strategy and its Impact on the Social Structure**

- (i) Industrial Development and its impact on organized and unorganized labour
- (ii) Agricultural Development and Agrarian Crisis, Land Reforms and Green Revolution,



**UNIT-III : Social Movements - I**

- i) Social Movements: Meaning and Approaches, New Social Movements
- ii) Women's Movement, Environmental Movements

**UNIT-IV: Social Movements - II**

- i) Dalit Movement, Tribal Movement,
- ii) Left wing Extremism: Issues and Challenges

**Text Books**

1. A. Desai, (1986) (ed.), 'Agrarian Struggles in India After Independence', Delhi, Oxford University Press
2. A. F. Frankel, (2005) 'India's Political Economy (1947-2004): The Gradual Revolution', Delhi, Oxford University Press.
3. B. Nayar, (2007) (ed.), 'Globalization and Politics in India', Delhi, Oxford University Press.
4. G. Omvedt, (1983) 'Reinventing Revolution, New Social Movements and the Socialist Tradition in India', New York, Sharpe.
5. G. Rath, (2006) (ed.), 'Tribal development in India: The Contemporary Debate', New Delhi, Sage Publications.
6. G. Shah, (2004) 'Social Movements in India: A Review of Literature', New Delhi, Sage Publications.
7. G. Shah, (ed.), (2002) 'Social Movements and the State'. New Delhi, Sage Publications.
8. R. Mukherji (2010) (ed.) 'India's Economic Transition: The Politics of Reforms', Delhi, Oxford University Press.
9. S. Roy and K. Debal, (2004) 'Peasant Movements in Post-Colonial India: Dynamics of Mobilization and Identity', Delhi, Sage.

**Reference Books**

1. J. Harris, (2009) 'Power Matters: Essays on Institutions, Politics, and Society in India', Delhi, Oxford University press.
  2. J. Harriss, (2006) (ed) 'Power Matters: Essays on Institutions, Politics, and Society in India,' Delhi. Oxford University Press.
  3. K. Suresh, (ed.), (1982) 'Tribal Movements in India', Vol I and II, New Delhi, Manohar (emphasis on the introductory chapter).
  4. L. Fernandes, (2007) 'India's New Middle Class: Democratic Politics in an Era of Economic Reform', Delhi, Oxford University Press.
  5. M. Jayal, and P. Mehta, (2010) (eds.), 'The Oxford Companion to Politics in India', Delhi, Oxford University Press.
  6. M. Mohanty, P. Mukherji and O. Tornquist, (1998)(eds.) 'People's Rights: Social Movements and the State in the Third World', New Delhi, Sage.
  7. N. Jayal (2012)(ed.) 'Democracy in India', New Delhi, Oxford India Paperbacks, Sixth impression.
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**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 3**  
**INDIA'S FOREIGN POLICY IN A CHANGING WORLD**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Introduction:**

This course's objective is to teach students the domestic sources and the structural constraints on the genesis, evolution and practice of India's foreign policy. The endeavour is to highlight integral linkages between the 'domestic' and the 'international' aspects of India's foreign policy by stressing on the shifts in its domestic identity and the corresponding changes at the international level. Students will be instructed on India's shifting identity as a postcolonial state to the contemporary dynamics of India attempting to carve its identity as an 'aspiring power'. India's evolving relations with the superpowers during the Cold War and after, bargaining strategy and positioning in international politics facilitate an understanding of the changing positions and development of India's role as a global player since independence.

**UNIT-I : India's Foreign Policy in a changing world**

- i) India's Foreign Policy : Major bases and determinants
- ii) India's Foreign Policy : Postcolonial Perspective

**UNIT-II : India's Relation with USA and Russia**

- i) India's Relations with the USA
- ii) India's Relation with USSR/Russia,

**UNIT-III : India-China Relations, India and South Asia**

- (i) India-China Relations
- (ii) India and South Asia: SAARC, Look East Policy, Act East Policy

**UNIT-IV : India and Contemporary World**

- (i) India as an emerging Global Power, Myth and Reality
- (ii) India in the Contemporary World

**Reading List**

1. Appadorai, A. and M.S. Rajan(1988), 'India's Foreign Policy and Relations', New Delhi, South Asian Publishers Pvt. Ltd.
  2. Bahadur, Kalim (ed.)(1986), 'South Asia in transition: Conflicts and Tensions', New Delhi, Patriots.
  3. Bandyopadhyaya, J.(2006), 'The making of India's Foreign Policy', New Delhi, Allied Publishers Pvt. Ltd.
  4. Banerjee, A.K. (ed.)(1998), 'Security issues in South Asia: Domestic and External Sources of Threats to Security', Calcutta, Minerva.
  5. Bidwai, Praful and Achin Vanaik (eds.)(1999), 'South Asia on a Short Fuse: Nuclear Politics and the Future of Global Disarmament', New Delhi, Oxford University Press.
  6. D. Scott (2011)(ed.), 'Handbook of India's International Relations', London, Routledge.
  7. Dutt, V.P.(2007), 'India's Foreign Policy Since Independence', New Delhi, National Book Trust.
  8. Tellis and S. Mirski (2013) (eds.), 'Crux of Asia: China, India, and the Emerging Global Order', Carnegie Endowment for International Peace, Washington.
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**Reference Books**

1. A. Ganguly, S. and Rahul Mukherji(2011), India since 1980, New Delhi: Cambridge University Press.
2. Ghosh, Partha S.(1989), Cooperation and conflict in South Asia, New Delhi: Manohar.
3. Gould, H.A. and Sumit Ganguly (eds.)(1993), The Hope and the Reality: U.S.-Indian Relations from Roosevelt to Reagan, New Delhi: Oxford & IBH.
4. Gujral, I.K.(1998), A foreign policy for India, Delhi: External publicity division, MEA, Government of India.
5. Mansingh, Surjeet(1984), India's search for power: Indira Gandhi's foreign policy, 1966- 1982 New Delhi: Sage.
6. Muni, S.D.(2010), India's Foreign Policy the democracy dimension, New Delhi: Foundation Books.
7. Nayar, B.R. and T.V. Paul(2004), India in the world order searching for major power status, New Delhi: Cambridge University Press.
8. S. Cohen, (2002) *India: Emerging Power*, Brookings Institution Press.
9. S. Mehrotra, (1990) 'Indo-Soviet Economic Relations: Geopolitical and Ideological Factors', in *India and the Soviet Union: Trade and Technology Transfer*, Cambridge University Press: Cambridge.
10. Sengupta, Bhabani(1998), Fulcrum of Asia relations among China, India, Pakistan and the USSR, New Delhi: Konark Publishers.
11. W. Anderson, (2011) 'Domestic Roots of Indian Foreign Policy', in W. Anderson, *Trusts with Democracy: Political Practice in South Asia*, Anthem Press: University Publishing Online.

**+3 THIRD YEAR SIXTH SEMESTER****DSE - 4****WOMEN, POWER AND POLITICS**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Introduction:**

This course opens up the question of women's agency, taking it beyond 'women's empowerment' and focusing on women as radical social agents. It attempts to question the complicity of social structures and relations in gender inequality. This is extended to cover new forms of precarious work and labour under the new economy. Special attention will be paid to feminism as an approach and outlook.

**UNIT-I: Feminism**

- (i) Meaning and Development
- (ii) Liberal, Socialist and Radical Feminism

**UNIT-II: Issues - I**

- i) Patriarchy
- ii) Sex and Gender
- iii) Gender, Power and Politics

**UNIT-III: Issues - II**

- (i) Women Movement in India
  - (ii) Women Empowerment: Policies and Practices
-

- (iii) Violence against Women

#### UNIT-IV: Women and Development

- i) WID (Women in Development), WAD (Women and Development), GAD (Gender and Development)  
 ii) Women and Work (V isible and Invisible)

#### Text Books.

1. B. Hooks, (2010) 'Feminism: A Movement to End Sexism', in C. Mc Cann and S. Kim (eds),
2. M. John.(2008) (ed) *Women's Studies in India*, New Delhi: Penguin.
3. M. Kosambi, (2007) *Crossing the Threshold*, New Delhi, Permanent Black.
4. Menon, (2008) 'Power', in R. Bhargava and A. Acharya (eds), *Political Theory: An Introduction*, Delhi: Pearson.
5. *Naarivaadi Rajneeti: Sangharsh evam Muddey*, University of Delhi: Hindi Medium Implementation Board.
6. T. Shinde, (1993) 'Stree Purusha Tulna', in K. Lalitha and Susie Tharu (eds), *Women Writing in India*, New Delhi, Oxford University Press.
7. *The Feminist Reader: Local and Global Perspectives*, New York: Routledge.
8. U. Chakravarti, (2001) 'Pitrasatta Par ek Note', in S. Arya, N. Menon & J. Lokneeta (eds.)
9. V Geetha, (2002) *Gender*, Kolkata, Stree Publications.
10. Rath, Navaneeta (2014) - *Gender & Society*, Mayur Publication, Bhubaneswar.

#### Reference Books

1. N. Gandhi and N. Shah, (1992) *Issues at Stake – Theory and Practice in the Women's Movement*, New Delhi: Kali for Women.
2. N. Menon, (2004) 'Sexual Violence: Escaping the Body', in *Recovering Subversion*, New Delhi: Permanent Black.
3. P. Swaminathan, (2012) 'Introduction', in *Women and Work*, Hyderabad: Orient Blackswan.
4. R. Kapur, (2012) 'Hecklers to Power? The Waning of Liberal Rights and Challenges to Feminism in India', in A. Loomba *South Asian Feminisms*, Durham and London: Duke University Press.
5. U. Chakravarti, (2003) *Gendering Caste through a Feminist Lens*, Kolkata, Stree publications.
6. V. Bryson, (1992) *Feminist Political Theory*, London: Palgrave-MacMillan.

OR

### +3 THIRD YEAR SIXTH SEMESTER

#### DSE - 4

#### DISSERTATION / RESEARCH PROJECT

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Project Paper includes the topic/titles under Development Process and Social Movements in Contemporary India (DSE-II) students may be encouraged to highlight Odisha-specific problems & solutions.**

#### Introduction :

The research experience of students is greatly enriched by early exposure to conducting research. There are numerous benefits of undergraduate students who get involved in research. They

are better off in understanding published works, determine an area of interest, can discover their passion for research and may start their career as a researcher. Further students will be able to develop ability for scientific inquiry and critical thinking, ability in the knowledge base and communication. This course is included to promote above mentioned abilities among the students.

### Learning Objectives:

1. To help students to learn how to develop scientific research designs in the study of State and governance.
2. To guide students to understand the previous research in their field of interest and review them to arrive at a research problem
3. To encourage the students to learn ways to describe and evaluate public policy implementation.
4. To help students understand the logic of hypothesis testing in both quantitative and qualitative research.
5. To make students to learn the methods of writing a research report.

### Expected outcomes : Students will be able to

1. Independently prepare a research design to carry out a research project
2. Review the related research papers to find out a research problem and relevant hypotheses
3. Understand the dynamics of citizen – administrative interface and administrative behaviours.
4. Learn the use of statistical techniques for interpretation of data.
5. Learn the APA style of reporting a research project.

### Unit I

A student is required to carry out a project on an issue of interest to him / her under the guidance and supervision of a teacher. In order to do so s/he must have the knowledge in research methodology and of steps in planning and conducting a research. The supervisors may help the students to go on field study / study tour relevant to their work. Thirty hours of class may be arranged in the routine to help students understand research methodology, and planning, conduction and reporting on the research. An external examiner with the supervisor as the internal examiner will evaluate the research project on the basis of scientific methodology in writing the report, and presentation skill and performance in the viva. Head of the department is to coordinate.

### Format

- **Abstract** – 150 words including problem, method and results.
  - **Introduction** – Theoretical considerations leading to the logic and rationale for the present research
  - **Review**- Explaining current knowledge including substantive findings and theoretical and methodological contributions to the topic, objectives and hypotheses of the present research
  - **Method** – Design, Sample, Methods of data collection, Procedure
  - **Results**- Quantitative analysis of group data— (Raw data should not be attached in Appendix) Graphical representation of data wherever required.- Qualitative analysis wherever done should indicate the method of qualitative analysis.
  - **Discussion**
  - **References (APA Style) & Appendices**
  - Project should be in Soft binding. It should be typed in Times New Roman 14 letter size with 1.5 spacing on one sides of the paper. Total text should not exceed 50 pages (References & Appendices extra).
-

- Two copies of the project should be submitted to the College.
- **Project - American Psychological Association (APA) – Publication Manual 2006 to be followed for project writing**

#### MARK DISTRIBUTION FOR DISSERTATION / RESEARCH PROJECT

Identification of problem	Review of Literature	Methodology	Analysis	Findings	V iva-voce	Total
10	10	10	25	20	25	100

#### Broad areas identified for Project:

Social Movements: Environment, Women, Dalit, Peasant, Social Development, Political Development in Odisha, Political Socialization, Political Participation, Political Modernization and Communication, Decentralized democracy: Rural and Urban Local Self Governance, Functionary of Gram Sabha, Empowerment of Women and other marginals in PRIs, Development, Displacement, Rehabilitation, Resettlement in Odisha, Role of NGOs in Development, Regional Development and Regional Imbalances, Implementation of ORTPS-2012, RTE-2009, Food Security Act, 2013, FRA, 2007 and development process in Odisha and possibilities of Alternative policy.

### +3 FIRST YEAR FIRST SEMESTER

#### GE - 1

#### FEMINISM: THEORY AND PRACTICE

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

#### Introduction:

The aim of the course is to introduce students to contemporary debates on feminism and the history of feminist struggles. The course begins with a discussion on construction of gender and an understanding of complexity of patriarchy and goes on to analyze theoretical debates within feminism. It offers a gendered analysis of Indian society, economy and polity with a view to understanding the structures of gender inequalities. And the last section aims to understand the issues with which contemporary Indian women's movements are engaged with.

#### UNIT-I: Understanding Feminism

- Feminist theorizing of the sex/gender distinction; Public Man and Private Woman
- Understanding Patriarchy and Feminism

#### UNIT-II: Theories of Feminism

- Liberal and Socialist,
- Radical feminism and Eco-feminism

#### UNIT-III: Feminist issues and women's participation: The Indian Experience

- Women's participation in anti-colonial and national liberation movements with special focus on India
- Traditional Historiography and Feminist critiques; Social Reforms Movement and position of women in India, History of Women's struggle in Post- Independent India

**UNIT-IV : Family in contemporary India and Understanding Woman's Work and Labour**

- (i) Family in contemporary India - patrilineal and matrilineal practices. Gender Relations in the Family, Patterns of Consumption: Intra Household Divisions, entitlements and bargaining, Property Rights
- (ii) Understanding Woman's Work and Labour – Sexual Division of Labour, Productive and Reproductive labour, Visible - invisible work – Unpaid (reproductive and care), Underpaid and Paid work, - Methods of computing women's work , Female headed households

**Text Books**

1. Bina Agarwal, (2013) 'Gender And Green Governance', Oxford University Press, Oxford,
2. Forbes, Geraldine (1998) 'Women in Modern India'. Cambridge, Cambridge University Press
3. Geetha, V. (2002) 'Gender'. Calcutta, Stree Publications.
4. Geetha, V. (2007) 'Patriarchy'. Calcutta, Stree Publications.
5. Jagger, Alison. (1983) 'Feminist Politics and Human Nature'. U.K, Harvester Press.
6. John, Mary
7. John, Mary(2008) 'Women studies in India: A Reader', Peguin, New Delhi
8. Lerner, Gerda. (1986) 'Creation of Patriarchy'. New York. Oxford University Press.

**Reference Books**

1. Banarjee, Sikata. (2007) 'Ghadially, Rehana. (ed.) 'Urban Women in Contemporary India: A Reader'. New Delhi, Sage.
  2. Chakravarti, Uma. (1988) 'Beyond the Altekarian Paradigm: Towards a New Understanding of Gender Relations in Early Indian History', Social Scientist, Volume 16, No. 8.
  3. Desai, Neera & Thakkar, Usha. (2001) 'Women in Indian Society'. New Delhi: National Book Trust.
  4. Gandhi, Nandita & Shah, Nandita. (1991) 'Contemporary Women's Movement in India'. Delhi, Zubaan.
  5. Gupta, A and Sinha Smita, (2005) 'Empowerment of women: Language and Other Facets', Mangal Deep, New Delhi.
  6. Jayawardene, Kumari. (1986) 'Feminism and Nationalism in the Third World'. London, Zed Books and Conclusion.
  7. Nayak, Smita (2016) (eds.) ' Combating Violence Against Women: A Reality in the Making', Kalpaz, Gyan Books Pvt, Ltd, New Delhi
  8. Rege, Sharmila. (2003) (ed.) ' The Sociology of Gender: The Challenge of Feminist Sociological Knowledge'. New Delhi, Sage.
  9. Rowbotham, Shiela. (1993) 'Women in Movements', New York and London, Routledge.
  10. Sangari, Kumkum & Chakravarty, Uma.(1999) (eds.) 'From Myths to Markets: Essays on Gender'. Delhi, Manohar.
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**+3 FIRST YEAR SECOND SEMESTER**  
**GE - 2**  
**GOVERNANCE : ISSUES AND CHALLENGES**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Objectives:**

This paper deals with concepts and different dimensions of governance highlighting the major debates in the contemporary times. There is a need to understand the importance of the concept of governance in the context of a globalizing world, environment, administration, development. The essence of governance is explored through the various good governance initiatives introduced in India.

**UNIT-I : Government and governance : concepts**

- (i) Governance: Meaning, Nature and Types
- (ii) Role of State in the Era of Globalisation: State, Market and Civil Society

**UNIT-II : Good Governance**

- i) Good Governance
- ii) Sustainable Development and Governance

**UNIT-III: Local Governance**

- (i) Democratic Decentralization: Institutions of Local Governance (PRIs),
- (ii) People' Participation in Local Governance & Deepening Democracy

**UNIT-IV : Good Governance Initiatives In India**

- i) Public Service Guarantee Acts & Electronic Governance
- ii) Citizens Charter & Right to Information, Corporate Social Responsibility iii)

**Text Books**

1. A Baviskar, ((1995) The Belly of the River: Tribal Conflict Over Development in the Narmada Valley', Delhi, Oxford University Press.
2. A. Parel (2000) (ed) 'Gandhi, Freedom and Self-Rule', New Delhi, Lexington Books.
3. B. Parekh, (1997) 'Gandhi: A Brief Insight', Delhi, Sterling Publishing Company.
4. B. Parekh, (1999) 'Colonialism, Tradition and Reform: An Analysis of Gandhi's Political Discourse', New Delhi, Sage Publication.
5. D. Hardiman, (2003) 'Gandhi in his Time and Ours'. Delhi, Oxford University Press.

**Reference Books**

1. R Iyer, (ed) (1993) 'The Essential Writings of Mahatma Gandhi', New Delhi, Oxford University Press.
  2. R. Ramashray, (1984) 'Self and Society: A Study in Gandhian Thought', New Delhi, Sage Publication.
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**+3 SECOND YEAR THIRD SEMESTER**  
**GE - 3**  
**GANDHI AND THE CONTEMPORARY WORLD**

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

**Introduction:**

Locating Gandhi in a global frame, the course seeks to elaborate Gandhian thought and examine its practical implications. It will introduce students to key instances of Gandhi's continuing influence right up to the contemporary period and enable them to critically evaluate his legacy.

**UNIT-I :**

Theories: Satyagraha, Ahimsa

**UNIT-II :**

Swaraj, Swadeshi

**UNIT-III :**

Relevance Gandhi: Gandhi & Environment, Gandhi & Women, Gandhi & Social Harmony

**UNIT-IV :**

Gandhi & Global Peace: Gandhian Philosophy in Contemporary World

**Text Books**

1. B. C. Smith (2007), 'Good Governance and Development', Palgrave.
2. B. Chakrabarty and M. Bhattacharya, (1998) (eds.) 'The Governance Discourse'. New Delhi, Oxford University Press.
3. B. Nayar (1995) (ed.), 'Globalization and Politics in India', Delhi, Oxford University Press.
4. Neera Chandhoke, (1995) 'State and Civil Society Explorations in Political Theory', Sage Publishers.
5. Panda, Smita Mishra (2008), 'Engendering Governance Institutions: State, Market and Civil Society', Sage Publications.
6. Surendra Munshi and Biju Paul Abraham (2004) (eds.), 'Good Governance, Democratic Societies and Globalisation', Sage.
7. United Nation Development Programme, (1997) 'Reconceptualising Governance', New York.
8. World Bank Report, (1992) 'Governance and Development'.

**Reference Books**

1. Burns H Weston and David Bollier (2013), 'Green Governance: Ecological Survival, Human Rights, and the Law of the Commons', Cambridge University Press.
  2. Emilio F. Moran, (2010) 'Environmental Social Science: Human - Environment interactions and Sustainability', Wiley-Blackwell.
  3. Pardeep. Sachdeva, (2011) 'Local Government in India', Pearson Publishers, New Delhi.
  4. Pranab Bardhan and Dilip Mookherjee (2006), 'Decentralization And Local Governance In Developing Countries: A Comparative Perspective', MIT Press.
  5. T.R. Raghunandan (2013), 'Decentralization and Local Governments: The Indian Experience, Readings on The Economy, Polity and Society', Orient Blackswan.
  6. D. Crowther (2008), 'Corporate Social Responsibility', Deep and Deep Publishers, New Delhi.
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**+3 SECOND YEAR FOURTH SEMESTER**  
**GE - 4**  
**UNITED NATIONS AND GLOBAL CONFLICTS**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Introduction :**

This course provides a comprehensive introduction to the most important multilateral political organization in international relations. It provides a detailed account of the organizational structure and the political processes of the UN, and how it has evolved since 1945, especially in terms of dealing with the major global conflicts. The course imparts a critical understanding of the UN's performance until now and the imperatives as well as processes of reforming the organization in the context of the contemporary global system.

**UNIT-I : The United Nations**

- i) An Historical Overview of the United Nations.
- ii) Principles and Objectives

**UNIT-II**

- i) Structures and Functions: General Assembly, Security Council, Economic and Social Council,
- ii) The International Court of Justice, The Specialized Agencies ( International Labour Organisation (IOL), United Nations Educational, Scientific and Cultural Organisation (UNESCO), World Health Organisation (WHO), UN Programmes Funds: United Nations Children's Fund (UNICEF), United Nations Development Programme (UNDP), United Nations High Commissioner for Refugees (UNHCR)
- iii) Peace Keeping, Peace Making and Enforcement, Peace Building and Responsibility to Protect
- iv) Millennium Development Goals.

**UNIT-III Major Global Conflicts since the Second World war**

- i) Korean war : Causes and Effects.
- ii) Vietnam War : Causes and Effects.
- iii) Afghanistan War : Causes and Effects.
- iv) Balkans Serbia and Bosnia : Causes and Effects.

**UNIT-IV**

Assessment of the United Nations as an International Organisation: Imperatives of Reforms and the Process of Reforms

**Text Books**

1. Basu, Rumki (2014) 'United Nations: Structure and Functions of an international organization', New Delhi, Sterling Publishers
  2. Baylis, J. and Smith, S. (2008) (eds.) 'The Globalization of World Politics: An Introduction to International Relations'. 4th edn. Oxford, Oxford University Press.
  3. Gareis, S.B. and Varwick, J. (2005) 'The United Nations: an introduction'. Basingstoke, Palgrave.
  4. Goldstein, J. and Pevehouse, J.C. (2006) 'International Relations'. 6th edn. New Delhi, Pearson.
  5. Saxena, J.N. (1986) et.al. 'United Nations for a Better Worl', New Delhi, Lancers.
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6. White, B. et al. (eds.) (2005) 'Issues in World Politics', 3rd edn. New York, Macmillan.
7. Whittaker, D.J. (1997) 'United Nations in the Contemporary World', London, Routledge.

**Reference Books**

1. Armstrong, D., Lloyd, L. and Redmond, J. (2004) 'International Organisations in World Politics'. 3rd edn. New York, Palgrave, Macmillan.
  2. Calvocoressi, P. (2001) 'World Politics: 1945-2000', 3rd edn. Harlow, Pearson Education.
  3. Moore, J.A. Jr. and Pubantz, J. (2008) 'The new United Nations', Delhi, Pearson Education.
  4. United Nations Department of Public Information. (2008) 'The United Nations Today'. New York, UN.
-

# PSYCHOLOGY

## +3 FIRST YEAR FIRST SEMESTER Core Paper - 1 INTRODUCTORY PSYCHOLOGY

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

### Introduction:

The course is designed to provide the student a basic understanding of the psychology of human behavior. The students will be given exposure to concepts, terminology, principles, and theories that comprise an introductory course in psychology.

### Learning Objectives :

- To help the students know the sources and processes of development of modern scientific psychology.
- To help the students develop a scientific temperament in studying and understanding human behavior.

### Expected outcomes : Students will be able to

- Define the term psychology and demonstrate command of the basic terminology, concepts, and principles of the discipline.
- Gain knowledge of scientific methodology—the variety of ways in which psychological data are gathered and evaluated / interpreted.
- Identify and compare the major perspectives in psychology: Recognize how each approach views human thought and behavior.
- Understand the physiological and biochemical links of human behavior.

### UNIT-I : Introducing Psychology

- (i) Concept and definition of psychology, Roots of psychology, Psychology as a scientific discipline.
- (ii) Key Perspectives in Psychology- Behavioral, Cognitive, Humanistic, Psychodynamic, and Socio-cultural.

### UNIT- II: Methods in Psychology

- (i) Natural Observation, Survey and Case Study - Nature, advantages and limitations.
- (ii) Experimental and Correlational methods -Nature, advantages and limitations.

### UNIT –III: Biological Bases of Behavior

- (i) Structure and functions of the neurons, Communication within and between neurons, Chemical regulation of the endocrine glands.
- (ii) Structure and functions of the Central nervous system and Autonomic nervous system

### UNIT-IV: States of Mind

- (i) Nature of consciousness; changes in consciousness- sleep-wake schedules
  - (ii) Extended states of Consciousness - Hypnosis, Meditation and Hallucinations
-

**PRACTICAL**Credit : **02****25 Marks**

- (i) **R.L. by Method of Limits:** To find out the R. L. of volar surface of the right arm of a subject by method of limits
- (ii) **D.L. by Method of Constant Stimuli:** To find out the D.L. for lifted weight of your subject by method of constant stimuli.

**Text Books:**

1. Baron, R. A. (2002). Psychology (5th Edition), New Delhi: Pearson Education.
2. Hilgard & Atkinson- Introduction to Psychology (2003) 14th Edition, Thomson Learning Inc.
3. Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantarapur, Bhubaneswar.

**Reference Books:**

1. Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J. (2008). Introduction to psychology (7th edition) Bombay: Tata-McGraw Hill.
2. Feldman, R.S. (2004). Understanding Psychology (6th Edition), New Delhi, Tata-McGraw Hill.

**+3 FIRST YEAR FIRST SEMESTER****Core Paper - 2****BASIC DEVELOPMENTAL PROCESSES**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****Introduction:**

The course is designed to expose students to a basic understanding about the fundamental concerns of developmental psychology and provide examples of the following three dimensions of development: growth, differentiation, and orderly progression.

**Learning Objectives:**

- To help students gain some key ideas about human development and the perspectives to understand and explain such developments.
- To help the students understand the significance of prenatal period for human development.
- To help the students understand the developmental preparations of the childhood and the implications of developmental milestones for the normal human development.

**Expected outcomes: Students will be able to**

- Understand the nature, types, and principle of development.
- Understand the processes of formation of life and development during pre- and post-natal periods.
- Understand about the different aspects of preparation for future life.

**UNIT-I : Basics of development**

- (i) Meaning, nature, and types of development; Principles of development; Factors influencing development
  - (ii) Perspectives of development- Psychoanalytic; Mechanistic; Organismic; Humanistic
-

**UNIT- II: Life in formation**

- (i) Fertilization, determination of sex, multiple birth; Prenatal development- germinal stage, embryonic stage, fetal stage; Factors influencing prenatal development. Impact of perinatal processes on development
- (ii) Physical and motor developments, Social and emotional developments during childhood.

**UNIT –III: Life in preparation**

- (i) Physical and motor developments, Social and emotional developments during adolescence.
- (ii) Piaget's stage of cognitive development; Kohlberg's stages of moral development

**Unit- IV : Self and identity**

- (i) Emergence of self; Structure of the self; Development of personal identity
- (ii) Development of self-control; Development of gender differences and gender roles

**PRACTICAL**Credit : **02****25** Marks

- (i) **Locus of Control:** To assess the Locus of Control of four college students by using Rotter's Locus of Control Scale.
- (ii) **Emotional Intelligence:** To measure the emotional intelligence of four college students by using the Schutte's Emotional Intelligence Scale.

**Text Books:**

- Sigelman, G.K. & Schaffer, D.R. (1995). Life-span Human Development, Brooks / Cole Publishing Co. Pacific Grove, California
- Berk, L. E. (2010). Child Development (8th Ed.). New Delhi: Prentice Hall.
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, Divya Prakashani, Samantarapur, Bhubaneswar.

**Reference Books:**

- Papalia, Diane E., Sally Wendos Olds (2006). Human Development. 9th Edition. New Delhi: Tata McGraw Hill
- Baron, R. A. (2002). Psychology (5th Edition), New Delhi, Pearson Education.

**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 3**  
**BASIC PSYCHOLOGICAL PROCESSES**

Time : **3** Hrs.  
 Credit : **04**

End Semester Theory : **60** Marks  
 Mid Semester Theory : **15** Marks

**Introduction:**

The course is designed to provide the student a basic understanding of the psychological processes from sensation to thought and communication. The student will be given exposure to the concepts, terminology, principles, and theories relating to each of the mental processes that constitute human psychology.

**Learning Objectives:**

- To help the students to understand the mental processes to begin with sensation and perception up to how it results in thoughts and communication.
- To help the students gather knowledge about the structural and functional dynamics of each of the mental processes and their interconnectedness.

**Expected outcomes: Students will be able to**

- Understand the bases sensory actions and the processes of integration of sensory actions in creating and interpreting perceptual events.
- Gain knowledge of the important processes and principles of human learning as well as the structural functional attributes of human memory to help conserve the learning outcomes.
- Understand the structural and functional properties of language and the way it helps thought, communication, problem solving and decision making through development of concepts, ideas, images, and so on.

**UNIT-I: Sensation and Perception**

- (i) Basics of sensation- Sensory receptors (eye and ear), transduction, sensory thresholds, and sensory adaptation
- (ii) Nature of perceptual process- Figure and ground, Grouping (Gestalt laws), Perceptual constancies, and illusions, Perception of distance and depth.

**UNIT- II: Learning and Memory**

- (i) Nature and principles of Classical conditioning, Operant conditioning, and Observational learning
- (ii) The Atkinson and Shiffrin Model of Memory; Types of Memory- episodic, semantic and procedural; Causes of Forgetting- interference, repression, and amnesia

**UNIT –III: Language and Communication**

- (i) Properties and structure of language, Linguistic hierarchy, Language acquisition- predisposition, Nature of effective communication
- (ii) Stages of language development; critical period controversy; speech error and its implications

**UNIT- IV: Thinking and Reasoning**

- (i) Thinking process; concepts, categories and prototypes, Decision making and factors of influencing decision making.
- (ii) Inductive and deductive reasoning; Problem solving approaches; Steps in problem solving

**PRACTICAL**

Credit : 02

25 Marks

- (i) **Learning Curve:** To demonstrate the Learning Curve as a function of Learning trials using Non-sense Syllables.
- (ii) **Serial Position Effect:** To demonstrate the serial position effect on memory in learning a list of nonsense syllables.

**Text Books:**

- Baron, R. A. (2002). Psychology (5th Edition), New Delhi, Pearson Education.
-

- Feldman, R.S. (2004). Understanding Psychology (6th Edition), New Delhi, Tata Mc. Graw Hill.
- Dash, U.N., Dash, A.S., Mishra, H.C., Nanda, G.K. & Jena, N. (2004). Practical Exercises in Psychology: Learning about Yourself and Others. Panchasila, Bhubaneswar
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, Divya Prakashani, Samantarapur, Bhubaneswar.

#### Reference Books:

- Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J. (2008). Introduction to psychology (7th edition) Bombay: Tata-McGraw Hill.

### +3 FIRST YEAR SECOND SEMESTER

#### Core Paper - 4

#### PROCESSES OF HUMAN EMPOWERMENT

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

#### Introduction:

Human empowerment is ultimately an individual condition of gaining the power to control and modulate changes in one's own life those are considered important to one's identity and adjustment. The purpose of the course is to introduce to the students the basics of human empowerment and how the empowerment processes are strengthened and improved.

#### Learning Objectives:

- To help students gain ideas about intelligence and personality as foundations of human empowerment.
- To make students understand how motivation and emotion are empowering processes to human development.
- To help students gain insight into human behavior as products of empowerment.

#### Expected outcomes: Students will be able to

- Know the structural components and functional dynamics of both intelligence and personality.
- Understand the significance of emotion and motivation in behavior management.
- Understand significant aspects of social behavior as resulting in happiness, well-being and personal growth.

#### UNIT-I: Basics of empowerment

- Intelligence- Heredity, environment, and intelligence, Theories of Gardner, Stenberg, & PASS
- Measuring Intelligence: intelligence tests; Interpretation of test score, Cross-cultural issues in testing intelligence

#### UNIT- II: Sources of Power (1)

- Personality- Freud's theory, and Social cognitive theory
- Personality-Trait and type approach, Biological and sociocultural determinants, Psychometric and projective assessment.



**UNIT –III: Sources of Power(2)**

- (i) Motivation-Drive theory, Arousal theory, Expectancy theory, Maslow's need hierarchy
- (ii) Emotion-Theories of James-Lange, Cannon-Bard, & Schachter-Singer

**UNIT –IV: Proving empowered**

- (i) Social behavior- Meaning of attribution and errors in attribution, Meaning of social cognition and processing of social information
- (ii) Positive Psychology-Scope and aims, Nature and characteristics of happiness, Subjective well-being and personal growth.

**PRACTICAL**Credit : **02****25 Marks**

- (i) **Intelligence test-** To test the non-verbal intelligence of two college students using Raven's Standard Progressive Matrices
- (ii) **Personality Type-** To assess the personality type of a student obtaining responses from the student and two other significant persons in his /her life by using Glazer's test of Personality Type

**Text Books:**

- Baron, R.A. (1995). Psychology- The Essential Science, Pearson Education Company of India Pvt. Ltd.
- Gerrig, R.J. & Zimbardo, P.G. (2010). Psychology and Life (19th Ed.). Delhi: Allyn & Bacon
- Snyder, C.R. & Shane, J.L. (2005) Handbook of Positive Psychology: Oxford University Press.
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantarapur, Bhubaneswar.

**Reference Books:**

- Baron, R. A. & Byrne, D. (2003). Social Psychology, 10th Edition, Prentice Hall
- Misra, G. (2009). Psychology in India, Vol 1: Basic Psychological Processes and Human Development. India: Pearson
- Dash, U.N., Dash, A.S., Mishra, H.C., Nanda, G.K. & Jena, N. (2004). Practical Exercises in Psychology: Learning about Yourself and Others. Panchasila, Bhubaneswar.

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 5****PSYCHOLOGICAL STATISTICS**Time : **3 Hrs.**Credit : **04**End Semester Theory : **60 Marks**Mid Semester Theory : **15 Marks****Introduction:**

The course is designed to equip students with knowledge in the fundamentals of statistics and research methods so that they understand the application of statistics to different research problems in psychology.

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**Learning Objectives:**

- To help students develop knowledge and understanding of the application of Statistics within Psychology
- To help students develop critical thinking for application of appropriate statistical analysis in Psychological research

**Expected outcomes: Students will be able to understand**

- The nature of psychological variables and how to measure them using appropriate scale.
- The processes of describing and reporting statistical data.
- The methods of drawing inferences and conclusions for hypothesis testing by using appropriate statistical analysis.

**UNIT-I: Fundamentals of statistics**

- (i) Meaning and scope of statistics, Nature of variables- Categorical and Continuous, Levels of Measurement- Nominal, Ordinal, Interval, and Ratio
- (ii) Drawing frequency distribution; Graphical representation of grouped data-Polygon, Histogram, Ogive.

**UNIT- II: Measures of Statistics**

- (i) Measures of Central Tendency- Characteristics of mean, median and mode; Computation of mean, median, and mode
- (ii) Measures of Variability- Concept of variability, computation of semi-inter quartile range, Standard deviation and variance, Co-efficient of variation

**UNIT- III: Sources and Applications**

- (i) Concept of Probability; Characteristics of Normal Probability curve, Applications of NPC, Deviation from NPC- Skewness and Kurtosis
- (ii) Concept of correlation, Product-moment correlation (ungrouped data), Rank order correlation, Chi-square test (Contingency Table)

**UNIT –IV: Hypothesis Testing**

- (i) Level of significance; Type I and Type II error; Computation of 't' for independent and dependent samples
- (ii) Purpose and assumptions of ANOVA; One-way and two-way ANOVA

**PRACTICAL**

Credit : 02

25 Marks

- (i) **Reporting of Statistical Results:** To collect data of 60 (30 boys and 30 girls) High School students about their Annual examination marks in four subjects and to report by descriptive statistical analyses.
- (ii) **Computer Awareness:** To be familiar with software packages of statistics and their applications.

**Text Books:**

- Aron, A., Aron, E.N., & Coups, E.J. (2007). Statistics for Psychology. (4thEd.) India: Pearson Education, Prentice Hall.
  - Ferguson, G.A. & Takane, Y. (1989). Statistical Analysis in Psychology & Education, Tata McGraw Hill Publishing Company, New Delhi
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- Garrett, H. E. & Woodworth, R.S. (1985). Psychology in Statistics and Education, Vakils, Feffer & Simons Ltd. Mumbai
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantarapur, Bhubaneswar.

**Reference Books:**

- Mishra, G.C. (2018). Applications of Statistics in Psychology and Education, Kalyani Publisher, New Delhi
- Mohanty, B. and Misra, S. (2017). A text book of Basic Statistics. LaxmiPrakashans, Bhubaneswar, Odisha
- Siegal, S. (1994). Nonparametric Statistics. McGraw Hill, New Delhi

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 6****SOCIAL PSYCHOLOGY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Introduction:**

Social psychology is the scientific study of the nature and causes of human behavior in a social context. This course is designed to introduce the students to the field of social psychology, to explain how social psychologists think about and study human behavior; to introduce the body of knowledge and underlying principles that currently exist in the field and to encourage reflection about the implications of social psychology for the situations we encounter in everyday life.

**Learning Objectives:**

- To help students develop awareness of the concepts, problems and issues in the discipline of social psychology
- To make students understand the individuals and groups in respect to patterns of social behavior and attitudes
- To help students gain insight into the dynamics of intergroup relationships, conflict, prejudice and cooperation.

**Expected outcomes: Students will be able to**

- Know the scope of studying social psychology and the methods to gather data in the social context to explain them.
- Understand the significance of social cognition, attitudes, stereotypes and prejudices in explaining human behavior in the social contexts.
- Understand the significant aspects group behavior and social influence that constitute the core of human relationships.

**UNIT-I: Introduction**

- (i) Nature, goal and scope of social psychology. Methods of Social Psychology- Observation; Questionnaire, Interview, and Experiment
  - (ii) Social Cognition- Perceiving ourselves: self-concept, self-esteem, self-presentation and self-expression; Perceiving others and forming impressions
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**UNIT- II: Attitude, Prejudice and Stereotypes**

- (i) Attitudes- Nature, characteristics and functions of attitude; Attitude formation and change; Attitude measurement
- (ii) Prejudice and Stereotypes- Nature and components of prejudice, Acquisition of prejudice, Reduction of prejudice, Nature and Characteristics of stereotype.

**UNIT- III: Group and Leadership**

- (i) Group - Group structure and function, Task performance: Social facilitation, Social loafing; Conformity, Obedience and social modeling; Group cohesiveness.
- (ii) Leadership- Definitions and functions, Trait, situational, interactional and contingency approaches to leadership; Leadership effectiveness, The charismatic leadership.

**UNIT- IV: Social Behavior**

- (i) Pro-social behavior- Cooperation and helping, personal, situational and socio-cultural determinants, Theoretical explanations of pro-social behavior
- (ii) Aggression- Theoretical perspectives, Trait, situational and social learning approaches, social and personal determinants of aggression, prevention and control of aggression.

**PRACTICAL**Credit : **02****25 Marks**

- (i) **Ethical Values:** To assess the ethical values of five adolescents by using Donelson's Ethical Position Questionnaire (EPQ)
- (ii) **Attitude towards Women:** To measure the attitude of three boys and three girls towards Women by using Spence, Helmrich & Stapps' Attitude towards Women scale.

**Text Books:**

- Baron R. A & Byrne. D. (2003). Social Psychology. 10th Edition, Prentice Hall
- Baron. R.A., Byrne, D. & Bhardwaj. G (2010). Social Psychology (12th Ed). New Delhi: Pearson
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantarapur, Bhubaneswar.
- Dash, U.N., Dash, A.S., Mishra, H.C., Nanda, G.K. & Jena, N. (2004). Practical Exercises in Psychology: Learning about Yourself and Others. Panchasila, Bhubaneswar

**Reference Books:**

- Developments (ICSSR survey of advances in research). New Delhi: Pearson.
  - Misra, G. (1990). Applied Social Psychology. New Delhi: Sage.
  - Misra, G. (2009). Psychology in India, Volume 4: Theoretical and Methodological Implications
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**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 7**  
**ENVIRONMENTAL PSYCHOLOGY**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Introduction:**

Environmental psychology is an interdisciplinary field focused on the interplay between individuals and their surroundings. The field defines the term environment broadly, encompassing natural environments, social settings, built environments, learning environments, and informational environments. The course is designed to introduce to the students about all these aspects of environment.

**Learning Objectives:**

- To highlight the simultaneous mutual interaction of environment and behavior.
- To delineate psychological approaches to the study of environment.
- To discuss the impact of ecological degradation and the need for enhanced awareness programs

**Expected outcomes: Students will be able to**

- Understand the interactional relationships between environment and behavior
- Understand the problems occurring to ecology and environment at the present time
- Understand different psychological approaches to the study of man-environment relationship.

**UNIT -I: Environment and Behavior**

- (i) Earth as a living system: The Gaia hypothesis, Deep ecology; Man-environment relationship- physical, social, cultural, orientation and product.
- (ii) Effects of Environment on behavior: Noise pollution, Air pollution, Crowding and Population explosion.

**UNIT- II: Ecology and Development**

- (i) Human behavior and Environmental Problems: Global warming, Greenhouse effect, Energy depletion; Pro-environmental behaviors.
- (ii) Ecosystem and their components; Sustainable development; Resource use: Common property resources. Ecology: Acculturation and psychological adaptation

**UNIT –III: Psychological Approaches to environment**

- (i) Field theory approach; Eco-cultural Psychology (Berry); Biosocial Psychology (Dawson);
- (ii) Ecological Psychology (Barker); Ecological system approach (Bronfenbrenner)

**UNIT- IV: Environmental Assessment**

- (i) Socio-psychological dimensions of environmental impact; Environmental deprivation- nature and consequences.
  - (ii) Creating environmental awareness; Social movements- Chipko, Tehri, Narmada.
-

**PRACTICAL**Credit : **02****25 Marks**

- (i) To assess the environmental literacy of 4 college students using Bob Simpson's Environment literacy and awareness survey questionnaire.
- (ii) To assess the environmental attitude, concern and sensitivity of 4 college students using Bob Simpson's Environment literacy and awareness survey questionnaire.

**Text Books:**

- Dreze, J. and Sen, A. (1992). Indian Development. Delhi: Oxford University Press.
- Gadgil, M. and Guha. R. (1995). Ecology and Equity. New Delhi, Penguin Books
- Mohanty, B. and Misra, S. (2017). A text book on Environmental Psychology. Krupajala Books, Bhubaneswar, Odisha
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantapur, Bhubaneswar.

**Reference Books:**

- Goldsmith, E. (1991). The way: The ecological World View. Boston: Shambhala

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 8**  
**PSYCHOPATHOLOGY**

Time : **3 Hrs.**  
Credit : **04**

End Semester Theory : **60 Marks**  
Mid Semester Theory : **15 Marks**

**Introduction:**

**Psychopathology** refers to the study of mental illness. This course is designed to expose students to the key concepts in psychopathology as well as the major theories associated with the etiology and treatment of psychological disorders and disabilities. Students will be able to understand the distinction between normal and abnormal and the qualities that are used to differentiate what is typical versus atypical through citations of different disorders.

**Learning Objectives:**

- To help students define and understand the basic concepts underlying *psychopathology and the* perspectives which contributed to the development of modern psychopathology.
- To help students understand the assessment techniques for identifying and classifying maladaptive behavior and mental disorders.
- To guide students to gain specific knowledge about different types of mental disorders.

**Expected outcomes: Students will be able to**

- Understand the differences between normality and abnormality along with the perspectives explaining them.
  - Know the importance and the use of assessment techniques in identifying different forms of maladaptive behavior.
-

- Learn the symptoms, causes and treatment of anxiety disorders, mood disorders and schizophrenia.

**UNIT-I: Basics of Pathology**

- (i) Concept of abnormality; Perspectives of abnormal behavior- Psychodynamic, Behavioral, Cognitive, Humanistic-Existential, and Sociocultural
- (ii) Classification of maladaptive behavior-DSM-IV; Assessment techniques- Diagnostic tests, Rating scales, History taking interview, Projective tests

**UNIT- II: Anxiety and Mood disorder**

- (i) Symptoms, causes and treatment of Generalized anxiety disorder, Phobic disorder, Obsessive-Compulsive disorder
- (ii) Depressive disorder –Symptoms, causes and treatment of major depressive disorder, Bipolar affective disorder, and Dysthymia

**UNIT- III: Personality Disorders**

- (i) Paranoid, Schizoid, Dissociative, Impulsive
- (ii) Borderline, Anxious, Avoidance, Dependent personality

**UNIT –IV: Schizophrenia and Therapies**

- (i) Characteristics, Major subtypes, Causes and treatment of Schizophrenia
- (ii) Psychodynamic, and Cognitive Behavior therapy.

**PRACTICAL**Credit : **02****25** Marks

- (i) **Anxiety:** Assessment of Anxiety of a subject by Hamilton Anxiety Rating Scale (HARS)
- (ii) **Depression:** Assessment of Depression Profile of a subject by Beck's Depression Inventory (BDI)

**Text Books:**

- Carson R.C., Butcher J.N., Mineka, S., & Hooley J.M. (2007). Abnormal Psychology (13th Ed.).ND: Pearson Education.
- Irwin G. Sarason, Barbara Sarason (2005). Abnormal Psychology. New Delhi: Prentice Hall Publication
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantarapur, Bhubaneswar.

**Reference Books:**

- Kring,A.M.,Johnson,S.L.,Davison G.C. & Neale J.M. (2010). Abnormal Psychology (11th Ed.).NY: John Wiley.
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**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 9****EDUCATIONAL PSYCHOLOGY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Introduction:**

This course provides an introduction to concepts, theories, and research in educational psychology. The topics covered include cognitive development during the school years, classroom management, instructional approaches, motivation, assessment, and individual differences.

**Learning Objectives:**

- To provide students with an overview of the purposes and uses of educational psychology.
- *To help students understand human development focusing mainly on the years of formal education including those with ability differences*
- *To make students understand the ways that educators motivate their students to learn and strive for excellence*
- *To make students explore the ways that educators manage learning environments to maximize learning and social cohesion*

**Expected outcomes: Students will be able to**

- Define educational psychology and give examples of the different topics educational psychologists study.
- Describe the developmental issues faced by school age children.
- Describe the challenges presented by children with ability differences.
- Explain the role of motivation on learning and classroom behavior.
- Describe classroom management techniques.
- Identify commonly used standardized tests, their strengths and limitations, and use in school settings.

**UNIT-I: Foundations of Educational Psychology**

- (i) Concepts and principles of educational psychology, The teaching-learning process, Goals of teaching and objectives for learning, transfer of training, reinforcements in learning process
- (ii) Theories of cognitive development-Piaget, Bruner, and Vygotsky.

**UNIT- II: Motivation and Classroom Management**

- (i) Meaning of motivation, Intrinsic and extrinsic motivation, Approaches to understand classroom motivation, Motivational techniques in classroom teaching
- (ii) The goals of classroom management, Creating a positive learning environment, Characteristics of an effective teacher, Teacher expectation and students' performance

**UNIT- III: Creativity and Aptitude**

- (i) Nature and characteristics of creativity; Theories of creativity; Fostering creativity among children
  - (ii) Nature and characteristics of aptitude; Types of aptitude; Measurement of aptitude; Utility of aptitude tests
-



**UNIT –IV: Dealing with ability differences and Testing**

- (i) Teaching children with mental retardation, learning disability, social class differences and educational difficulties, and attention deficit Hyperactive disorder.
- (ii) Types of standardized tests- Achievement test, and aptitude tests, Advantages and limitations of standardized test.

**PRACTICAL**Credit : **02****25 Marks**

- (i) **Academic Behavior:** To assess the academic attitude and behavior of college students by using Sia's Academic Behavior Scale
- (ii) **Academic Stress:** To assess the academic stress of two higher Secondary students using Rao's Academic Stress Scale.

**Text Books:**

- Gage, N. L., & Berliner, D. C. (2009) *Educational psychology* (5th ed.). Boston, MA: Houghton Mifflin.
- Woolfolk, A.E. (2004). *Educational Psychology* (9th Ed.), Allyn& Bacon, London / Boston
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). *Explorations of Human Nature and Strength: Practicals in Psychology*, DivyaPrakashani, Samantarapur, Bhubaneswar.

**Reference Books:**

- Chauhan, S. S. (2010). *Advanced Educational Psychology*, Vikash Publishing.

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 10****PSYCHOLOGICAL ASSESSMENT**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****Introduction:**

The course is designed to expose students to a basic understanding about approaches to psychological assessment and develop skill in the administration and interpretation of psychological tests.

**Learning Objectives:**

- To train students in various psychological assessment techniques
- To impart skills necessary for selecting and applying different tests for different purposes such as evaluation, training, rehabilitation etc.

**Expected outcomes: Students will be able to**

- Understand the basic facts about psychological assessment.
  - Understand the processes of test construction and standardization.
  - Understand about the assessment of different types of skills and abilities.
-

**UNIT-I: Introduction**

- (i) Nature and Scope of human assessment; Parameters of assessment
- (ii) Psychological scaling, Methods of scaling

**UNIT- II: Psychological Tests**

- (i) Principles of test construction and standardization- Item analysis, reliability, validity and development of norms
- (ii) Types of psychological tests- Individual, group, performance, verbal, nonverbal

**UNIT –III: Assessment of Ability**

- (i) Assessment of general abilities- Intelligence, interest, interpersonal interaction
- (ii) Assessment of personality- Use of self-report inventories, interview, projective and non-projective tests

**UNIT- IV: Classroom Assessment**

- (i) Classroom as assessment context, Traditional tests, Alternative assessment
- (ii) Grading and reporting of performance, Computer and assessment

**PRACTICAL**Credit : **02****25** Marks

- (i) **Empathy:** To assess the empathy behavior of Five college students using Spreng's Empathy questionnaire.
- (i) **Sense of Humor:** To assess the Sense of Humor of 4 College Students Using McGhee's Scale of Sense of Humor (MSSH)

**Text Books:**

- Anastasi, A. (1988). Psychological Testing. New York: MacMillan
- Mishra, G.C. & Others (2018). Psychological Assessment. Kalyani Publisher, New Delhi

**Reference Books:**

- Kerlinger, F.N. (1983). Foundations of Behavioral Research. New York: Surjeet Publications
- Minium, E.W., King, B.M. & Bear, G. (1993). Statistical Reasoning in Psychology and Education. New York: John Willey.

**+3 THIRD YEAR FIFTH SEMESTER****Core Paper - 11****ORGANIZATIONAL BEHAVIOR**Time : **3** Hrs.End Semester Theory : **60** MarksCredit : **04**Mid Semester Theory : **15** Marks**Introduction:**

The course provides an overview of the main fields of organizational and personnel psychology. It focuses on topics such as organizational system; work behavior, attitudes and motivation as related to organizational set up; management of power and politics in the organizations; and finally development and evaluation of human resources for sustainable growth of an organizations.

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**Learning Objectives:**

- To help students understand the structure, functions, and designs of different organizations.
- To make students understand the processes of group decision making and leadership functions in different organizations.
- To make students understand the theories of work motivation and related issues of power and politics in the organizational set up.
- To help students demonstrate professional skills in the evaluation, management, and development of human resources in the organizations.

**Expected outcomes: Students will be able to**

- Understand different concepts and dynamics related to organizational system, behavior, and management.
- Identify steps managers can take to motivate employees in the perspectives of the theories of work motivation.
- Understand the tricks of power and politics management in the organizations.
- Understand significance of human resource development, evaluation and management for the interest and benefit of the organization.

**UNIT I: Historical context of organizational behavior**

- (i) Contributions of Taylor, Weber and Fayoll; Challenges, Scope and opportunities for OB
- (ii) OB perspectives-Open system approach, Human relations perspective, Socio-technical approach, OB model responsive to Indian realities

**UNIT-II: Organization System**

- (i) Structure and functions of organization, Common organizational designs, Management roles, functions and skills
- (ii) Group decision making processes in organizations, Organizational leadership and types of leadership in organizations

**UNIT- III: Work, Power and Politics**

- (i) Contemporary theories of work motivation- ERG theory, McClelland's theory of needs, Cognitive evaluation theory, Goal-setting theory, Reinforcement theory
- (ii) Defining power in organization, Bases of power, Power tactics, Nature of organizational politics, Impression management, and defensive behavior

**UNIT –IV: Human resource development and Evaluation**

- (i) Human Skills and Abilities, Selection Practices for Optimal Use of Human Resources; Training Programs for the Development of Human Resources
- (ii) Performance Evaluation- Purpose, Methods, Potential Problems and methods to overcome them

**PRACTICAL**

Credit : 02

25 Marks

- (i) **Leadership Style:** To measure his basic leadership style of 4 college students by using Greenberg Basic Leadership Style scale
  - (ii) **Conflict-Handling:** To measure the conflict-handling style of 4 college students by using Rahim's scale to identify their conflict handling style.
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**Text Books:**

- Robbins, S.P.; Timothy, A.J. & Vohra, N. (2012). Organizational Behavior, 15th Edn. Pearson Education: New Delhi
- Luthans, F. (2009). Organizational behavior. New Delhi: McGraw Hill.
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantarapur, Bhubaneswar.

**Reference Books:**

- Greenberg, J. & Baron, R.A. (2007). Behaviour in Organizations (9th Ed.). India: Dorling Kindersley.

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 12**  
**HEALTH PSYCHOLOGY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Introduction:**

Health psychology is a specialty area that focuses on how biology, psychology, behavior and social factors influence health and illness. This course is designed to provide an introduction to the area of health psychology to help students understand how Health Psychology as a specialty within psychology addresses the role of behavioral factors in health and illness. Basic theories, models and applications are also included.

**Learning Objectives:**

- To help the students understand the issues of Health Psychology and how to address them by the bio-psychosocial model of health and illness.
- To help the students to describe behavioral factors that influence health and illness.
- To guide the students understand about health enhancing behaviors including coping with illness.

**Expected outcomes: Students will be able to**

- Know the basics of health and illness from the Bio-psychosocial perspectives.
- Understand the significance of behavioral and psychological correlates of health and illness.
- Understand the significant aspects of coping and importance of health enhancing behavior.

**UNIT-I: Introduction**

- (i) Goals of Health Psychology, Biopsychosocial model of health and illness
- (ii) Basic nature of stress, Cognitive appraisal of stressors, Some major causes of stress, Management of stress

**UNIT- II: Health and Illness**

- (i) Behavioral and psychological correlates of illness, Approaches to promoting wellness, Some common health beliefs and their implications
  - (ii) Models of health- The cognition models- The health belief model, The protection motivation model, Leventhal's self-regulatory model.
-

**UNIT –III: Health and Coping**

- (i) Individual differences in symptom perception, Coping with the crises of illness; Compliance behavior and improving compliance.
- (ii) Health enhancing behavior- Diet management, Yoga and Exercise

**UNIT- IV: Health Issues**

- (i) Children health issues- Malnutrition, Immunization, Autism, ADHD
- (ii) Health issues of women and elderly: **Diabetes, Osteoporosis, Alzheimer's Disease, Depression**

**PRACTICAL**Credit : **02****25 Marks**

- (i) **Sleep Quality:** To assess the Sleep quality of 4 college students by The Pittsburgh Sleep Quality Index (PSQI)
- (ii) **Coping Strategies:** To assess of the Coping Strategies of 4 college students by Tobin's Coping Strategy Inventory (TCSI)

**Text Books:**

- Taylor, S.E. (2006). Health Psychology (6th Ed.). New York: Tata McGraw Hill
- Brannon and Feist. Health Psychology.
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantarapur, Bhubaneswar.

**Reference Books:**

Ogden, J. (2007). Essentials of Health Psychology. McGraw Hill.

**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 13**  
**COUNSELING PSYCHOLOGY**

Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****Introduction:**

The course is designed to develop entry level counseling psychologists who will be capable of understanding and demonstrating behavior and attitudes in the basic areas of professional counseling.

**Learning Objectives:**

- To help students understand and integrate current scientific knowledge and theory into counseling practice.
  - To make students learn the history and professional issues related to counseling psychology.
  - To help students integrate and convey information in the core areas of counseling practice.
  - To help students demonstrate professional behavior in their various roles as counseling psychologists.
-

**Expected outcomes: Students will be able to**

- Understand the purpose of counseling and practice of counseling ethically following different approaches.
- Understand the basics of counseling process and use them for counseling students, families, couples, distressed, and handicaps.

**UNIT-I: Basics of Counseling**

- (i) Meaning, scope and purpose of counseling with special reference to India; The counseling process, counseling relationship, counseling interview
- (ii) Characteristics of a good counselor, Ethics and values in counseling; Education and training of the counselor

**UNIT –II: Theories and Techniques of Counseling**

- (i) Psychodynamic approach-Freud and Neo Freudians; Humanistic approach-Existential and Client centered
- (ii) Cognitive approach- Rational-emotive and transaction analysis; Behavioral approach- Behavior modification; Indian contribution- yoga and meditation

**UNIT- III: Counseling Programs**

- (i) Working in a counseling relationship, transference and counter transference, termination of counseling relationship, Factors influencing counseling
- (ii) Student counseling, Emphases, roles and activities of the school, and college counselor.

**UNIT –IV: Counseling application**

- (i) Family and Marriage Counseling, Family life and family cycle, Models and methods of family counseling
- (ii) Alcohol and drug abuse counseling; Counseling the persons with Suicidal tendencies, and Victims of Harassment and Violence

**PRACTICAL**Credit : **02****25 Marks**

- (i) **Marital Relationship-** To assess the marital relationship of 2 couples using Lerner's Couple adjustment scale
- (ii) **Case Reporting:** To complete four case studies of high school students with problem behavior in the appropriate case record proforma

**Text Books:**

- Gladding, S.T. (2009). Counseling: A comprehensive profession (6th Ed.). New Delhi: Pearson India
  - Mishra, H.C. & Varadwaj, K. (2009). Counseling Psychology: Theories, Issues and Applications, DivyaPrakashini, Samantarapur, Bhubaneswar, Odisha
  - Burnard Philip. (1995). Counseling Skills Training – A sourcebook of Activities. New Delhi: Viva Books Private Limited.
  - Gibson, R.L & Mitchell M.H. (2003). Introduction to counseling and Guidance. 6th edn. Delhi: Pearson Education
  - Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantarapur, Bhubaneswar.
-

**Reference Books:**

- Feltham, C and Horton, I. (2000). Handbook of Counseling and Psychotherapy. London: Sage.
- Misra, G. (Ed) (2010). Psychology in India, Volume 3: Clinical and Health Psychology. New Delhi: Pearson India.
- Nelson-Jones. (1995). The theory and practice of counseling. 2ndEdn. London: Holt, Rinehart and Winston Ltd
- Mohanty, G. B. (2018). Counseling Psychology, Kalyani Publisher, New Delhi.

**+3 THIRD YEAR SIXTH SEMESTER****Core Paper - 14****POSITIVE PSYCHOLOGY**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**Introduction:**

Positive psychology is the scientific study of optimal human functioning to help people flourish. This is a foundation course in positive psychology to help students not only to understand the core themes of positive psychology, but also to equip them with the helpful positive interventions in various areas of professional psychology, such as clinical, health, education, organization and community.

**Learning Objectives:**

- To help students to understand the rationale behind positive psychology.
- To guide students to identify and analyze the key conceptual and theoretical frameworks underpinning positive psychology.
- To encourage students to appreciate the contributions of scholars from a range of disciplines and their influence on developing a positive approach to mental health.
- To make students understand and apply a strengths-based approach to mental health issues.

**Expected outcomes: Students will be able to understand**

- The goal of positive psychology and the basic behavior patterns that result in positive human growth from the point of view of leading positive psychologists.
- The concepts of flow and happiness and the related theories and models explaining happiness behavior and its consequences.
- All the precursors to positive psychology from character strength and altruism to resilience.

**UNIT-I: Foundations**

- (i) Historical roots and goals of positive psychology, Positive emotions, Positive Individual traits, and positive subjective experience
- (ii) Contribution of Martin Seligman, Albert Bandura, Carol Dweck and Abraham Maslow to positive psychology

**UNIT- II: Flow and Happiness**

- (i) Components of flow, Conditions and mechanisms of flow, Positive and negative consequences of flow experience
-

- (ii) Meaning and nature of happiness, Sources of happiness, Theories of happiness- Set-point theory, Life satisfaction and Affective state theories.

### UNIT –III: Precursors to Positive Psychology

- (i) Character strength, Altruism, Hope and Optimism, Positive thinking, Resilience  
(ii) Psychology of well-being: Meaning of well-being, the well-being models, Factors affecting well-being, Promoting well-being among people

### UNIT- IV: Ways to Positive Psychology

- (i) Discovering strength, Increasing optimism, Self-direction, Purpose, gratitude, Mindfulness, and Activities and experience  
(ii) Effects of exercise, Yoga, meditation and spiritual intelligence on development of positive psychology; Positive psychology in building relationship

### PRACTICAL

Credit : 02

25 Marks

- (i) **Happiness:** To measure the happiness of 4 adults using Oxford Happiness questionnaire  
(ii) **Spiritual Intelligence:** To measure the spiritual intelligence of 4 adults using King's Spiritual Intelligence test.

### Text Books:

- Seligman, M.E. (2002). Authentic Happiness: Using the New Positive Psychology to Realize Your Potential for Lasting Fulfillment: Oxford University Press
- Carr, A. (2004). Positive Psychology: The science of happiness and human strength. UK: Routledge.
- Mohanty, G.B. (2018). Positive Psychology. Kalyani Publisher, New Delhi
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantarapur, Bhubaneswar.

### Reference Books:

- Peterson, C. (2006). A Primer in Positive Psychology; Oxford University Press
  - Seligman, M.E. (2012). Flourish: A Visionary New Understanding of Happiness and Well-being. Oxford University Press
  - Snyder, C.R. & Shane, J.L. (2005). Handbook of Positive Psychology. Oxford University Press
  - Snyder, C.R., & Lopez, S.J. (2007). Positive psychology : The scientific and practical explorations of human strengths. Thousand Oaks, CA : Sage.
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**+3 THIRD YEAR FIFTH SEMESTER**  
**DSE - 1**  
**PSYCHOLOGICAL RESEARCH AND MEASUREMENT**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Introduction:**

The research methods course is among the most frequently required in the psychology and with good reason. It helps the students know about the difference between an experiment and a correlational study, the function of independent and dependent variables, the importance of reliability and validity in psychological measurement, and the need for replication in psychological research. In other words, psychologists' research methods are at the very core of their discipline. The course is designed to train the students in psychological research and measurement.

**Learning Objectives:**

- To provide an overview of scientific approaches to psychological research in term of sampling techniques, scientific method, and experimental designs.
- To acquaint the students with respect to psychometric, projective techniques and non-testing approaches like interview

**Expected outcomes: Students will be able to**

- Understand the nature of psychological research and characteristics of scientific methods of research.
- Know the methods of test construction and standardization
- Know the different approaches to assessment of personality.

**UNIT-I: Psychological Research**

- (i) Assumptions of science, Characteristics of scientific methods, Psychological research: Correlational and experimental
- (ii) Sampling frame: probability and non-probability samples, sample size, sampling error

**UNIT- II : Psychological Scaling and Construction of test**

- (i) Purpose of scaling and types of psychological data, Psychological scaling methods: Familiarity with Thurstone, Likert and Guttman scale
- (ii) Construction of test: Theory of measurement error; Operationalizing a concept, Generating items, Item analysis, Item response theory

**UNIT - III:**

- (i) **Experimental Designs:** Pretest- post-test design, Factorial designs, Randomized Block design
- (ii) **Standardization of tests:** Reliability and validity of tests, Development of norms and interpreting test scores

**UNIT- IV:**

- (i) **Assessment of Personality:** Psychometric and projective techniques, Familiarity with MMPI, Rorachs, WAT, and TAT
-

- (ii) **Interviewing:** Principles and procedures of interviewing, gaining cooperation, motivating respondents, training of interviewers, ethics of interviewing

### PRACTICAL

Credit : **02**

**25** Marks

- (i) **TAT:** To administer the TAT on a subject and give summary report  
(ii) **Word Association test:** To administer the Jung / Kent-Rosanoff list of WAT on a subject and report on his areas of emotional difficulties

#### Text Books:

- Anastasi, A. (1988). Psychological Testing. New York: MacMillan
- Minium, E.W., King, B.M. & Bear, G. (1993). Statistical Reasoning in Psychology and Education. New York: John Willey

#### Reference Books:

- Kerlinger, F.N. (1983). Foundations of Behavioral Research. New York: Surjeet Publications
- Best, W.J. & Kahn, J.V. (2006)- Research in Education. Pearson

## +3 THIRD YEAR FIFTH SEMESTER DSE - 2 PSYCHOLOGY AND SOCIAL ISSUES

Time : **3** Hrs.

End Semester Theory : **60** Marks

Credit : **04**

Mid Semester Theory : **15** Marks

#### Introduction:

Psychologists can play a larger role in the solution of important social problems. Psychology brings two important qualities to the study of social problems: attention to psychological process and rigorous methodology. The key task in the designed course is to define social problems in part as psychological problems.

#### Learning Objectives:

The course will provide social psychological analysis of some major social issues in India.

#### Expected outcomes: Students will be able to

- Understand the nature and characteristics of different social systems and social integration in India.
- Understand the aspects of health and wellbeing of Indian people.
- Understand about the political behavior of Indian people

#### UNIT-I

- (i) **Understanding Social Systems:** Indian Family System; Social stratification; caste, class, power, Religious ethics
- (ii) **Poverty and Deprivation:** Theories of poverty, Concomitants of poverty, Sources of deprivation, inequality and social justice.
-

**UNIT- II**

- (i) **Health and wellbeing:** Role of behavior in health problems, Behavioral sciences in disease prevention and control, India's health scenario
- (ii) **Political Behavior:** Development of ideology, Use of small groups in politics, Issues of human and social development, Quality of life and development

**UNIT –III: Antisocial Behavior**

- (i) Corruption and bribery, Juvenile delinquency, terrorism
- (ii) Crime and criminal behavior, Alcoholism and drug abuse, Psychopath

**UNIT- IV**

- (i) **Social integration:** The concept of social integration; Causal factors of social conflicts and prejudices; Psychological strategies for handling the conflicts and prejudices; Measures to achieve social integration.
- (ii) **Violence:** Nature and categories of violence, violence in family and marriage, rape, Collective violence for social change

**PRACTICAL**Credit : **02****25 Marks**

- (i) **Quality of Life:** To assess the quality of life family of 4 families using Beach Center Family Quality of Life Scale
- (ii) **Community Integration:** To assess the community integration of a village by using Community integration questionnaire (CIQ) of Barry Willer

**Text Books:**

- Srinivas, M.N. (1966). Social change in modern India, .Bombay: Allied
- Mohanty, A .K. and Mishra, G. (Eds.) (2000). Psychology of Poverty and Disadvantage. New Delhi: Concept
- Mishra, H.C. and Misra, S. (2009). Psychology of Deviants, DivyaPrakashani, Bhubaneswar

**Reference Books:**

- Banerjee, D. (1998). Poverty, class and health culture in India, Vol. I, Delhi PrachiPrakashan
- Dube, S.C. (1987) Modernization and Development. ND: Sage
- Mishra, G. (1999). Psychological perspectives on stress and Health. New Delhi: Concept
- Sen, A. &Sen A.K. (Eds.). (1998). Challenges of contemporary Realities: A psychological Perspective. New Delhi: New Age International.

**+3 THIRD YEAR SIXTH SEMESTER****DSE - 3****PSYCHOLOGY OF DISABILITY**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****Introduction:**

According to WHO, disability is any restriction or lack resulting from an impairment of ability to perform an activity in the manner or within the range considered normal for a human being.

While individuals may have physical or psychological impairments, it is often the society and environment that contribute to the experience of disability by failing to accommodate people with impairments. Inclusion and access is a fundamental human right and inclusive and accessible communities are vital for individual and community wellbeing. Study of psychology of disability would help the students understand this social responsibility.

### Learning Objectives:

- The objective of the course is to provide students with an overview of the disability from the psychological perspective.
- Drawing from the four units, students will be exposed to varying disability definitions, cultural meanings and representations.
- What does it mean to be “disabled”? How has this meaning changed over time in India? What factors affect a person’s experience of disability? Why should people in psychology learn about these matters?

### Expected outcomes: Students will be able to

- Know about different types of disability and their prevalence in India.
- Understand various socio-cultural models of disability
- Gain knowledge about disability policies in India
- Understand about intervention and rehabilitation of disables in India

### UNIT I

- (i) Conceptualizing Disability: Meaning and Definition, Types of disability, Assessment and Diagnosis
- (ii) Understanding Disability Policy in India: Equal opportunities Bill, Rehabilitation Council of India, National Trust

### UNIT-II

- (i) Theorizing Disability: Charity Model: Welfare Model; Medical Model
- (ii) Social Model: culture as disability; Empowerment Model

### UNIT- III

- (i) Disability support: Beliefs and attitudes towards disability; Family, care, and support structure
- (ii) Issues of Access: Built and Psychological; Education and Employment, learning disability

### UNIT -IV

- (i) Designing Interventions: Psychotherapeutic approaches; Rehabilitation
- (ii) Contemporary Debates: euthanasia, prenatal selection

### PRACTICAL

Credit : **02**

**25** Marks

- (i) To assess the attitude of 8 college students by using ‘Attitude towards Disabled Persons Scale’ (Yuker et al., 1998).
- (ii) To assess the knowledge of 4 college students about Disability Policy in India using a Questionnaire.

**Text Books:**

- Chib, M. (2011). One Little Finger. New Delhi: Sage Publications Pvt. Ltd.
- Dalal, A. K. (2011). Folk wisdom and traditional healing practices: Some lessons for modern psychology. In MatthijsCornelissen, Girishwar Misra, & Suneet Varma (eds) Foundations of Indian Psychology: Practical applications (Vol. 2) Longman, Pearson Education, New Delhi
- Mohanty, N., Varadwaj.K, & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, Divya Prakashani, Samantarapur, Bhubaneswar

**Reference Books:**

- Ghai, A. (2015). Rethinking Disability in India. India: Routledge.
- Ghai, A. (2010). Psychology of Disabled in G.Misra (Ed.) Psychology in India: Advances in research. New Delhi: Pearson education.
- Ghai, A. (2006 [2003]) (Dis)Embodied Form: Issues of Disabled Women. New Delhi: Shakti Books.
- Goodley. D & Lawthom. R. (2006). Disability and Psychology: Critical Introductions and Reflections. Palgrave Macmillan.

**+3 THIRD YEAR SIXTH SEMESTER****DSE - 4****DISSERTATION / RESEARCH PROJECT**Credit : **06**End Semester : **100** Marks**Introduction:**

The research experience of students is greatly enriched by early exposure to conducting research. There are numerous benefits of undergraduate students who get involved in research. They are better off in understanding published works, determine an area of interest, can discover their passion for research and may start their career as a researcher. Further students will be able develop ability for scientific inquiry and critical thinking, ability in the knowledge base and communication of psychology. This course is included to promote above mentioned abilities among the students.

**Learning Objectives:**

- To help students to learn how to develop scientific research designs in the study of psychology.
- To guide students to understand the previous research in their field of interest and review them to arrive at a research problem
- To encourage the students to learn ways to describe and measure human behavior.
- To help students understand the logic of hypothesis testing and application of appropriate statistical analysis.
- To make students to learn the methods of writing a research report.

**Expected outcomes: Students will be able to**

- Independently prepare a research design to carry out a research project
  - Review the related research papers to find out a research problem and relevant hypotheses
-

- Understand the administration, scoring and interpretation of the appropriate instrument for measurement of desired behavior
- Learn the use of statistical techniques for interpretation of data.
- Learn the APA style of reporting a research project.

### Unit I

A student is required to carry out a project on an issue of interest to him / her under the guidance and supervision of a teacher. In order to do so s/he must have the knowledge in research methodology and of steps in planning and conducting a research. The supervisors may help the students to go on field study / study tour relevant to their work. Thirty hours of class may be arranged in the routine to help students understand research methodology, and planning, conduction and reporting on the research. An external examiner with the supervisor as the internal examiner will evaluate the research project on the basis of scientific methodology in writing the report, and presentation skill and performance in the viva.

- **Format**
  - **Abstract** – 150 words including problem, method and results.
  - **Introduction** – Theoretical considerations leading to the logic and rationale for the present research
  - **Review**- Explaining current knowledge including substantive findings and theoretical and methodological contributions to the topic, objectives and hypotheses of the present research
  - **Method** – Design, Sample, Measures, Procedure
  - **Results**- Quantitative analysis of group data➤ (Raw data should not be attached in Appendix) Graphical representation of data wherever required.➤ Qualitative analysis wherever done should indicate the method of qualitative analysis.
  - **Discussion**
  - **References (APA Style) & Appendices**
- Project should be in Soft binding. It should be typed in Times New Roman 14 letter size with 1.5 spacing on one sides of the paper. Total text should not exceed 50 pages (References & Appendices extra).
- Two copies of the project should be submitted to the College.
- ***Project - American Psychological Association (APA) – Publication Manual 2006 to be followed for project writing***

### MARK DISTRIBUTION FOR DISSERTATION / RESEARCH PROJECT

Identification of problem	Review of Literature	Methodology	Analysis	Findings	V iva-voce	Total
10	10	10	25	20	25	100

**+3 FIRST YEAR FIRST SEMESTER**  
**GE - 1**  
**INTRODUCTORY PSYCHOLOGY**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**Introduction:**

The course is designed to provide the students a basic understanding of the psychology of human behavior. The students will be given exposure to concepts, terminology, principles, and theories that comprise an introductory course in psychology.

**Learning Objectives:**

- To help the students know the sources and processes of development of modern scientific psychology.
- To help the students develop a scientific temperament in studying and understanding human behavior.

**Expected outcomes: Students will be able to**

- Define the term psychology and demonstrate command of the basic terminology, concepts, and principles of the discipline.
- Gain knowledge of scientific methodology—the variety of ways in which psychological data are gathered and evaluated / interpreted.
- Identify and compare the major perspectives in psychology: Recognize how each approach views human thought and behavior.
- Understand the physiological and biochemical links of human behavior.

**UNIT-I: Introducing Psychology**

- (i) Concept and definition of psychology, Roots of psychology, Psychology as a scientific discipline.
- (ii) Key Perspectives in Psychology- Behavioral, Cognitive, Humanistic, Psychodynamic, and Sociocultural

**UNIT- II: Methods in Psychology**

- (i) Natural Observation, Survey and Case Study- Nature, advantages and limitations.
- (ii) Experimental and Correlational methods-Nature, advantages and limitations.

**UNIT –III: Biological Bases of Behavior**

- (i) Structure and functions of the neurons, Communication within and between neurons, Chemical regulation of the endocrine glands.
- (ii) Structure and functions of the Central nervous system and Autonomic nervous system

**UNIT-IV: States of Mind**

- (i) Nature of consciousness; changes in consciousness- sleep-wake schedules
  - (ii) Extended states of Consciousness- Hypnosis, Meditation and Hallucinations
-

**PRACTICAL**Credit : **02****25 Marks**

- (i) Collecting and analysing a case history.
- (ii) Sleep quality

**Text Books:**

- Baron, R. A. (2002). Psychology (5th Edition), New Delhi: Pearson Education.
- Hilgard & Atkinson- Introduction to Psychology (2003) 14th Edition, Thomson Learning Inc.
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantapur, Bhubaneswar.

**Reference Books:**

- Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J. (2008). Introduction to psychology (7th edition) Bombay: Tata-McGraw Hill.
- Feldman, R.S. (2004). Understanding Psychology (6th Edition), New Delhi, Tata-McGraw Hill.

**+3 FIRST YEAR SECOND SEMESTER****GE - 2****BASIC DEVELOPMENTAL PROCESSES**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****Introduction:**

The course is designed to expose students to a basic understanding about the fundamental concerns of developmental psychology and provide examples of the following three dimensions of development: growth, differentiation, and orderly progression.

**Learning Objectives:**

- To help students gain some key ideas about human development and the perspectives to understand and explain such developments.
- To help the students understand the significance of prenatal period for human development.
- To help the students understand the developmental preparations of the childhood and the implications of developmental milestones for the normal human development.

**Expected outcomes: Students will be able to**

- Understand the nature, types, and principle of development.
- Understand the processes of formation of life and development during pre- and post-natal periods.
- Understand about the different aspects of preparation for future life.

**UNIT-I: Basics of development**

- (i) Meaning, nature, and types of development; Principles of development; Factors influencing development
-



- (ii) Perspectives of development- Psychoanalytic; Mechanistic; Organismic; Humanistic

**UNIT- II: Life in formation**

- (i) Fertilization, determination of sex, multiple birth; Prenatal development- germinal stage, embryonic stage, fetal stage; Factors influencing prenatal development
- (ii) Physical and motor developments, Social and emotional developments during childhood.

**UNIT –III: Life in preparation**

- (i) Physical and motor developments, Social and emotional developments during adolescence.
- (ii) Piaget's stage of cognitive development; Kohlberg's stages of moral development

**Unit- IV: Self and identity**

- (i) Emergence of self; Structure of the self; Development of personal identity
- (ii) Development of self-control; Development of gender differences and gender roles

**Practical:**

- (i) **Locus of Control:** To assess the Locus of Control of four college students by using Rotter's Locus of Control Scale.
- (ii) **Emotional Intelligence:** To measure the emotional intelligence of four college students by using the Schutte's Emotional Intelligence Scale.

**Text Books:**

- Sigelman, G.K. & Schaffer, D.R. (1995). Life-span Human Development, Brooks / Cole Publishing Co. Pacific Grove, California.
- Berk, L. E. (2010). Child Development (8th Ed.). New Delhi: Prentice Hall.
- Mohanty, N., Varadwaj, K. & Mishra, H.C. (2014). Explorations of Human Nature and Strength: Practicals in Psychology, DivyaPrakashani, Samantarapur, Bhubaneswar.

**Reference Books:**

- Papalia, Diane E., Sally Wendos Olds (2006). Human Development. 9th Edition. New Delhi: Tata McGraw Hill
  - Baron, R. A. (2002). Psychology (5th Edition), New Delhi, Pearson Education.
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# SANSKRIT

## +3 FIRST YEAR FIRST SEMESTER Core Paper - 1 MORAL TEACHINGS AND BASICS OF SANSKRIT

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

1. *Hitopodesa Mitralabha (Prastavana, Kathâ mukha, Brddhavyaghrapathiakakatha, Mrgajambukakatha & Grdhravidalakatha)*
2. *Yaksaprasna of Mahabharata (Aranyakaparva, ch.313 from Verses 41 to 133)*
3. *Sabdarupa & Dhaturupa*  
( 'a' karanta, 'i' karanta, 'î' karanta, 'u' karanta, 'û' karanta, 'in' bhaganta, Mâtru, Pitru, Asmad, Yusmad, Tad (sabdarupas). Lat, Lan, Vidhilin, Lrut, Lot and Litlkaras of path, Ni, Kru, Sev, Han, Pâ, Dâ, Sru, Sî and Krîn in the form of Atmanepada, Parasmaipada or Ubhayapada whichever is applicable. (Dhaturupas)

**Group -A-** 10 bit questions covering all four units 2x10=20  
**Group -B-** Each unit carries 15 marks 15x4=60

**Unit - I & II:** *Hitopodesa Mitralabha and Sabdarupa*  
Unit - I - One long question  
Unit-II - Explanations two

**Unit - III & IV:** *Yaksaprasna of Mahabharata and Dhaturupas*  
Unit - III - long question one  
Unit - IV - Two Explanations and Three sabdarupas and three Dhaturupas

### Core Readings:

1. *Hitopadesah (Mitralabhah)* (Ed.) Kapildev Giri, Chaukhamba Publications, Varanasi.
2. *Mahabharata*, Gitapress, Gorakhpur (Prescribed Text)
3. *Vyakaranadarpana*, The Odisha State Bureau of Text Book Preparation and Production, Bhubaneswar, 2013

### Suggested Readings:

1. *Hitopadesah (Mitralabhah)* (Ed.) N.P. Dash and N.S. Mishra, Kalyani Publishers, New Delhi
2. *Hitopadesah (Mitralabhah)* (Ed.) B.S. Mishra, Vidyapuri, Cuttack
3. *Yaksaprasna*, T. K. Ramaayiyar, R. S. Vadhyar & Sons. Palkad, Kerala
4. *Yaksaprasna*, Ed. Dr. Nirmal Sundar Mishra, A.K. Mishra Agency, Cuttack, 2016

**+3 FIRST YEAR FIRST SEMESTER**  
**Core Paper - 2**  
**DRAMA-I & HISTORY OF SANSKRIT LITERATURE**

Time : 3 Hrs.  
 Credit : 06

End Semester Theory : 80 Marks  
 Mid Semester Theory : 20 Marks

**Group -A-** 10 bit questions covering all four units 2x10=20  
**Group -B-** Each unit carries 15 marks 15x4=60

**1. Abhijnanasakuntalam (Act I-IV)**

Unit-I- long questions (Two)  
 Unit-II- Explanation of one verse  
 Textual Grammar  
 i) Sandhi  
 ii) Karaka & Vibhakti  
 iii) Samasa

**2. History of Sanskrit Literature-I**

Unit- III: *Ramayana & Mahabharata, General out lines of Puranas (Definition & Number)*  
 Unit- III: One long question  
 Unit- IV: (General Outlines of *Mahakavyas with special refence to Ashvaghosa, Kalidasa, Bharavi, Magha and Sriharsa and Sanskrit Dramas with special refence to Bhasa, Kalidasa, Sudraka, Visakhadatta, Ashvaghosa, Bhattanarayana* )  
 Unit- IV: One long question or three short notes

**Core Readings:**

1. *Abhijnanasakuntalam* (Ed.) M.R. Kale, Motilal Banarsidass Publishers Pvt. Ltd., New Delhi-110007, 8th Reprint, 2010.
2. *History of Sanskrit Literature*, Baladev Upadhyay, Chaukhamba Publications, Varanasi.

**Suggested Readings:**

1. *Abhijnanasakuntalam* (Ed.) R.M. Bose, Modern Book Agency Pvt. Ltd., Bankim Chatterjee Street, Calcutta
2. *Abhijnanasakuntalam* (Ed.) R.M. Mohapatra, Books & Books, Cuttack
3. *Abhijnanasakuntalam* (Ed.) H.K. Satapathy, Kitab Mahal, Cuttack
4. *Sanskrit Drama*, A.B. Keith, Oxford University Press, London
5. *Samskrta Sahiytara Itihasa*, (Odia) H.K. Satapathy, Kitab Mahal, Cuttack- 753003.

**+3 FIRST YEAR SECOND SEMESTER**  
**Core Paper - 3**  
**DRAMA-II and DRAMATURGY**

Time : 3 Hrs.  
 Credit : 06

End Semester Theory : 80 Marks  
 Mid Semester Theory : 20 Marks

Group -A- 10 bit questions covering all four units 2x10=20  
 Group -B- Each unit carries 15 maros 15x4=60

1. **Abhijnanasakuntalam** (Acts V-VII)
2. **Dramaturgy**  
 (Nandi, Prastavana, Purvaranga, Panca-arthaprakṛti, Pancasandhi, Panca-arthopaksepaka, Nataka, Prakarana from Sahityadarpana)

1. **Abhijnanasakuntalam (Acts V-VII)**  
 Unit-I- Two long questions  
 Unit-II-Explanation of textual verse- 1

Translation from Sanskrit to Odia/ English-1 verse  
 Translation from Prakrit to Sanskrit-1

2. **Dramaturgy (Sahityadarpana, Chapter- VI)**  
 Unit-III- Nandi, Prastavana, Purvaranga, Nataka, Prakarana  
 Unit-III- Three short notes  
 Unit-IV- Pancasandhi, Panca - arthaprakruti and Panca- arthopaksepaka  
 Unit-IV- Three short notes

**Core Readings:**

1. *Abhijnanasakuntalam* (Ed.) M.R. Kale, Motilal Banarsidass Publishers Pvt. Ltd., NewDelhi-110007, 8th Reprint, 2010.
2. *Sahitya Darpana* with Laksmi Tika (Sanskrit) and Vimala Tika, (Hindi) (Ed.) K.M.Sastri, Chaukhamba Publications, Varanasi.

**Suggested Readings:**

1. *Abhijnanasakuntalam* (Ed.) H.K. Satapathy, Kitab Mahal, Cuttack
2. *Sahitya Darpana* (Ed.) P.V.Kane, Motilal Banarsidass Publishers Pvt. Ltd., New Delhi
3. *Odia Translation of Sahityadarpana* by Narayana Mohapatra, Odisha Sahitya Academy, Bhubaneswar.
4. *Sahityadarpana* evam Chanda (Ed.) Dr. Braja Sundar Mishra, Satyanarayan Book Store, Cuttack
5. *Sahityadarpana O Chanda* (Ed.) Niranjan Pati, Vidyapuri, Cuttack

**+3 FIRST YEAR SECOND SEMESTER****Core Paper - 4****AN INTRODUCTION TO THE TECHNIQUE OF PANINIAN GRAMMAR & PROSODY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

Group-A-10 bit questions covering all four units 2x10=20

Group-B- Each unit carries 15 marks 15x4=60

1. Vocabulary relevant to Sanskrit Grammar and Arrangement of Paninian Grammar
2. Samjna-prakaranam from Vaiyakarana Siddhanta Kaumudi
3. Chanda from Srutabodha

**1. Vocabulary relevant to Sanskrit Grammar and Arrangement of Paninian Grammar**

**Unit- I**

(Sutra, Varttika, Bhasya, Astadhyayi, Siddhantakaumudi, Dhatupatha, sthani, Agama, Adesa, Nadi, Nistha, Krdanta, Taddhita, Tinanta, Nijanta, Sananta, Yananta, Namadhatu, Vikarana, Luk, Lopa, Sarvadhataka, Ardhadhataka, ti & Upadha = 26)

Unit-I- Short notes any six

**2. Samjnaprakaranam**

**Unit- II** : From beginning upto najjhalau: four sutras to be explained

**Unit- III** : Rest of the Sutras: Four Sutras to be explained

**3. Chanda (Prosody)- Srutabodhah**

(Chandas such as -: Arya, Anustubh, Indravajra, Upendravajra, Upajati, Vamsastha, Vasantatilaka, Mandakranta, Malini, Shikharini, Shardula- vikridita, Sragdhara.)

**Unit- IV:** Definition and Examples of 4 Chandas - out of 7 asked (The students are advised to compose slokas in seminar period)

**Core Readings:**

1. Siddhanta-kaumudi with Balamanorama and Tattvabodhini, Vol.I (Ed.) Giridhara Sharma Chaturveda, Motilal Banarsidass
2. Vyakaranadarpana, The Odisha State Bureau of Text Book Preparation and Production, Bhubaneswar- 2013
3. Shrutabodha, Hari Prasad Sharma, Nirnaya Sagar Press. Bombay

**Suggested Readings:**

1. Siddhanta-kaumudi (Ed.) Prof. G.K. Dash & Dr(Mrs) K.Dash with Navanita tika, A.K.Mishra Publishers Pvt. Ltd, Cuttack.
2. Siddhanta-kaumudi (Ed.) Minati Mishra, Vidyapuri, Cuttack
3. Siddhanta-kaumudi (Ed.) Dr. Niranjana Pati, Kalyani Publishers, New Delhi
4. Siddhanta-kaumudi (Ed.) P.R.Ray, Sailabala Womens College,(Skt.Deptt.) Cuttack.
5. Sahityadarpana Evam Chanda (Ed.) Dr. Brajasundar Mishra, Satyanarayana Book Store, Cuttack.

**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 5**  
**POETRY & HISTORY OF SANSKRIT LITERATURE- II**

Time : 3 Hrs.  
 Credit : 06

End Semester Theory : 80 Marks  
 Mid Semester Theory : 20 Marks

Group-A-10 bit questions covering all four units 2x10=20  
 Group-B- Each unit carries 15 marks 15x4=60

1. *Meghadutam- (Purvamegha)*
2. *History of Sanskrit Literature-II*  
 ( *Gitikavyas / Khandakavyas, Campu, Gadyakavyas and Kathasahitya* )

**1.Meghadutam- (Purvamegha)**

**Unit-I** one long question

- i) *Explanation of One Verse*
- ii) *Translation of One Verse into Odia/ Sanskrit*

**2. History of Sanskrit Literature-II**

**Unit-III:** *Gitikavyas / Khandakavya(Kalidas, Bhartrhari & Jayadeva )*  
*Unit-III: one long question two short notes*

**Unit- IV:** *Campu (Ramayana campu, Bharata campu, Nala campu & Nilakantha campu), Gadyakavyas (Subandhu, Banabhatta & Dandi), Kathasahitya (Gunadhya, Somadeva, Visnusarma & Pandita Narayana)*  
*Unit-IV: Three short notes*

**Core Readings:**

1. *Meghadutam* (Ed.) M.R. Kale, Motilal Banarsidass, Delhi
2. *Sanskrita Sahitya ka Itihasa*, Baladeva Upadhyaya, Choukhamba, Varanasi.

**Suggested Readings:**

1. *Meghadutam* (Ed.) Dr. Braja Sundar Mishra, Vidyapuri, Cuttack, 1st Edn-1999
2. *Meghadutam* (Ed.) Radhamohan Mahapatra, Books and Books, Vinodvihari, Cuttack,1984
3. *Sanskrita Sahitya ka Ruparekha*, Vacaspati Goreilla, Choukhamba Vidyabhavan, Varanasi.
4. *Sanskrita Sahitya Itihasa*, H.K. Satapathy, Kitab Mahal, Cuttack
5. *Sanskrita Sahitya Itihasa*, Text Book Bureau, Govt. of Odisha, Bhubaneswar

**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 6**

**META RULES OF PANINIAN GRAMMAR, POETICS & FIGURES OF SPEECH**

Time : 3 Hrs.  
 Credit : 06

End Semester Theory : 80 Marks  
 Mid Semester Theory : 20 Marks

Group-A-10 bit questions covering all four units 2x10=20  
 Group-B- Each unit carries 15 marks 15x4=60

1. *Paribhasaprakaranam of Vaiyakarana Siddhantakaumudi*

2. *Sahityadarpanah (Ch.I & II)*
3. *Sahityadarpanah (Selected Alamkaras from Ch.X)*

### 1. **Paribhasaprakaranam**

**Unit- I:** Four *Sutras* to be explained.

### 2. **Poetics**

**Unit- II:** *Sahityadarpana Ch. I (Kavya laksana, Kavya prayojana, Kavya hetu, Kavya bheda)*

**Unit- III:** *Sahityadarpana Ch. II (Vakya, Pada, Abhidha, Laksana, Vyanjana)*

Unit-II: Three short notes out of five

Unit-III: Three short notes out of five

### 3. **Figures of speech** (without Sub-division)

*Sahityadarpana (Ch.X)*

(*Alamkaras such as Anuprasa, Yamaka, Slesa, Upama, Rupaka, Utpreksa, Bhrantiman, Nidarsana, Arthantaranyasa, Aprastuta-prasamsa, Apahnuti, Vyatireka, Vibhavana, Visesokti, Samasokti, Svabhavokti*)

**Unit- IV:** Definition and Examples of **Four Alamkaras** (figures of speech) out of **seven** asked.

### Core Readings:

1. *Vaiyakarana Siddhanta-kaumudi* with Balamanorama and Tattvabodhini, Vol.I (Ed.) Giridhara Sharma Chaturveda, Motilal Banarsidass, Delhi
2. *Sahitya Darpana* with Laksmi Tika (Sanskrit) and Vimala Tika, (Hindi) (Ed.) K.M.Sastri, Chaukhamba Publications, Varanasi.

### Suggested Readings:

1. *Siddhanta-kaumudi* (Ed.) Prof. G.K. Dash & Dr(Mrs) K.Dash with Navanita tika, A.K. Mishra Publishers Pvt. Ltd, Cuttack.
2. *Sahitya Darpana* (Ed.) P.V.Kane, Motilal Banarsidass Publishers Pvt. Ltd., New Delhi
3. *Odia Translation of Sahityadarpana* by Narayana Mohapatra, Odisha Sahitya Academy, Bhubaneswar.
4. *Sahitya Darpana* with Laksmi Tika (Sanskrit) and Vimala Tika, (Hindi) (Ed.) K.M.Sastri, Chaukhamba Publications, Varanasi.
5. *Sahityadarpana evam Chanda* (Ed.) Dr. Braja Sundar Mishra, Satyanarayan Book Store, Cuttack.
6. *Sahityadarpan*, Dr. Niranjan Pati, Kalyani Publishers, Ludhiana.

## +3 SECOND YEAR THIRD SEMESTER

### Core Paper - 7

#### CASES AND CASE ENDINGS IN PANINIAN GRAMMAR & TRANSLATION - I

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

1. *Vaiyakarana Siddhantakaumudi (Karaka-Vibhakti I-IV)*
2. *Translation from Sanskrit unseen passage to Odia/ English*

Group-A-10 bit questions covering all four units      2x10=20

Group-B- Each unit carries 15 marks                      15x4=60

**1. Siddhantakaumudi (Karaka-Vibhakti I-IV)****Unit- I:** (Prathama & Dvitiya) Two Sutras/ Vrtti/ Varttika to be explained.**Unit- II:** (Trtiya) Two Sutras/ Vrtti/ Varttika to be explained**Unit- III:** (Caturthi) Two Sutras/ Vrtti/ Varttika to be explained.**2. Translation from Sanskrit unseen passage into Odia/ English****Unit-IV:** One unseen Sanskrit Passage is to be given for Translation into Odia/ English (At least 08 sentences)**Core Readings:**

1. *Vaiyakarana Siddhanta-kaumudi* with Balamanorama and Tattvabodhini, Vol.I (Ed.) Giridhara Sharma Chaturveda, Motilal Banarsidass
2. *Vyakaranadarpana*, The Odisha State Bureau of Text Book Preparation and Production, Bhubaneswar- 2013

**Suggested Readings:**

1. *Siddhanta-kaumudi* (Ed.) Prof. G.K. Dash & Dr(Mrs) K.Dash with Navanita tika, A.K. Mishra Publishers Pvt. Ltd, Cuttack.
2. *Siddhanta-kaumudi* (Ed.) Minati Mishra, Vidyapuri, Cuttack
3. *Siddhanta-kaumudi* (Ed.) Dr. Niranjan Pati, Kalyani Publishers, New Delhi
4. *A Guide to Sanskrit Composition and Translation*, M.R.Kale, Motilal Banarsidass, New Delhi
5. *Brhat Anuvada Candrika*, Chakradhara Hamsa Nautial Shastri, Motilal Banarsidass, New Delhi.

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 8****UPANISAD, RAMAYANA & BHAGAVADGITA**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

1. *Kathopanisad* (Vallis-I, II&III)
2. *Ramayana* (Ch.IX of Aranyakanda, Ahimsa prasamsa)
3. *Bhagavadgita* (Chap.XV)

Group-A-10 bit questions covering all four units 2x10=20

Group-B- Each unit carries 15 marks 15x4=60

**1. Kathopanisad (Adhyaya I, Vallis-I, II & III)****Unit- I & II**

- i) Explanation - 1 Mantra
- ii) Translation- 1

**2. Ramayana****Unit-III-Ch. IX of Aranyakanda, Ahimsa prasamsa**

One long question

One explanation

**3. Bhagavadgita****Unit-IV** (Chap. XV)



**Core Readings:**

1. *Kathopanisad with Sankarabhasya* (Ed.) V.K. Sharma, Sahitya Bhandar, Subhas Bazar, Meerut
2. *Shrimad-bhagavad-gita*, Gita Press, Gorakhpur
3. *Srimad Valmikiya Ramayanam*, Gita Press, Gorakhpur (Prescribed Text)

**Suggested Readings:**

1. *Kathopanisad with Sankarabhasya*, Ed. Dr. Haramohan Mishra, Vidyapuri, Cuttack.
2. *The Message of the Upanisad*, Swami Ranganathananda, Bharatiya Vidya Bhavan, K.M. Muni Marg Mumbai.
3. *Valmiki Ramayana*, (Critical Edition), Oriental Institute, Baroda
4. *Shrimad-bhagavad-gita* (Ed.) S. Radhakrishnan, Bharatiya Vidya Bhavan
5. *Shrimad-bhagavad-gita* (Ed.) Gambhirananda, Ramakrishna Mission
6. *Shrimad-bhagavad-gita* (Ed.) Swami Ranganathananda, Advaita Ashrama, Kolkata- (8th reprint ) 2014

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 9****CASE AND CASE ENDING OF PANINIAN GRAMMAR, TRANSLATION- II & LEXICON**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

1. *Vaiyakarana Siddhantakaumudi ( Karaka – vibhakti V-VI)* End sem theory - 80 marks
2. *Translation of an unseen Odia / English passage into Sanskrit* midsem - 20 marks
3. *Amarakosa*

Group-A-10 bit questions covering all four units 2x10=20

Group-B- Each unit carries 15 marks 15x4=60

**1. Siddhantakaumudi (Karaka – Vibhakti V – VI)****Unit-I:** (CASE –V) Explanation of any two sutras / Vrttis / Varttikas**Unit-II:** (CASE VI & VII) Explanation of any two sutras / Vrttis / Varttikas (One from VIth one sutras from VII case)**2. Translation – II****Unit-III :** Unseen Passage of Odia is to be translated into Sanskrit. (At least Eight sentences)

3. **Amarakosa** (*Devata, Svarga, Visnu, Laksmi, Durga, Surya, Brahma, Siva, Kartikeya, Ganesa, Sarasvati from Svargavarga*)

**Unit- IV:** Short notes on any two out of four asked**Core Readings:**

1. *Vaiyakarana Siddhanta-kaumudi* with Balamanorama and Tattvabodhini, Vol.I (Ed.) Giridhara Sharma Chaturveda, Motilal Banarsidass
2. *Vyakaranadarpana*, The Odisha State Bureau of Text Book Preparation and Production, Bhubaneswar- 2013
3. *Amarakosa* with Ramasrami tika, Choukhamba Sanskrit Series office, Varanasi

**Suggested Readings:**

1. *Siddhanta-kaumudi* (Ed.) Prof. G.K. Dash & Dr(Mrs) K.Dash with Navanita tika, A.K. Mishra Publishers Pvt. Ltd, Cuttack.
2. *Siddhanta-kaumudi* (Ed.) Minati Mishra, Vidyapuri, Cuttack
3. *Siddhanta-kaumudi* (Ed.) Dr. Niranjan Pati, Kalyani Publishers, New Delhi
4. *A Guide to Sanskrit Composition and Translation*, M.R.Kale, Motilal Banarsidass, New Delhi
5. *Brhat Anuvada Candrika*, Chakradhara Hamsa Nautial Shastri, Motilal Banarsidass, New Delhi
6. *Namalinganuasanam (Amarakosa)*, D.G. Padhye, Choukhamba Sanskrit Series, New Delhi.

**+3 SECOND YEAR FOURTH SEMESTER**  
**Core Paper - 10**  
**ORNATE PROSE IN CLASSICAL SASNKRIT**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

1. *Inscriptions* *End sem theory - 80 mark*
  2. *Dasakumaracaritam (Purvapithika, Dvitiya Ucchvasa)* *mid sem - 20 mark*
  3. *Sukanasopadesa of Kadambari*
- Group-A-10 bit questions covering all four units 2x10=20  
 Group-B- Each unit carries 15 marks 15x4=60

**1. Inscriptions**

**Unit-I:** Girnar inscription of Rudradaman, Prayaga (Allahabad) stone pillar inscription of Samudragupta & Mandasore inscription of Yasovarman)

**2. Dasakumaracaritam**

**Unit-II:** Purvapithika, Dvitiya Ucchvasa

**3. Sukanasopadesa of Kadambari**

**Unit-III & IV:** Textual Sentence Translation into Odia/ English

**Core Readings:**

1. *Dasakumaracarita* (Ed.) M.R. Kale, Motilal Banarsidass, Delhi.
2. *Sukanasopadesa* (Ed.) Ramakanta Jha, Choukhamba Vidyabhavan, Varanasi.
3. Selected Sanskrit inscriptions (Ed.) by D.B. Pusalkar, Classical Publisher, New Delhi.

**Suggested Readings:**

1. *Dasakumaracarita*, Chaukhamba Publications, Varanasi.
2. *Sukanasopadesa* (Ed.) Nirmal Sundar Mishra, Kalyani Publishers, New Delhi.
3. *Abhilekhamala* (Ed.) Sujata Dash, Kalyani Publisher, New Delhi.
4. *Abhilekhacayana* (Ed.) Jayanta Tripathy, Vidyapuri, Cuttack
5. *Kadambari (Purvardham)* with the com. of Bhanuchandra Siddhanjani, MLBD, New Delhi

**+3 THIRD YEAR FIFTH SEMESTER****Core Paper - 11****ORNATE POETRY IN SANSKRIT**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

1. *Sisupalabadham* (Canto-I Verses 01-48)2. *Kiratarjuniyam* (Canto-I)

End sem theory - 80 marks

midsem - 20 marks

Group-A-10 bit questions covering all four units

2x10=20

Group-B- Each unit carries 15 marks

15x4=60

**1. *Sisupalabadham***

Unit-I &amp; II- (Canto-I Verses 01-48)

Unit-I-One long question

Unit-II-Explanation of two verse

**2. *Kiratarjuniyam* (Canto-I) Unit-III & Unit- IV**

Unit-III-One long question

Unit-IV-Explanation of two verse Bigrahavakya

**Core Readings:**1. *Sisupalabadham* (Ed.) S.R. Ray, Vallabhatika, Bharatiya Vidya Prakashan, New Delhi.2. *Kiratarjuniyam* (Cantos I-III) (Ed.) M.R. Kale, Motilal Banarsidass Publishers Pvt. Ltd., Delhi, 4th Edn-1966, Rpt-1993**Suggested Readings:**1. *Sisupalabadham* - Canto-I (Ed.), Devanarayan Mishra,(With *Sarvankasa-tika* of Mallinatha), Sahitya Bhandar, Meerut2. *Kiratarjuniyam* (Canto- I) (Ed.) Niranjan Pati,Vidyapuri, Cuttack.3. *Sisupalabadham* – H.K. Satpathy, Kitab Mahal, Cuttack**+3 THIRD YEAR FIFTH SEMESTER****Core Paper - 12****VEDA, VEDIC GRAMMAR & HISTORY OF VEDIC LITERATURE**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

1. *Vaidika Suktas*2. *Vedic Grammar*3. *History of Vedic Literature*

End sem theory - 80 marks

mid sem - 20 marks

Group-A-10 bit questions covering all four units

2x10=20

Group-B- Each unit carries 15 marks

15x4=60

**1. *Veda*****Unit-I & II:** Vedic Suktas from different *Samhitas*: Agni (RV- I.1), Indra (RV- II.12) , Savitr (RV- I.35), Usas (RV- I.48), Purusa-sukta (YV XXXI.1.16), Siva-samkalpa (YV-XXX.1.6), Samjnana(RV X.191), Vak(RV X.125)

Unit-I-One long question  
Unit-II-Explanation of two mantras

## 2. Vedic Grammar

**Unit – III:** The following Sutras are to be taught: *Chandasi pare'pi, Vyavahitasca, Caturthyarthe bahulam chandasi, Chandasi lun-lan-litah, Linarthe let, Leto'datau, Sibbahulam leti, Itasca lopah parasmaipadesu, Sa uttamasya, Ata ai, Vaito'nyatra, Hr-grahor bhaschandasi, Chandasi ubhayatha, Tumarthe se-sen-ase-asen- kase-kasen-adhyai-adhyain- kadhyai-kadhyain-shadhyai-shadhyain-tavai-taven-tavenah, Va chandasi, Ses chandasi bahulam, Prakrtya'ntapadam avyapare, Nipatasya ca, Supam suluk purva-savarnac che-ya-da-dya- ya-jalah, Idanto masi, Ajjaserasuk, Dirghadati samanapade*

Unit-III- Two sutras to be explained  
Two sadhanas to be worked out

## 3. History of Vedic Literature

**Unit-IV** (*Samhita, Brahmana, Aranyaka, Upanisad*)

Unit-IV- One long questions

### Core Readings:

1. *New Vedic Selection* (Part-I) (Ed.) Telang and Chaubey, Bharatiya Vidya Prakashan, New Delhi.
2. *Vaidika Sahitya aur Samskriti*, Baladeva Upadhyaya, Chaukhamba, Varanasi

### Suggested Readings:

1. *Vaidika sahitya o Samskriti*, A.C. Das, Grantha Mandira, Cuttack
2. *Veda O Vaidika Prakarana*, (Ed) Niranjan Pati, Vidyapuri, Cuttack.
3. *History of Indian Literature* Vol. I, M. Winternitz, MLBD, New Delhi
4. *Vaidik sahitya ki Ruparekha*, Umashankar Sharma Rsi, Chaukhamba Vidyaprakashan, Varanasi
5. *Vaidika Sahitya O Samskriti*, Bholanath Rout, Chitrotpala Publication, Salipur

## +3 THIRD YEAR SIXTH SEMESTER

### Core Paper - 13

### AYURVEDA & VRKSAYURVEDA

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

Group-A-10 bit questions covering all four units 2x10=20 *End sem theory - 80 marks*

Group-B- Each unit carries 15 marks 15x4=60 *mid sem - 20 marks*

1. **Ayurveda** (*Carakasamhita- Sutrasthana, dhirgham jivitiyadhyaya*) (Verses from 51 upto the end)
2. **Vrksayurveda** (*Vrksayurvedadhyaya of Brhatsamhita*)

### 1. Ayurveda

**Unit I, II & III** - (*Carakasamhita, Sutrasthana, dhirgham jivitiyadhyaya*)

Unit I & II- Two long questions

Unit III- Three short questions

**2. Vrksayurveda)****Unit-IV:** Vrksayurvedadhyaya of Brhatsamhita(one long question & Three short questions)**Core Readings:**

1. *Carakasamhita, Brahmananda Tripathy, Chowkhamba Surabharati Prakashan, Varanasi.*
2. *Brhatsamhita of Barahamihira, Ed. Sudhakar Dwivedi, Sampurnanda Samskrita Viswavidyalaya, Varanasi*

**Suggested Readings:**

1. *Sanskrita Vanmaya ka brhat itihās* (Vol.17) Ayurved ka itihās, Uttarpradesh Samskrit Sansthan, Lukhnow, 2006
2. *Ayurved ka Brhat Itihās*, Atridev Vidyalkar, Chowkhamba, Delhi
3. *Carakachintanam*, Priyabrata Sharma, Chowkhamba, Delhi
4. *Vrksayurveda*, Ed. Dr. Narayana Prasad Dash, Vidyapuri, Cuttack.

**+3 THIRD YEAR SIXTH SEMESTER****Core Paper - 14****TECHNICAL LITERATURE IN SANSKRIT (JYOTISA & VASTU)**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

1. *Jyotisa (Jyotihśara-ratnavali, Chap I)* (Graha-naksatra-paricaya-prakaranam) End sem theory - 80 marks  
mid sem - 20 marks
2. *Vastu (Vasturatnakara, Chap-I ) (Bhuparigraha-prakaranam)*  
Group-A-10 bit questions covering all four units 2x10=20  
Group-B- Each unit carries 15 marks 15x4=60

**1. Jyotisa**Unit-I & II-(*Graha-naksatra-paricaya-prakaranam*)

Unit-I- One long question

Unit-II- Three short questions

**2. Vastu**Unit-III, IV & V (*Bhuparigraha-prakaranam*)

Unit-III- One long question

Unit-IV- Three short questions

**Core Readings:**

1. *Jyotihśara-ratnavali*(Part-I) (Ed.) Pandit Baikoli Mahapatra, Radhakrishna Pustakalaya, Satyanarayan Temple Road, Berhampur, Ganjam, Odisha
2. *Vasturatnakara* (Ed.) Vindhyaeshwari Prasad Dwivedi, Chowkhamba Krishnadas Academy, Varanasi

**Suggested Readings:**

1. *Jyotisavisvakosa*, Haridutta Sharma, Subodh Publication, New Delhi
2. *Vaidika jyotisa*, Dr. G. S. Shastri, Chowkhamba Samskriti Bhabana, Varanasi

3. *Bharatiya jyotisa*, Dr. Nemichandra Shastri, Bharatiya Jnanapitha, New Delhi-110003
4. *Jyotisa-tattvanka*, Gitapress, Gorakhpur (2014)
5. *Rajaballavam Vastusatram*, Ed. Dr Sshrkrishna Jugnu, Parimal Publication, Delhi, 2005
6. *Vastu, Astrology & Architecture*, (Compilation of Research Paper of A National Conference on Vastu & Jyotisa), Ed. by Gayatri Dev Vasudev, MLBD, New Delhi, (4th reprint-2015)
7. *Grahanaksatra paricaya prakaranam*, Dr. N.S. Mishra, Kalyani Publishers, Ludhiana.
8. *Bhuparagraha – prakaranam*, Dr. N.S. Mishra, Kalyani Publishers, Ludhiana.

**+3 THIRD YEAR FIFTH SEMESTER**  
**DSE - 1**  
**SOCIO-POLITICAL THOUGHT IN ANCIENT INDIA**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 50 Marks

Mid Semester Theory : 20 Marks

**1. Arthasastra (Adhikarana I.1- 4)**

*End sem theory - 80 marks*

**2. Dharmasastra**

*mid sem - 20 marks*

*Yajnavalkyasmruti (Vyavahârâdhyâya verses 1-65)*

Group-A-10 bit questions covering all four units 2x10=20

Group-B- Each unit carries 15 marks 15x4=60

**1. Arthasastra**

Unit- I & II: *Adhikarana* I.1-4 from the beginning up to Vinayadikarana - 16 Marks

Unit- I- one long questions

Unit-II- Three short questions

**2. Dharmasastra**

Units- III, IV & V – *Yajnavalkyasmruti (Vyavahârâdhyâya verses 1-65)*

Unit-III- Short question three

Unit-IV- Translation of two verse

**Core Readings:**

1. *Kautilya Arthashastra*, (Ed. & Trans.) R.P. Kangle, 3 Vols., Motilal Banarsidass, New Delhi
2. *Yâjñavalkyasmruti (Vyavahârâdhyâya)*, (Ed.) Kishore Chandra Mahapatra, Jageswarilane, Balighat, Puri

**Suggested Readings:**

1. *The Arthashastra*. (Ed.& Trans), L.N. Rangarajan, Penguin Classics, India, 1992
2. *The Arthashastra*. (Ed.) N.P. Unni, Bharatiya Vidya Prakashan, New Delhi
3. *Arthashastra* (Odia Trans.) Anantarma Kar, Odisha Sahitya Academy, Bhubaneswar
4. *Kautilya Arthashastra*, (Ed.) Karunakar Das, Kitab Mahal, Cuttack.
5. *Yâjñavalkyasm[ti]*, (Ed.) M.N. Dutta, Parimal Publications, New Delhi

**+3 THIRD YEAR FIFTH SEMESTER**  
**DSE - 2**  
**ETHICAL LITERATURE IN SANSKRIT**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 50 Marks  
Mid Semester Theory : 20 Marks

1. *Chanakyaniti* (Chaps- I, II, III and IV from *Cānakyanîtidarpaṇa*) End sem theory - 80marks
  2. *Nîtisataka* of Bhartrhari (Verses 1-50) Midsem - 20 marks
- Group-A-10 bit questions covering all four units 2x10=20  
Group-B- Each unit carries 15 marks 15x4=60

**1. Chanakyaniti**

Unit-I & II: Chaps- I, II, III and IV from *Chanakyanîti darpaGa*  
Unit-I- Two verse to be explained  
Unit-II- Three short questions

**2. Nîtisataka**

Unit-III, IV & V (Verses 1-50)  
Unit-III- Two short questions  
Unit-IV- Two Explanations

**Core Readings:**

1. *CānakyanîtidarpaGa* (Ed.) Gunjeswar Choudhury, Choukhamba SurabharatiPrakashan, Varanasi
2. *Nîtisataka* (Ed.) M.R. Kale, MLBD, New Delhi (Text)

**Suggested Readings:**

1. *Sampurna Canakyaniti* (Ed.), Dr. N.S. Mishra, A.K. Mishra Agencies, Cuttack
2. *Nîtisataka* (Ed.) Naresh Jha, Choukhamba Prakashan, New Delhi
3. *Bhartrhari Satakattrayam*, B. S. Mishra, Vidyapuri, Cuttack.

**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 3**  
**TRANSLATION, EDITING AND WRITING SKILL**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 50 Marks  
Mid Semester Theory : 20 Marks

**Unit-I: Anuvada Kala-**

Unit-I- Translation of one Odia/ English Paragraph in to Sanskrit

*End sem theory - 80 marks*  
*mid sem - 20 marks*

**Unit-II: Precises Writing-**

Unit-II-One Sanskrit Paragraph is to be precised in 1/3rd words and a suitable title is to be suggested.

**Unit-III: Proof Correction and Transliteration**

- i. Proof Correction of **two** *wrongly printed* Sanskrit Verses from the Prescribed text are to set for necessary Proof Correction-

- ii. Transliteration of **two** Sanskrit Verses from Prescribed text are to be written in Roman/ Italic script with diacritical marks

Unit-IV: **Essay**-One Essay in Sanskrit

**Core Readings:**

1. Samskrta Vyakaranadarpana, Odisha Text Book Bureau, Bhubaneswar
2. Samskrta Nibandha Satakam, Kapildev Dwivedi, Chawkhamba Publication, Banaras

**Suggested Readings:**

1. Brht Anuvada Shiksa, Chakradhara Hansa Nautiyal, MLBD, New Delhi
2. Samskrta- nibandhadarsah, Rammurti Sharma, Sahitya Niketan, Kanpur

**Discipline Specific Elective Paper-IV INDIAN PHILOSOPHY:  
GENERAL IDEAS**

1. **Astika**
2. **Nastika**

1. **Astika**

Unit – I: **Samkhya and Yoga**

Twenty – five elements of Samkhya, satkaryavada and Astangayoga of Yogadarsana.

Unit – II: **Nyayavaisesika** Asatkaryavada, Saptapadarthas, Armbhavada, Paramanuvada

Unit – III: **Vedanta Mimamsa** O Saktidvaya of Maya in Vedanta, Vivartavada, Netivada and karma in Mimamsa, Svatapramanyavada.

Unit IV: **Nastikas, Carvaka, Jaina & Bauddha** Yadrccchavada and Nairatmyavada of Carvaka, Saptabhanga-naya, Syadvada of Jaina, Aryasatyas, Ksanikavada & Moksa

**Core Readings:**

1. Bharatiya Darsana (Odia), Gouranga Charana Nayak, The Odisha State Bureau of Text Book Preparation and Production, Bhubaneswar.

**Suggested Readings:**

1. History of Indian Philosophy, S.N. Dasgupta, MLBD, New Delhi.
2. Indian Philosophy, S. Radhakrishnan, George Allen and Unuin Ltd., New York.
3. A Critical Survey of Indian Philosophy, C. D. Sharma, MLBD, New Delhi.
4. Outlines of Indian Philosophy, M. Hiriyana, MLBD, New Delhi.

**+3 THIRD YEAR SIXTH SEMESTER**

**DSE - 4**

**PREPARATION AND PRESENTATION OF PROJECT**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 50 Marks

Mid Semester Theory : 20 Marks

**Project and Presentation**

(The Project work should be done preferably on Creative writings and Translation works of Sanskrit Language.)



**+3 FIRST YEAR FIRST SEMESTER**  
**GE - 1**  
**MORAL TEACHINGS AND BASICS OF SANSKRIT**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 50 Marks  
Mid Semester Theory : 20 Marks

1. *Hitopodesa Mitralabha* (Prastavana, Kathâ mukha, Brddhavyaghrapathikakatha, Mrgajambukakatha & Grudhravidalakatha)
2. *Yaksaprasna of Mahabharata* (Aranyakaparva, ch.313 from Verses no. 41 to 133)
3. *Sabdarupa & Dhaturupa*

( 'a' karanta, 'i' karanta, 'î' karanta, 'u' karanta, 'û' karanta, 'in' bhaganta, Mâtru, Pitru, Asmad, Yusmad, Tad (sabdarupas). Lat, Lan, Vidhilin, Lrut, Lot and Litlkaras path, Ni, Kru, Sev, Han, Pâ, Dâ, Sru, Sî and Krîn in the form of Atmanepada, Parasmaipada or Ubhayapada whichever is applicable. (Dhaturupas)

Group-A-10 bit questions covering all four units      2x10=20  
Group-B- Each unit carries 15 marks      15x4=60

**Unit-I & II: Hitopodesa Mitralabha and Sabdarupa**

Unit-I- one long question  
Unit-II- Translation of a textual verse  
Sabdarupa - 4

**Unit-III & IV: Yaksaprasna of Mahabharata and Dhaturupa**

Unit-III- one long question  
Unit-IV- Explanation - 1 (About 150 words each) Translation of a textual verse  
Dhaturupa – 4

**Core Readings:**

1. *Hitopadesah (Mitralabhah)* (Ed.) Kapildev Giri, Chaukhamba Publications, Varanasi.
2. *Mahabharata*, Gitapress, Gorakhpur (Prescribed Text)
3. *Vyakaranadarpana*, The Odisha State Bureau of Text Book Preparation and Production, Bhubaneswar, 2013.

**Suggested Readings:**

1. *Hitopadesah (Mitralabhah)* (Ed.) N.P. Dash and N.S. Mishra, Kalyani Publishers, New Delhi
2. *Hitopadesah (Mitralabhah)* (Ed.) B.S. Mishra, Vidyapuri, Cuttack
3. *Yaksaprasna*, T. K. Ramaayiyar, R. S. Vadhyar & Sons. Palkad, Kerala
4. *Yaksaprasna*, Ed. Dr. Nirmal Sundar Mishra, A.K. Mishra Agency, Cuttack, 2016

**+3 FIRST YEAR SECOND SEMESTER**  
**GE - 2**  
**KHANDAKAVYA & DARSANAKAVYA**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 50 Marks  
Mid Semester Theory : 20 Marks

Group-A-10 bit questions covering all four units 2x10=20

Group-B- Each unit carries 15 marks 15x4=60

1. *Meghadutam (Purvamegha)*
2. *Bhagavad Gita*

**1. *Meghadutam***

Unit-I ,II & III: Purvamegha

Unit-I- one long question (1-33 stories)

Unit-II- one long question (34-66 stories)

Unit-III- two explanation

**2. *Bhagavadgita***

Unit-IV: (Chap.XV)

Unit-IV one long question, one explanation

**Suggested Readings:**

1. *Meghadutam* (Ed.) B.S. Mishra, Vidyapuri, Cuttack, 1st Edn-1999
2. *Meghadutam* (Ed.) Radhamohan Mahapatra, Books and Books, Vinodvihari, Cuttack, 1984
3. *Shrimad-bhagavad-gita* (Ed.) S. Radhakrishnan, Bharatiya Vidya Bhavan
4. *Shrimad-bhagavad-gita* (Ed.) Gambhirananda, Ramakrishna Mission

# SOCIOLOGY

## +3 FIRST YEAR FIRST SEMESTER

### Core Paper - 1

#### INTRODUCTION TO SOCIOLOGY-I

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This introductory paper intends to acquaint the students with Sociology as a social science and the basic concepts used in the discipline. It also focuses on the social processes and the social institutions that man encounters as a member of the society.

**Objectives:** After studying this paper the student can

- Can get to know the convergence and divergence of Sociology with other social science disciplines in terms of the subject matter, nature and scope of the discipline and its approach.
- Develop knowledge about its historicity.
- Can get acquainted with the basic concepts used in the subject.
- Can generate ideas about the social processes and social institutions man encounters as a member of the society.

#### Learning Outcomes:

This paper is expected to clarify and broaden the student's notion about the subject, the basic concepts used and some universal societal processes. This will provide a wholesome picture about what the subject is all about.

#### Unit-1: Discipline and Perspective

- 1.1 Meaning, Definition and Subject Matter
- 1.2 Emergence of Sociology
- 1.3 Nature and Scope of Sociology
- 1.4 Importance of Sociology

#### Unit-2: Sociology and other Social Sciences

- 2.1 Sociology, Anthropology and History
- 2.2 Sociology and Psychology
- 2.3 Sociology and Political Science
- 2.4 Sociology and Economics

#### Unit-3: Basic Concepts

- 3.1 Society and Community, Associations and Institutions
- 3.2 Social Groups and Culture
- 3.3 Role and Status.
- 3.4 Power and Social Norms

#### Unit-4: Social Stratification

- 4.1 Meaning, Definition, Characteristics
  - 4.2 Forms of Stratification-Caste, class & gender
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- 4.3 Functionalist Theories of stratification (Parsons, Davis & Moore) Marxian & Weberian Theories of stratification
- 4.4 Elite Theory: Pareto, C Wright Mills.

**Suggested Text Book:**

1. Haralambos, M. & Holborn, Sociology: Themes and Perspectives, Harper Collins; Eighth edition, 2014

**Reference Readings:**

1. C.N.Shankar Rao, Principles of Sociology: With an Introduction to Social Thought, S.Chand & Co. Pvt. Ltd.(Revised ed.), 2006
2. Inkle, A., What is Sociology? An Introduction to the Discipline and Profession, Englewood Cliffs, New Jersey: Prentice Hall, 1964.
3. Mills, C.W., The Power Elite, Oxford:Oxford University Press, 1954.
4. Bottomore, T. B. Sociology: A Guide to Problems and Literature, New Delhi: S. Chand, 2008
5. Paul B. Horton, Chester L. Hunt.. Sociology, McGraw-Hill., 1984
6. Giddens, Anthony., Introduction to Sociology, Polity Press 1991

**+3 FIRST YEAR FIRST SEMESTER  
Core Paper - 2  
INTRODUCTION TO SOCIOLOGY-II**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This part two introductory paper intends to provide some additional knowledge on the interrelationship between individual and society, the types of societies and the various social processes that contribute to sustain the society over a period of time.

**Objectives:** After studying these two papers, the student can

- Develop knowledge about the subject matter, nature and scope of the key topics and its approach.
- Develop knowledge about individual and society.
- Can get acquainted with the basic concepts used in the subject.
- Can generate ideas about the social processes and social institutions.

**Learning Outcomes:**

This paper is expected to clarify and broaden the student's notion about the subject, the basic concepts used and some universal societal processes. This will provide a wholesome picture about what the subject is all about.

**Unit-1: Individual, Society and Culture:**

- 1.1 Social Structure
- 1.2 Types of Society – Primitive, Agrarian and Industrial
- 1.3 Relationship between individual and society
- 1.4 Culture and Personality, Theories of Self: Cooley and Mead

**Unit-2: Socialization**

- 2.1 Meaning, Definitions & types
- 2.2 Stages of Socialization Process.
- 2.3 Agencies of Socialization
- 2.4 Theories of Socialization- G H Mead, C.H Cooley

**Unit-3: Social Control**

- 3.1 Meaning, Definitions & Nature
- 3.2 Importance of social Control
- 3.3 Types of Social Control: Formal and Informal
- 3.4 Agencies of Social Control

**Unit-4: Social Processes**

- 4.1 Meaning and Definition
- 4.2 Associative Social Processes- Cooperation, Accommodation, Assimilation
- 4.3 Dissociative Social Processes- Competition and Conflict
- 4.4 Cooperation, Conflict and Competition: Interrelations and relevance

**Suggested Text book:**

1. Rao ,C.N.Shankar, Principles of Sociology: With an Introduction to Social Thought, S.Chand & Co. Pvt. Ltd.(Revised ed.), 2006
2. Haralambos & Holborn , Sociology: Themes and Perspectives Harper Collins; Eighth edition, 2014

**Reference Readings:**

1. Mills, C.W., *The Sociological Imagination*, Oxford: Oxford University Press, 1959.
2. Giddens ,Anthony, Introduction to Sociology, 1991
3. Rawat, H.K. Contemporary Sociology, Rawat Publication, Jaipur, 2013
4. Johnson, Harry M. Sociology: A Systematic Introduction, New Delhi, Allied Publishers, 1995
5. Smelser Neil J. *Hand Book of Sociology*, Sage Publications, Inc. 1998
6. Dasgupta, Samir and Saha, Paulomi An Introduction to Sociology, Pearson, 2014

**+3 FIRST YEAR SECOND SEMESTER****Core Paper - 3  
INDIAN SOCIETY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

Every society has its own peculiar structure and there are some institutions universal to every society, but with their unique manifestations in each society. There are some change agents and initiatives that enable the society to change with the passage of time. This paper focuses on the structure of the Indian society and the changing aspects with the processes operating change agents and initiatives.

**Objectives:**

After studying these two papers on Indian society, the student can

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- Get an impression about the basic composition of Indian society, its historical moorings, basic philosophical foundations of the society and the institutions.
- Learn about the changing institutions, the processes, the agents and the interventions that bring about change in the Indian society.

### Learning Outcomes:

This paper is expected to bring familiarity in a student about Indian society. It will present a comprehensive, integrated and empirically –based profile of Indian society. It is hoped that the structure and processes operative in the society, the change agents operating in Indian society presented in this course will also enable students to gain a better understanding of their own situation and region.

### Unit-1: Composition of Indian Society and Approaches to the study of Indian Society:

- 1.1 Religious composition, Linguistic composition & Racial composition
- 1.2 Unity in diversity
- 1.3 National Integration-Meaning & Threats (Communalism, linguism, regionalism)
- 1.4 Approaches to the study of Indian society: Structural-Functional, Marxian and Subaltern

### Unit-2: Historical Moorings and Bases of Hindu Social Organization

- 2.1 Varna Vyavastha and relevance
- 2.2 Ashrama and relevance
- 2.3 Purusartha and relationship with Ashramas
- 2.4 Doctrine of Karma

### Unit-3: Marriage and Family in India

- 3.1 Hindu Marriage as Sacrament, Aims of Hindu marriage, Forms of Hindu Marriage.
- 3.2 Hindu Joint Family-Meaning & disintegration
- 3.3 Marriage among the Muslims & Tribes
- 3.4 Changes in Marriage and Family in India

### Unit-4: The Caste System in India

- 4.1 Meaning, Definitions & features of Caste
- 4.2 Functions & Dysfunctions of Caste
- 4.3 Factors affecting caste system
- 4.4 Recent Changes in Caste System

### Suggested Text Book:

1. Rao, C.N. Shankar, *Sociology of Indian Society*, S.Chand & Co. Pvt. Ltd. (Revised ed.), 2004

### Reference Readings:

1. Shah, A.M., *The Household Dimension of the Family in India: A Field Study in a Gujarat Village and a Review of Other Studies*, Delhi: Orient Longman, 1973.
2. Uberoi, P. (ed.), *Family, Kinship and Marriage in India*, New Delhi: Oxford University Press, 1993.
3. Y. Singh, *Modernisation of Indian Tradition*, Jaipur: Rawat Publications, 1986
4. Ram Ahuja, *Indian Social System*, Rawat Publications, 1993
5. Sharma, K.L. *Indian Social Structure and Change*, Rawat Publication, 2008
6. Srinivas, M.N. *India: Social Structure*. New Delhi: Hindustan Publishing Corporation, 1980

**+3 FIRST YEAR SECOND SEMESTER****Core Paper - 4****SOCIOLOGY OF ENVIRONMENT**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

Environment and society are in constant interaction with each other. It is the environment which sustains life in society and it is the society that is responsible for the preservation and the degradation of the environment. In the recent years environmental challenges have posed a threat to the lives on the planet. Keeping this in view, the present paper tries to create awareness among the students about the major environmental issues and the efforts geared to tackle them.

**Objectives:**

After going through this paper, the student can

- Derive knowledge about the close interaction between society and environment.
- Gain substantial idea about the environmental issues and their repercussions on humanity.
- Accumulate ideas about the ideological currents, issues that drive environment movements.
- Get aware about the global and national efforts to conserve environment.

**Learning Outcomes:**

The very aim of this paper is to disseminate knowledge about the significance of environment for society, to change the practices that can protect and preserve the environment and to make the students participate in the mission to preserve, protect and promote the cause of environment.

**Unit-1: Basics of Sociology of Environment**

- 1.1 Sociology of Environment: Meaning, emergence and scope
- 1.2 Environment and Society – their inter-relations, Ecology and Environment.
- 1.3 Eco-system.
- 1.4 Sustainable Development

**Unit-2: Environmental Movements**

- 2.1 Narmada Bachao Andolan,
- 2.2 Ganga Bachao Abhiyan,
- 2.3 Silent valley movements,
- 2.4 Eco-feminist movement

**Unit-3: Major Environmental Issues:**

- 3.1 Global Warming & Climate Change.
- 3.2 Loss of Biodiversity (water & air)
- 3.3 Deforestation.
- 3.4 Urban Wastes, Industrial wastes

**Unit-4: Environmental Protection:**

- 4.1 Environment protection efforts at the global level
  - 4.2 Efforts at national level
  - 4.3 Role of Civil Society Organizations
  - 4.4 Role of Corporate Social Responsibility in environmental protection
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**Suggested Text Book:**

1. Biswas, Anupama Environment & Society, Wisdom Press (ISBN) (CBCS).
2. Giddens, Anthony "Global Problems and Ecological Crisis": 2nd edition New York. W.W.Norton and Co.,1996

**Reference Readings:**

1. Baviskar, A., In the Belly of the River: Tribal Conflicts Over Development in the Narmada Vally, New Delhi: Oxford University Press, 2005.
2. DharamGhai, (ed) Development and Environment: Sustaining People and Nature UNRISD Blackwell Publication,1994.
3. Schumacher, E. F., Small is Beautiful: A Study of Economics as if People Mattered,London: Blond and Briggs, 1973.
4. Prasad, A., Against the Ecological Romanticism: Verrier Elwin and the Making of an Anti-modern Tribal Identity, Delhi: Three Essays Collective, 2011.
5. Maria Mies&Vandana Shiva, Ecofeminism, Fernwood Pub. Halifax, Nova Scotia, Canada, 1993
6. Gadgil Madhav& Ram Ch. Guha, Ecology & Equity: The use and abuse of Nature in contemporary India, New Delhi, OUP, 1996.

**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 5**  
**CLASSICAL SOCIOLOGICAL THINKERS**

Time : 3 Hrs.

End Semester Theory : 80 Marks

Credit : 06

Mid Semester Theory : 20 Marks

Sociology originated as an intellectual response to the crisis confronting the mid nineteenth century European society. Its development over two centuries has been influenced by a variety of socio- economic and political conditions. It is now established as a multi-paradigmatic academic discipline, with its body of theoretical knowledge enriched and its methodological techniques and procedures systemized. This paper is intended to familiarize the students with the social, political, economic and intellectual contexts in which sociology emerged as a distinctive discipline. It deals with the contributions of the forerunners of the discipline and with the contributions of the founders who gave a systematic shape to the subject.

**Objectives:**

After going through these two papers, the student can

- Gain an understanding of some of the classical contributions in Sociology, and their contemporary relevance.
- Learn about the methodological shift in the discipline over the years.

**Learning Outcomes:**

This paper is expected to clarify and broaden the student's knowledge about the theoretical and methodological contributions of the classical contributors to the subject and the contemporary relevance of these theories.



**Unit-1: Auguste Comte & Herbert Spencer**

- 1.1 Law of the Three Stages,
- 1.2 Hierarchy of Sciences & Positivism
- 1.3 Organismic Analogy
- 1.4 Theory of Social Evolution

**Unit-2: Karl Marx**

- 2.1 Dialectical Materialism,
- 2.2 Class struggle,
- 2.3 Alienation,
- 2.4 Theory of Capitalism

**Unit-3: Emile Durkheim**

- 3.1 Division of Labour in Society,
- 3.2 Rules of Sociological Method,
- 3.3 Theory of Suicide
- 3.4 Theory of Religion

**Unit-4: Max Weber**

- 4.1 Social Action,
- 4.2 Protestant ethic and the spirit of capitalism
- 4.3 Ideal type,
- 4.4 Bureaucracy, Authority

**Suggested Text Books:**

1. Morrison, Ken, Marx, Durkheim, Weber: Formation of Modern Social Thought London, Sage, 1995
2. Lewis A. Coser, Masters of Sociological Thought, New York, Harcourt Brace Jovanovich (Text Book), 1977

**Essential reading**

1. F. Abraham & J.H. Morgan, Sociological Thought, Wyndham Hall Press, 1989.
  2. Kenneth, A., *The Social Lens: An Invitation to Social and Sociological Theory*, London: Sage. 2011.
  3. Ramond Aron, Main Currents in Sociological thoughts Vol. I & Vol. II Harmondsworth, Middlesex: Penguin Books, 1967 (1982 reprint).
  4. Ritzer, George, Sociological Theory, New Delhi, Tata-McGraw Hill, 1996
  5. Waters, M., *Modern Sociological Theory*, London: Sage, 2000
  6. Fletcher, R. *The Making of Sociology: A Study of Sociological Theory*, Volume 1 and 2, Thomas Nelson & Sons Ltd, 1972
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**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 6****SOCIAL CHANGE AND DEVELOPMENT**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

Change is the law of nature and every society is subject to change. Social change has always been a central concern of Sociological study. Change takes different forms. Change has its pattern which is spelt out by various theories. Change is often propelled by various factors. This paper is designed to provide some ideas to the student about such process, theories and factors.

**Objectives:**

After going through this paper, the student can

- Derive knowledge about the meaning, nature, forms and patterns of change.
- Get an idea about the theories that explain change and their adequacy in explaining so.
- Get an impression about the factors that propel change in the society.

**Learning Outcomes:**

This paper is expected to provide a wholesome idea to the students about the process of social change. They can relate their experience with the theoretical explanations.

**Unit-1: Social Change:**

- 1.1 Meaning and Nature.
- 1.2 Social Evolution & Social Progress: Meaning and features
- 1.3 Social Development: Meaning and Features
- 1.4 Factors of Change: Cultural, Technological, Demographic

**Unit-2: Theories of Social Change:**

- 2.1 Evolutionary theory,
- 2.2 Functionalist theory
- 2.3 Conflict Theory
- 2.4 Cyclical Theory

**Unit-3: Models of development:**

- 3.1 Indicators of Social Development
- 3.2 Capitalist,
- 3.3 Socialist
- 3.4 Gandhian

**Unit-4: Processes of Social Change in Indian Context:**

- 4.1 Sanskritisation
  - 4.2 Westernisation
  - 4.3 Modernisation
  - 4.4 Secularisation
-

**Suggested text book**

1. Steven, Vago, Social Change, Pearson Prentice Hall, 2003 5th Rev. Edt

**Reference Readings:**

1. JairamKansal , Social Change & Development, Wisdom Press (ISBN) (CBCS), 2004
2. Singh, Y., Modernization of Indian Tradition: A Systematic Study of Social Change, Faridabad: Thompson Press Limited, 1973.
3. Rudolf, L and Rudolf, S. H., Modernity of Tradition: Political Development in India, Chicago: University of Chicago Press, 1984.
4. Moore, W.E Social Change, Prentice Hall of India, New Delhi, 1965.
5. Mishra, B Capitalism, Socialism and Planning, South Asia Books, 1998
6. Escobar, A., Encountering Development, London: Zed Books, 2012

**+3 SECOND YEAR THIRD SEMESTER**  
**Core Paper - 7**  
**SOCIOLOGY OF GENDER**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

The biological basis to the differences between the sexes does not explain the inequalities faced by the sex groups in the society. In the society variations are marked in the roles, responsibilities, rights of and relations between sex groups depending on the social prescriptions relating to sex affiliations. The differences, inequalities and the division of labour between men and women are often simply treated as consequences of 'natural' differences between male and female humans. But, in reality the social norms, institutions, societal expectations play a significant role in deciding and dictating the behaviour of each sex group. This is the fundamental of the study of Gender and Society.

**Objectives:**

After studying this paper, the student can

- Conceptualize what is "Gender" and what is "Sex" and draw a line of distinction between the two.
- Note the difference in gender roles, responsibilities, rights and relations.
- Trace out the evolution and institutionalization of the institution of "Patriarchy".
- Get to know the theories of Feminism that brought women issues and demands to the forefront.
- Assess the initiatives undertaken for gender development with the paradigm shift from time to time.

**Learning Outcomes:**

This paper is expected to generate ideas and sensitivity about gender in a student which he/she can put into practice in daily life. This will lead to change the prevalent biases and gender practices and create a gender neutral social world where both men and women can enjoy their basic rights and cherish to achieve their dreams.

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**Unit-1: Social Construction of Gender**

- 1.1 Gender as a Social Construct
- 1.2 Gender Vs. Sex
- 1.3 Gender Stereotyping and Socialization
- 1.4 Gender Role and Identity

**Unit-2: Feminism**

- 2.1 Meaning and Definitions
- 2.2 Origin, Growth of Feminism, Waves of Feminism
- 2.3 Patriarchy
- 2.4 Theories of Feminism-Liberal, Radical, Socialist, Marxist, Materialist

**Unit-3: Gender and Development**

- 3.2 Approaches -WAD, WID and GAD.
- 3.3 Gender Mainstreaming: Meaning, Policies and Programmes
- 3.3 Gender Development Index
- 3.4 Women Empowerment: Meaning and Dimensions: Political, Economic and Social.

**Unit-4: Women in India through ages**

- 4.1 Status of Women in Ancient Period
- 4.2 Medieval Period
- 4.3 Women in Pre- independence India
- 4.4 Women in Contemporary Indian Society

**Suggested Text Book:**

1. Bhasin, Kamla Understanding Gender, Kali for Women,2003

**Reference Readings:**

1. Prabhakar,Vani Gender and Society, Wisdom Press (ISBN) (CBCS), 2012
2. Choudhury , Maitry *Feminism in India: Issues in Contemporary Indian Feminism*, Kali for Women, New Delhi,2004.
3. Walby, S.,*Theorizing Patriarchy*, John Wiley and Sons,1990.
4. John, M. E. (ed.),*Women's Studies: A Reader*, New Delhi: Penguin India, 2008.
5. Pilcher, J and Whelehan, I. , *Fifty Key Concepts in Gender Studies*.London: Sage, 2004.
6. Forbes, G. *Women in Modern India*, Cambridge: Cambridge University Press, 1996.

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 8****RURAL SOCIOLOGY**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

Rural Sociology is a specialized branch of Sociology describing the society of villages and rural areas. As the rural areas or the villages mark the beginning of human civilization, this paper is designed to bring out the distinct features of the rural society with their typologies and typicalities. In the present paper an attempt is made to introduce the student with the development of this

branch overtime with its focus on the typicality of Indian villages, their structures, changing features and social problems faced by the rural people.

**Objectives:**

After studying this paper, the student can

- Get an impression about the emergence of the sub discipline Rural Sociology and the forces contributing for its origin.
- Learn about the nature of this branch of knowledge, its subject matter and significance.
- Collect information and knowledge about the mooring of the sub discipline in the Indian context.
- Generate an idea about the typicalities of the rural society and the institutions operating therein and their dynamics.
- Derive ideas about rural social problems of the country.

**Learning Outcomes:**

India thrives in her villages. By going through this paper, the student can have a grip on the grass roots of Indian society. This will enable the student to understand the society in a better manner, to note the heterogeneities in culture, institutions and their functions, changes, the contrasts found between the rural urban societies and the problems faced by the people.

**Unit- 1: Introduction to Rural Sociology**

- 1.1 Meaning, Definition & Nature
- 1.2 Origin & Subject Matter of Rural Sociology
- 1.3 Importance of Rural Sociology
- 1.4 Evolution and Growth of Village Community

**Unit- 2: Rural Social Structure**

- 2.1 Village Community-Meaning & Types
- 2.2 Rural-Urban Contrast & Continuum
- 2.3 Agrarian Economy
- 2.4 Dominant Caste, Emerging class structure in rural India

**Unit- 3: Rural Social Problems**

- 3.1 Poverty
- 3.2 Unemployment
- 3.3 Indebtedness
- 3.4 Rural factionalism

**Unit- 4: Rural Development Programmes**

- 4.1 Community development Programmes, Cooperative Movements and Panchayati Raj System
- 4.2 Swarnajayanti Gram SwarozgarYojana (SGSY), Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)
- 4.3 National Rural Livelihood Mission (NRLM)
- 4.4 National Rural Health Mission (NRHM)

**Suggested Text Books:**

1. Sharma, R.N. Rural Sociology, Media Promoters and Publishers. Pvt. Ltd. 1983
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2. Singh, Kartar Rural Development: Principle Policies and Management, Sage, New Delhi, 1995

**Reference Readings:**

1. Choudhury, Anjana Rural Sciology, Wisdom Press ,2004
2. S.L. Doshi, S.L &P.C.Jain , Rural Sociology, Jajpur, Rawat,2002.
3. Maheswari, S.R Rural Development in India, Sage Publication, New Delhi, 1985.
4. Ahuja, Ram Rural Sociology, Popular Prakashan Ltd; New edition 2011
5. Desai, A.R .Rural Sociology in India, Popular Prakashn, Bombay, 1997
6. Ray E. Pahl "The Rural-Urban Continuum." *Sociologia Ruralis* 6(3-4):299-327. Reprinted in R. E. Pahl, ed. *Readings in Urban Sociology*. Oxford: Pergamon, 1970

## +3 SECOND YEAR FOURTH SEMESTER

### Core Paper - 9

#### GLOBALISATION & SOCIETY

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

Globalization is the dominant process of social change in the contemporary world. It has resulted in the sinking of time and space and collapse of borders. It is a new coinage for an old process. It has its own dimensions, distinct features and impacts on society. It has given birth to new role players. All these are the focal points of discussion of this paper.

**Objectives:**

By going through this paper, the student can

- Collect information about the meaning and nature of this process, its historical mooring.
- Amass knowledge about its dimensions and impacts, both positive and negative.
- Get introduced to the agencies that manage the process.

**Expected Outcomes:**

This paper is expected to acquaint the student with an ongoing social process; which can bring tremendous changes in the nations.

**Unit-1: Globalisation**

- 1.1 Meaning, characteristics of Globalisation
- 1.2 Emergence of Globalisation
- 1.3 Liberalisation- Meaning & characteristics
- 1.4 Privatisation- Meaning & characteristics

**Unit-2: Dimensions of Globalisation**

- 2.1 Economic
- 2.2 Technological
- 2.3 Political
- 2.4 Cultural

**Unit-3: Consequences of Globalisation**

- 3.1 Rising Inequality
- 3.2 Environmental Degradation

- 3.3 Consumerism
- 3.4 Health and Security

**Unit-4: Impact of Globalisation in Indian Context:**

- 4.1 Cultural Impacts
- 4.2 Impact on Education
- 4.3 Impact on Religion
- 4.4 Impact on Women

**Suggested Text Book:**

1. Biswas, Anupama Globalization and Society, Wisdom Press (ISBN) (CBCS)
2. Bhagawati, Jagdis, In Defence of Globalization, Oxford Univ. Press, Delhi 2004.

**Reference Readings:**

1. Pathak, A., Modernity, Globalization and Identity: A Reflexive Quest, Delhi: Aakar Books, 2006
2. Singh, Y. Culture Change in India: Identity and Globalization. Jaipur: Rawat, 2006.
3. Sengupta, A., Reforms, Equity and the IMF: An Economist's World, Delhi: Har-Anand Publications PVT limited, 2001
4. Jha, Avinash, Background to Globalisation, Centre for education and documentation. Mumbai, 2000
5. Arjun Appadurai, Modernity at large: Cultural Dimensions of Globalization, Delhi, OUP, 1997.
6. Joseph E. Stiglitz, Globalization & its Discontents, W.W. Norton & Company, 2002

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 10****MARRIAGE, FAMILY & KINSHIP**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

This course provides a brief account of the classical approaches to the study of family and kinship. It exposes the students to the distinct aspects of these three interrelated institutions in the Indian context. Finally, it discusses some contemporary issues that pose a challenge to the normative model of these institutions.

**Objectives:**

By going through this paper, the student can

- Understand the three institutions that are the foundations of the society.
- Comprehend the theoretical perspectives on these institutions.
- Get to know the rules governing these institutions.
- Estimate the changes coming over these institutions with the process of social change.

**Expected Outcomes:**

This paper is expected to instill knowledge about the foundational institutions, their governing principles and the continuity and change features of these institutions.

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**Unit-1: Marriage**

- 1.1 Marriage as a social institution
- 1.2 Functions of marriage
- 1.3 Rules of marriage, Types of marriage
- 1.4 Changes in the institution of marriage

**Unit-2: Family**

- 2.1 Family as a social institution
- 2.2 Rules of Marriage and Types of family
- 2.3 Functions of family
- 2.4 Contemporary Changes in family

**Unit-3: Kinship System**

- 3.1 Meaning, Definition & Types
- 3.2 Kinship Terminologies & usages
- 3.3 Kinship system in North India & South India
- 3.4 Clan, Lineage

**Unit-4: Contemporary Issues**

- 4.1 Migration and its impact on family
- 4.2 Domestic Violence
- 4.3 Dowry
- 4.4 Divorce

**Suggested Text Book:**

1. Kapadia ,K.M. Marriage and family in India : London,Oxford Univ. Press, 1966

**Essential Readings:**

1. Maya Majumdar, Maya Marriage, Family & Kinship, Wisdom Press (ISBN), (CBCS), 2005
2. Shankar Rao, C.N.Principles of Sociology: With an Introduction to Social Thought, S.Chand& Co. Pvt. Ltd.(Revised edt.), 2006
3. Karve, Irawati Kinship Organisation in India, Poona, Deccan college, 1953
4. Robin Fox , Kinship and Marriage: An Anthropological Perspective, Pelican,1967
5. Patricia Uberoi, Family, Kinship & Marriage in India, Oxford University Press, Delhi, 1993

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 11**  
**RESEARCH METHODOLOGY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

Since the days of August Comte, a debate and a deliberate attempt has been initiated to provide a scientific character to social sciences. In this attempt empirical research has been introduced as an integral part of observing social reality and generalizing it objectively without any subjective predisposition. Gradually, research methods have been developed and introduced in social

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sciences to bring it in par with scientific observations. The essence of this paper lies in introducing the students with these methods of research to ensure objectivity as far as practicable in social research.

**Objectives:**

By going through this paper, the student can

- Get an understanding of the nature of scientific methods, nature of social Phenomena and the way of attaining value neutrality.
- Have a grip over the basic steps involved in social research and the types of social research with their applicability
- Develop an insight into the need and types of research design and the use of sampling method for attaining objectivity and scientific study.

**Learning Outcomes:**

This paper is designed and incorporated to acquaint the students with the scientific ways of studying social phenomena. This provides them with a research insight that will enable them to capture the most relevant data in an objective manner. The market demand of this paper will be very high as the students well versed with this paper will be highly demanded in academics, fundamental research, and policy research undertaken both by Government and Non-Government agencies.

**Unit-1: Meaning & Significance of Social Research**

- 1.1 Meaning ,Definitions& Utility of Social Research
- 1.2 Major Steps in Social Research
- 1.3 Scientific Method-Characteristics
- 1.4 Applicability of Scientific Method

**Unit-: 2 Hypothesis & Sampling**

- 2.1 Meaning, definitions and Characteristics of Hypothesis
- 2.2 Types of and sources of Hypothesis
- 2.3 Sampling-Meaning & Characteristics
- 2.4 Types of sampling-probability & non-probability

**Unit -3: Tools and Techniques of Data Collection**

- 3.1 Qualitative methods and Quantitative methods
- 3.2 Observation
- 3.3 Interview Schedule, Questionnaire
- 3.4 Case study

**Unit-:4 Data Analysis & Report Writing**

- 4.1 Significance of Measures of Central Tendency
- 4.2 Mean, Median, Mode
- 4.3 Tabulation and Data Analysis
- 4.4 Report Writing

**Suggested Text Book:**

1. Goode William J and Paul K. Hatt. Methods in Social Research. New York: McGraw-Hill Book Co, 1952
-

2. Wilkinson T.S& P.L. Bhandarkar, Methodology & Techniques of Social Research, Himalaya Publishing House, 2010

**Reference Readings:**

1. Bajpayee, S.R. Methods of Social Survey and Research, KitabGhar, 1960.
2. Seale, C. (ed), *Researching Society and Culture*, London: Sage, 2014.
3. Young, P.V. Scientific Social Survey and Research, Prentice Hall, New Delhi, (Ref. Book) 1939
4. Kothari, C.R Research Methodology: Methods and Techniques, Bangalore, Wiley Eastern, 1985
5. Bryman, Alan Quality and Quantity in Social Research, Unwin Hyman, London, 1988.
6. Jayram, N. Sociology: Methods and Theory, Madras, Macmillan Madras, 1989.

**+3 THIRD YEAR FIFTH SEMESTER**  
**Core Paper - 12**  
**SOCIAL MOVEMENTS IN INDIA**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

Movements reflect the voices raised against the prevailing practices of a society. Every society witnesses social movement in some form or the other. Movements bring social change and transformation. It is a collective effort that is driven by particular issues and brings forth changes. The present paper tries to provide a rudimentary impression to the students about the concept, nature and types of movements with a thrust on the movements witnessed by Indian society.

**Objectives:**

- To introduce to the students with the concept of social movements and their dynamics.
- To introduce the students to the role of social movements in social transformation.
- To help them understand the various approaches to the study of social movements.

**Learning Outcomes:**

The very aim of this paper is to disseminate knowledge about the concept of social movements and its process and change making role in the society.

**Unit-1: Social Movement**

- 1.1 Meaning, definitions
- 1.2 Nature and Characteristics of Social Movement
- 1.3 Causes of Social Movement
- 1.4 Types of Social Movement- Revolutionary, Reforms, Revival

**Unit-2: Peasant Movements in India**

- 2.1 Champaran Satyagraha
  - 2.2 The Bardoli Movement in Gujarat
  - 2.3 The Peasant Revolt in Telengana
  - 2.4 The Tebhaga Movement in Bengal
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**Unit-3: Backward Castes & Tribal Movement in India**

- 3.1 Mahar Movement in Maharashtra
- 3.2 Dalit & Non-Brahmin Movement in Tamilnadu, SNDP movement in Kerala
- 3.3 Santhal Insurrection
- 3.4 Jharkhand Movement

**Unit-4: Women's Movement in India**

- 4.1 The Social Reform Movement and Women
- 4.2 Women in the Indian National Movement
- 4.3 Women in Chipko Movement
- 4.4 Contemporary Women's Movement

**Suggested Text Book:**

1. Shah, Ghanashyam Social Movements in India, Sage Publication, New Delhi, 1990
2. Rao, M.S.A.edt. ,Social Movements in India 1920-1950, OUP Delhi, 1983

**Reference Readings:**

1. Kumar, R.,History of Doing: An illustrated Account of Movements for Women's Rights and Feminism in India , New Delhi: Zubban, 1997.
2. Agnihotri, I. and Mazumdar, V., Changing Terms of Political Discourse: Women's Movement in India, in T. K. Oomen (ed.), Social Movements II: Concerns of Equity and Security, New Delhi: OUP,2010.
3. Geetha, V and Rajadurai, S. V., Towards a Non-Brahmin Millennium: From Iyothee Thass to Periyar. Delhi: Popular Prakashan, 1998.
4. Dhanagare D. N. Peasants Movements in India, Oxford University Press, 1983
5. Omvelt, Gail Social Movements in India, Rowman& Littlefield, INC, Oxford, 1993
6. Singh, K.S. Tribal Movements in India, Foundation Pub. New Delhi, 1982

**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 13**  
**POPULATION & SOCIETY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

Demography is both an index and instrument of development and change. India as a country is plagued by population explosion which retards, the economy and blocks social progress. Irrespective of several positive attempts undertaken by the government, India has failed to control its population problem. This paper is designed to provide an idea to the students about population dynamics and its impact on society.

**Objectives:**

After going through this paper, the student can

- Understand the various facets of population studies and the theories that depict pollution change.
  - Develop specific idea on Indian population structure, policies adopted and programmes launched in the country to check population.
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- Assess the role of various agencies in population control.

**Learning Outcomes:**

The very aim of this paper is to acquaint the students with a perennial problem of the Indian society that is population growth and the measures introduced to control it.

**Unit: 1 Population Studies**

- 1.1 Meaning & Scope of Population Studies
- 1.2 Population & Society-Relationship
- 1.3 Importance of Population Studies
- 1.4 Causes and effects of Population Growth

**Unit: 2 Population Theories**

- 2.1 Malthusian Theory
- 2.2 Optimum Theory of Population
- 2.4 The Theory of Demographic Transition
- 2.4 Applicability of Population Theories in Contemporary Scenario

**Unit: 3 Determinants of Population Growth**

- 3.1 Fertility
- 3.2 Migration
- 3.3 Mortality
- 3.4 Measures to control population growth

**Unit: 4 Population Compositions in India**

- 4.1 Sex Composition
- 4.2 Age Compositions
- 4.3 Literacy Composition
- 4.4 Rural & Urban Composition

**Suggested Text Book:**

1. Hans, Raj Population Studies with special reference to India, Sujeet Publication, New Delhi, 1978

**Reference Readings:**

1. S.N. Agarwal, Population studies with Special Reference to India, New Delhi: LokSurjeetPubliction, 1989
  2. Bose ,Ashish Demographic Diversity in India, Delhi: B.R.Publishing Corporation, 1991
  3. Dubey, SurendraNath Population of India, Delhi: Authors Press,2001
  4. Chandrasekhar S. (ed) Infant Mortality, Population growth and Family Planning in India, London, George Alen and Unwin Ltd., 1974
  5. Srivastava, O.S. Demography and Population Studies, Vikas Pub. House, New Delhi, 1998
  6. Jain , R.K A Textbook of Population Studies, Neha Publishers & Distributors,2013
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**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 14**  
**SOCIAL DISORGANIZATION & DEVIANCE**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

No society is fully organized in character. Disorganization is apt to occur from time to time. Disorganization is a manifestation of the deviant behavior found among some individuals. This deviance occurs when the individuals feel that the normative order of the society and its institutions are not need fulfilling in character. This present paper makes an attempt to provide an impression about the scenario of disorganization, its forms, causes and consequences with the theories explaining the situation.

**Objectives:**

After going through this paper, the student can

- Understand the meaning, causes, consequences and forms of social disorganization.
- Learn about the theories explaining the disorganization situations.
- Comprehend the concept of crime and the existing theories of punishment.

**Learning Outcomes:**

This paper is designed with an expectation to impress upon a student on the concept of deviant behavior leading to social disorganization, forms, theoretical foundations and criminal activities which he encounters in real life situations.

**Unit-1 : Social Disorganization:**

- 1.1 Meaning and Nature
- 1.2 Causes and Consequences of Social Disorganization
- 1.3 Family Disorganization - Causes and Consequences
- 1.4 Personality Disorganization- Causes and Consequences

**Unit- 2: Theories of Deviant Behaviour**

- 2.1 Durkheim's Theory
- 2.2 Merton's Theory
- 2.3 Differential Association theory,
- 2.4 Delinquent Sub-Culture theory

**Unit- 3 : Crime and Punishment :**

- 3.1 Crime-Definitions and types
- 3.2 Causes & Consequences of Crime
- 3.3 Juvenile Delinquency-Causes and consequences
- 3.4 Theories of Punishment (Retributive, Deterrant, Reformativ)

**Unit-4: Social Problems:**

- 4.1 Alcoholism,
  - 4.2 Terrorism
-

- 4.3 Human Trafficking
- 4.4 Drug Addiction

**Suggested Text Book**

1. Memoria, C.B. Social Problems and Social Disorganization in India, Kitab Mahal, Allahabad, 1980.

**Reference Readings:**

1. Prabhakar, Vani Social Disorganization & Deviance, Wisdom Press (ISBN) (CBCS), 2012
2. Ahuja, Ram Social Problems in India, Rawat, 2014
3. Sharma, R.N. Criminology & Penology, Surjit Publication, New Delhi, 2008
4. Ahuja, Ram Criminology, Rawat, 2001
5. Shankar Rao, C.N. Indian Social Problems, S.Chand & Co. Pvt. Ltd. (Revised ed.), 2015
6. Sharma, P.D. Criminal Justice Administration, Rawat, 1998

**+3 THIRD YEAR FIFTH SEMESTER**  
**DSE - 1**  
**SOCIOLOGY OF HEALTH**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Objectives:****After studying this paper, the student can**

- Gain knowledge on the sociology of health and medicine.
- Can get an insight on socio-cultural dimensions in the construction of illness and medical knowledge.
- Can gain understanding on health sector reforms of Government of India.
- Gain knowledge on medical pluralism for treatment of disease.

**Learning Outcome:**

Students are expected to know the concept of health from different perspectives. They can also learn about the contemporary trend of Sociology of Health in India. By knowing various health policies and programs in India student can expand the information base and disseminate the same to others.

**Unit – 1: Sociology of Health**

- 1.1 Meaning & Perspectives
- 1.2 Emergence of Health Sociology
- 1.3 Scope of Sociology of Health
- 1.4 Social Determinants of Health

**Unit – 2: Sociological Perspectives of Health**

- 2.1 Functionalist
  - 2.2 Marxist
  - 2.3 Post structuralist
  - 2.4 Feminist
-

**Unit-3: Health Programs in India**

- 3.1 Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)
- 3.2 Janani Suraksha Yojana (JSY)
- 3.3 National Urban Health Mission
- 3.4 National AIDS Control Programme

**Unit-4: Health Sector Reforms of the Government of India:**

- 4.1 Health Policies of the Government of India
- 4.2 Role of ICDS
- 4.3 Protective & Preventive measures
- 4.4 Promotive measures (modern & indigenous)

**Suggested Text Book:**

1. Cockerham, William C. Medical Sociology Englewood, Cliffs, Prentice Hall 1978.

**Reference Readings:**

1. Dak, T.M. Sociology of Health in India, Kaveri Printers, New Delhi, 1991.
2. Blaxter, M., Health, Cambridge: Polity Press, 2004.
3. White, K., An Introduction to Sociology of Health and Illness, London: Sage, 2016, third edition
4. Prasad, Purendra and Amar Jesani ed. Equity and Access Health Care Studies, Oxford University Press, 2018

**+3 THIRD YEAR FIFTH SEMESTER  
DSE - 2  
SOCIOLOGY OF EDUCATION**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

**Objectives:**

After going through this paper, the student can

- Get to know the meaning and theoretical perspectives on sociology of education
- Get familiar with the relationship between education and society.
- Get insights on role of education in Nation building.
- Get an understanding on inequality in education that persists at various levels.
- Gain knowledge on constitutional provisions and various education policies

**Learning Outcomes:**

The students are expected to learn various perspectives on education through the contributions of both Indian and western thinkers. Knowledge on education policies and constitution provisions can prepare the students for the development of their own higher education. Students can develop academic interest by knowing the contribution of education in nation building as well as the educational inequalities which persist in the society.

**Unit-1: Sociology of Education**

- 1.1 Meaning & Concept of Sociology of Education
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- 1.2 Interrelationship between Education and Society
- 1.3 Literacy & Education
- 1.4 Education as Social Construct

**Unit-2: Perspectives on Sociology of Education**

- 2.1 Dominant Perspectives on Sociology of Education
- 2.2 Functionalist
- 2.3 Conflict
- 2.4 Critical Perspectives

**Unit-3: Education, Social Process**

- 3.1 Education and Socialization
- 3.2 Education and Social Change
- 3.3 Education and Social Mobility
- 3.4 Education and Development

**Unit-4: Educational Programs, Policies & Issues in India**

- 4.1 Educational Policies in India
- 4.2 Universalisation of Primary Education
- 4.3 Privatisation of Education
- 4.4 Right to Education in Contemporary India

**Suggested Text Book:**

- 1 Jayram, N., *Sociology of Education in India*. Rawat. Jaipur., 2015

**Reference Readings:**

1. Morish, I. *The Sociology of Education. An Introduction*. London. Unwin Publication, 1972.
- 2 Freire, P., *Pedagogy of the Oppressed*, New York: Seabury Press, 1970.
- 3 Hooks, B. *Teaching to Transgress*, New York: Routledge, 1994
- 4 Aggarwal, J.C *Yearbook of Indian Education*. New Delhi, 1992
- 5 Dwibedi, Ramnath. *Education and Society*, Kalyani Publisher, New Delhi 2016.
- 6 Kilpatrick, M.O. *Philosophy of Education*. McMillan Company 1963

**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 3**  
**URBAN SOCIOLOGY**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

Urbanisation is an important social process that changed the face of human civilization. It was initiated with the process of modernization, transport revolution, coming up of river valley civilizations, establishment of trade links and industrial revolution. Urbanisation has brought both prosperity and problems. It is one of the earnest tasks of Sociology to trace out the evolution of the process, social; problems associated with it and policy planning and measures undertaken to overcome these challenges. This paper Urban Sociology concentrates upon these tasks.

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**Objectives:**

After going through this paper, the student can

- Understand the specific traits of urban areas, its historical patterns of growth.
- Develop knowledge about urban social institutions and problems
- Gain insight into urban development plans, programmes and efforts.

**Unit-1: Introduction to Urban Sociology**

- 1.1 Meaning, and Subject matter of Urban Sociology
- 1.2 Importance of Urban Sociology
- 1.3 Specific traits of Urban Community
- 1.4 Urbanism as a way of life

**Unit-2 Theories of patterns of city growth:**

- 1.1 Concentric zone theory
- 1.2 Sector model
- 1.3 Multiple nuclei theory
- 1.4 Exploitative Model & symbolic approach theory

**Unit-3: Urban Social Problems**

- 3.1 Urban Crime
- 3.2 Problem of Slums
- 3.3 Problem in Urban Basic Services
- 3.4 Urban Pollution

**Unit –4: Urban Development Programmes in India**

- 4.1 Smart City Mission (SCM)
- 4.2 Jawaharlal Nehru National Urban Renewal Mission (JNNURM)
- 4.3 Atal Mission for Rejuvenation and Urban Transformation (AMRUT)
- 4.4 National Urban Livelihoods Mission (NULM)

**Suggested Text Book:**

1. Sharma,R.N.Urban Sociology, Atlantic Publishers & Distributors Pvt Ltd,2014

**Essential Readings**

1. Rao M. S. A. Urban Sociology in India: Reader and Sourcebook ,Sangam Books Limited; New edition, 1992Satish Sharma, Urban Sociology, Wisdom Press (ISBN) (CBCS)
  2. Jayapalan, N . Urban Sociology, Atlantic Publishers,2002,
  3. Dhandeva, M.S. Sociology & Slum, Archives Books, New Delhi, 1989.
  4. Sandhu, R.S Urbanization in India: Sociological Contributions, Sage Publication, New Delhi, 2003.
  5. William G. Flanagan, William G. Urban Sociology: Images and structure, Allyn & Bacon, Boston. 1999.
  6. Ramachandran, R Urbanization and Urban system in India, Oxford Univ. Press, New Delhi, 1989
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**+3 THIRD YEAR SIXTH SEMESTER**  
**DSE - 4**  
**FIELD WORK AND DISSERTATION**

Time : 3 Hrs.  
Credit : 06

End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

**Course Objective:**

This paper is designed

- To provide a basic exposure to the student to the fields and to acquaint him/her with the research process.
- To equip them with the capacity to browse secondary literature from right sources and with a process of reviewing relevant literature.
- To promote in them an ability to capture the right type of data and put them into documentation format.

**(Dissertation: 80 marks and Viva-voce: 20 marks)**

- Dissertation may be written on any social institution, problem or may be an evaluative study.
- It should be based on empirical study.
- Size of the dissertation should be around 5000 words.
- Dissertation paper will be examined jointly by one Internal and one External Examiner to be appointed by the University. Marks will be awarded jointly by the Internal and External Examiners on the basis of the written Dissertation and Viva-voce.

**OR**

**TRIBES OF INDIA Course Objective:**

The present paper aims

- To provide a fair stock of knowledge to the students on the tribes and tribal life.
- To enable the students to understand the problems faced by the tribes
- To give impression and knowledge on the tribal development plans, policies and programmes.

**Learning outcomes:**

After going through this paper it is expected that the students will gain fair idea about the Indian tribes, their demography and distribution. They will be sensitized about tribal situations and the challenges faced by them today. Finally, they can get an account of the safeguards created for them through the Constitution, legislations and programmes and the changes noted in the tribal society of the country today.

**Unit-1**

**Tribes: Their Distribution and Demography**

- 1.1 Tribe: definitions, characteristics and demography
  - 1.2 Geographical distribution of the tribes
  - 1.3 N.K.Guha's Classification on Tribes
  - 1.4 Cast and Tribe
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**Unit-2****Social Organisation of the Tribes**

- 2.1 Tribal economic system
- 2.2 Tribal political system
- 2.3 Tribal religion
- 2.4 Women in Tribal Society

**Unit-3****Challenges Faced by the Tribes**

- 3.1 Land alienation, Migration
- 3.2 Alcholoisma and Indebetedness
- 3.3 Tribal Displacement
- 3.4 Tribal health and Sanitation

**Unit-4****Changes and Upliftment of the Tribes**

- 4.1 Constitutional safeguards for the tribes
- 4.2 Legal provisions for theribes
- 4.3 Flagship programmes of the Government for the tribes
- 4.4 Recent Changes in Tribal Life

**Suggested Text Books:**

1. Hasnain, Nadeem, Indian Anthropology, New Royal Book Co 2011
2. Majumdar, D.N. and T.N.Madan, An Introduction To Social Anthropology, Asia Pub. House, 2010

**Reference Readings:**

1. Hasnain Nadeem Tribal India, New Royal Book Company, 2017 edition
2. Joshi Vidyut and Chandrakant Upadhyaya (eds), Tribal Situation in India: Issues and Development, Rawat Publications,2017
3. Rath Govind Chandra,edt. Tribal Development in India: The Contemporary Debate, Sage Publications,2006
4. Paul Mitra, Kakali Development Programmes And Tribals Some Emerging Issues, Kalpaz Publications 2004
5. Munshi, Indra The Adivasi Question, Orient Blackswan Private Limited,2018
6. Mohanty, P.K. Development of Primitive Tribal Groups in India, Kalpaz Publications,2003

**+3 SECOND YEAR THIRD SEMESTER****GE - 3****INTRODUCTION TO SOCIOLOGY**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

This introductory paper intends to acquaint the students with Sociology as a social science and the basic concepts used in the discipline. It also focuses on the social processes and the social institutions that man encounters as a member of the society.

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**Objectives:**

After studying these two papers, the student can

- Get to know the convergence and divergence of Sociology with other social science disciplines in terms of the subject matter, nature and scope of the discipline and its approach.
- Develop knowledge about its historicity.
- Can get acquainted with the basic concepts used in the subject.
- Can generate ideas about the social processes and social institutions man encounters as a member of the society.

**Learning Outcomes:**

This paper is expected to clarify and broaden the student's notion about the subject, the basic concepts used and some universal societal processes. This will provide a wholesome picture about what the subject is all about.

**Unit-1: Discipline and Perspective**

- 1.1 Meaning, Emergence of Sociology,
- 1.2 Definition, Subject Matter,
- 1.3 Nature and Scope of Sociology
- 1.4 Relationship of Sociology with Anthropology, Political Science, History and Economics

**Unit-2: Basic Concepts**

- 2.1 Society and Community
- 2.2 Associations and Institutions
- 2.3 Social Groups and Culture
- 2.4 Role and Status,

**Unit-3: Social Stratification**

- 3.1 Meaning, Definition, Characteristics
- 3.2 Forms of Stratification-Caste, class & gender
- 3.3 Functionalist Theories of stratification (Parsons, Davis & Moore)
- 3.4 Marxian & Weberian Theories of stratification

**Unit-4: Socialization and Social Control**

- 4.1 Meaning, Definitions, Stages of Socialization Process.
- 4.2. Agencies of Socialization
- 4.3 Social Control: Meaning, Definitions, importance of social control
- 4.4 Agencies of Social Control: Formal and Informal

**Suggested Text book:**

1. Rao ,C.N.Shankar, Principles of Sociology: With an Introduction to Social Thought, S.Chand & Co. Pvt. Ltd.(Revised ed.), 2006
2. Haralambos &Holborn , Sociology: Themes and Perspectives Harper Collins; Eighth edition, 2014

**Reference Readings:**

1. Mills, C.W., *The Sociological Imagination*, Oxford: Oxford University Press, 1959.
  2. Giddens ,Anthony, Introduction to Sociology, 1991
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3. Rawat, H.K. Contemporary Sociology, Rawat Publication, Jaipur, 2013
4. Johnson, Harry M. Sociology: A Systematic Introduction, New Delhi, Allied Publishers, 1995
5. Smelser Neil J. *Hand Book of Sociology*, Sage Publications, Inc. 1998
6. Dasgupta, Samir and Saha, Paulomi An Introduction to Sociology, Pearson, 2014

### **+3 THIRD YEAR SIXTH SEMESTER**

#### **GE - 4**

#### **INDIAN SOCIETY**

Time : 3 Hrs.

Credit : 06

End Semester Theory : 80 Marks

Mid Semester Theory : 20 Marks

Every society has its own peculiar structure and there are some institutions universal to every society, but with their unique manifestations in each society. There are some change agents and initiatives that enable the society to change with the passage of time. This paper focuses on the structure of the Indian society and the changing aspects with the processes operating, change agents and initiatives.

#### **Objectives:**

After studying these two papers on Indian society, the student can

- Get an impression about the basic composition of Indian society, its historical moorings, basic philosophical foundations of the society and the institutions.
- Learn about the changing institutions, the processes, the agents and the interventions that bring about change in the Indian society.

#### **Learning Outcomes:**

This paper is expected to bring familiarity in a student about Indian society. It will present a comprehensive, integrated and empirically –based profile of Indian society. It is hoped that the structure and processes operative in the society, the change agents operating in Indian society presented in this course will also enable students to gain a better understanding of their own situation and region.

#### **Unit-1: Composition of Indian Society and Approaches to the study of Indian society:**

- 1.1 Religious composition, Linguistic composition & Racial composition
- 1.2 Unity in diversity
- 1.3 National Integration—Meaning & Threats (Communalism, linguism, regionalism)
- 1.4 Approaches to the study of Indian society: Structural-Functional, Marxian and Subaltern

#### **Unit-2: Historical Moorings and Bases of Hindu Social Organization**

- 2.1 Varna Vyavastha and relevance
- 2.2 Ashrama and relevance
- 2.3 Purusartha and relationship with Ashramas
- 2.4 Doctrine of Karma

#### **Unit-3: Marriage and Family in India**

- 3.1 Hindu Marriage as Sacrament, Aims of Hindu marriage, Forms of Hindu Marriage.
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- 3.2 Hindu Joint Family-Meaning & disintegration
- 3.3 Marriage among the Muslims& Tribes
- 3.4 Changes in Marriage and Family in India

#### **Unit-4: The Caste System in India**

- 4.1 Meaning, Definitions & features of Caste
- 4.2 Functions & Dysfunctions of Caste
- 4.3 Factors affecting caste system
- 4.4 Recent Changes in Caste System

#### **Suggested Text Book:**

1. Rao ,C.N.Shankar, Sociology of Indian Society, S.Chand & Co. Pvt. Ltd.(Revised edt.), 2004

#### **Reference Readings:**

1. Shah, A.M., The Household Dimension of the Family in India: A Field Study in a Gujarat Village and a Review of Other Studies, Delhi: Orient Longman, 1973.
2. Uberoi, P. (ed.), Family, Kinship and Marriage in India,New Delhi: Oxford University Press, 1993.
3. Y. Singh , Modernisation of Indian Tradition, Jaipur: Rawat Publications, 1986
4. Ram Ahuja, Indian Social System, Rawat Publications, 1993
5. Sharma, KL. Indian Social Structure and Change, Rawat Publication, 2008
6. Srinivas, M.N. India: Social Structure. New Delhi: Hindustan Publishing Corporation, 1980-  
The developmental stages of industry.
7. The organizational structure of industries and employee and employer relations in the industry.

#### **Learning Outcomes:**

The very aim of this paper is to impress upon the students of sociology the role they can play in creating effective industrial relations with their knowledge of sociology.

#### **Unit-I Industrial Sociology:**

- 1.1 Meaning and definition of Industrial sociology
- 1.2 Nature and scope of Industrial Sociology.
- 1.3 Emergence of Industrial Sociology as a sub discipline
- 1.4 Significance of Industrial Sociology in India.

#### **Unit-2 Social – Ideas of theorists relating to Industrialization and Industrial Society**

- 2.1 Classical Theories: Adam Smith, Karl Marx
- 2.2 Max Weber, Durkheim and Mayo
- 2.3 Likert, Herzberg
- 2.4 Maslow, McClelland.

#### **Unit-3 The Development of Industries:**

- 3.1 The Manorial system, the Guild system
  - 3.2 Domestic system, the Factory system
  - 3.3 Industrial revolution in the west
  - 3.4 Evolution and growth of industries in India
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**Unit-4 Industrial and Labour Relations:**

- 4.1 Industrial Relations, International Labour Organisation, Labour Legislations
- 4.2 Industrial Relations in India.
- 4.3 Workers' participation in Management (WPM): Industrial Democracy
- 4.4. Labour legislation in India: History, Evolution of Labour laws in India, Indian Constitutions and protection of labour rights, Classification of labour laws in India, Employees State Insurance Act, 1948, Factories Act, 1948, Laws related to wages, Laws related to child labour, Maternity Benefit Act, 1961, Women labour and the Law

**Suggested Text Book:**

1. Schneider, Eugene Industrial Sociology, Mcgraw Hill- London, 1971
2. Labour Laws in India, ebook, 2012

**Reference Readings:**

1. Gisbert, Pascal, Fundamentals of Industrial Sociology, New Delhi, Tata Mcgraw Hill, 1972
  2. Davis, Keith, 1984 Human Behaviour at work, New Delhi, Mcgraw Hill, 1984
  3. Ramaswamy, E.A. Industrial Relations in India, Delhi, MacMillan, 1978
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# STATISTICS

## +3 FIRST YEAR FIRST SEMESTER

### Core Paper - 1

#### DESCRIPTIVE STATISTICS

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

#### UNIT-I

Statistical Methods: Definition and scope of Statistics, concepts of statistical population and sample. Data: quantitative and qualitative, attributes, variables, scales of measurement nominal, ordinal, interval and ratio. Presentation: tabular and graphical, including histogram and ogives, consistency and independence of data with special reference to attributes.

#### UNIT-II

Measures of Central Tendency: mathematical and positional. Measures of Dispersion: range, quartile deviation, mean deviation, standard deviation, coefficient of variation, Moments, absolute moments, factorial moments, skewness and kurtosis, Sheppard's corrections.

#### UNIT-III

Bivariate data : Definition, scatter diagram, simple, partial and multiple correlation (3 variables only), rank correlation. Simple linear regression, principle of least squares and fitting of polynomials and exponential curves.

#### UNIT-IV

Index Numbers: Definition, construction of index numbers and problems thereof for weighted and unweighted index numbers including Laspeyre's, Paasche's, Edgeworth- Marshall and Fisher's Ideal Index numbers. Errors in Index numbers. Chain index numbers, conversion of fixed based to chain based index numbers and vice-versa. Consumer price index numbers. Uses and limitations of index numbers.

#### TEXT BOOKS:

1. Goon A.M., Gupta M.K. and Dasgupta B. (2002): Fundamentals of Statistics, Vol. I & II, 8th Edn. The World Press, Kolkata.
2. Gupta, S. C. and Kapoor, V.K. (2008): Fundamentals Of Mathematical Statistics, 4th Edition (Reprint), Sultan Chand & Sons

#### SUGGESTED READINGS:

1. Miller, Irwin and Miller, Marylees (2006): John E. Freund's Mathematical Statistics with Applications, (7th Edn.), Pearson Education, Asia.
  2. Mood, A.M. Graybill, F.A. and Boes, D.C. (2007): Introduction to the Theory of Statistics, 3rd Edn., (Reprint), Tata McGraw-Hill Pub. Co.Ltd.
  3. Mukhopadhyay, P. (1999): Applied Statistics, New Central Book Agency,
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**PRACTICAL**Credit : **02****25 Marks**

1. Graphical representation of data.
2. Problems based on measures of central tendency.
3. Problems based on measures of dispersion.
4. Problems based on moments, skewness and kurtosis.
5. Karl Pearson and rank correlation coefficient.
6. Lines of regression, angle between lines and estimated values of variables.
7. Calculate price and quantity index numbers using simple and weighted average of price relatives.

**+3 FIRST YEAR FIRST SEMESTER****Core Paper - 2****ALGEBRA**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****UNIT-I**

Theory of equations, statement of the fundamental theorem of algebra and its consequences. Relation between roots and coefficients or any polynomial equations. Vector spaces, Subspaces, sum of subspaces, Span of a set, Linear dependence and independence, dimension and basis.

**UNIT-II**

Algebra of matrices - A review, theorems related to triangular, symmetric and skew symmetric matrices, idempotent matrices, Hermitian and skew Hermitian matrices, orthogonal matrices, singular and non-singular matrices and their properties. Trace of a matrix, unitary, involutory and nilpotent matrices.

**UNIT-III**

Determinants of Matrices: Definition, properties and applications of determinants for 3rd and higher orders, evaluation of determinants of order 3 and more using transformations. Adjoint and inverse of a matrix and related properties. Use of determinants in solution to the system of linear equations, row reduction and echelon forms, the matrix equations  $AX=B$ , solution sets of linear equations. Applications of linear equations.

**UNIT-IV**

Rank of a matrix, row-rank, column-rank, standard theorems on ranks, rank of the sum and the product of two matrices. Characteristic roots and Characteristic vector, Properties of characteristic roots, Cayley Hamilton theorem, and Quadratic forms.

**TEXT BOOKS:**

1. Gorakh Prasad: Differential Calculus, Pothishala Pvt. Ltd., Allahabad.
2. Gorakh Prasad: Integral Calculus, Pothishala Pvt. Ltd., Allahabad.

**SUGGESTED READINGS:**

1. Zafar Ahsan: Differential Equations and their Applications, Prentice-Hall of India Pvt. Ltd., New Delhi (2nd Edition-2004).
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2. Piskunov, N: Differential and Integral Calculus, Peace Publishers, Moscow.
3. Differential calculus by Das & Mukherjee, U.N Dhar Publication, Kolkatta, 2010.
4. Integral Calculus by Das & Mukherjee, U.N Dhar Publication, Kolkatta,2010.
5. Advanced Differential Equations by Md Raisinghanian, S Chand & Company Pvt Ltd

### PRACTICAL

Credit : **02**

**25 Marks**

1. Finding roots of an algebraic equations
2. Solution of linear equations by matrix method.
3. Rank and Inverse of a matrix
4. Characteristics roots and characteristics vector of a matrix.
5. Applications of matrices.

#### UNIT-I

Limitlaws: convergence in probability, almost sure convergence, convergence in mean square and convergence in distribution and their interrelations, Chebyshev's inequality, W.L.L.N., S.L.L.N.and their applications, De-Moivre Laplace theorem,Central LimitTheorem (C.L.T.) for i.i.d. variates, applications of C.L.T.

#### UNIT-II

Definitions of random sample, parameter and statistic, sampling distribution of a statistic, sampling distribution of sample mean, standard errors of sample mean, sample variance and sample proportion. Null and alternative hypotheses, level of significance, Type I and Type II errors, their probabilities and critical region. Large sample tests for testing single proportion, difference of two proportions, single mean, difference of two means, standard deviation and difference of standard deviations byclassical and p-value approaches.

## +3 FIRST YEAR SECOND SEMESTER

### Core Paper - 3

#### PROBABILITY AND PROBABILITY DISTRIBUTIONS

Time : **3 Hrs.**

End Semester Theory : **60 Marks**

Credit : **04**

Mid Semester Theory : **15 Marks**

#### UNIT-I

Probability: Introduction, random experiments, sample space, events and algebra of events. Definitions of Probability – classical, statistical, and axiomatic. Conditional Probability, laws of addition and multiplication, independent events, theorem of total probability, Bayes'theorem and its applications.

#### UNIT-II

Random variables: discrete and continuous random variables, p.m.f., p.d.f. and c.d.f., illustrationsand properties of random variables, univariate transformations with illustrations. Two dimensional random variables: discrete and continuous type, joint, marginal and conditional p.m.f, p.d.f., and c.d.f., independence of variables.

**UNIT-III**

Mathematical Expectation and Generating Functions: Expectation of single and bivariate random variables and its properties. Moments and Cumulants, moment generating function, cumulant generating function and characteristic function. Uniqueness and inversion theorems (without proof) along with applications. Conditional expectations.

**UNIT-IV**

Standard discrete probability distributions: Uniform, Binomial, Poisson, geometric, along with their properties and limiting/approximation cases. Standard continuous probability distributions: uniform, normal, exponential, beta and gamma along with their properties and limiting/approximation cases..

**TEXT BOOKS:**

1. Hogg, R.V., Tanis, E.A. and Rao J.M. (2009): Probability and Statistical Inference, Seventh Ed, Pearson Education, New Delhi.
2. Gupta, S. C. and Kapoor, V.K. (2008): Fundamentals Of Mathematical Statistics, 4th Edition (Reprint), Sultan Chand & Sons

**SUGGESTED READINGS:**

1. Miller, Irwin and Miller, Marylees (2006): John E. Freund's Mathematical Statistics with Applications, (7th Edn.), Pearson Education, Asia.
2. Mood, A.M. Graybill, F.A. and Boes, D.C. (2007): Introduction to the Theory of Statistics, 3rd Edn., (Reprint), Tata McGraw-Hill Pub. Co. Ltd.
3. Goon A.M., Gupta M.K. and Dasgupta B. (2002): Fundamentals of Statistics, Vol. I, 8th Edn. The World Press, Kolkata.
4. Myer, P.L. (1970): Introductory Probability and Statistical Applications, Oxford & IBH Publishing, New Delhi

### **+3 FIRST YEAR SECOND SEMESTER Core Paper - 4**

**CALCULUS**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**UNIT-I**

Differential Calculus: Limits of function, continuous functions, properties of continuous functions, partial differentiation and total differentiation (two variables). Indeterminate forms: L-Hospital's rule, Leibnitz rule for successive differentiation. Euler's theorem on homogeneous functions. Maxima and minima of functions of one and two variables. transformations and Jacobians.

**UNIT-II**

Integral Calculus: Review of integration and definite integral. Differentiation under integral sign, double integral. Beta and Gamma functions: properties and relationship between them.

**UNIT-III**

Differential Equations: Exact differential equations, Integrating factors, change of variables, Total differential equations, Differential equations of first order and first degree, Differential

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equations of first order but not of first degree, Equations of the first degree in  $x$  and  $y$ , Clairaut's equations. Higher Order Differential Equations. Homogeneous differential equations of order  $n$  with constant coefficients.

#### UNIT-IV

Formation and solution of a partial differential equations. Equations easily integrable. Linear partial differential equations of first order. Homogeneous linear partial differential equations with constant coefficients. Different cases for complimentary functions and particular integrals.

#### TEXT BOOKS:

1. Krishnamurthy V., Mainra V.P. and Arora J.L.: An Introduction to Linear Algebra (II, III, IV, V).

#### SUGGESTED READINGS:

1. Biswas, S. (1997): A Textbook of Matrix Algebra, New Age International, 1997.
2. Gupta S.C.: An Introduction to Matrices (Reprint). Sultan Chand & Sons, 2008.
3. Datta K.B.: Matrix and Linear Algebra. Prentice Hall of India Pvt. Ltd., 2002.
4. Hadley G.: Linear Algebra. Narosa Publishing House (Reprint), 2002.
5. Searle S.R.: Matrix Algebra Useful for Statistics. John Wiley & Sons., 1982.
6. Schaum's Outlines : Linear Algebra, Tata McGraw-Hill Edition, 3rd Edition, 2006.

#### PRACTICAL

Credit : **02**

**25** Marks

1. Determination of Maxima & Minima
2. Using definite integral obtained the area under curve
3. Applications of differential equations
4. Applications Partial differential equations
5. Applications of Beta and Gamma function

### +3 SECOND YEAR THIRD SEMESTER

#### Core Paper - 5

#### SAMPLING DISTRIBUTIONS

Time : **3** Hrs.

End Semester Theory : **60** Marks

Credit : **04**

Mid Semester Theory : **15** Marks

#### UNIT-III

Exact sampling distribution: Definition and derivation of p.d.f. of  $\chi^2$  with  $n$  degrees of freedom (d.f.) using m.g.f., nature of p.d.f. curve for different degrees of freedom, mean, variance, m.g.f., cumulant generating function, mode, additive property and limiting form of  $\chi^2$  distribution. Tests of significance and confidence intervals based on  $\chi^2$  distribution.

#### UNIT-IV

Exact sampling distributions: Student's and Fisher's distribution, Derivation of its p.d.f., nature of probability curve with different degrees of freedom, mean, variance, moments and limiting form of distribution. Snedecore's F-distribution: Derivation of p.d.f., nature of p.d.f. curve with different degrees of freedom, mean, variance and mode. Relationship between  $t$ ,  $F$  and  $\chi^2$  distributions. Test of significance and confidence intervals based on  $t$  and  $F$  distributions.

**TEXT BOOKS:**

1. Goon, A.M., Gupta, M.K. and Dasgupta, B. (2003): An Outline of Statistical Theory, Vol. I, 4th Edn. World Press, Kolkata.

**SUGGESTED READINGS:**

1. Rohatgi V. K. and Saleh, A.K. Md. E. (2009): An Introduction to Probability and Statistics. 2nd Edn. (Reprint) John Wiley and Sons.
2. Hogg, R.V. and Tanis, E.A. (2009): A Brief Course in Mathematical Statistics. Pearson Education.
3. Johnson, R.A. and Bhattacharya, G.K. (2001): Statistics-Principles and Methods, 4th Edn. John Wiley and Sons.
4. Mood, A.M., Graybill, F.A. and Boes, D.C. (2007): Introduction to the Theory of Statistics, 3rd Edn. (Reprint). Tata McGraw-Hill Pub. Co.Ltd.

**PRACTICAL**Credit : **02****25** Marks

1. Testing of significance and confidence intervals for single proportion and difference of two proportions
2. Testing of significance and confidence intervals for single mean and difference of two means and paired tests.
3. Testing of significance and confidence intervals for difference of two standard deviations.
4. Exact Sample Tests based on Chi-Square Distribution.
5. Testing if the population variance has a specific value and its confidence intervals.
6. Testing of goodness of fit.
7. Testing of independence of attributes.
8. Testing based on 2 X 2 contingency table without and with Yates' corrections.
9. Testing and confidence intervals of equality of two population variances.

**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 6****SURVEY SAMPLING & INDIAN OFFICIAL STATISTICS**Time : **3 Hrs.**End Semester Theory : **60** MarksCredit : **04**Mid Semester Theory : **15** Marks**UNIT-I**

Concept of population and sample, complete enumeration versus sampling, sampling and non-sampling errors. Types of sampling: non-probability and probability sampling, basic principle of sample survey, simple random sampling with and without replacement, definition and procedure of selecting a sample, estimates of: population mean, total and proportion, variances of these estimates, estimates of their variances and sample size determination.

**UNIT-II**

Stratified random sampling: Technique, estimates of population mean and total, variances of these estimates, proportional and optimum allocations and their comparison with SRS. Practical difficulties in allocation, estimation of gain in precision. Systematic Sampling: Technique, estimates of population mean and total, variances of these estimates ( $N=n \times k$ ). Comparison of systematic sampling with SRS and stratified sampling in the presence of linear trend and corrections.

**UNIT-III**

Introduction to Ratio and regression methods of estimation, first approximation to the population mean and total (for SRS of large size), variances of these estimates and estimates of these variances, comparison with SRSWOR. Cluster sampling (equal clusters only) estimation of population mean and its variance,

**UNIT-IV**

Present official statistical system in India, Methods of collection of official statistics, their reliability and limitations. Role of Ministry of Statistics & Program Implementation (MoSPI), Central Statistical Office (CSO), National Sample Survey Office (NSSO), and National Statistical Commission. Government of India's Principal publications containing data on the topics such as population, industry and finance.

**TEXT BOOKS:**

1. Sukhatme,P.V., Sukhatme,B.V. Sukhatme,S. Asok,C.(1984). Sampling Theories of Survey With Application, IOWA State University Press and Indian Society of Agricultural Statistics
2. Guide to current Indian Official Statistics, Central Statistical Office, GOI, New Delhi.

**SUGGESTED READINGS:**

1. Cochran W.G. (1984): Sampling Techniques (3rd Ed.), Wiley Eastern.
2. Murthy M.N. (1977): Sampling Theory & Statistical Methods, Statistical Pub. Society, Calcutta.
3. Des Raj and Chandhok P. (1998): Sample Survey Theory, Narosa Publishing House.
4. Goon A.M., Gupta M.K. and Das gupta B. (2001): Fundamentals of Statistics (Vol.2), World Press.

**PRACTICAL**Credit : **02****25 Marks**

1. To select a SRS with and without replacement.
  2. For a population of size 5, estimate population mean, population mean square and population variance. Enumerate all possible samples of size 2 by WR and WOR and establish all properties relative to SRS.
  3. For SRSWOR, estimate mean, standard error, the sample size
  4. Stratified Sampling: allocation of sample to strata by proportional and Neyman's methods Compare the efficiencies of above two methods relative to SRS
  5. Estimation of gain in precision in stratified sampling.
  6. Comparison of systematic sampling with stratified sampling and SRS in the presence of a linear trend.
  7. Ratio and Regression estimation: Calculate the population mean or total of the population. Calculate mean squares. Compare the efficiencies of ratio and regression estimators relative to SRS.
  8. Cluster sampling: estimation of mean or total, variance of the estimate, estimate of intra-class correlation coefficient, efficiency as compared to SRS.
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**+3 SECOND YEAR THIRD SEMESTER****Core Paper - 7****MATHEMATICAL ANALYSIS**

Time : 3 Hrs.

Credit : 04

End Semester Theory : 60 Marks

Mid Semester Theory : 15 Marks

**UNIT-I**

Real Analysis : Representation of real numbers as points on the line and the set of real numbers as complete ordered field. Bounded and unbounded sets, neighborhood and limit points, Supremum and infimum, open and closed sets, sequences and their convergence. Infinite series, positive term series and their convergence, Comparison test, D'Alembert's ratio test, Cauchy's nth root test, Raabe's test. Gauss test, Cauchy's condensation test and integral test (Statements and Examples only).

**UNIT-II**

Review of limit, continuity and differentiability, uniform continuity and boundedness of a function. Rolle's and Lagrange's Mean Value theorems. Taylor's theorem with Lagrange's and Cauchy's form of remainder (without proof). Taylor's and Maclaurin's series expansions.

**UNIT-III**

Numerical Analysis: Factorial, finite differences and interpolation. Operators, E and divided difference. Newton's forward, backward and divided differences interpolation formulae. Lagrange's interpolation formulae. Central differences, Gauss and Stirling interpolation formulae.

**UNIT-IV**

Numerical integration. Trapezoidal rule, Simpson's one-third rule, three-eighths rule, Weddle's rule with error terms. Stirling's approximation to factorial n. Solution of difference equations of first order.

**TEXT BOOKS:**

1. Malik S.C. and Savita Arora : Mathematical Analysis, Second Edition, Wiley Eastern Limited, New Age International Limited, New Delhi, 1994.
2. Goel B. S. and Mittal S. K. : Numerical Analysis, Pragati Prakashan, ND, 2008

**SUGGESTED READINGS:**

1. Somasundram D. and Chaudhary B.: A First Course in Mathematical Analysis, Narosa Publishing House, New Delhi, 1987.
  2. Shanti Narayan: A course of Mathematical Analysis, 12th revised Edition, S. Chand & Co. (Pvt.) Ltd., New Delhi, 1987.
  3. Singal M.K. and Singal A.R.: A First Course in Real Analysis, 24th Edition, R. Chand & Co., New Delhi, 2003.
  4. Bartle, R.G. and Sherbert, D.R. (2002): Introduction to Real Analysis (3rd Edition), John Wiley and Sons (Asia) Pte. Ltd., Singapore.
  5. Jain, M. K., Iyengar, S. R. K. and Jain, R. K. (2003): Numerical methods for scientific and engineering computation, New age International Publisher, India.
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**PRACTICAL**Credit : **02****25 Marks**

1. Interpolation with equal and unequal intervals.
2. Problems on Lagrange's interpolation
3. Numerical Integration (Trapezoidal, Simpson's and Weddle's method)
4. Stirling's approximation

**+3 SECOND YEAR FOURTH SEMESTER****Core Paper - 8****STATISTICAL INFERENCE**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****UNIT-I**

Estimation: Concepts of point estimation, Criterion of a good estimator, unbiasedness, sufficiency, consistency and efficiency. Factorization theorem. Complete statistic. Minimum variance unbiased estimator (MVUE), Rao-Blackwell and Lehmann-Scheffe theorems and their applications. Cramer-Rao inequality and MVB estimators (statement and applications).

**UNIT-II**

Methods of Estimation: Method of moments, method of maximum likelihood estimation, method of minimum Chi-square, basic idea of Bayes estimators.

**UNIT-III**

Principles of test of significance: Null and alternative hypotheses (simple and composite), Type-I and Type-II errors, critical region, level of significance, size and power, best critical region, most powerful test, uniformly most powerful test, Neyman Pearson Lemma (statement and applications to construct most powerful test). Likelihood ratio test, properties of likelihood ratio tests (without proof).

**UNIT-IV**

Sequential Analysis: Sequential probability ratio test (SPRT) for simple vs simple hypotheses. Fundamental relations among  $\alpha$ ,  $\hat{\alpha}$ , A and B, determination of A and B in practice. Wald's fundamental identity and the derivation of operating characteristics (OC) and average sample number (ASN) functions, examples based on binomial and normal distributions.

**TEXT BOOKS:**

1. Goon A.M., Gupta M.K.: Das Gupta.B. (2005), Fundamentals of Statistics, Vol. I, World Press, Calcutta.
2. Gun, A.M., Gupta, M.K. and Dasgupta, B.: An Outline of Statistical Theory, Vol.II, (4thed.), World Press.

**SUGGESTED READINGS:**

1. Rohatgi V. K. and Saleh, A.K. Md. E. (2009): An Introduction to Probability and Statistics. 2ndEdn. (Reprint) John Wiley and Sons.
  2. Miller, I. and Miller, M. (2002) : John E. Freund's Mathematical Statistics (6th addition, low price edition), Prentice Hall ofIndia.
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3. Dudewicz, E. J., and Mishra, S. N. (1988): Modern Mathematical Statistics. John Wiley & Sons.
4. Mood A.M, Graybill F.A. and Boes D.C,: Introduction to the Theory of Statistics, McGrawHill.
5. Bhat B.R, Srivenkatramana T and Rao Madhava K.S. (1997) Statistics: A Beginner's Text, Vol. I, New Age International (P)Ltd.

### PRACTICAL

Credit : **02**

**25** Marks

1. Unbiased estimators (including unbiased but absurd estimators)
2. Consistent estimators, efficient estimators and relative efficiency of estimators.
3. Maximum Likelihood Estimation
4. Most powerful critical region (NPLemma)
5. Uniformly most powerful critical region
6. Unbiased critical region
7. Power curves
8. OC function and OC curve , ASN function and ASN curve

## +3 SECOND YEAR FOURTH SEMESTER

### Core Paper - 9

#### LINEAR MODEL

Time : **3** Hrs.

End Semester Theory : **60** Marks

Credit : **04**

Mid Semester Theory : **15** Marks

#### UNIT-I

Gauss-Markov set-up: Theory of linear estimation, Estimability of linear parametric functions, Method of least squares, Gauss-Markov theorem, Estimation of error variance.

#### UNIT-II

Regression analysis: Simple regression analysis, Estimation and hypothesis testing in case of simple and multiple regression models, Concept of model matrix and its use in estimation.

#### UNIT-III

Analysis of variance: Definitions of fixed, random and mixed effect models, analysis of variance and covariance in one-way classified data for fixed effect models, Analysis of variance and covariance in two-way classified data with one observation per cell for fixed effect models.

#### UNIT-IV

Model checking: Prediction from a fitted model, Violation of usual assumptions concerning normality, Homoscedasticity and collinearity, Diagnostics using quantile- quantile plots.

#### TEXT BOOKS:

1. Draper, N.R. and Smith, H.: Applied Regression Analysis, John Wiley & Sons.
2. Sengupta, D, Linear model: an integrated approach, World Scientific Pub.

#### SUGGESTED READINGS:

1. Weisberg, S. (2005). Applied Linear Regression (Third edition).Wiley.
  2. Wu, C. F. J. And Hamada, M. (2009). Experiments, Analysis, and Parameter Design Optimization (Second edition), John Wiley.
-

- Renchner, A. C. And Schaalje, G. B. (2008). Linear Models in Statistics (Second edition), John Wiley and Sons

### PRACTICAL

Credit : **02**

**25** Marks

- Estimability when X is a full rank matrix and not a full rank matrix
- Simple Linear Regression
- Multiple Regression
- Tests for Linear Hypothesis
- Orthogonal Polynomials
- Analysis of Variance of a one way classified data
- Analysis of Variance of a two way classified data with one observation per cell
- Analysis of Covariance of a one way classified data

## +3 SECOND YEAR FOURTH SEMESTER

### Core Paper - 10

#### STATISTICAL QUALITY CONTROL

Time : **3** Hrs.

End Semester Theory : **60** Marks

Credit : **04**

Mid Semester Theory : **15** Marks

#### UNIT-I

Quality: Definition, dimensions of quality, historical perspective of quality control and improvements starting from World War II, historical perspective of Quality Gurus and Quality Hall of Fame. Quality system and standards: Introduction to ISO quality standards, Quality registration. Statistical Process Control - Seven tools of SPC, chance and assignable Causes of quality variation. Statistical Control Charts- Construction and Statistical basis of 3- $\sigma$  Control charts, Rational Sub-grouping.

#### UNIT-II

Control charts for variables: X-bar & R-chart, X-bar & s-chart. Analysis of patterns on control chart, estimation of process capability. Control charts for attributes: np-chart, p-chart, c-chart and u-chart. Comparison between control charts for variables and control charts for attributes.

#### UNIT-III

Acceptance sampling plan: Principle of acceptance sampling plans. Single and Double sampling plan their OC, AQL, LTPD, AOQ, AOQL, ASN, ATI functions with graphical interpretation, use and interpretation of Dodge and Romig's sampling inspection plan tables.

#### UNIT-IV

Introduction to Six-Sigma: Overview of Six Sigma, Lean Manufacturing and Total Quality Management (TQM). Organizational Structure and Six Sigma training plans- Selection Criteria for Six-Sigma roles and training plans. Voice of customers (VOC): Importance and VOC data collection.

#### TEXT BOOKS:

- Montgomery, D. C. (2009): Introduction to Statistical Quality Control, 6th Edition, Wiley India Pvt. Ltd.

**SUGGESTED READINGS:**

1. Goon A.M., Gupta M.K. and Das gupta B. (2002): Fundamentals of Statistics, Vol. I & II, 8th Edn. The World Press, Kolkata.
2. Mukhopadhyay,P(2011):Applied Statistics,2nd edition revised reprint, Booksand Allied(P)Ltd.
3. Montgomery, D. C. and Runger, G.C. (2008): Applied Statistics and Probability for Engineers, 3rd Edition reprint, Wiley India Pvt.Ltd.
4. Ehrlich, B.Harris(2002):Transactional Six Sigma and Lean Servicing,2ndEdition, St. Lucie Press.
5. Hoyle, David (1995): ISO Quality Systems Handbook, 2nd Edition, Butterworth Heinemann Publication.

**PRACTICAL**Credit : **02****25 Marks**

1. Construction and interpretation of statistical control charts
2. X-bar &R-chart
3. X-bar &s-chart
4. np-chart, p-chart, c-chart and u-chart
5. Single sample inspection plan: Construction and interpretation of OC, AQL, LTPD, ASN, ATI, AOQ, AOQL curves

**+3 THIRD YEAR FIFTH SEMESTER****Core Paper - 11****STOCHASTIC PROCESS & QUEUING THEORY**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****UNIT-I**

Probability Distributions: Generating functions, Bivariate probability generating function.  
StochasticProcess: Introduction, Stationary Process.

**UNIT-II**

Markov Chains: Definition of Markov Chain, transition probability matrix, order of Markov chain, Markov chain as graphs, higher transition probabilities. Generalization of independent Bernoulli trials, classification of states and chains,

**UNIT-III**

Poisson Process: postulates of Poisson process, properties of Poisson process, inter- arrival time, pure birth process, Yule Furry process, birth and death process, pure death process.

**UNIT-IV**

Queuing System: General concept, Characteristics of queuing models, steady state distribution, queuing model, M/M/1 with finite and infinite system capacity, waiting time distribution (without proof).

**TEXT BOOKS:**

1. Medhi, J. (2009): Stochastic Processes, New Age International Publishers.
  2. Kanti Swarup, Gupta, P.K. and Manmohan (2007): Operations Research, 13th Edition, Sultan Chand and Sons.
-

**SUGGESTED READINGS:**

1. Basu, A.K. (2005): Introduction to Stochastic Processes, Narosa Publishing.
2. Bhat, B.R. (2000): Stochastic Models: Analysis and Applications, New Age International Publishers.
3. Taha, H. (1995): Operations Research: An Introduction, Prentice-Hall India.
4. Karlin, S and Taylor H.M, A first course in Stochastic Process. Academic Press;

**PRACTICAL**Credit : **02****25 Marks**

1. Calculation of transition probability matrix
2. Identification of characteristics of reducible and irreducible chains.
3. Identification of types of classes
4. Calculation of probabilities for given birth and death rates and vice-versa
5. Calculation of Probability and parameters for (M/M/1) model and change in behaviour of queue as N tends to infinity.

**+3 THIRD YEAR FIFTH SEMESTER****Core Paper - 12****STATISTICAL COMPUTING USING C & R PROGRAMMING**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****UNIT-I**

History and importance of C. Components, basic structure programming, Keywords and Identifiers and execution of a C program. Data types: Basic data types, Enumerated data types, derived data types. Constants and variables: declaration and assignment of variables, Symbolic Constants, overflow and underflow of data. Operators and Expressions: Arithmetic, relational, logical, assignment, increment/decrement, operators, precedence of operators in arithmetic, relational and logical expression. Implicit and explicit type conversions in expressions, library functions. Managing input and output operations: reading and printing formatted and unformatted data

**UNIT-II**

Decision making and branching - if...else, nesting of if...else, else if ladder, switch, conditional operator. Looping in C: for, nested for, while, do...while, jumps in and out of loops. Arrays: Declaration and initialization of one-dim and two-dim arrays. Character arrays and strings: Declaring and initializing string variables, reading and writing strings from Terminal (using scanf and printf only).

**UNIT-III**

User-defined functions: A multi-function program using user-defined functions, definition of functions, return values and their types, function prototypes and calls. Category of Functions : no arguments and no return values, arguments but no return values, arguments with return values, no arguments but returns a value, functions that return multiple values.

**UNIT-IV**

Introducing R: Getting R, Running R program, Finding your way in R, Command packages, Starting Out: Reading and Getting Data into R, Viewing Named Objects, Types of Data Items,

Structure of Data Items, Examining Data Structure, Saing YourWork in R, Working with objects: Manipulating objects, Viewing Objects, Constructing data objects, Different forms of Data Objects. Descriptive Statistics and Tabulation.

**TEXT BOOKS:**

1. Kanetkar Y. P. Let us C ; BPB Publications; 15th edition.
2. Gardener, M. Beginning R: The Statistical Programming Language, WileyIndia

**SUGGESTED READINGS:**

1. Balagurusamy, E. (2011): Programming in ANSI C, 6th Edition, Tata McGraw Hill.
2. Kernighan, B.W. and Ritchie, D. (1988) : C Programming Language, 2nd Edition, Prentice Hall.
3. Gottfried, B.S. (1998): Schaum's Outlines: Programming with C, 2nd Edition, Tata Mc Graw Hill

**PRACTICAL**Credit : **02****25** Marks

1. Plot of a graph  $y = f(x)$
2. Roots of a quadratic equation (with imaginary roots also)
3. Sorting of an array and hence finding median
4. Mean, Median and Mode of a Grouped Frequency Data
5. Variance and coefficient of variation of a Grouped Frequency Data
6. Value of  $n!$  using recursion
7. Matrix addition, subtraction, multiplication Transpose and Trace
8. t-test for difference of means
9. Paired t-test
10. F-ratio test

**+3 THIRD YEAR SIXTH SEMESTER****Core Paper - 13****DESIGN OF EXPERIMENTS**Time : **3** Hrs.End Semester Theory : **60** MarksCredit : **04**Mid Semester Theory : **15** Marks**UNIT-I**

Analysis of variance (ANOVA) for one way and two way classified data (one observation per cell) Experimental designs: Role, historical perspective, terminology, experimental error, basic principles, uniformity trials, fertility contour maps, choice of size and shape of plots and blocks.

**UNIT-II**

Basic designs: Completely Randomized Design (CRD), Randomized Block Design (RBD), Latin Square Design (LSD) – layout, model and statistical analysis, relative efficiency, analysis with missing observations.

**UNIT-III**

Factorial experiments: advantages and disadvantages , notations and concepts,  $2^2$ ,  $2^3$ ...  $2^n$  and  $3^2$  factorial experiments, design and its analysis and applications.

**UNIT-IV**

Total and Partial confounding for  $2^n$  ( $n=5$ ),  $3^2$  and  $3^3$ . Factorial experiments in a single replicate. Advantages and disadvantages. Balanced Incomplete Block Design (BIBD)– parameters, relationships among its parameters.

**TEXT BOOKS:**

1. Gupta, S. C. and Kapoor, V.K. (2008): Fundamentals of Applied Statistics, 4th Edition (Reprint), Sultan Chand & Sons
2. Goon, A.M., Gupta, M.K. and Das Gupta, B. (2005): Fundamentals of Statistics. Vol. II, 8th Edn. World Press, Kolkata.

**SUGGESTED READINGS:**

1. Cochran, W.G. and Cox, G.M. (1959): Experimental Design. Asia Publishing House.
2. Das, M.N. and Giri, N.C. (1986): Design and Analysis of Experiments. Wiley Eastern Ltd.
3. Kempthorne, O. (1965): The Design and Analysis of Experiments. John Wiley.
4. Montgomery, D. C. (2008): Design and Analysis of Experiments, John Wiley.

**PRACTICAL**Credit : **02****25 Marks**

1. Analysis of aCRD
2. Analysis of anRBD
3. Analysis of anLSD
4. Analysis of an RBD with one missing observation
5. Analysis of an LSD with one missing observation
6. Analysis of  $2^2$  and  $2^3$  factorial in CRD and RBD
7. Analysis of a completely confounded two level factorial design in 2 blocks
8. Analysis of a completely confounded two level factorial design in 4 blocks
9. Analysis of a partially confounded two level factorial design

**+3 THIRD YEAR SIXTH SEMESTER****Core Paper - 14****MULTIVARIATE ANALYSIS AND NON PARAMETRIC METHODS**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****UNIT-I**

Bivariate Normal Distribution (BVN): p.d.f. of BVN, properties of BVN, marginal and conditional p.d.f. of BVN. Multivariate Data: Random Vector: Probability mass/density functions, Distribution function, Mean vector & Dispersion matrix, Marginal & Conditional distributions.

**UNIT-II**

Multivariate Normal distribution and its properties. Sampling distribution for mean vector and variance-covariance matrix. Multiple and partial correlation coefficient and their properties.

**UNIT-III**

Nonparametric Tests: Introduction and Concept, Parametric versus non-parametric tests,

advantages and disadvantages of non-parametric tests. Test for randomness based on total number of runs, Empirical distribution function, Kolmogrov Smirnov test for one sample, Sign tests- one sample.

#### UNIT-IV

Kolmogrov Smirnov two samples test, Wilcoxon signed rank tests, Wilcoxon-Mann-Whitney U test, Kruskal-Wallis test.

#### TEXT BOOKS:

1. Bhuyan, K.C., Multivariate Analysis and its Applications, New Central Book Agency (P) Limited
2. Gun, A.M., Gupta, M.K. and Das gupta, B.: An Outline of Statistical Theory, Vol.II, (4th ed.), World Press.

#### SUGGESTED READINGS:

1. Johnson, R.A. and Wichern, D.W. (2007): Applied Multivariate Analysis, 6th Edn., Pearson & Prentice Hall
2. Anderson, T.W. (2003): An Introduction to Multivariate Statistical Analysis, 3rd Edn., John Wiley
3. Kshirsagar, A.M. (1972): Multivariate Analysis, 1st Edn. Marcel Dekker.
4. Mukhopadhyay, P.: Mathematical Statistics. Books and Allied (P) Ltd
5. Gibbons, J.D. and Chakraborty, S. (2003): Non parametric Statistical Inference. 4th Edition. Marcel Dekker, CRC.

#### PRACTICAL

Credit : **02**

**25** Marks

1. Multiple Correlation
2. Partial Correlation
3. Bivariate Normal Distribution
4. Test for randomness based on total number of runs,
5. Kolmogrov Smirnov test for one sample.
6. Sign test: one sample, two samples, large samples.
7. Wilcoxon-Mann-Whitney U-test
8. Kruskal-Wallis test

### +3 THIRD YEAR FIFTH SEMESTER

#### DSE - 1

#### OPERATIONS RESEARCH

Time : **3** Hrs.

Credit : **04**

End Semester Theory : **60** Marks

Mid Semester Theory : **15** Marks

#### UNIT-I

Introduction to Operations Research, phases of O.R., model building, various types of O.R. problems. Linear Programming Problem, Mathematical formulation of the L.P.P, graphical solutions of a L.P.P. Simplex method for solving L.P.P. Charne's M-technique for solving L.P.P. involving artificial variables. Special cases of L.P.P. Concept of Duality in L.P.P: Dual simplex method.

**UNIT-II**

Transportation Problem: Initial solution by North West corner rule, Least cost method and Vogel's approximation method (VAM), MODI's method to find the optimal solution, special cases of transportation problem. Assignment problem: Hungarian method to find optimal assignment problem.

**UNIT-III**

Game theory: Rectangular game, minimax-maximin principle, solution to rectangular game using graphical method, dominance and modified dominance property to reduce the game matrix and solution to rectangular game with mixed strategy. Networking: Shortest route and minimal spanning tree problem.

**UNIT-IV**

Inventory Management: ABC inventory system, characteristics of inventory system. EOQ Model and its variations, with and without shortages, Quantity Discount Model with price breaks.

**TEXT BOOKS:**

1. KantiSwarup, Gupta, P.K. and Manmohan (2007): Operations Research, 13th Edition, Sultan Chand and Sons.

**SUGGESTED READINGS:**

1. Taha, H. A. (2007): Operations Research: An Introduction, 8th Edition, Prentice Hall of India.
2. Hadley, G: (2002) : Linear Programming, Narosa Publications
3. Hillier, F.A and Lieberman, G.J. (2010): Introduction to Operations Research Concepts and cases, 9th Edition, Tata Mc Graw Hill

**PRACTICAL**Credit : **02****25 Marks**

1. Mathematical formulation of L.P.P and solving the problem using graphical method, Simplex technique and Charne's Big M method involving artificial variables.
2. Identifying Special cases by Graphical and Simplex method and interpretation (Unbounded, Infeasible and alternate solution)
3. Allocation problem using Transportation model
4. Allocation problem using Assignment model
5. Problems based on game matrix

**+3 THIRD YEAR FIFTH SEMESTER****DSE - 2****TIME SERIES ANALYSIS**Time : **3 Hrs.**Credit : **04**End Semester Theory : **60 Marks**Mid Semester Theory : **15 Marks****UNIT-I**

Introduction to times series data, application of time series from various fields, Components of a times series, Decomposition of time series. Trend: Estimation of trend by freeh and curve method, method of semi averages, fitting a various mathematical curve, and growth curves.



**UNIT-II**

Trend Cont.: Method of moving averages. Detrending. Effect of elimination of trend on other components of the time series. Seasonal Component: Estimation of seasonal component by Method of simple averages, Ratio to Trend.

**UNIT-III**

Seasonal Component cont: Ratio to Moving Averages and Link Relative method, Deseasonalization. Cyclic Component: Harmonic Analysis. Some Special Processes: Moving-average (MA) process and Autoregressive (AR) process of orders one and two, Estimation of the parameters of AR (1) and AR (2) – Yule-Walker equations.

**UNIT-IV**

Stationary Time series: Weak stationarity, auto correlation function and correlogram of moving average. Its applications. Random Component: Variate component method. Forecasting: Exponential smoothing methods,

**TEXT BOOKS:**

1. Kendall M.G. (1976): Time Series, Charles Griffin.
2. Brockwell, P.J. and Davis, R. A. (2003). Introduction to Time Series Analysis, Springer

**SUGGESTED READINGS:**

1. Gupta, S. C. and Kapoor, V.K. (2008): Fundamentals of Applied Statistics, 4th Edition (Reprint), Sultan Chand & Sons
2. Chatfield C. (1980): The Analysis of Time Series –An Introduction, Chapman & Hall.
3. Mukhopadhyay P. (2011): Applied Statistics, 2nd ed. Revised reprint, Books and Allied

**PRACTICAL**Credit : **02****25 Marks**

1. Fitting and plotting of modified exponential curve
2. Fitting and plotting of Gompertz curve
3. Fitting and plotting of logistic curve
4. Fitting of trend by Moving Average Method
5. Measurement of Seasonal indices Ratio-to-Trend method
6. Measurement of Seasonal indices Ratio-to-Moving Average method
7. Measurement of seasonal indices Link Relative method
8. Forecasting by exponential smoothing

**+3 THIRD YEAR SIXTH SEMESTER****DSE - 3****DEMOGRAPHY AND VITAL STATISTICS**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****UNIT-I**

Population Theories: Coverage and content errors in demographic data, use of balancing equations and Chandrasekharan-Deming formula to check completeness of registration data. Adjustment of age data, use of Myer and UN indices, Population composition, dependency ratio.

**UNIT-II**

Introduction and sources of collecting data on vital statistics, errors in census and registration data. Measurement of population, rate and ratio of vital events. Measurements of Mortality: Crude Death Rate (CDR), Specific Death Rate (SDR), Infant Mortality, Rate (IMR) and Standardized Death Rates.

**UNIT-III**

Stationary and Stable population, Central Mortality Rates and Force of Mortality. Life(Mortality)Tables: Assumption, description, construction of Life Tables and Uses of LifeTables.

**UNIT-IV**

Abridged Life Tables; Concept and construction of abridged life tables by Reed-Merrell method, Measurements of Fertility: Crude Birth Rate (CBR), General Fertility Rate (GFR), Specific Fertility Rate (SFR) and Total Fertility Rate (TFR). Measurement of Population Growth: Crude rates of natural increase, Pearl's Vital Index, Gross Reproduction Rate (GRR) and Net Reproduction Rate (NRR).

**TEXT BOOKS:**

1. Pathak, K.B. and Ram, F.: Techniques of Demography Analysis, Himalayan Publishers
2. Gun, A.M., Gupta, M.K. and Dasgupta, B. (2008): Fundamentals of Statistics, Vol. II, 9th Edition, World Press.

**SUGGESTED READINGS:**

1. Mukhopadhyay P. (1999): Applied Statistics, Books and Allied (P)Ltd.
2. Biswas, S. (1988): Stochastic Processes in Demography & Application, Wiley Eastern Ltd.
3. Croxton, Fredrick E., Cowden, Dudley J. and Klein, S. (1973): Applied General Statistics, 3rd Edition. Prentice Hall of India Pvt. Ltd.
4. Keyfitz N., Beckman John A.: Demography through Problems S-Verlag Newyork.

**PRACTICAL**Credit : **02****25 Marks**

1. To calculate CDR and Age Specific death rate for a given set of data
2. To find Standardized death rate by:- (i) Direct method (ii) Indirect method
3. To construct a complete life table
4. To fill in the missing entries in a life table
5. To calculate probabilities of death at pivotal ages and use it construct a bridged life table
6. To calculate CBR, GFR, SFR, TFR for a given set of data
7. To calculate Crude rate of Natural Increase and Pearle's Vital Index for a given set of data
8. Calculate GRR and NRR for a given set of data and compare them

**+3 THIRD YEAR SIXTH SEMESTER****DSE - 4****PROJECT WORK**

*Objective:* The aim of the course is to initiate students to write and present a statistical report, under the supervision of a faculty, on some area of social interest. The project work will provide handson training to the students to deal with data emanating from some real-life situation and

propel them to do well on some theory or relate it to some theoretical concepts. The project should be prepared basing on the own idea and interpretation of the student. It should not be copied from anywhere. A student has to consult his / her supervisor for the preparation of the project. While writing a project, a student has to present two seminars before the faculties / supervisor from the department.

Seminar - I (Based on Introduction and Review of literature, Methodology): - 10 Marks

Seminar - II (Based on Analysis, Interpretation and Conclusion) : - 10 Marks

Project Report: - 60 Marks

Viva- Voce (after submission of Project Report): 20 Marks

OR

**+3 THIRD YEAR SIXTH SEMESTER  
DSE - 4  
ECONOMETRICS**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 50 Marks  
Mid Semester Theory : 20 Marks

**UNIT-I**

Introduction: Objective behind building econometric models, nature of econometrics, model building, role of econometrics, structural and reduced forms. General linear model (GLM). Estimation under linear restrictions.

**UNIT-II**

Multi collinearity: Introduction and concepts, detection of multicollinearity, consequences, tests and solutions of multicollinearity, specification error.

**UNIT-III**

Generalized least squares estimation, Aitken estimators. Autocorrelation: concept, consequences of auto correlated disturbances, detection and solution of autocorrelation.

**UNIT-IV**

Hetero scedastic disturbances: Concepts and efficiency of Aitken estimator with OLS estimator under hetero scedasticity. Autoregressive models, Dummy variables, Qualitative data.

**PRACTICAL**

Credit : 02

25 Marks

**DSE-IV(P)**

1. Problems based on estimation of General linear model
  2. Testing of parameters of General linear model
  3. Forecasting of General linear model
  4. Problems related to consequences of Multi co linearity
  5. Diagnostics of Multi co linearity
  6. Problems related to consequences of Autocorrelation(AR(I))
  7. Diagnostics of Autocorrelation
  8. Problems related to consequences Hetero scedasticity
-

9. Diagnostics of Heteroscedasticity

**TEXT BOOKS:**

1. Gujarati, D. and Sangeetha, S. (2007): Basic Econometrics, 4th Edition, McGraw Hill Companies.
2. Maddala, G.S. and Lahiri, K. (2009): Introduction to Econometrics, 4th Edition, John Wiley & Sons.

**SUGGESTED READINGS:**

1. Johnston, J. (1972): Econometric Methods, 2nd Edition, McGraw Hill International.
2. Koutsoyiannis, A. (2004): Theory of Econometrics, 2nd Edition, Palgrave Macmillan

**+3 FIRST YEAR FIRST SEMESTER****GE - 1****STATISTICAL METHODS**

Time : 3 Hrs.  
Credit : 04

End Semester Theory : 60 Marks  
Mid Semester Theory : 15 Marks

**UNIT-I**

Introduction: Definition and scope of Statistics, concepts of statistical population and sample. Data: quantitative and qualitative, attributes, variables, scales of measurement -nominal, ordinal, interval and ratio. Presentation: tabular and graphic, including histogram and ogives.

**UNIT-II**

Measures of Central Tendency: mathematical and positional. Measures of Dispersion: range, quartile deviation, mean deviation, standard deviation, coefficient of variation, moments, skewness and kurtosis.

**UNIT-III**

Bivariate data: Definition, scatter diagram, simple and rank correlation. Simple linear regression, principle of least squares and fitting of polynomials, Applications.

**UNIT-IV**

Theory of attributes, consistency of data, independence and association of attributes, measures of association and contingency.

**TEXT BOOKS:**

1. Gupta, S. C. and Kapoor, V.K. (2008): Fundamentals Of Mathematical Statistics, 4th Edition (Reprint), Sultan Chand & Sons
2. Goon, A.M., Gupta M.K. & Das Gupta, Fundamentals of statistics, Vol.-I & II (2005).

**SUGGESTED READINGS:**

1. Miller, Irwin and Miller, Marylees (2006): John E. Freund's Mathematical Statistics with Applications, (7th Edn.), Pearson Education, Asia.
  2. Mood, A.M. Graybill, F.A. and Boes, D.C. (2007): Introduction to the Theory of Statistics, 3rd Edn., (Reprint), Tata McGraw-Hill Pub. Co. Ltd.
-

**PRACTICAL**Credit : **02****25 Marks**

1. Graphical representation of data
2. Problems based on measures of central tendency
3. Problems based on measures of dispersion
4. Problems based on moments, skewness and kurtosis
5. Fitting of polynomials, exponential curves
6. Karl Pearson correlation coefficient
7. Spearman rank correlation with and without ties.
8. Correlation coefficient for a bivariate frequency distribution
9. Lines of regression, and estimated values of variables.
10. Checking consistency of data and finding association among attributes.

**+3 FIRST YEAR SECOND SEMESTER****GE - 2****INTRODUCTORY PROBABILITY**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****UNIT-I**

Probability: Introduction, random experiments, sample space, events and algebra of events. Definitions of Probability – classical, statistical, and axiomatic. laws of addition and multiplication of probability.

**UNIT-II**

Conditional Probability, independent events, theorem of total probability, Bayes' theorem and its applications.

**UNIT-III**

Random Variables: Discrete and continuous random variables, p.m.f., p.d.f., c.d.f. Illustrations of random variables and its properties. Expectation, variance, moments and moment generating function.

**UNIT-IV**

Standard probability distributions: Binomial, Poisson, geometric, uniform, normal, exponential, beta, gamma and their applications.

**TEXT BOOKS:**

1. Gupta, S. C. and Kapoor, V.K. (2008): Fundamentals Of Mathematical Statistics, 4th Edition (Reprint), Sultan Chand & Sons
2. Goon, A.M., Gupta M.K. & Das Gupta, Fundamentals of statistics, Vol.-I & II (2005).

**SUGGESTED READINGS:**

1. Hogg, R.V., Tanis, E.A. and Rao J.M. (2009) : Probability and Statistical Inference, Seventh Ed, Pearson Education, New Delhi.
  2. Miller, Irwin and Miller, Marylees (2006) : John E. Freund's Mathematical Statistics with Applications, (7th Edn.), Pearson Education, Asia.
-

**PRACTICAL**Credit : **02****25 Marks**

1. Fitting of binomial distributions for  $n$  and  $p = q = \frac{1}{2}$  given
2. Fitting of binomial distributions for  $n$  and  $p$  given
3. Fitting of binomial distributions computing mean and variance
4. Fitting of Poisson distributions for given value of  $\lambda$
5. Fitting of Poisson distributions after computing mean
6. Application problems based on binomial distribution
7. Application problems based on Poisson distribution
8. Problems based on area property of normal distribution
9. Application based problems using normal distribution

**+3 SECOND YEAR THIRD SEMESTER****GE - 3****BASICS OF STATISTICAL INFERENCE**Time : **3 Hrs.**End Semester Theory : **60 Marks**Credit : **04**Mid Semester Theory : **15 Marks****UNIT-I**

Estimation of population mean, confidence intervals for the parameters of a normal distribution (one sample and two sample problems). The basic idea of significance test. Null and alternative hypothesis. Type I & Type II errors, level of significance. Tests of hypotheses for the parameters of a normal distribution (one sample and two sample problems).

**UNIT-II**

Small sample tests; t-test, F-test, Categorical data: Tests of proportions, tests of association and goodness-of-fit using Chi-square test, Yates' correction.

**UNIT-III**

Tests for the significance of correlation coefficient. Sign test for median, Sign test for symmetry, Wilcoxon two-sample test.

**UNIT-IV**

Analysis of variance, one-way and two-way classification for one observation per cell. Brief exposure of three basic principles of design of experiments, treatment, plot and block. Analysis of completely randomized design, randomized complete block design and latin square designs.

**TEXT BOOKS:**

1. Gupta, S. C. and Kapoor, V.K. (2008): Fundamentals of Applied Statistics, 4th Edition (Reprint), Sultan Chand & Sons
2. Goon, A.M., Gupta M.K. & Das Gupta, Fundamentals of statistics, Vol.-I & II (2005).

**SUGGESTED READINGS:**

1. Daniel, Wayne W., Bio-statistics : A Foundation for Analysis in the Health Sciences. John Wiley(2005).
  2. Das, M. N. & Giri, N. C.: Design and analysis of experiments. John Wiley.
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3. Dunn, O.J Basic Statistics: A primer for the Biomedical Sciences .(1964, 1977) by JohnWiley.
4. Goldstein, A Biostatistics-An introductory text (1971). The Mac million New York.

### PRACTICAL

Credit : **02**

**25** Marks

1. Tests of hypotheses for the parameters of a normal distribution (one sample and two sample problems).
2. Chi-square tests of association.
3. Chi-square test of goodness-of-fit.
4. Test for correlation coefficient.
5. Sign test for median.
6. Wilcoxon two-sample test.
7. Analysis of Variance of a one way classified data
8. Analysis of Variance of a two way classified data.
9. Analysis of aCRD.
10. Analysis of anRBD.

## +3 SECOND YEAR FOURTH SEMESTER GE - 4 APPLIED STATISTICS

Time : **3** Hrs.

Credit : **04**

End Semester Theory : **60** Marks

Mid Semester Theory : **15** Marks

### UNIT-I

Economic Time Series: Components of time series, Decomposition of time series- Additive and multiplicative model with their merits and demerits, Illustrations of time series. Measurement of trend by method of free-hand curve, method of semi-averages and method of least squares (linear, quadratic and modified exponential). Measurement of seasonal variations by method of ratio to trend.

### UNIT-II

Index numbers: Definition, Criteria for a good index number, different types of index numbers. Construction of index numbers of prices and quantities, consumer price index number. Uses and limitations of index numbers.

### UNIT-III

Statistical Quality Control: Importance of statistical methods in industrial research and practice. Determination of tolerance limits. Causes of variations in quality: chance and assignable. General theory of control charts, process & product control, Control charts for variables: X- bar and R- charts. Control charts for attributes: p and c-charts

### UNIT-IV

Demographic Methods: Introduction, measurement of population, rates and ratios of vital events. Measurement of mortality: CDR, SDR (w.r.t. Age and sex), IMR, Standardized death rates. Life

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(mortality)tables: definition of its main functions and uses. Measurement of fertility and reproduction: CBR, GFR, and TFR. Measurement of population growth: GRR, NRR.

**TEXT BOOKS:**

1. Gupta, S. C. and Kapoor, V.K. (2008): Fundamentals of Applied Statistics, 4th Edition (Reprint), Sultan Chand & Sons

**SUGGESTED READINGS:**

1. Mukhopadhyay, P. (1999): Applied Statistics, New Central Book Agency, Calcutta.
2. Gun, A.M.,Gupta, M.K. and Das gupta,B.(2008):Fundamental of Statistics, Vol. II, 9th Edition World Press, Kolkata.
3. Montgomery, D. C. (2009): Introduction to Statistical Quality Control, 6th Edition, Wiley India Pvt. Ltd.

**PRACTICAL**Credit : **02****25** Marks

1. Measurement of trend: Fitting of linear, quadratic trend, exponential curve and plotting of trend values and comparing with given data graphically.
  2. Measurement of seasonal indices by Ratio-to-trend method and plotting of trend values and comparing with given data graphically.
  3. Construction of price and quantity index numbers by Laspeyre's formula, Paasche's formula, Fisher's Formula. Comparison and interpretation.)
  4. Construction of wholesale price index number, fixed base index number and consumer price index number with interpretation
  5. Construction and interpretation of X bar &R-chart
  6. Construction and interpretation p-chart (fixed sample size) and c-chart
  7. Computation of measures of mortality
  8. Completion of life table
  9. Computation of measures of fertility and population growth
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