COURSES OF STUDIES
ARTS STREAM

Admission Batch - 2019-20

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
# General Instructions

## CBCS SYLLABUS

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

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

**Total Credit** 148 148

**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 1st year (1st and 2nd 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
  - 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
<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>COURSE</th>
<th>COURSE NAME</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. 4 Papers</td>
<td>Ability Enhancement Compulsory Course-I</td>
<td>Communicative Eng/Odia/Hindi</td>
<td>4</td>
</tr>
<tr>
<td>(400 Marks)</td>
<td>Core course-I</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Core Course-I Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Core course-II</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Core Course-II Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Generic Elective -1 GE-1</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Generic Elective -1 Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>II. 4 Papers</td>
<td>Ability Enhancement Compulsory Course-II</td>
<td>Environmental Studies</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Core course-III</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td>(400 Marks)</td>
<td>Core Course-III Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Core course-IV</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Core Course-IV Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Generic Elective -2 GE-2</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Generic Elective -2 Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>III. 5 Papers</td>
<td>Core course-V</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td>(500 Marks)</td>
<td>Core Course-V Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Core course-VI</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Core Course-VI Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Core course-VII</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Core course-VII Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Skill Enhancement Course -1 SEC-1</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Generic Elective -3 GE-3</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Generic Elective -3 Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>IV. 5 Papers</td>
<td>Core course-VIII</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td>(500 Marks)</td>
<td>Core Course-VIII Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Core course-IX</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Core Course-IX Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Core course-X</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Core course-X Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Skill Enhancement Course -2 SEC-2</td>
<td></td>
<td>4</td>
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<tr>
<td></td>
<td>Generic Elective -4 GE-4</td>
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<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Generic Elective -4 Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>V. 4 Papers</td>
<td>Core course-XI</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td>(400 Marks)</td>
<td>Core Course-XI Practical/Tutorial</td>
<td></td>
<td>2/1</td>
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<tr>
<td></td>
<td>Core course-XII</td>
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<td></td>
<td>Core course-XII Practical/Tutorial</td>
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<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Discipline Specific Elective -1 DSE-1</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Discipline Specific Elective -1 Practical/Tutorial DSE-1 Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Discipline Specific Elective -2 DSE-2</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Discipline Specific Elective -2 Practical/Tutorial DSE-2 Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>VI. 4 Papers</td>
<td>Core course-XIII</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td>(400 Marks)</td>
<td>Core Course-XIII Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Core course-XIV</td>
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<td>4/5</td>
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<td></td>
<td>Core course-XIV Practical/Tutorial</td>
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<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Discipline Specific Elective-3 DSE-3</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Discipline Specific Elective-3 Practical/Tutorial DSE-3 Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td></td>
<td>Discipline Specific Elective-4 DSE-4</td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>Discipline Specific Elective-4 Practical/Tutorial DSE-4 Practical/Tutorial</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td></td>
<td>148</td>
</tr>
</tbody>
</table>
Model Regulation for Under Graduate Programme
(BA/B.Com/B.Sc) As per CBCS system from 2019 admission batch
(with suitable modification)

1. (A) Compulsory Registration for 1st Semester:
   Registration for 1st semester is compulsory. A candidate admitted to +3 Course
   but not registered for 1st 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 01 hour 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 2019 admission batch

3. GRADING SYSTEM

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

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

   (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 as 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:

<table>
<thead>
<tr>
<th></th>
<th>Mid Semester</th>
<th>End Semester</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>

B. Subject with Practical:

<table>
<thead>
<tr>
<th></th>
<th>Mid Semester</th>
<th>End Semester</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a) Theory</td>
<td>(b) Practical</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>60</td>
<td>25 (20+05 Record)</td>
</tr>
</tbody>
</table>

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.

\[
\text{CREDIT POINT} = (b) \times (a) \text{ for each course item}
\]

\[
\text{CREDIT INDEX} = \sum \text{CREDIT POINT} \text{ of course items in a semester}
\]

\[
\text{GRADE POINT AVERAGE} = \frac{\sum \text{CREDIT INDEX}}{\sum \text{CREDIT}} \text{ for Semester}
\]

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

(c) Formula of Equivalent percentage of marks

Case (a) Equivalent percentage of marks = 
\[
(CGPA - 0.5) \times 10 \text{ for } 4 < CGPA \leq 10
\]

Case (b) Equivalent percentage of marks = CGPA \times 10 \text{ for } 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 1st 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 - 2019**

**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 (8x2=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 (8x3=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 (4x7=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 (8x1.5=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 (8x2=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 (4x6=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 (4x14=56)

   Part - II : 4 short notes/ annotation / analysis of 6 marks each covering all the units (4x6=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 (10x4=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 2nd 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*.


(c) All the compulsory subjects are as follows:

- (Ability Enhancement Compulsory Course - AECC) AECC-1
- (Ability Enhancement Compulsory Course - AECC) AECC-2
- (Skill Enhancement Course - SEC-I)
- (Skill Enhancement Course - SEC-II)

(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 5th Semester provided in the syllabus.

(ii) Two DSE courses including the project work in the 6th 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Subject</th>
<th>Theory</th>
<th>Lab</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AECC-1</td>
<td>Environmental Science</td>
<td>100 (80 + 20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core - 1</td>
<td></td>
<td>100 (80 + 20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core - 2</td>
<td></td>
<td>100 (80 + 20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>For Practical Subjects</strong></td>
<td></td>
<td>75 (60 + 15)</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>GE - 1</td>
<td></td>
<td>100 (80 + 20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>For Practical Subjects</strong></td>
<td></td>
<td>75 (60 + 15)</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

### SEMESTER - II

<table>
<thead>
<tr>
<th>Course</th>
<th>Subject</th>
<th>Theory</th>
<th>Lab</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AECC-2</td>
<td>MIL Communication (Eng/Odia/Hindi)</td>
<td>100 (80 + 20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core - 3</td>
<td></td>
<td>100 (80 + 20)</td>
<td></td>
<td></td>
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### SEMESTER - III

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### SEMESTER - IV

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### SEMESTER - VI

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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

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

Syllabus

1. Odia Literature
   - Odia Literature
   - Odia Literature

2. Odia Grammar
   - Odia Grammar

3. Odia Composition
   - Odia Composition

4. Odia Translation
   - Odia Translation

5. Odia Oral
   - Odia Oral

Credit : 10

Marc 20 / March 20

Syllabus

1. Odia Literature
   - Odia Literature

2. Odia Grammar
   - Odia Grammar

3. Odia Composition
   - Odia Composition

4. Odia Translation
   - Odia Translation

5. Odia Oral
   - Odia Oral

Credit : 10

Marc 20 / March 20

Syllabus

1. Odia Literature
   - Odia Literature

2. Odia Grammar
   - Odia Grammar

3. Odia Composition
   - Odia Composition

4. Odia Translation
   - Odia Translation

5. Odia Oral
   - Odia Oral

Credit : 10

Marc 20 / March 20

Syllabus

1. Odia Literature
   - Odia Literature

2. Odia Grammar
   - Odia Grammar

3. Odia Composition
   - Odia Composition

4. Odia Translation
   - Odia Translation

5. Odia Oral
   - Odia Oral

Credit : 10

Marc 20 / March 20

Syllabus

1. Odia Literature
   - Odia Literature

2. Odia Grammar
   - Odia Grammar

3. Odia Composition
   - Odia Composition

4. Odia Translation
   - Odia Translation

5. Odia Oral
   - Odia Oral

Credit : 10

Marc 20 / March 20
এক বছর / চিঠি - ১ : ব্যবস্থা বিষয়ক, চিঠিপত্র ও ফল উপস্থিতি।

দুই বছর / চিঠি - ২ : ন্যূন্তম নিয়মের জন্য, বিনিয়োগী বিল্কুল। (জলাশয় - বর্গমূলক স্বাধীন, বিশেষ অনুপাত, বিশেষ অনুপাত, বর্গায়ত স্বাধীন, বিশেষ অনুপাত, বর্গায়ত স্বাধীন, বিশেষ অনুপাত, বর্গায়ত স্বাধীন, বিশেষ অনুপাত, বর্গায়ত স্বাধীন, বিশেষ অনুপাত, বর্গায়ত স্বাধীন, বিশেষ অনুপাত, বর্গায়ত স্বাধীন, বিশেষ অনুপাত, বর্গায়ত স্বাধীন, বিশেষ অনুপাত, বর্গায়ত স্বাধীন, বিশেষ অনুপাত)

ফলাফল ভূমিকা:

১. কলাক্ষেত্র গুরু গৃহীতা (স্বাধীন) অংশ বিশেষ গ্রন্থ, বাঙালি গ্রন্থ এবং, গ্রন্থ।

২. স্থলীষ্ট দুর্গ, স্থলীষ্ট পাহাড় চিত্র, বিভূতি, বিভূতি।

৩. গ্রন্থ এবং জ্বালানিক স্বাধীন - গ্রন্থ এবং জ্বালানি স্বাধীন এবং, গ্রন্থ এবং জ্বালানি স্বাধীন।

৪. গ্রন্থ এবং জ্বালানি - গ্রন্থ এবং জ্বালানি স্বাধীন এবং, গ্রন্থ এবং জ্বালানি স্বাধীন এবং, গ্রন্থ এবং জ্বালানি স্বাধীন।

৫. গ্রন্থ এবং জ্বালানি - গ্রন্থ এবং জ্বালানি স্বাধীন এবং, গ্রন্থ এবং জ্বালানি স্বাধীন এবং, গ্রন্থ এবং জ্বালানি স্বাধীন।

৬. গ্রন্থ এবং জ্বালানি - গ্রন্থ এবং জ্বালানি স্বাধীন এবং, গ্রন্থ এবং জ্বালানি স্বাধীন এবং, গ্রন্থ এবং জ্বালানি স্বাধীন।
+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 :  
1. कवीर - साखी : 1 से १०।  
2. तुलसी - विनयपतिका - पद 1 और २।  
3. प्रसाद - मधुमय देश।  
4. अङ्ग्रेज़ - हिरोशिमा।

UNIT-II  
गद्य :  
1. रामचन्द्र शुक्ल - उत्साह।  
2. हजारी प्रसाद द्विवेदी - कुटज।  
3. हरिशंकर परसाई - सदाचार का तावीज।

UNIT-III  
शब्द ज्ञान :  
1. शब्द शुद्धि  
2. वाक्य शुद्धि  
3. वर्णवर्णशी शब्द  
4. विलोम शब्द

UNIT-IV  
सामान्य ज्ञान :  
निबंध लेखन (Essay Writing)

अंक विभाजन :  
(क) यूनिट 3 से 12 अंतिम संक्षिप्त प्रश्न २० जाएँगे  
जिनमें से १० 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 २० जाएँगे।  
कुछ 04 प्रश्नों के उत्तर लिखने होंगे - 15 x 4 = 60

पाठ्य पुस्तक :  
१. हिंदी प्रसन्न - सं. डॉ. अंजुमन आरा, प्लानेट वी, कटक।  
२. आधुनिक हिंदी व्याकरण और रचना - वायुदेवनन्दन प्रसाद, भारती भवन, दिल्ली।
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 Benvur- 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
• *A University Grammar of English*, Randolph Quirk and Sidney Greenbaum
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,
+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

Unit-II

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

Time : 3 Hrs  End Semester Theory : 80 Marks
Credit : 06  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, Diversibility.
   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 Numbers, 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.
+3 FIRST YEAR SECOND SEMESTER
GENERIC ELECTIVE - 2
NCC

Time : 3 Hours  End Semester : 60 Marks,
Credit : 6  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) Scount and Patroe
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:

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

Text book recommended:

**Suggested Readings**


**+3 FIRST YEAR FIRST SEMESTER**

**Core Paper - 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

**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:**

5. Tylor, E. B. 1920 (originally in 1871), Primitive Culture, New York: J.

Suggested Readings

+3 FIRST YEAR SECOND SEMESTER
Core Paper - 3
ARCHAEOLOGICAL ANTHROPOLOGY

Time : 3 Hrs. End Semester Theory : 60 Marks
Credit : 04 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 $^{14}$C dating ($^{14}$C), Potassium-Argon, Dendrochronology, 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

Credit: 02

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:

Suggested Readings

+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


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:

Suggested Readings
TRIBES AND PEASANTS IN INDIA

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

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:
Suggested Readings

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

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

Unit I:

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:

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
2. Ponderal Index
3. Relative Sitting Height
4. Relative Upper Extremity Length
5. Relative Total Lower Extremity Length
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:

Suggested Reading

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

Time : 3 Hrs. End Semester Theory : 60 Marks
Credit : 04 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 DNA Markers).
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)

Text book recommended:

Text book recommended:

Suggested readings:

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

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


Text Book Recommended:

1. Behura, N.K. Anthropological thought and Theories, New Delhi
+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 9
HUMAN GROWTH AND DEVELOPMENT

Time: 3 Hrs.                     End Semester Theory: 60 Marks
Credit: 04                      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:
**Suggested Readings**


**+3 SECOND YEAR FOURTH SEMESTER**

**Core Paper - 10**

**RESEARCH METHODS**

**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.
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

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
9. Lawrence NW. Social Research Methods, Qualitative and Quantitative Approaches.
+3 THIRD YEAR FIFTH SEMESTER
Core Paper - 11
PREHISTORIC ARCHAEOLOGY OF INDIA

Time : 3 Hrs. End Semester Theory : 60 Marks
Credit : 04 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:
Suggested Reading:

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**+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:**  

**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:

Suggested Readings

**+3 THIRD YEAR SIXTH SEMESTER**

**Core Paper - 13**

**FORENSIC ANTHROPOLOGY**

<table>
<thead>
<tr>
<th>Time</th>
<th>3 Hrs.</th>
<th>End Semester Theory: 60 Marks</th>
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<td>Credit</td>
<td>04</td>
<td>Mid Semester Theory: 15 Marks</td>
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**Unit-I:**
Introduction to Forensic Anthropology: Definition, Brief History, Scope, Applications and Integration of Forensic Anthropology.

**Unit-II:**

**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.
PRACTICAL

Credit : 02
25 Marks

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:

Suggested Readings:

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

Time : 3 Hrs.
Credit : 04
End Semester Theory : 60 Marks
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
(Seminar presentation by the student based on his/her fieldwork/field topic)

End-term Examination
Dissertation based on 21 days fieldwork
Field diary (15 marks) and Viva-voce (10 marks)

= 15 marks
= 60 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.  
End Semester Theory : 60 Marks  
Credit : 04  
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:  

Suggested Readings:  


+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.
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:

Suggested Readings:

Suggested Readings
17. http://biography.yourdictionary.com/john-graunt
+3 THIRD YEAR SIXTH SEMESTER
DSE - 3
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 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:

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.
**Text book recommended:**

**Suggested Reading**
5. Gupta D. Social Stratification. Delhi: Oxford University Press.
11. Majumdar, D.N. (1901). Races and Culture of India. Asia Publishing House, Bombay

**+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.
Unit IV:
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
5. Gel Documentation
6. Biochemical markers-DNA isolation and polymerase chain reaction (PCR)

Text book recommended:

Suggested Readings:
13.

+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:

Suggested Readings
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 Vth 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: Musecology 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:

Suggested Readings:
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. End Semester Theory : 60 Marks
Credit : 04 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:

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:**


**Suggested Readings**


**+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:

Suggested Readings
+3 SECOND YEAR THIRD SEMESTER
GE - 3
ARCHAEOLOGICAL ANTHROPOLOGY

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\textsuperscript{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:

Suggested Readings
8. Renfrew, C. and Paul Bahn *Archaeology* 1996

**+3 SECOND YEAR FOURTH SEMESTER**
**GE - 4**
**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 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:**
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

5. Gupta D. Social Stratification. Delhi: Oxford University Press.
12. Majumdar DN. (1901). Races and Culture of India. Asia Publishing House, Bombay
ECONOMICS
+3 FIRST YEAR FIRST SEMESTER
Core Paper - 1
INTRODUCTORY MICROECONOMICS

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
+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 - Crammer’s rule and matrix inversion method.

**Text Book:**  

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

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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 Measurers, Depression and Stagflation; Inflation vs. Deflation

Unit IV: Determination of National Income

Text Book:

Reference Book:
+3 FIRST YEAR SECOND SEMESTER
Core Paper - 4
MATHEMATICAL METHODS FOR ECONOMICS II

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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:

Reference Book:
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:

Reference Books:
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

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

Text Book:

Reference Book:
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; Laspeyer’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:**

**Reference Book:**
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:**

**Reference Book:**
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 verses 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:

Reference Book:
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

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:

Reference Books:
• Anderson Durston, Poole - Assignment and Thesis writing (Wiley Easter Limiting)
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:

Reference Books:
Indian Economy Dutt and Sundharam, GauravDatt and AshwaniMahajan, S Chand Publications, 7th 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 FIFTH SEMESTER
Core Paper - 12
DEVELOPMENT ECONOMICS I

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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.
Text book:

Reference Books:

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

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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

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 verses import substitution; Balance of Payments of India; India’s Trade Policies; Foreign Capital – FDI, Aid and MNCs.

Unit IV: Indian Economy and Environment
Text Book:

Reference Books:
Indian Economy Dutt and Sundharam, Gaurav Datt and Ashwani Mahajan, S Chand Publications, 7th Revised Edition
Indian Economy Since Independence, ed by Uma Kapila, Academic Foundation, Revised Nineteenth Edition 2008-09

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

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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
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:**

**Reference Book:**

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**+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:**
+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 verses 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 verses debt

Text Books:


Reference Book:

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:
Salvatore Dominick, International Economics, WileIndia.
Sodersten Bo and Reed J, International Economics, McMillanPublisher.
Introduction:
The project is intended to establish the connection between Economics as confined to the textbooks 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.
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

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:

Reference Book
+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:

Reference Book
EDUCATION
+3 FIRST YEAR FIRST SEMESTER
Core Paper - 1
EDUCATIONAL PSYCHOLOGY

Time : 3 Hrs.  End Semester Theory : 60 Marks
Credit : 04  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.
Text Books

Reference Books
- Govt. of India (1986/’92). *National policy on education*. New Delhi: MHRD.

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

Time : 3 Hrs.  End Semester Theory : 60 Marks
Credit : 04  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, 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 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.
Text Books

Reference Books

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

UNIT 2: Agencies of Education
(i) Family- Importance, functions and role for education and socialization of the children
(ii) 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

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

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


Reference Books

• Oliver, R.A. (1963) Effective teaching, JM Dent & Sons
• Ryburn, W.M.(1955) Principles of Teaching, Geoffrey Cambridge, OUP

+3 SECOND YEAR THIRD SEMESTER

Core Paper - 5

EDUCATIONAL ASSESSMENT AND EVALUATION

Time : 3 Hrs.  End Semester Theory : 60 Marks
Credit : 04  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.
• 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
(i) Understanding the meaning and purpose of test, measurement, assessment and evaluation
(ii) Scales of measurement- nominal, ordinal, interval and ratio
(iii) Types of test- teacher made and standardized
(iv) Approaches to evaluation- placement, formative, diagnostic and summative
(v) Types of evaluation- norm referenced and criterion referenced
(vi) Concept and nature of continuous and compressive evaluation

UNIT 2: Instructional Learning Objectives
(i) Taxonomy of instructional Learning Objectives with special reference to cognitive domain
(ii) Criteria of selecting appropriate Learning Objectives, and stating of general and specific instructional Learning Objectives
(iii) Relationship of evaluation procedure with Learning Objectives
(iv) Difference between objective based objective type test and objective based essay type test

UNIT 3: Tools and Techniques of Assessment and construction of Test
(i) Steps of test construction: planning, preparing, trying out and evaluation
(ii) Principles of construction of objective type test items- matching, multiple choice, completion and true- false
(iii) Principles of construction of essay type test
(iv) Non- standardized tools: Observation schedule, interview schedule, rating scale, check list, portfolio and rubrics .

UNIT 4: Characteristics of a good Test
(i) Validity-concept, types and methods of validation
(ii) Reliability- concept and methods of estimating reliability
(iii) Objectivity- concept and methods of estimating objectivity
(iv) 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

**Reference Books**

+3 SECOND YEAR THIRD SEMESTER
Core Paper - 6
EDUCATIONAL RESEARCH

**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

Reference Books
• Corey, S. M. (1953), *Action research to improve school practice*, New York: Teachers College Press

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

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

Reference Books

+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 8
HISTORY OF EDUCATION IN INDIA

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
• 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
(i) Features of Vedic period with special reference to aims, curriculum and methods of teaching
(ii) Features of Buddhist period with special reference to aims, curriculum and methods of teaching
(iii) Relevance of Gurukul system and Buddhist centers of learning
(iv) 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)

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)

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

Reference Books
+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.  
• 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.
Text Books


Reference Books


+3 SECOND YEAR FOURTH SEMESTER

Core Paper - 10

GUIDANCE AND COUNSELLING

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

- 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

Reference Books
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.(1989). History of Modern Orissa, Firma KLM private limited, 257B,B.B.Ganguly Street, Calcutta;p-188

Websites to be visited:

• www.Odisha.gov.in/e-magazine/Odishareview/2011/Jan/engpdf/57-61.pdf:
• www.dheOdisha.in/ Higher Education Department - Online Admission - e-Admission for ...: Retrieved on dt.25.07.2012
• http://www.scertodisha.nic.in/
• http://www.chseodisha.nic.in/
• http://bseodisha.nic.in/
• http://mhrc.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.  End Semester Theory : 60 Marks
Credit : 04   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, Inflibnet.
PRACTICAL

Credit : 02

- 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

Reference books

+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.

Text Books

**Reference Books**

• MHRD, Gov. of India (1992). *National policy on education* (revised) New Delhi: MHRD.
+3 THIRD YEAR SIXTH SEMESTER
Core Paper - 14
EDUCATIONAL MANAGEMENT AND LEADERSHIP

Time : 3 Hrs. End Semester Theory : 60 Marks
Credit : 04 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 leve.
• 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**

**Reference Books**
• Tyagi R.S. and Mahapatra P.C. (2000), Educational Administration in Orissa : New Delhi, National Institute of Educational Planning and Administration (NIEPA)

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)

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
(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, logicality 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

Reference Books
- Catarby, E. V (1986) Teaching English as a foreign language in school curriculum India, New Delhi: NCERT
Syllabus-Arts

- 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


Reference Books

• Daswani, C. J. Language Education in Multilingual India. New/Delhi (UNESCO)
• Mathur, S.A. Sociological Approach to Indian Education. Vinod Pustak Bhandar, Agra.
• 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)
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

Reference Books

+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.
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,
(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


Reference Books

• 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
(iii) Implementation of Secondary Education with reference to Rashtriya Madhyamik Siksha Abhiyan (RMSA) and policy issues
(iv) Guiding principles of NCF-2005 and curriculum revision at the school level.

UNIT 2: Policies for Vocationalisation of Education
(ii) Vocational Education at Higher Secondary level: Policy challenges
(iii) Work education in schools –concept to implementation
UNIT 3: Policies for Inclusive Education
(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

Reference Books
• Reference Books
• Altekar, A.S. (1934), Education in ancient India, Banaras: Indian book Shop.
• MHRD, GOI (1986). National policy on education. New Delhi: The Author
• MHRD, Gov. of India (1986). *National policy on education*. New Delhi: GoI.
• MHRD, Gov. of India (1992), *National policy on education (revised)* New Delhi: GoI. MHRD, (1992), *Programme of action*, New Delhi: Govt. of India.

**Websites to be referred:**
• http://www.rehabcouncil.nic.in/
• 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:

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<td>Report</td>
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<td><strong>100</strong></td>
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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

Preparation of a term paper on any topic under GE-3.

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

Text Books


Reference Books

+3 SECOND YEAR FOURTH SEMESTER
GE - 4
EDUCATIONAL PSYCHOLOGY

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

Reference Books

• Snowman and Biehler (—). *Psychology applied to teaching* ...........

ENGLISH

+3 FIRST YEAR FIRST SEMESTER
Core Paper - 1
BRITISH POETRY AND DRAMA : 14TH TO 17TH CENTURIES

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06    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
• Shakespeare for Beginners by Brandon Toropov
• English Literature by Jonathan Bate (Ch. 7 “Shakespeare and the Dramatic Literature”)
+3 FIRST YEAR FIRST SEMESTER
Core Paper - 2
BRITISH POETRY
AND DRAMA : 17TH AND 18TH CENTURY

Time : 3 Hrs.                     End Semester Theory : 80 Marks
Credit : 06                     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; metaphorical
    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, 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
• Corns, T N( ed.) The Cambridge Companion to English Poetry. Cambridge: University Press,
  1973
• Parry, G: The Seventeenth Century: The Intellectual and Cultural Context of English Literature.
• Sherwood, T. G: Fulfilling the Circle : A Study of John Donne’s Thought, Toronto, Toronto Press,
  1984.
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

UNIT 4 : Samuel Johnson

Text Books
• Texts prescribed in Units 2, 3, 4. Web sources are indicated against the texts in brackets.

Reference Books
• 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”)

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:

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”
• Norton Anthology of English Literature. Vol 2 (Head notes on the periods and authors featured in the paper)
• 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.  End Semester Theory : 80 Marks
Credit : 06  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.
UNIT 2 : 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:
• 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. End Semester Theory : 80 Marks
Credit : 06 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”

UNIT 3:
Virginia Woolf: Mrs. Dalloway
UNIT 4:
J M Synge *Ryders to the Sea*

Text Books
- Texts prescribed in Units 2, 3, 4

Reference Books:
- *English Literature*. Jonathan Bate (Ch. 5 “Periods and Movements”)
- *Modernism. Critical Idiom*. By Peter Faulkner
- *Modernism. New Critical Idiom*. By Peter Childs

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**+3 SECOND YEAR FOURTH SEMESTER**

**Core Paper - 8**

**AMERICAN LITERATURE**

**Time : 3 Hrs.**

**End Semester Theory : 80 Marks**

**Credit : 06**

**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:**
- *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. End Semester Theory : 80 Marks
Credit : 06 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/)

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
• Classicism: A Very Short Introduction OUP
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:
Ashapurna 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 Guber, 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
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
- Ibsen: http://www.gutenberg.org/files/8121/8121-h/8121-h.htm

Reference Books:
- Constantin Stanislavski, An Actor Prepares, Chap. 8,
- Raymond Williams, Drama from Ibsen to Brecht
- Theatre of Absurd. Martin Esslin
+3 THIRD YEAR FIFTH SEMESTER  
Core Paper - 12  
INDIAN CLASSICAL LITERATURE  
(Training of teachers essential for teaching this course)

Time : 3 Hrs.                  End Semester Theory : 80 Marks  
Credit : 06                    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  

UNIT 3: Sanskrit Drama-2  

UNIT 4: Aesthetics and Maxims  
Bharata’s *Natyasatra*, Chapter VI on Rasa theory

Text Books  
- Texts prescribed in units II,III, IV

Reference Books:  

  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,  

- Vinay Dharwadkar, “Orientalism and the Study of Indian Literature”, Orientalism and the  
  Postcolonial Predicament: Perspectives on South Asia. Ed. Carol A. Breckenridge and Peter  

- Haldhar Panda, *Universals of Poetics*
+3 THIRD YEAR SIXTH SEMESTER
Core Paper - 13
POSTCOLONIAL LITERATURES

Time : 3 Hrs.     End Semester Theory : 80 Marks
Credit : 06      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)
• Ngugi wa Thiong’o: “The Quest for Relevance” from Decolonizing the Mind: The Politics of Language in African Literature
• Bill Ashcroft, Gareth Griffin, Helen Tiffin, The Empire Writes Back: Theory and Practice of Post-Colonial Literature.
• Edward Said. Orientalism.
+3 THIRD YEAR SIXTH SEMESTER
Core Paper - 14
POPULAR LITERATURE

Time : 3 Hrs.                   End Semester Theory : 80 Marks
Credit : 06                      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:
• 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

UNIT 2: Children’s Literature
Lewis Caroll: 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
• Leo Lowenthal, Literature, Popular Culture and Society
• *Popular Fiction: Essays in Literature and History* by Peter Humm, Paul Stigant, Peter Widdowson
• Sumathi Ramaswamy, "Introduction", in BeyondAppearances?: Visual Practices and Ideologies in Modern India. Pp.xiii-xxix

**+3 THIRD YEAR FIFTH SEMESTER**
**DSE - 1**
**LITERARY THEORY**

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<th>3 Hrs.</th>
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<td>Credit</td>
<td>06</td>
<td>Mid Semester Theory: 20 Marks</td>
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**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**

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<th>Time</th>
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<td>Credit</td>
<td>06</td>
<td>Mid Semester Theory: 20 Marks</td>
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**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
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:

Reference Books:
- Rabindranath Tagore “World Literature”: *Selected Writings On Literature and Language: Rabindranath Tagore* Ed. Sisir Kumar Das and Sukanta Chaudhuri
- Tagore’s comparative world literature https://www.academia.edu/4630860/Rabindranath-Tagores-Comparative-World-Literature
+3 THIRD YEAR SIXTH SEMESTER
DSE - 3
PARTITION LITERATURE

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

UNIT 2:

UNIT 3: Bapsi Sidhwa
Ice-candy-man

UNIT 4:
(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)
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.
• Stepehen McLaren, *Easy Writer*
• 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)

DSE – 4
DISSEMINATION/ 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.
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
- K Samantray, Academic and Research Writing. Orient Blackswan. 2015
- Norman Denzin, Sage Handbook of Qualitative Research. Sage Publications. 2005
- Kothari & Garg, Research Methodology. New Age Publishers
+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:
• Stanley Fish, How to Write a Sentence and How to Read One. Harpar Perennial. 2011.
• Literature and the art of Communication, Cambridge University Press

+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)
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:

+3 SECOND YEAR THIRD SEMESTER
GE - 3
NATION, CULTURE, INDIA

Time: 3 Hrs.  
End Semester Theory: 80 Marks
Credit: 06  
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*
INTRODUCTION:
This paper aims to offer the students some fundamental knowledge in Linguistics and English Language (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

UNIT 2:
Phonology and Morphology

UNIT 3:
Syntax

UNIT 4:
Semantics

Reference Books
- Introductory book on Linguistics and Phonetics by R L Varshney
- An Introduction to Language and Communication,
- David Crystal, Linguistics
- Braj B Kachru, The Indianization of English (OUP)
- David Crystal, English as a World Language

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)
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

Reading List:
- Tikkaa, R N (1989): Bhautik Bhugol ka Swaroop, Kedarnath Ram Nath, Meerut
• Steers, J. A. - Unstable Earth, Kalyani Publisher.

+3 FIRST YEAR FIRST SEMESTER
Core Paper - 2
CARTOGRAPHY

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

Reference Books
+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:

Unit-II:
Society: Evolution of man, Bases of racial classification, Classification of race, Religion and language of the world.

Unit-III:

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

Reference Books
• Human & Economic Geography- Go cheng leong
• Human Geography, B.S. Negi
+3 FIRST YEAR SECOND SEMESTER
Core Paper - 4
CLIMATOLOGY

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

Reading List -
• 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,
• 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 Karyavay Nidishalya, Delhi Vishwa
  Vidhyalaya, Delhi
• Vatal, M (1986): Bhautik Bhugol, Central Book Depot, Allahabad
• Singh, S (2009): Jalvayu Vigyan, Prayag Pustak Bhawan, Allahabad
+3 SECOND YEAR THIRD SEMESTER
Core Paper - 5
OCEANOGRAPHY

Time : 3 Hrs.
Credit : 04

End Semester Theory : 60 Marks
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

1. Interpretation of Topographical Maps and Drawing of Profiles.
3. Enlargement and reduction of maps ,
4. Practical records and viva -voce

Text Book

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.
Credit : 04

End Semester Theory : 60 Marks
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 & 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:

Reference Book:
• King L. S., 1969: *Statistical Analysis in Geography*, Prentice-Hall
• 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
Unit - HI:
Minerals and power recourses:
(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:

Unit - III:
Dichotomy in Geography— Environmental Determinism and Possibilism, Systematic and Regional. Ideographic and Nomothetic.

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.)
3. Drawing of projection (Gnomonic, Stereographic, Orthographic)
4. Practical records and viva-voce

**Text Book:**
1. Evolution of Geographical Thought - Majid Hussain

**Reference Books:**

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**+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
Text Book
1. Roy, Pritish: *Economic Geography*
2. Gautam, Alaka: *Economic Geography*

Reference Book
- 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:

Unit- III:
Environmental Problems in Tropical, Temperate and Polar Ecosystems. Environmental pollution (water and air)

Unit - IV:

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*

Reference Book:

**+3 THIRD YEAR FIFTH SEMESTER**

*Core Paper - 11*

**REGIONAL PLANNING AND DEVELOPMENT**

<table>
<thead>
<tr>
<th>Time</th>
<th>3 Hrs.</th>
<th>End Semester Theory</th>
<th>60 Marks</th>
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<tr>
<td>Credit</td>
<td>04</td>
<td>Mid Semester Theory</td>
<td>15 Marks</td>
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**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**

- Transport network analysis - Alfa, Beta, Gama
- Nearest neighbour analysis
- Traffic flow diagram
- Practical record and viva-voce

**Text Book**

1. Chand, Mahesh and V. K. Puri: Regional Planning

**Reference Book:**

+3 THIRD YEAR FIFTH SEMESTER
Core Paper - 12
REMOTE SENSING AND GIS

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

Unit - I:

Unit - II:

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

Reference Book:
+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
2. Khullar, D. R. India: A Comprehensive Geography

Reference Book:
+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

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
+3 THIRD YEAR FIFTH SEMESTER
DSE - 1
POPULATION GEOGRAPHY

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

Reading List:
• 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:
• Gadgil M. and Guha R., 2005: The Use and Abuse of Nature: Incorporating This Fissured Land: AnU Ecological History of India and Ecology and Equity, Oxford University Press. USA.
+3 THIRD YEAR SIXTH SEMESTER
DSE - 3
RURAL DEVELOPMENT

Time : 3 Hrs.  End Semester Theory : 60 Marks
Credit : 04  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 disicific papers. It is considered as a special course involving application of knowledge solving exploring a real life situation and difficult problem.
+3 SECOND YEAR THIRD SEMESTER
GE - 3
GEOGRAPHY OF INDIA

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

2. Khullar, D. R. India: A Comprehensive Geography

Reading List
1. Deshpand C. D., 1992: India: A Regional Interpretation, 1CSSR, New Delhi

+3 SECOND YEAR FOURTH SEMESTER
GE - 4
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, Pulses, Oil seeds;
(b) Agricultural Problems and Prospects
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**

**Reading List:**
HINDI
+3 FIRST YEAR FIRST SEMESTER
Core Course - 1

Time : 3 Hrs.  
Credit : 06  

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

हिंदी साहित्य का इतिहास (भाग-1)

UNIT-I
हिंदी 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 विरोधताएँ, 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 अंतिम संविधान 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. हिंदी साहित्य का इतिहास- आचार्य रामचन्द्र शुक्ल, नागरी प्रचारणी सभा, काशी  
2. हिंदी साहित्य का उदयव और विकास- आचार्य हजारी प्रसाद द्विवेदी  
3. हिंदी साहित्य का दूसरा इतिहास - डॉ. बचन सिंह  
4. भक्ति काव्य और लोक जीवन - शिवकुमार मिश्र  
5. Social Life and Concepts in Medieval Hindi Bhakti Poetry-Dr. Savitri Chandra  
6. भारतीय चित्रन परंपरा - के. दामोदर  
7. हिंदी साहित्य का इतिहास - लक्ष्मीसागर वाण्डे  
8. हिंदी साहित्य का आलोचनात्मक इतिहास - डॉ. 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 हिंदी कविता
(निर्गुण एवं रामभक्ति काव्य-धारा)

UNIT-I

निर्गुण भक्ति काव्य का स्वरूप, ज्ञानमार्ग और प्रेम मार्ग, रामभक्ति काव्य का स्वरूप, प्रमुख कवि और प्रभुतियाँ।

UNIT-II

कबीर - पद संख्या :- 2. रहना नहीं देस बिराना है, ४. साथो, देखा जग बौराना, ५. तोको पीव मिलेगे।
साध्वी - १ से २१ तक।

UNIT-III

मलिक मुहम्मद जायसी - नागमती वियोग - वर्णन।

UNIT-IV

तुलसी दास - भरत महिमा।

पाठ्य पुस्तक :
1. हिंदी काव्य संग्रह, सं. रामबीर सिंह, केन्द्रीय हिंदी संस्थान, आगरा

अंक विभाजन : (क) सभी यूनिट से 12 अंक संबंधित प्रश्न पूछे जाएंगे जिनमें से 10 का उत्तर लिखना होगा - 2 x 10 = 20
(ख) यूनिट 1 से 02 प्रश्न एवं यूनिट 2, 3 एवं 4 से कार्यालय विशेषताओं सहित व्याख्या के 06 प्रश्न पूछे जाएंगे जिनमें 04 का उत्तर लिखने होगे - 15 x 4 = 60

सहायक प्रश्न :
1. भक्ति आंदोलन और सूरदास का काव्य - मैनेजर पाण्डेय
2. हिंदी सूफ़ी काव्य की भूमिका - राममुखन तिवारी
3. राष्ट्रीय एकता, वर्तमान समस्याएं और भक्ति साहित्य - कैलाश नारायण तिवारी
4. कबीर की विचारधारा - गौतम त्रिपुराणवत
5. भक्ति काव्य यात्रा - रामस्वरूप चतुर्वेदी
6. तुलसीदास - रामचन्द्र शुक्ल
7. कबीर - हजारी प्रसाद द्विवेदी
अध्याय-2

UNIT-I
आधुनिक काल की सामाजिक, सांस्कृतिक एवं राजनीतिक पृष्ठभूमि। गद्दा का उदभव एवं विकास। खड़ी बोली का साहित्य।

UNIT-II
भारतेंदु गुप्त काव्य, दिवंद्रे गुप्त काव्य तथा छायावादी कविता (केवल कविता की प्रमुख प्रृतियाँ)।
प्रगतिवाद, प्रयोगवाद, नवी कविता, समकालीन कविता (केवल काव्य प्रृतियाँ)।

UNIT-III
गद्दा की प्रमुख विधाओं का विकास : उपन्यास और कहानी।

UNIT-IV
(क) नाटक, एकांक, निबंध (उदभव और विकास)।
(ख) अर्थव्यवस्था विषयों - दलित, स्री, आदिवासी विषयों।

अंक विभाजन : (क) सभी यूनिट से 12 अनेक प्रश्न पूछें जाएंगे।
हालांकि से 10 का उत्तर लिखना होगा - 2 x 10 = 20
(ख) सभी यूनिट से दो - दो प्रश्न पूछें जाएंगे।
हालांकि से 04 का उत्तर लिखना होगा - 15 x 4 = 60

सहायक प्रश्न:
1. हिंदी साहित्य का इतिहास - आचार्य रामचन्द्र शुक्ल, नागरी प्रचारणी सभा, काशी।
2. हिंदी साहित्य का उदभव और विकास - आचार्य हजारी प्रसाद द्विवेदी।
3. हिंदी साहित्य का दूसरा इतिहास - डॉ. बच्चन सिंह।
4. हिंदी साहित्य : बीसवीं शताब्दी - नन्द दुलारे वाजपेयी, इलाहाबाद।
5. भारतेंदु हरिशंकर और हिंदी नवजागरण की संस्कृति-रामचंद्रलाल शामर, राजकमल, दिल्ली।
6. हिंदी दलित साहित्य - मोहनदास नैमिनशराब, साहित्य अकादमी।
7. अर्थव्यवस्थाविश्वविद्यालय और हिंदी साहित्य - डॉ. राजत राणी 'मीनू' वाणी प्रकाशन, नई दिल्ली।
8. समकालीन हिंदी साहित्य : विकिध विषयों - प्रो. श्रीराम शामर।
+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 हिंदी 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 लक्कुटि और कमरिया,  
६- सेस गनेश महेस,  
१०- मेरपखा सर उपर एवं  
१२- कान्हा भये बस बौंसुरी के....।

UNIT-III
बिहारी : भक्ति, ऋतु कर्ण एवं नीति के दोहे (१ से २६)।

UNIT-IV
धनानन्द : प्रेम - साधना, प्रेम की अनन्यता, उपालंब के पद (१, २, ३, ४ और ५)

पाठ्य पुस्तक :
1. हिंदी काव्य संग्रह, सं. रामवीर सिंह, केन्द्रीय हिंदी संस्थान, आगरा  
2. हिंदी साहित्य का उत्तर मध्यकाल - महेंद्र कुमार  
3. बिहारी - विश्वनाथ प्रसाद मिश्र  
4. धनानन्द और स्वच्छन्द काव्य धारा - मनोहर लाल गौड़  

(क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएंगे जिनमें से 10 का उत्तर लिखना होगा - २ x १० = २०  
(ख) 04 आलोचनात्मक प्रश्न एवं काव्यगत विशेषताओं सहित व्याख्या के 04 प्रश्न पूछे जाएंगे जिनमें 04 का उत्तर लिखना होगा - १५ x ४ = ६०
+3 SECOND YEAR THIRD SEMESTER
Core Course -5

Time : 3 Hrs.  
Credit : 06

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

अनुवाद सिद्धांत

UNIT-I
अनुवाद की परिभाषा एवं स्वरूप, अनुवाद के क्षेत्र, अनुवाद कला अथवा विज्ञान।

UNIT-II
अनुवाद की प्रक्रिया और प्रवृत्ति, अनुवाद तथा समस्या का सिद्धांत।

UNIT-III
अनुवाद के प्रकार : साहित्यिक अनुवाद (भाषा अनुवाद), कार्यालयी अनुवाद, सारांश अनुवाद, भावानुवाद।

UNIT-IV
व्यावहारिक अनुवाद :
(क) किसी अंग्रेजी अवतरण का हिंदी में अनुवाद। (केवल कार्यालयी अनुच्छेद ही दिया जाएगा)
(ख) किसी हिंदी अवतरण का अंग्रेजी में अनुवाद (केवल कार्यालयी अनुच्छेद ही दिया जाएगा)

अंक विभाजन :  (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएंगे 2 x 10 = 20
(ख) यूनिट 1, 2 और 3 से 06 प्रश्न पूछे जाएंगे 15 x 4 = 60
(१) हिंदी 7½ अंक + 1 (अंग्रेजी) 7½ अंक पूरा जाएगा -

सहायक ग्रंथ :  
1. अनुवाद के भाषिक सिद्धांत- कैटफोट  
2. अनुवाद प्रवृत्ति- प्रो. बालेन्द्र शोबर तिवारी  
3. अनुवाद के सिद्धांत - आर. आर. रेणुका  
4. अनुवाद प्रक्रिया एवं प्रयोग- छबिल कुमार मेहर  
5. अनुवाद विज्ञान- डा. भोला नाथ तिवारी  
6. अनुवाद प्रक्रिया एवं परिदृश्य- रीताराम गालिवाल
+3 SECOND YEAR THIRD SEMESTER
Core Course - 6

Time : 3 Hrs.
Credit : 06
End Semester Theory : 80 Marks
Mid Semester Theory : 20 Marks

हिंदी कथा साहित्य (उपन्यास)

UNIT-I
हिंदी उपन्यास अदभुत और विकास, प्रेमचंद का उपन्यास साहित्य, प्रेमचंद के उपन्यासों में भारतीय समाज एवं मेहनतकी वर्ग।

UNIT-II
हिंदी का महिला उपन्यास साहित्य, स्त्री विमर्श की अवधारणा और संभावनाएँ।

UNIT-III
गंगा - प्रेमचंद

UNIT-IV
आपका बंदी - मनू भण्डारी

अंक विभाजन : (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएंगे जिनमें से 10 का उत्तर लिखना होगा - 2 x 10 = 20
(ख) सभी यूनिट से 08 प्रश्न पूछे जाएंगे जिनमें 04 का उत्तर लिखना होगा - 15 x 4 = 60

सहायक ग्रंथ :
1. प्रेमचंद और उनका युग - रामनवीलास शर्मा, राजकमल प्रकाशन
2. विरासत का सवाल - शिवकुमार मिश्र
3. हिंदी उपन्यास एक अंतर्यात्मा - रामदरा मिश्र
4. उपन्यास के पहले - ई. ए. फोस्टर
5. आधुनिक हिंदी उपन्यास - सं. भीष्म सहाय, राम जी मिश्र, भगवतीप्रसाद निदारिया, राजकमल प्रकाशन।
6. मनू भण्डारी और आपका बंदी - डा. मालविका
+3 SECOND YEAR THIRD SEMESTER
Core Course - 7

हिंदी कथा साहित्य (कहानी)

UNIT-I
1. उसने कहा था - चंद्रकार शामी गुलेरी
2. पूजा की रात - प्रेमचन्द
3. पुरस्कार - प्रसाद

UNIT-II
4. मुगलों ने सलतनत बख्शा दी - भगवतीचरण वर्मा
5. वापसी - उषा विरंधवा
6. कलाकार - राजेन्द्र यादव

UNIT-III
7. मानसरोवर के हंस - कमलेश्वर
8. भोलाराम का जीव - हरिशंकर परसाई
9. रानी माँ का चबूतरा - मचू भंडारी

UNIT-IV
10. पोषण - शॉलेश मादियानी
11. पंचलाईट - कणीशराज रेणु
12. सुबह की सैर - निमित वर्मा

पाठ्य पुस्तक :
1. आधुनिक कहानी संग्रह - सं. सरोजनी शामी, केन्द्रीय हिंदी संस्थान, आगरा

अंक विभाजन : (क) सभी यूनिट से 12 अति संक्षेप प्रश्न पूछे जाएँगे
\[ \text{जिनमें से 10 का उत्तर लिखना होगा} \quad 2 \times 10 = 20 \]

(ख) सभी यूनिट से 08 प्रश्न पूछे जाएँगे
\[ \text{जिनमें 04 का उत्तर लिखना होगा} \quad 15 \times 4 = 60 \]

सहायक ग्रंथ :
1. कहानी नयी कहानी - नामजीत सिंह
2. नयी कहानी की भूमिका - कमलेश्वर
3. हिंदी कहानी का इतिहास - गोपाल राय
4. कहानी स्वरूप एवं संवेदना - राजेन्द्र यादव
+3 SECOND YEAR FOURTH SEMESTER
Core Course - 8

कथा इत्तर गद्द राज्यत्व

UNIT-I
जीवनी - उदेश्य, प्रस्तावना, जीवनी का स्वरूप
जीवनी साहित्य : परंपरा और विकास

UNIT-II
आत्मकथा - उदेश्य, प्रस्तावना, आत्मकथा का स्वरूप,
आत्मकथा साहित्य : परंपरा और विकास

UNIT-III
रेखांचित्र - ‘रेखाएँ और रेखाएँ’
संपादक - सुधाकर पाण्डेय, अनुराग प्रकाशन, वाराणसी
१. रविििा - रामबुशुं नेपोपुरी
२. रामा - महादेवी वर्मा

UNIT-IV

राष्ट्रीय पुस्तक :
आधुनिक निबंध संग्रह : सं. सुरेंद्र कुमार, केन्द्रीय हिंदी संस्थान, आगरा।
१. नावदून कथों बढ़ते है - हजारी प्रसाद द्विवेदी
२. नये वर्ष के सुभं रंग : रामविलास सरी
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 विश्लेषणों सहित व्याख्या के २ प्रश्न पूछे जाएँगे जिनमें से 04 के उत्तर लिखने होंगे - 15 x 4 = 60

सहायक पुस्तक :
१. प्रतिनिधि हिंदी निबंधकार - विभूषिन भक्ति, ज्योतिष्ठ भक्ति, लोकभारती प्रकाशन।
२. यात्रा साहित्य विश्व : शास्त्र और इतिहास - बापूराम देशाई, विकास प्रकाशन, कानपुर।
३. हिंदी का गद्द साहित्य - रामचंद्र तिवारी।
४. आधुनिक हिंदी गद्द 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 हिंदी कविता (९)

UNIT-I
यसोधरा : बैठकोलीशरण गुप्त : कविता सं.
1. पूर्व रहा है कैसा चक्र, 2. सफ़ी वे मुझसे कहकर जाते
3. आयुष्य दे चुके परिक्षा, 4. चुप रह चुप रह हाय अभागे
5. रुदन का हसना ही तो गान

UNIT-II
जयपंकर प्रसाद -
1. आँष - १ से २०
2. ले चल मुझे भुलावा देकर

UNIT-III


1. तोड़ती पत्थर, 2. बादल राग
3. संध्या सुदरी 4. पंत : प्रथम रशिम, ताज

UNIT-IV
महदेवी :
मैं नीर भरी दुःख की बदली, पंच होने दो अपरिचित, मधुर-मधुर मेरे दीपक जल।

पाठ्य पुस्तक :
हिंदी काव्य संग्रह - सं. रामबीर सिंह, के. हि. सं. आगरा

अंक विभाजन : (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएगे जिनमें से 10 का उत्तर लिखना होगा - 2 x 10 = 20
(ख) सभी यूनिट से 04 आलोचनात्मक एवं 04 व्याख्यात्मक प्रश्न पूछे जाएंगे जिनमें से 04 के उत्तर लिखने होंगे - 15 x 4 = 60

सहायक ग्रंथ :
1. छायाबाद - नामवर सिंह, राजकमल प्रकाशन, दिल्ली
2. आधुनिक हिंदी साहित्य की प्रवृत्तियाँ - नामवर सिंह, लोकभारती प्रकाशन, इलाहाबाद
3. निराला : आलमहंता आशा - दूरनाथ सिंह
4. जयपंकर प्रसाद - नंदनुलारे बाजपेयी
5. महदेवी वर्माँ - जगदीश गुप्त
+3 SECOND YEAR FOURTH SEMESTER
Core Course -10

भाषा विज्ञान और हिंदी 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
दक्षिणी हिंदी भाषा का साहित्य, खड़ी बोली और साहित्यिक भाषा के रूप में हिंदी का उद्भव और विकास।
पोर्ट विलियम कॉलेज की भाषा - नीति

UNIT-IV
हिंदी के विविध रूप: राजबांध, राष्ट्रभाषा, सम्पर्क भाषा, संचार भाषा।

अंक विभाजन: (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएंगे
जिनमें से 10 का उत्तर लिखना होगा - 2 x 10 = 20
(ख) सभी यूनिट से 08 प्रश्न पूछे जाएंगे
जिनमें 04 के उत्तर लिखना होगा - 15 x 4 = 60

सहायक प्रश्न:
1. भाषा विज्ञान की भूमिका - देवनागरी शामी, दीर्घि शामी, राजभाषा प्रकाशन, नई दिल्ली
2. हिंदी : अद्भुत, विकास और रूप - हरदेव बाहरी, किताब महल, नई दिल्ली
3. हिंदी भाषा का इतिहास - धीरेंद्र वर्मा
4. भाषा और समाज - रामबलास शर्मा, राकमल प्रकाशन, नई दिल्ली
5. भाषा और लिपि का इतिहास - धीरेंद्र वर्मा
6. आधुनिक भाषा विज्ञान - डा. रामणि शर्मा
7. भाषा विज्ञान एवं भाषा शास्त्र - कपिलदेव द्विवेदी
+3 THIRD YEAR FIFTH SEMESTER
Core Course - 11

हिन्दी नाटक और रंगमंच

UNIT-I
हिन्दी नाटक और रंगमंच का परिचय, भारतीय रंगमंच, पाश्चात्य रंगमंच, जयशंकर प्रसाद का नाटक साहित्य।

UNIT-II
आशाड़ का एक दिन’ - मोहन राकेश

UNIT-III
‘मधव’ - भीष्म साहनी

UNIT-IV
अधुनिक एकांकी संग्रह - सं सुरेश कुमार, केन्द्रीय हिन्दी संस्थान, आगरा
1. भोर का तारा - जगदीश चंद्र माधुर
2. ओरंगजेब की आखिरी रात - रामकुमार वर्मा
3. जुलूस - कणादि ऋषि भटनागर
4. श्रीरे बहे गंगा - लक्ष्मीलालरायण लाल

अंक विभाजन:
(क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएंगे 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 जाएंगे जिनमें से 04 के उत्तर लिखने होंगे - 15 x 4 = 60

सहायक ग्रंथ:
1. नाटककार जयशंकर प्रसाद - सं. सत्येन्द्र कुमार तनेजा, राधाकृष्ण प्रकाशन।
2. हिन्दी नाटक - बच्चन सिंह, लोकभारती प्रकाशन, इलाहाबाद।
3. अधुनिकता और मोहन राकेश - डॉ. रूमिला मिश्र, विश्वविद्यालय प्रकाशन, बाबासाही।
4. अधुनिक हिन्दी नाटक और रंगमंच - सं. नेमिचंद जैन।
+3 THIRD YEAR FIFTH SEMESTER
Core Course - 12

भारतीय काव्य शाखा

UNIT-I
काव्य लक्षण, काव्य प्रयोजन, शब्द शक्ति।

UNIT-II
रस सिद्धांत: परिभाषा एवं स्वरूप, रसके प्रकार।
रीति सिद्धांत: परिभाषा एवं स्वरूप, रीति के भेद।

UNIT-III
अलंकार: परिभाषा एवं स्वरूप, प्रमुख भेद, लक्षण एवं उदाहरण: उपमा, रूपक, अनुप्रास, उदेश्य, अन्योक्ति अक्षर, रूप, भान्तिमान, अतिसयोक्ति, बक्रोक्ति।

UNIT-IV
छंद: लक्षण एवं उदाहरण: दोहा, चौपाई, सबैया रोला, छपण, बरवै, सोरठा, मन्द्राक्रान्ता, धनाश्री, कुंइलिया।

अंक विभाजन:
(क) सभी यूनिट से 12 अति सविश्चित प्रश्न पूछे जाएंगे
जिनमें से 10 का उत्तर लिखना होगा - 2 x 10 = 20

(ख) यूनिट 1, 2 से 04 प्रश्न पूछे जाएंगे
जिनमें से 02 के उत्तर लिखने होंगे - 15 x 2 = 30

(ख) यूनिट 3, 4 से 06 अलंकार एवं 06 छंद (लक्षण एवं उदाहरण) पूछे जाएंगे जिनमें से 03-03 के उत्तर लिखने होंगे - 05 x 3 = 15

सहायक प्रेम:
1. भारतीय काव्यशाखा - भगवती मिश्र
2. भारतीय काव्यशाखा - सत्यदेव चौधरी, अलंकार प्रकाश, दिल्ली
3. भारतीय काव्यशाखा - नरेंद्र, नैशनल पब्लिकरिंग हाउस, दिल्ली
4. अलंकार मुक्तावली - देवेंद्रनाथ 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 हिंदी कविता (२)

UNIT-I
रामधारी सिंह दिनकर
जननत्त्र का जन्म, अभिभव मनुष्य
बच्चन : पथ की पहचान

UNIT-II
अंजेय : हिरोशिमा, कलगी बाजरे की
भवानी प्रसाद मिश्र : गीतफ़ोशा, अभिव्यवित।

UNIT-III
थर्मोरी भारती : कस्बे की शाम
नागाजुँन : बहुत दिनों के बाद, प्रेत का बयान।

UNIT-IV
घूमिल - मोचीरम
रघुवीर सहाय - राम दास
शमशेर - एक पीली शाम

पाठ्य पुस्तक :
हिंदी काव्य संग्रह - केन्द्रीय हिंदी संस्थान, आगरा

अंक विभाजन : (क) सभी पूँजी से 12 अंतःसंबंध प्रश्न पूछे जाएंगे जिनमें से 10 का उत्तर लिखना होगे - 2 x 10 = 20
(ख) 08 प्रश्न जिनमें व्याख्या भी शामिल हो पूछे जाएंगे जिनमें 04 के उत्तर लिखने होगे - 15 x 4 = 60

सहायक प्रश्न :
1. आधुनिक हिंदी कविता का विकास - हेतुभागवाज
2. कविता के नये प्रतिमान- नामवर सिंह, राजकमल प्रकाशन, नई दिल्ली
3. नयी कविता और अतितवाचा- रामविलास शर्मा, राजकमल प्रकाशन, नई दिल्ली
4. समकालीन कविता का व्यक्ति- परमांड्रे श्रीवास्तव
5. समकालीन हिंदी कविता- रवींद्र भमर
6. स्वातन्त्रता हिंदी कविता में राजनैतिक चेतना - डॉ. उसमान ख़ान
+3 THIRD YEAR SIXTH SEMESTER
Core Course - 14

पाठ्यप्रमाण

UNIT-I
प्लेटो : काव्य, सत्य और अनुकरण
आरस्तू के काव्य सिद्धान्त।

UNIT-II
लोमिगुस : काव्य में उदात्त
विलयम बड़हवर्ध : काव्य सबंधी विचार।

UNIT-III
मैथू आर्नल्ड : कविता और जीवन, कविता और समाज
आई.ए.रिचर्ड्स : मूल्य सिद्धान्त।

UNIT-IV
बिम्बबाद, प्रतीकबाद
स्वच्छताबाद, मार्क्सबाद।

अंक विभाजन :  (क) सभी युनिट से 12 अक्टूबर संख्या 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 :
1. पाठ्यप्रमाण-चित्रण : निर्मला जैन, राधाकृष्ण प्रकाशन, नई दिल्ली।
2. पाठ्यप्रमाण काव्यशास्त्र - इतिहास सिद्धान्त और वाद : भगीरथ मिश्र, विश्वविद्यालय प्रकाशन, वाराणसी
3. पाठ्यप्रमाण सबकाशा दर्शन : जगदीश चंद्र जैन, हिंदी प्रचारक संस्थान, वाराणसी
4. भारतीय एवं पाठ्यप्रमाण 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 सर्वेक्षण विचार / तुलसी का समन्वयावाद।

UNIT-III  
पाठ्यपुस्तक : रामचरितमानस : तुलसीदास, गीता प्रेस, गोरखपुर (अंकोध्वाकाण्ड पद सं. १ से ५०)

UNIT-IV  
विनायकतिका : तुलसीदास, गीता प्रेस, गोरखपुर, प्रथम १ - २० पद।

अंक विभाजन :  
(क) सभी इकाईयों से 12 अंक संख्यात प्रसन पूछे जाएँगे  
जिनमें से 10 के उत्तर लिखने होंगे - 2 x 10 = 20

(ख) यूनिट १ और २ से 04 प्रश्न एवं यूनिट ३ और ४ से  
कवि की काव्यात्मक विशेषताओं सहित व्याख्या के 04 पद  
पूछे जाएँगे। कुल 04 प्रश्नों के उत्तर लिखने होंगे - 15 x 4 = 60

सहायक ग्रंथ :  
१. तुलसीदास : डॉ. मताप्रसाद गुप्त, हिंदी परिषद प्रयाग  
२. तुलसी और उनका युग : डॉ. राजपति दीक्षित, झानमण्डल, काशी  
३. तुलसी आधुनिक वातावरण से : रमेश कुण्तल मेध  
४. गोस्वामी तुलसीदास की दृष्टि में नारी और उसका महत्व : झानबती त्रिवेदी, काशी हिंदु विद्यालय प्रकाशन।
+3 THIRD YEAR FIFTH SEMESTER
DSE - 2

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

प्रेमचन्द

UNIT-I
प्रेमचन्द और उनका युग। प्रेमचन्द का जीवन। प्रेमचन्द और भारतीय स्वतंत्रता आंदोलन।

UNIT-II
प्रेमचन्द और भारतीय किसान। उपन्यासकार के रूप में प्रेमचन्द। सेवासदन - प्रेमचन्द।

UNIT-III
कहानीकार प्रेमचन्द
मानसरोवर, भाग - १
१) अलपियोज्या
२) ईदगाह
३) बड़े भाई साहब
४) ढ़कुर का कुआँ
५) पूस की रात

UNIT-IV
कुछ विचार : प्रेमचन्द, लोकभारती प्रकाशन
१। साहित्य का उदय,
२। राष्ट्रभाषा हिंदी और उसकी समस्याएँ,
३। उद्ध, हिंदी और हिन्दुस्तानी

अंक विभाजन : (क) सभी यूनिट से 12 अंतिम विषय प्रश्न पूछे जाएँगे
जिनमें से १० के उत्तर लिखना होगा - 2 x 10 = 20

(ख) सभी यूनिट से ०८ प्रश्न पूछे जाएँगे
जिनमें ०४ का उत्तर लिखना होगा - 15 x 4 = 60

सहायक ग्रंथ :
१। प्रेमचन्द और उनका युग - रामबिलास शर्मा, राजकमल, नयी दिल्ली
२। हिंदी उपन्यास - आचार्य रामचन्द्र तिवारी, विश्वविद्यालय प्रकाशन
३। प्रेमचन्द : एक विवेचन - इलाहाबाद मदन
४। कहानीकार प्रेमचन्द : रचनादृष्टि और रचना शिल्प - शिवकुमार मिश्रा, लोकभारती प्रकाशन, इलाहाबाद
+3 THIRD YEAR SIXTH SEMESTER
DSE - 3

कार्यालयी हिंदी

UNIT-I

राजभाषा हिंदी :
संवैधानिक प्राथमिक : राजभाषा, अष्ट्र म अनुसूची, राजभाषा अधिनियम 1963, राजभाषा नियम 1976।

UNIT-II

टिपण एवं आलेखन :
टिपण : स्वरूप, टिपण की प्रक्रिया एवं उद्देश्य, प्रारूपलेखन : स्वरूप एवं परिचय, प्रारूप तैयार करने की विधि, प्रारूप लेखन की रूपरेखा, प्रारूप लेखन के क्षेत्र।
संशोधन : परिभाषा, संशोधन की प्रक्रिया एवं भेद
पत्रलेखन : अर्थ एवं स्वरूप, पत्रलेखन की विशेषताएँ, सरकारी पत्रों के प्रकार।

UNIT-III

कंप्यूटर में हिंदी का अनुप्रयोग :
कंप्यूटर : अर्थ, स्वरूप एवं परिभाषा, कंप्यूटर के मुख्यभाषा, कंप्यूटर प्रशासनी, कार्यालयों में कंप्यूटर का प्रयोग।

UNIT-IV

प्रशासनिक शब्दावली- प्रमुख वाक्यांश तथा पदनाम।

अंक विभाजन : (क) यूनिट 4 से 05 अंग्रेजी के एवं 05 हिंदी के शब्द पूछे जाएँगे : अंग्रेजी से हिंदी - 02 x 5 = 10
मिकी से अंग्रेजी - 02 x 5 = 10
(ख) यूनिट 1, 2 एवं 3 से 08 प्रश्न पूछे जाएँगे जिनमें 04 का उत्तर लिखना होगा - 15 x 4 = 60

सहायक प्रश्न :
1. प्रयोजनमूलक हिंदी : संरचना और अनुप्रयोग
2. प्रयोजनमूलक हिंदी : सिद्धांत और प्रयोग
3. प्रयोजनमूलक हिंदी : विनोद गोदरे, वाणी प्रकाशन, नई दिल्ली


+3 THIRD YEAR SIXTH SEMESTER
DSE - 4

विज्ञापन: अवधारणा और प्रयोजनमूलक आयाम

UNIT-I
विज्ञापन: स्वरूप एवं अवधारणा
(1) विज्ञापन: अर्थ व परिभाषा
(2) विज्ञापन का महत्व
(3) विज्ञापन के सामाजिक तथा व्यावसायिक उद्देश्य, मार्केटिंग और ब्रांड निर्माण
(4) विज्ञापन के नए संदर्भ (प्रायोजित कार्यक्रम)

UNIT-II
विज्ञापन: विविध माध्यम
(1) सामान्य परिचय
(2) विज्ञापन माध्यम का चयन
(3) पिंट, रेडियो एवं टेलीविजन के लिए कापी लेखन।

UNIT-III
विज्ञापन की भाषा
(1) विज्ञापन की भाषा का स्वरूप
(2) विज्ञापन की भाषागत विशेषताएँ
(3) विज्ञापन की भाषा के विभिन्न पक्ष, साहित्यिक विभाग, आलंकरण, तुकांक्तता, समानांतरता, विचार, मुहावरे, लोककथाएँ, भाषा संकर
(4) हिंदी विज्ञापनों की भाषा।

UNIT-IV
विज्ञापन - निर्माण का अभ्यास
(1) पिंट माध्यम: वर्गीकृत एवं सजावटी विज्ञापन - निर्माण
(2) रेडियो जिंगल लेखन
(3) टेलीविजन के लिए स्टोरी बोर्ड निर्माण

अंक विभाजन: (क) सभी यूनिट से 12 अधि 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 ग्रंथः
1. जनसंपकर, प्रचार एवं विज्ञापन - विजय कुलश्रेष्ठ
2. जनसंचार माध्यम: भाषा और साहित्य - सुभोर पचौरी
3. डिजिटलयुग में विज्ञापन - सुधा सिंह, जगदीश चतुरवादी
4. आधुनिक विज्ञापन और जनसंपकर - डा. तारेश भाटिया
+3 THIRD YEAR SIXTH SEMESTER
DSE - 5

परियोजना कार्य

परियोजना कार्य / लघु शोध प्रबंध - संभवतः 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

मध्यकालीन इतिहास और भक्ति कविता

UNIT-I
मध्यकाल सामान्य परिचय, भक्तिकाल की पुष्पभूमि, भक्तिकालीन साहित्य की प्रमुख प्रवृत्तियाँ।

UNIT-II
भक्तिकाल की प्रमुख काव्य धाराएँ
निर्गुण काव्य - ज्ञानश्रीय शाखा एवं प्रेममार्गी शाखा
सृगुण काव्य - कृष्णभक्ति शाखा एवं रामभक्ति शाखा

UNIT-III
पाठ्य पुस्तक : हिंदी काव्य संग्रह : सं. रामचंद्र सिंह, केन्द्रीय हिंदी संस्थान, आगरा
कबीर दास - साखी 1 से 21
मलिक मुहम्मद जायसी - नागमति वियोग वर्णन 01 से 08
सुरदास - भमर्गीत 6 से 10

UNIT-IV
तुलसी दास - भरत-महिमा 1 से 10
+3 FIRST YEAR SECOND SEMESTER
GE - 2

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  Mid Semester Theory : 20 Marks

साहित्य और सन्दर्भ : विविधवाद

UNIT-I
1. स्वच्छंदवाद, 2. अभिव्यजनवाद

UNIT-II
3. अस्तित्ववाद, 4. मार्कसवाद,

UNIT-III
5. उत्तराध्युनिकतत्त्व, 6. विभ्व, फैटासी

UNIT-IV
7. मिस्क, 8. प्रतीक

अंक विभाजन : (क) सभी यूनिट से 12 अति संक्षिप्त प्रश्न पूछे जाएंगे
जिनमें से 10 के उत्तर लिखने होंगे - 2 x 10 = 20
(ख) सभी यूनिट से 06 प्रश्न पूछे जाएंगे
जिनमें 04 का उत्तर लिखना होगा - 15 x 4 = 60

अनुमोदित ग्रंथ :
1. मध्यकालीन भारत राजनीति, समाज और संस्कृति - प्रो. सतीश चंद्र, ओरियंट लंदन।
2. Mediaval India - Prof Yusuf Hussain
3. हिंदी साहित्य की भूमिका - आचार्य हजारी प्रसाद द्विवेदी, राजकमल, दिल्ली।
4. हिंदी सूफी काव्य की भूमिका - डा. रामपूजन तिवारी
HISTORY

+3 FIRST YEAR FIRST SEMESTER
Core Paper - 1
HISTORY OF INDIA- I

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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
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:
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.
+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:
2. Bisman Basu, The Story of Man
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]:
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 Priniples
4. Development of Art and Architecture: Mauryan, and Gupta

Reading List:
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.

Suggested Reading:
2. Cambridge History of Islam, 2 Vol.
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.  

Suggested Reading:  
3. K. A. Nilakantha Sastr, The Colas, South Indian History.  
4. Mittal, Socio-Cultural History of India.  
+3 SECOND YEAR THIRD SEMESTER
Core Paper - 6
RISE OF THE MODERN WEST - I

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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

Unit-III: Renaissance and Reformation:
1. Its Social Roots Spread of Humanism in Europe.
2. The Renaissance: Art, Architecture, Sculpture, Painting and Literature
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:

Suggested Reading:
2. F. Rice, The Foundation of Early Modern Europe.
4. Maurice Dobb, Transition from Feudalism to Capitalism.
+3 SECOND YEAR THIRD SEMESTER
Core Paper - 7
HISTORY OF INDIA IV (c.1206 - 1526)

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  Mid Semester Theory : 20 Marks

Unit-I: Sultanate: Political Structures
1. Survey of Sources: (a) Persian Tarikh Tradition, (b) Vernacular Histories; (c) Epigraphy.
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.

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.

Reading List:

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.
+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 8
RISE OF THE MODERN WEST - II

Time: 3 Hrs.  End Semester Theory: 80 Marks
Credit: 06  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:

Suggested Reading:
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
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:

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.
+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 10
HISTORICAL THEORIES & METHOD

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 Mid Semester Theory : 20 Marks

Unit-I: Meaning and Scope of History
2. Object and Value of History.

Unit-II: Traditions of Historical Writing
1. Ancient Greek Traditions – Herodotus, Thucydides
2. Ancient Roman Traditions - Polybius, Livy and Tacitus

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
2. Historical facts.
3. Historical Causation.
4. Historical Objectivity

Reading List:

Suggested Reading:
5. K. Rajayyan, History: It’s Theory & Method
+3 THIRD YEAR FIFTH SEMESTER
Core Paper - 11
HISTORY OF MODERN EUROPE-9 (C.1780-1880)

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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)
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].

Suggested Reading:
1. E.J. Hobsbawm, Nations and Nationalism.
+3 THIRD YEAR FIFTH SEMESTER
Core Paper - 12
HISTORY OF INDIA VII (c. 1750 - 1857)

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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:
2. Imperial Ideology: Orientalism and Utilitarianism

Unit-III: Economy and Society:
1. Land revenue systems- Permanet, 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
+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:
   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
   4. S.Gopal, British Policy in India, 1858-1905.
+3 THIRD YEAR SIXTH SEMESTER
Core Paper - 14
HISTORY OF MODERN EUROPE II (c. 1880 - 1939)

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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.
  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.

Unit-IV: Intellectual Developments since circa 1850: Major Intellectual Trends:
  2. Institutionalization of Disciplines: History, Sociology and Anthropology.
  3. Darwin and Freud.

Reading List:
  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.
+3 THIRD YEAR FIFTH SEMESTER
DSE - 1
HISTORY AND CULTURE OF ORISSA - I

Time : 3 Hrs. 
End Semester Theory : 80 Marks
Credit : 06 
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:
2. Sahu, Mishra & Sahu, History of Odisha.

Suggested Reading:
2. A. C Pradhan, A Study of History of Orissa
5. M.N. Das(ed), Sidelights on History and Culture of Orissa, Vidyapuri, Cuttack, 1977
+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  

Unit: II  
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:  
2. A. C. Pradhan, Sidelights on Freedom Struggle in Orissa.  

Suggested Reading:  
1. K.M. Patra, Freedom Struggle in Odisha.  
4. B.C. Ray, Orissa under the Mughals, Punthi Pustak.  
5. B.C. Ray, Orissa under the Marathas, Punthi Pustak.
+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  

Reading List:
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.
+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 Zamindary 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
   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, Pipili and Bargarh

Reading List:

Suggested Reading:

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. End Semester Theory : 80 Marks
Credit : 06 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 : Zabti, 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 Thapar, 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. Rizri, Wonder that was India, Vol.II, Rupa
   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 Rebellion (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
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:
2. B.R.Mani, Debrahminising History: Dominance and Resistance in Indian Society, Manohar, New Delhi, First Published 2005.
4. Sumit Sarkar, Modern India (1885-1947), Mac Millan, Delhi, First Published 1983.
MATHEMATICS
+3 FIRST YEAR FIRST SEMESTER
Core Paper - 1
CALCULUS

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 $e^{ax+bsinx}$, $e^{ax+bcosx}$, $(ax+b)^nsinx$, $(ax+b)^ncosx$, concavity and inflection points, asymptotes, curve tracing in Cartesian coordinates, tracing in polar coordinates of standard curves, L'Hospitals 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
\[
\int \sin^n x \, dx, \int \cos^n x \, dx, \int \tan^n x \, dx, \int \sec^n x \, dx, \int (\log x)^n \, dx, \int \sin^n x \cos^n x \, dx,
\]
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 $e^{ax+b}$, $\log(ax + b)$, $\frac{1}{ax + b}$, $\sin(ax + b)$, $\cos(ax + b)$ 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:

BOOKS FOR REFERENCE:

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

Core Paper - 2
DISCRETE MATHEMATICS

Time : 3 Hrs.
Credit : 06

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, Fermat’s 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
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

+3 FIRST YEAR SECOND SEMESTER
Core Paper - 3
REAL ANALYSIS

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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 $\mathbb{R}$, $\varepsilon$-neighborhood of a point in $\mathbb{R}$, Bounded above sets, Bounded below sets, Bounded Sets, Unbounded sets, Suprema and Infima, The Completeness Property of $\mathbb{R}$, The Archimedean Property, Density of Rational (and Irrational) numbers in $\mathbb{R}$., 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-IT

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:

BOOKS FOR REFERENCE:
2. A.Kumar, S. Kumaresan, A basic course in Real Analysis, CRC Press, 2014.
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:

BOOKS FOR REFERENCE:

+3 SECOND YEAR THIRD SEMESTER
Core Paper - 5
THEORY OF REAL FUNCTIONS

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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:

BOOK FOR REFERENCES:
1. A. Kumar, S. Kumaresan, A basic course in Real Analysis, CRC Press, 2014
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.  End Semester Theory : 80 Marks
Credit : 06  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:

BOOK FOR REFERENCES:

+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 Charpif’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

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

UNIT-IV

Core Paper - 7
PRACTICAL

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 for the following associated conditions
    (a) \( u(x,0) = \varphi(x), u_t(x,0) = \Psi(x), x \notin R, t > 0 \)
    (b) \( u(x,0) = \varphi(x), u_t(x,0) = \Psi(x), u(0,t) = 0, x \in (0, \infty), t > 0 \)
    (c) \( u(x,0) = \varphi(x), u_t(x,0) = \Psi(x), u_x(0,t) = 0, x \in (0, \infty), t > 0 \)
    (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) \( u(x,0) = \phi(x), u(0,t) = a, u(1,t) = b, 0 < x < l, t > 0 \)
        (b)
        (c)

BOOKS RECOMMENDED:
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,

+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 8
NUMERICAL METHODS AND SCIENTIFIC COMPUTING
Use of Scientific Calculator is allowed

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

UNIT-II

UNIT-III

UNIT-IV
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 \(1/1 + 1/2 + 1/3 + 1/4 + \ldots + 1/N\).
(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:

BOOK FOR REFERENCES:
2. Kendall E. Atkinson: An Introduction to Numerical Analysis

+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 9
TOPOLOGY OF METRIC SPACES

Time: 3 Hrs.
Credit: 06

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:

BOOK FOR REFERENCES:

+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 10
RING THEORY

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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 ohers 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.
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:

BOOK FOR REFERENCES:

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**+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 to introduce functions of several variable 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 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.
UNIT-II

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

BOOKS RECOMMENDED:
2. S C Mallik and S Arora: Mathematical Analysis, New Age International Publications

BOOK FOR REFERENCES:

+3 THIRD YEAR FIFTH SEMESTER
Core Paper - 12
LINEAR ALGEBRA

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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.
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:

BOOKS FOR REFERENCE:

+3 THIRD YEAR SIXTH SEMESTER
Core Paper - 13
COMPLEX ANALYSIS

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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.
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

BOOKS RECOMMENDED:

BOOKS FOR REFERENCE:

+3 THIRD YEAR SIXTH SEMESTER
Core Paper - 14
GROUP-THEORY-II

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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.
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:

BOOK FOR REFERENCES:

+3 THIRD YEAR FIFTH SEMESTER
DSE - 1
LINEAR PROGRAMMING

Time : 3 Hrs.              End Semester Theory : 80 Marks
Credit : 06               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
UNIT-III

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:

BOOKS FOR REFERENCE:

**+3 THIRD YEAR FIFTH SEMESTER**
**DSE - 2**
**PROBABILITY AND STATISTICS**

<table>
<thead>
<tr>
<th>Time</th>
<th>3 Hrs.</th>
<th>End Semester Theory</th>
<th>80 Marks</th>
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<tbody>
<tr>
<td>Credit</td>
<td>06</td>
<td>Mid Semester Theory</td>
<td>20 Marks</td>
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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:

BOOK FOR REFERENCES:

+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.
UNIT-I

UNIT-II

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

BOOKS RECOMMENDED:

BOOK FOR REFERENCES:

+3 THIRD YEAR SIXTH SEMESTER
DSE - 4
NUMBER THEORY

Time : 3 Hrs.                     End Semester Theory : 80 Marks
Credit : 06                       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
Affine ciphers, Hill ciphers, public key cryptography, RSA encryption and decryption, the equation \( x^2 + y^2 = z^2 \), Fermat’s Last Theorem.

BOOKS RECOMMENDED:

BOOK FOR REFERENCES:

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.
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
   - Certificate
   - Abstract/Synopsis
   - Acknowledgement and/ or Dedication
   - Table of Contents
   - List of Figures, Tables, Illustrations,
     Symbols, etc (wherever applicable)

(ii) Text of Thesis
    - Introduction
    - 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.

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**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.  End Semester Theory : 80 Marks
Credit : 06     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:
BOOK FOR REFERENCES:

+3 FIRST YEAR SECOND SEMESTER
GE - 2
ALGEBRA

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 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.
Syllabus-Arts

BOOKS RECOMMENDED:

BOOKS FOR REFERENCE:

+3 SECOND YEAR THIRD SEMESTER
GE - 3
CALCULUS AND DIFFERENTIAL EQUATIONS

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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

UNIT-II
Review of limits, continuity and differentiability of functions of one variable and their properties, Rollers theorem, Mean value theorems, Taylor’s theorem with Lagrange’s theorem and Cauchy’s form of remainder, Taylor’s series, Maclaurin’s series of \( \sin x, \cos x, e^x, \log(1+x), (1+x)^x \), 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, Taylors theorem and Maclaurin’s theorem for functions of two variables(statements & applications), Maxima and Minima of functions of two and three variables, Implicit functions, Lagranges 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:

BOOKS FOR REFERENCE:

+3 SECOND YEAR FOURTH SEMESTER
GE - 4
ALGEBRA

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 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 Delations. 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:

BOOKS FOR REFERENCE:
3. Ward Cheney, David Kincaid. Linear algebra theory and applications, Jones and Bartlett, 2010
MUSIC

+3 FIRST YEAR FIRST SEMESTER
Core Paper - 1
(SWARA SADHANA & SANGEETA PARICHAYA)

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

UNIT-I
Knowledge about various Alankars. (Suddha & Vikruta)

UNIT-II  Definitions
Nada, Dhwani, Shruti, Swara, Saptaka, Sangeeta, Raga, Thaat, 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.  End Semester Theory : 60 Marks
Credit : 06  Mid Semester Theory : 15 Marks

UNIT-I    Knowledge about following terms
Dhrupad, Dhamar, Khayal, Thumri, Sargamgeet, Lakshyan geet, Bhajan.

(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 Gaykee 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 Salli (odia) by Dr. Chittaranjan Pani.
+3 FIRST YEAR SECOND SEMESTER
Core Paper - 3
(RAGA-TALA PARICHAYA & DHWANI NADA)

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

UNIT-I Detail Knowledge of the followings
Dhwani, 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, Allhaya 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 parichhaya (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.  End Semester Theory : 60 Marks
Credit : 06  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.

UNIT-IV  Essay
          (a) Origin of Music  (b) Evolution of Hindustani Music.

PRACTICAL
Credit : 02  25 Marks

Unit - I  Detail knowledge of the Ragas.
         Kedar, Hameer

Unit - 2  Chhota Khayal Gaykee 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.  End Semester Theory : 60 Marks
Credit : 06  Mid Semester Theory : 15 Marks

UNIT-I
Characterstics of the Ragas with Badakhayal Notation of the Bandish.
Malkauns, Bihag

UNIT-II
Characterstics of the Ragas with Chhotakhayal Notation of the Bandish.
Bibhas, Jaunpuri, Jaijaiwanti.

UNIT-III
Knowledge about Hindustani (NorthIndia) and Carnatic (SouthIndia) paddhati in India.

UNIT-IV
Characterstics of the following Talas with Dugun, Tigun & Chaugun.
Jhamptal, Sooltal, Jhoomra, Tewra.

PRACTICAL
Credit : 02  25 Marks

Unit - I
Detail gaykee of the following Ragas.
Malkauns, Bihag

Unit - 2
Chhotakhayal gaykee of the following Ragas.
Bibhas, Jaunpuri, Jaijaiwanti

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 geners.  
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 compostition in any Raga.  
Chaiti, Ghazal, Folk Song

Unit - 4
Demonstration of the following talas with different laykaries.  
Teental, Ektal, Jhamptal, 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.  End Semester Theory : 60 Marks
Credit : 06  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 - I
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
Characteristics 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 - I
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. Dhrupad/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 - I
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.  End Semester Theory : 60 Marks
Credit : 06  Mid Semester Theory : 15 Marks

UNIT-I
Studie 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, Chhaylorag, Sankirna)

UNIT-II
Tala System in Hindustan & Carnatic Music.

UNIT-III
History of Indian Music Vedic Music, Ramayana, Mahabharata, Medieval Period, Modern age (Pre & Post independence)

UNIT-IV
Knowledge about ancient Jati & Prabandha Gayana.

PRACTICAL
Credit : 02  
25 Marks

Unit - I
Detail gaykee 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.  End Semester Theory : 60 Marks
Credit : 06  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

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 Hansadhwni, 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 gaykee 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. End Semester Theory : 60 Marks
Credit : 06 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. Shamta 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, Thaat, 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  
Unit - I  
Bilambit Bandish of the following Ragas. Kalyan, Bhupali.

Unit - II  
Chhhotakhayal gaykee of the following Ragas.  
Kafi, Durga Khamaj, Bhairab, Brindabani Sarang.
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.
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

Core Course - II (C-2) - Odia

Time: 3 Hrs. Crdit: 6
End Semester Theory: 80 Marks
Mid Semester Theory: 20 Marks
+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

Odia Literature

1st Week / योगिता - 1 : नामांकन वर्षात नैसर्गिक विकास (कबीर, बुद्ध आदि दर्शन तथा आदिग्रन्थ)
2nd Week / योगिता - 2 : नामांकन वर्षात नैसर्गिक विकास (रवि, रामकृष्ण, रामदेव, राम तथा आदि)

ijûdK Mâ^ÚiìPú :
1. नैसर्गिक विवेक कल्पना - नैसर्गिककालमय वर्ष (२०० वर्ष) - जून गणित, कला।
2. कपिल नैसर्गिक विवेक - नैसर्गिककालमय वर्ष, गंगा नीति।
3. कपिल नैसर्गिक विवेक - नैसर्गिककालमय वर्ष, नैसर्गिक विवेक, कला।
4. नैसर्गिक विवेक कल्पना - नैसर्गिककालमय वर्ष, नैसर्गिक विवेक, कला।
5. नैसर्गिक विवेक कल्पना - नैसर्गिककालमय वर्ष, नैसर्गिक विवेक, कला।
6. नैसर्गिक विवेक कल्पना - नैसर्गिककालमय वर्ष, नैसर्गिक विवेक, कला।
7. नैसर्गिक विवेक कल्पना - नैसर्गिककालमय वर्ष, नैसर्गिक विवेक, कला।

1st Week / योगिता - 1 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।
2nd Week / योगिता - 2 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।
3rd Week / योगिता - 3 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।
4th Week / योगिता - 4 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।

1st Week / योगिता - 1 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।
2nd Week / योगिता - 2 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।
3rd Week / योगिता - 3 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।
4th Week / योगिता - 4 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।

1st Week / योगिता - 1 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।
2nd Week / योगिता - 2 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।
3rd Week / योगिता - 3 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।
4th Week / योगिता - 4 : नैसर्गिक विवेक कल्पना नैसर्गिककालमय वर्ष (रवि, रामकृष्ण, रामदेव, राम)।
+3 FIRST YEAR SECOND SEMESTER
Core Course - IV (C-4) - Odia

Time : 3 Hrs.  
Crdit : 6  
End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

ପ୍ରତ୍ୟେକ କୋରେସ୍ଫ୍ରାଙ୍କ୍ - ଓଡିଶା

କର୍ତ୍ତର ପ୍ରତ୍ୟେକ ମୋଧନୀମାଧ୍ୟମ

1. ବାଂଗଳା / ଫୁରିଶ୍କ୍ - ১ : ପ୍ରତ୍ୟେକ କୋରେସ୍ଫ୍ରାଙ୍କ୍ ଓଡିଶା ମାଧ୍ୟମ

2. ବାଂଗଳା / ଫୁରିଶ୍କ୍ - ২ : ପ୍ରତ୍ୟେକ କୋରେସ୍ଫ୍ରାଙ୍କ୍ ଓଡିଶା ମାଧ୍ୟମ

3. ବାଂଗଳା / ଫୁରିଶ୍କ୍ - ৪ : ପ୍ରତ୍ୟେକ କୋରେସ୍ଫ୍ରାଙ୍କ୍ ଓଡିଶା ମାଧ୍ୟମ (ଦରୋବର୍ତ୍ତ, ପାପା, ଭାଷାତ୍ମକ ଓ
ଆଧାରକ୍ରମ)

କର୍ତ୍ତର ପ୍ରତ୍ୟେକ ମାଧ୍ୟମ  

1. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

2. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

3. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

4. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

5. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

6. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

7. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

8. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

9. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

10. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

11. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

12. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

13. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

14. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

15. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.

16. ବାଙ୍ଗଳା / ଫୁରିଶ୍କ୍ - ଟୀବିକା ମାଧ୍ୟମ, ବୁପୁକ ମାଧ୍ୟମ, ଲାଇtn.
+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

1.  

2.  

3.  

4.  

ijûdK Mâ^ÚiìPú :

1.  

2.  

3.  

4.  

+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

1.  

2.  

3.  

4.  

ijûdK Mâ^ÚiìPú :

1.  

2.  

3.  

4.
3. +3 SECOND YEAR THIRD SEMESTER
Core Course - VII (C-7) - Odia

Time : 3 Hrs.  End Semester Theory : 80 Marks
Crdit : 6  Mid Semester Theory : 20 Marks

+3 SECOND YEAR FOURTH SEMESTER
Core Course - VIII (C-8) - Odia

Time : 3 Hrs.  End Semester Theory : 80 Marks
Crdit : 6  Mid Semester Theory : 20 Marks
+3 SECOND YEAR FOURTH SEMESTER
Core Course - IX (C-9) - Odia

Time : 3 Hrs.
Crdit : 6
End Semester Theory : 80 Marks
Mid Semester Theory : 20 Marks

বলিকা চিত (গ্রাম ও হ্রদের)

১ম অধ্যায় / ট্যুটোরিয়াল - ২ : মানাতল গ্রাম ও হ্রদের (সালা, গ্রামসীমা, তলা, তোল, গ্রাম, সালা, তোলার ও সালা)

বলিকা চিত্রণ:

১. চলচ্চিত্র, চলচ্চিত্রী ও চলচ্চিত্রনাট্য - শিক্ষক ও নাট্য, শিক্ষক ও নাট্যনাট্য, শিক্ষক

২. চলচ্চিত্রনাট্য নাট্য - নাট্যনাট্য সয়াল, শিক্ষকনাট্য, শিক্ষক

৩. চলচ্চিত্রনাট্য হ্রদের - ওয়াল ও হ্রদের, চলচ্চিত্র ও হ্রদের, শিক্ষক

৪. চলচ্চিত্রনাট্য সালার - ওয়াল ও হ্রদের, শিক্ষকনাট্য, শিক্ষক

৫. চলচ্চিত্র হ্রদের - ওয়াল ও হ্রদের, শিক্ষকনাট্য, শিক্ষক

৬. চলচ্চিত্রনাট্য গ্রাম - ওয়াল ও হ্রদের, শিক্ষকনাট্য, শিক্ষক

৭. চলচ্চিত্রনাট্য হ্রদের - ওয়াল ও হ্রদের, শিক্ষকনাট্য, শিক্ষক

৮. চলচ্চিত্রনাট্য গ্রামসীমার - ওয়াল ও হ্রদের, শিক্ষকনাট্য, শিক্ষক

৯. চলচ্চিত্রনাট্য হ্রদের - ওয়াল ও হ্রদের, শিক্ষকনাট্য, শিক্ষক

১০. চলচ্চিত্র হ্রদের - ওয়াল ও হ্রদের, শিক্ষকনাট্য, শিক্ষক
+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

ପୂର୍ବଦିଶ୍ଯା ଲଗକୁମାନା ନାମୁରୁ ଆଧୁନିକ
ଜ୍ଞାନ ତାତ୍ୱ

ପ୍ରତି ବଂସ / ସୂଟରିକ - ୧ :  ରାଜନାଥରେ ପରାମେଶ୍ୱର ଏବଂ ମଣିକୁମାର

ପ୍ରତି ବଂସ / ସୂଟରିକ - ୨ :  ରାଜନାଥରେ ରାଜନାଥରେ (ଉଘୁପ୍ତମାତୃକ ଦୃଷ୍ଟିକୋଣ ଉପର୍କ)

ପ୍ରତି ବଂସ / ସୂଟରିକ - ୩ :  ରାଜନାଥରେ ରାଜନାଥରେ (ଉଘୁପ୍ତମାତୃକ ଦୃଷ୍ଟିକୋଣ ଉପର୍କ)

ପ୍ରତି ବଂସ / ସୂଟରିକ - ୪ :  ଆଧୁନିକ ଜୀବନ

ପ୍ରତି ବଂସ / ସୂଟରିକ - ୫ :  ରାଜନାଥରେ ରାଜନାଥରେ (ଉଘୁପ୍ତମାତୃକ ଦୃଷ୍ଟିକୋଣ ଉପର୍କ)

ପ୍ରତି ବଂସ / ସୂଟରିକ - ୬ :  ରାଜନାଥରେ ରାଜନାଥରେ (ଉଘୁପ୍ତମାତୃକ ଦୃଷ୍ଟିକୋଣ ଉପର୍କ)


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+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

ପୂର୍ବଦିଶ୍ଯା ଲଗକୁମାନା ନାମୁରୁ ଆଧୁନିକ
ଜ୍ଞାନ ତାତ୍ୱ

ପ୍ରତି ବଂସ / ସୂଟରିକ - ୧ :  ରାଜନାଥରେ - ରାଜନାଥରେ 

ପ୍ରତି ବଂସ / ସୂଟରିକ - ୨ :  ରାଜନାଥରେ - ରାଜନାଥରେ ରାଜନାଥରେ 

ପ୍ରତି ବଂସ / ସୂଟରିକ - ୩ :  ରାଜନାଥରେ ରାଜନାଥରେ - ରାଜନାଥରେ 

ପ୍ରତି ବଂସ / ସୂଟରିକ - ୪ :  ରାଜନାଥରେ ରାଜନାଥରେ - ରାଜନାଥରେ
+3 THIRD YEAR FIFTH SEMESTER
Core Course - XII (C-12) - Odia

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 6  Mid Semester Theory : 20 Marks

Syllabus - Arts

Course Code : 1

1. Odia Literature: 1 - 100 Marks
2. Odia Literature: 2 - 100 Marks
3. Odia Literature: 3 - 100 Marks
4. Odia Literature: 4 - 100 Marks
5. Odia Literature: 5 - 100 Marks
6. Odia Literature: 6 - 100 Marks

Syllabus for the Course:

1. Odia Literature: 1 - 100 Marks
2. Odia Literature: 2 - 100 Marks
3. Odia Literature: 3 - 100 Marks
4. Odia Literature: 4 - 100 Marks
5. Odia Literature: 5 - 100 Marks
6. Odia Literature: 6 - 100 Marks

Conclusion:

The syllabus for the course includes a detailed list of topics and texts to be covered throughout the semester. The assessment is divided into end semester and mid-semester theories, with corresponding credit and marks allocated for each component. The focus is on delivering a comprehensive understanding of Odia literature, covering various genres and periods to ensure a well-rounded education in the subject.
+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

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+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

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+3 THIRD YEAR FIFTH SEMESTER
DSE - I - Odia

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 6  Mid Semester Theory : 20 Marks

Syllabus

1. धर्मभाषाकोश- वर्तमान समय, प्राचीन समय, कहाँ?
2. साहित्य का भाषाशास्त्र- संस्कृत समय, प्राचीन समय, कहाँ?
3. आधुनिक साहित्य और इतिहासविद्या- साहित्य, साहित्य, कहाँ?
4. साहित्य विज्ञान- साहित्य समय, कहाँ?
5. परीन्यात- साहित्य विज्ञान, कहाँ?
6. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?

Clauses:
1. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?
2. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?
3. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?
4. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?
5. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?
6. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?
7. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?
8. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?
9. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?
10. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?

11. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?

12. साहित्य विज्ञान और इतिहासविद्या- साहित्य, साहित्य, कहाँ?
+3 THIRD YEAR FIFTH SEMESTER  
DSE - II - Odia

Time : 3 Hrs.  
End Semester Theory : 80 Marks  
Crdit : 6  
Mid Semester Theory : 20 Marks

ତରଫର ଶିଶ୍ଷ୍ୟଙ୍କ ଶାଖାର ଓ ରିଖ୍ୟାଉଣିକ ଶିଷ୍ଟକାର ଭାଷାଗତ (ଘାତ)  
ତିତାର ଭାବ

1. তওঁ ঘুঁটି ଶିଶ୍ଷ୍ୟଙ୍କ ଶାଖାର ନିଏକପାକ ଶାଷ୍ଟି, ଶାଷ୍ଟି ଗାରୀର, ଶବ।  
2. তওঁ ଘুঁটି ଶାଷ୍ଟି ଗାରୀର ନିଏକପାକ ଶାଷ୍ଟି, ଶବ।  
3. ତওঁ ଆବିସ୍କାର ନିଏକପାକ ଶାଷ୍ଟି, ଶବ।  
4. ତওঁ ନିଏକପାକ ଶିଶ୍ଷ୍ୟଙ୍କ ଶାଷ୍ଟି, ଶବ।

+3 THIRD YEAR SIXTH SEMESTER  
DSE - III - Odia

Time : 3 Hrs.  
End Semester Theory : 80 Marks  
Crdit : 6  
Mid Semester Theory : 20 Marks

ତରଫର ଶିଶ୍ଷ୍ୟଙ୍କ ଶାଖାର ଭାଷାଗତ (ଘାତ)  
ତିତାର ଭାବ

1. ମଧ୍ୟକ ବାଣିଜ୍ୟ ବାଣିଜ୍ୟ କାଲାକ ଦାଁବାଦ, ଦାଁବାଦ ଶବ, ଦାଁବାଦ ନିଏକପାକ ଶାଷ୍ଟି, ଶବ।  
2. ଦାବାକ କାଲାକ ନିଏକପାକ ଶାଷ୍ଟି, ଶବ।  
3. ନିଏକପାକ ଶିଶ୍ଷ୍ୟଙ୍କ ଶାଖାର ଶାଷ୍ଟି, ଶବ।

4. ନିଏକପାକ ଶିଶ୍ଷ୍ୟଙ୍କ ଶାଖାର ଶାଷ୍ଟି, ଶବ।  
5. ନିଏକପାକ ନିଏକପାକ ଶିଶ୍ଷ୍ୟଙ୍କ ଶାଷ୍ଟି, ଶବ।
+3 THIRD YEAR SIXTH SEMESTER
DSE - IV - Odia

Time: 3 Hrs.  
Credit: 6  
End Semester Theory: 80 Marks  
Mid Semester Theory: 20 Marks

Biju Patnaik University of Technology (BPUT)

THIRD YEAR SIXTH SEMESTER
DSE - IV - Odia

Time: 3 Hrs.  
Credit: 6  
End Semester Theory: 80 Marks  
Mid Semester Theory: 20 Marks

Biju Patnaik University of Technology (BPUT)

THIRD YEAR SIXTH SEMESTER
DSE - IV - Odia

Time: 3 Hrs.  
Credit: 6  
End Semester Theory: 80 Marks  
Mid Semester Theory: 20 Marks

Biju Patnaik University of Technology (BPUT)

THIRD YEAR SIXTH SEMESTER
DSE - IV - Odia

Time: 3 Hrs.  
Credit: 6  
End Semester Theory: 80 Marks  
Mid Semester Theory: 20 Marks

Biju Patnaik University of Technology (BPUT)

THIRD YEAR SIXTH SEMESTER
DSE - IV - Odia

Time: 3 Hrs.  
Credit: 6  
End Semester Theory: 80 Marks  
Mid Semester Theory: 20 Marks

Biju Patnaik University of Technology (BPUT)
+3 SECOND YEAR THIRD SEMESTER
GE - III - Odia

Time : 3 Hrs.  
Crdit : 6  
End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

খলীশ দলিপ যাও  
ললিত, জ্ঞান বক্তা 
প্রথম বছর

০১ বলো / মুখিত - ১ : ললিত, জ্ঞান বক্তা  
০২ বলো / মুখিত - ২ : জ্ঞানজ্ঞ জ্ঞানবক্তা, বক্তা  
০৩ বলো / মুখিত - ৩ : দলিল  
০৪ বলো / মুখিত - ৪ : ভলিহল (ভলিহল, ভলিহল ভলিহল, ভলিহল  

জ্ঞান সংস্কার :  
১. জ্ঞান সংস্কারের প্রথম সালের বক্তা - জ্ঞানবক্তা, জ্ঞানবক্তা 
২. জ্ঞান সংস্কারের দ্বিতীয় সালের বক্তা - জ্ঞানবক্তা, জ্ঞানবক্তা 
৩. জ্ঞান সংস্কারের তৃতীয় সালের বক্তা - জ্ঞানবক্তা, জ্ঞানবক্তা 
৪. জ্ঞান সংস্কারের চতুর্থ সালের বক্তা - জ্ঞানবক্তা, জ্ঞানবক্তা

+3 SECOND YEAR FOURTH SEMESTER
GE - IV - Odia

Time : 3 Hrs.  
Crdit : 6  
End Semester Theory : 80 Marks  
Mid Semester Theory : 20 Marks

খলীশ দলিপ যাও  
অলিঙ্ক চক্রবর্তী 
প্রথম বছর

০১ বলো / মুখিত - ১ : অলিঙ্ক:  
০২ বলো / মুখিত - ২ : অলিঙ্ক:  

du - ললিত, জ্ঞানবক্তা 

du - জ্ঞানজ্ঞ জ্ঞানবক্তা, বক্তা  

০৩ বলো / মুখিত - ৩ : দলিল  
০৪ বলো / মুখিত - ৪ : ভলিহল (ভলিহল, ভলিহল ভলিহল, ভলিহল  

সংস্কার সংস্কারের প্রথম সালের বক্তা - জ্ঞানবক্তা, জ্ঞানবক্তা 
সংস্কারের দ্বিতীয় সালের বক্তা - জ্ঞানবক্তা, জ্ঞানবক্তা 
সংস্কারের তৃতীয় সালের বক্তা - জ্ঞানবক্তা, জ্ঞানবক্তা 
সংস্কারের চতুর্থ সালের বক্তা - জ্ঞানবক্তা, জ্ঞানবক্তা
পাঠ অংশ / পুস্তিকা - ১ :

ঐচ্ছিক অংশ - এই কাঠামো অনুসারে, অভ্যাসকালীন যোগ্যতা লাভের জন্য।

পাঠ অংশ / পুস্তিকা - ২ :

ঐচ্ছিক অংশ - মূল গঠনের প্রথম (প্রথম পর্ব) - এই অংশে যুক্ত কোনো আইন

জন্ম ও অর্জন:

১. অড়ুড়ানী ইন্টারমিডিয়েট, একাডেমি, পদ্মা অর্জন বিষয়ক।

২. ইন্টারমিডিয়েট ডিগ্রী, সক্রিয় কর্মরত, সম্পূর্ণ উপস্থিত, কর্ম।

৩. ইন্টারমিডিয়েট দুটি কাঠামো - এই কাঠামো ইন্টারমিডিয়েট, ইন্টারমিডিয়েট দুটি কাঠামো, কর্ম।

৪. ইন্টারমিডিয়েট নিয়ম, সম্পূর্ণ উপস্থিত, কর্ম।

৫. ইন্টারমিডিয়েট দুটি কাঠামো - এই কাঠামো ইন্টারমিডিয়েট, ইন্টারমিডিয়েট দুটি কাঠামো, কর্ম।

৬. ইন্টারমিডিয়েট দুটি কাঠামো, সম্পূর্ণ উপস্থিত, কর্ম।
PHILOSOPHY

+3 FIRST YEAR FIRST SEMESTER
Core Paper - 1
GENERAL PHILOSOPHY

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  Mid Semester Theory : 20 Marks

Unit-I:

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.  End Semester Theory : 80 Marks
Credit : 06  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:

Prescribed Book:

Reference Book:
2. Alex Rosenberg- Philosophy of Science: A Contemporary Introduction

+3 FIRST YEAR SECOND SEMESTER
Core Paper - 3
SYSTEMS OF INDIAN PHILOSOPHY - I

Time : 3 Hrs.   End Semester Theory : 80 Marks
Credit : 06    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  

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 toSec-4)

Prescribed Books:  
Basson & O’ Corner: Introduction to Symbolic Logic

+3 SECOND YEAR THIRD SEMESTER
Core Paper - 5
ETHICS

Time : 3 Hrs.  
Credit : 06  

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, Reformatory 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
Core Paper - 6
HIStory of GREEK PHILOSOPHY

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:

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

Core Paper - 7
SYSTEMS OF INDIAN PHILOSOPHY (II)

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

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:

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

UNIT- I

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, Est 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. End Semester Theory : 80 Marks
Credit : 06 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. End Semester Theory : 80 Marks
Credit : 06 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.  End Semester Theory: 80 Marks
Credit: 06  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. Raphel- Problems of Political Philosophy  
5. Patitapaban Das- Social and Political Philosophy

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**+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. 
Credit : 06

Unit-I:
Dharma:-Varnadharma, Swabhava, Swadharma- Paradharma

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 &Jnana Yoga), Kshetra, Kshetrajna, Purusottama. Sattvika, Rajasika and Tamasika Jnana

Unit-IV:
Bhakti Yoga:- Four kinds of devotee, Characteristics of Ideal Bhakti- Saranagati & Prapattikrupa(grace); Relation between Bhakti Yoga &Jnana Yoga

Prescribed Books-
The Bhagavad Gita- S. Radhakrishnan (Trs&Ed)

Reference Books-
1. Concept of Yoga in the Gita- S. C. Panigrahi
3. The Lord Speaks (2016)- B. K. Tripathy
4. SrimadBhagabad Gita Bhasya of Sri Sankaracharya- A. G. K. Warrier(Trs)
5. The Ethical Philosophy of Gita- P. N. Srinivasachari

+3 THIRD YEAR FIFTH SEMESTER
DSE - 2
PHILOSOPHY OF RELIGION

Time : 3 Hrs. 
Credit : 06

Unit-I:
Judaic- Christian Concept of God (Chapter-1) Introduction to Philosophy of Religion Grounds for belief in existence of God (Chapter- 2)
**Syllabus-Arts**

**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

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**+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 :**

**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:**

**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.  End Semester Theory : 80 Marks
Credit : 06  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 Dyonsian 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

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 Nobel 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, Vaishesika- 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.          End Semester Theory : 80 Marks
Credit : 06            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.          End Semester Theory : 80 Marks
Credit : 06            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,

Prescribed Book: -
2. Peter Singer- Practical Ethics

Reference Book:
POLITICAL SCIENCE

+3 FIRST YEAR FIRST SEMESTER
Core Paper - 1
UNDERSTANDING POLITICAL THEORY

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’ 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

Further Reading
+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

Reference Books
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 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

Reference Books

+3 FIRST YEAR SECOND SEMESTER
Core Paper - 4
POLITICAL PROCESS IN INDIA

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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

Reference Books
4. P. deSouza and E. Sridharan (eds.) ‘India’s Political Parties’, New Delhi, Sage Publications.

+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
(iii) 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:

Reference Books

+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.

Reference Books
+3 SECOND YEAR THIRD SEMESTER
Core Paper - 7
PERSPECTIVES ON INTERNATIONAL RELATIONS

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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

Reference Books

+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

Reference Books

+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 9
PUBLIC POLICY AND ADMINISTRATION IN INDIA

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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
(ii) 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) Employment: 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

Reference Books
+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 10
GLOBAL POLITICS

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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 transnational 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

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

Reference Books

+3 THIRD YEAR FIFTH SEMESTER
Core Paper - 11
WESTERN POLITICAL PHILOSOPHY

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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 Renissance, 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

Reference Books

+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

Reference Books

+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

UNIT-IV
John Rawls - Theory of Justice, Political liberalism, veil of ignorevance, contribution.
Reading List


Reference Books


+3 THIRD YEAR SIXTH SEMESTER
Core Paper - 14
MODERN INDIAN POLITICAL THOUGHT

Time : 3 Hrs. 
Credit : 06
End Semester Theory : 80 Marks 
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,
Text books:

Reference Books

**+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**
1) Understanding Human Right
2) Three Generations of Rights

**UNIT-II**
Universal Declaration of Human Rights
UNIT-III
Rights in National Constitutions: (i) South Africa (ii) India

UNIT-IV
(i) International Refugee Law (ii) International Humanitarian Law

Text Books
2. Baxi, Upendra (1995) (ed.), 'The Right to be Human', Delhi, Lancer,

Reference Books

+3 THIRD YEAR FIFTH SEMESTER
DSE - 2
DEVELOPMENT PROCESS AND SOCIAL MOVEMENTS IN CONTEMPORARY INDIA
(For Project Work)

Time : 3 Hrs.   End Semester Theory : 80 Marks
Credit : 06     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

Reference Books
+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


Reference Books

+3 THIRD YEAR SIXTH SEMESTER
DSE - 4
WOMEN, POWER AND POLITICS

Time : 3 Hrs.                                  End Semester Theory : 80 Marks
Credit : 06                                   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 (Visible and Invisible)

Text Books.

Reference Books

OR

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

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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**

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<th>Identification of problem</th>
<th>Review of Literature</th>
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**Broad areas identified for Project:**

**+3 FIRST YEAR FIRST SEMESTER**

**GE - 1**

**FEMINISM: THEORY AND PRACTICE**

**Time:** 3 Hrs.  
**Credit:** 6

**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**
(i) Feminist theorizing of the sex/gender distinction; Public Man and Private Woman  
(ii) Understanding Patriarchy and Feminism

**UNIT-II: Theories of Feminism**
(i) Liberal and Socialist,  
(ii) Radical feminism and Eco-feminism

**UNIT-III: Feminist issues and women’s participation: The Indian Experience**
(i) Women’s participation in anti-colonial and national liberation movements with special focus on India  
(ii) 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
6. John, Mary

Reference Books
+3 FIRST YEAR SECOND SEMESTER
GE - 2
GOVERNANCE : ISSUES AND CHALLENGES

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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

Text Books

Reference Books
+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

Reference Books
+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,  
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  

Reference Books
PSYCHOLOGY

+3 FIRST YEAR FIRST SEMESTER
Core Paper - 1
INTRODUCTORY PSYCHOLOGY

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

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:**

**Reference Books:**

+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 postnatal 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 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:

Reference Books:

+3 FIRST YEAR SECOND SEMESTER
Core Paper - 3
BASIC PSYCHOLOGICAL PROCESSES

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

Reference Books:

**+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**

(i) Intelligence- Heredity, environment, and intelligence, Theories of Gardner, Stenberg, & PASS
(ii) Measuring Intelligence: intelligence tests; Interpretation of test score, Cross-cultural issues in testing intelligence

**UNIT-II: Sources of Power (1)**

(i) Personality- Freud’s theory, and Social cognitive theory
(ii) 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:

Reference Books:

+3 SECOND YEAR THIRD SEMESTER
Core Paper - 5
PSYCHOLOGICAL STATISTICS

Time : 3 Hrs. End Semester Theory : 60 Marks
Credit : 04 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.
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:
Syllabus-Arts


Reference Books:

+3 SECOND YEAR THIRD SEMESTER
Core Paper - 6
SOCIAL PSYCHOLOGY

Time : 3 Hrs. End Semester Theory : 60 Marks
Credit : 04 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
UNIT- II: Attitude, Prejudice and Stereotypes
   (i) Attitudes- Nature, characteristics and functions of attitude; Attitude formation and change; Attitude measurement

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  

(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:

Reference Books:
- Developments (ICSSR survey of advances in research). New Delhi: Pearson.
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:

Reference Books:

+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:

Reference Books:
+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 9
EDUCATIONAL PSYCHOLOGY

Time: 3 Hrs.  End Semester Theory: 60 Marks
Credit: 04  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.
  Strength: Practicals in Psychology, DivyaPrakashani, Samantarapur, Bhubaneswar.

Reference Books:

+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.
(ii) **Sense of Humor:** To assess the Sense of Humor of 4 College Students Using McGhee’s Scale of Sense of Humor (MSSH)

Text Books:

Reference Books:

+3 THIRD YEAR FIFTH SEMESTER
Core Paper - 11
ORGANIZATIONAL BEHAVIOR

Time : 3 Hrs.  End Semester Theory : 60 Marks
Credit : 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.
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.
Text Books:

Reference Books:

+3 THIRD YEAR FIFTH SEMESTER
Core Paper - 12
HEALTH PSYCHOLOGY

Time: 3 Hrs. End Semester Theory: 60 Marks
Credit: 04 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 the Coping Strategies of 4 college students by Tobin’s Coping Strategy Inventory (TCSI)

Text Books:
- Brannon and Feist. Health Psychology.

Reference Books:

+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:
Reference Books:

+3 THIRD YEAR SIXTH SEMESTER
Core Paper - 14
POSITIVE PSYCHOLOGY

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

Reference Books:
+3 THIRD YEAR FIFTH SEMESTER
DSE - 1
PSYCHOLOGICAL RESEARCH AND MEASUREMENT

Time: 3 Hrs.  End Semester Theory: 60 Marks
Credit: 04  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, Rorachsch, 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:

### Reference Books:

### +3 THIRD YEAR FIFTH SEMESTER  
DSE - 2  
PSYCHOLOGY AND SOCIAL ISSUES

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

Reference Books:

+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:


Reference Books:


+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**

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+3 FIRST YEAR FIRST SEMESTER
GE - 1
INTRODUCTORY PSYCHOLOGY

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

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:

Reference Books:

+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:

Reference Books:
SANSKRIT

+3 FIRST YEAR FIRST SEMESTER
Core Paper - 1
MORAL TEACHINGS AND BASICS OF SANSKRIT

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  Mid Semester Theory : 20 Marks

1. Hitopodesa Mitralabha (Prastavana, Kathamukha, Brddhavyaghrapathiakakatha, Mrgajambukakatha & Grdhravidalakakatha)
2. Yaksaprasna of Mahabharata (Aranyakaparva, ch.313 from Verses 41 to 133)
3. Sabdarupa & Dhaturupa
   (‘a’ karanta, ‘i’ karanta, ‘i’karanta, ‘u’karanta, ‘ü’ karanta, ‘in’ bhaganta, Mâtru, Pitru, Asmad, Yusmad, Tad (sabdarupas).Lat, Lan, Vidhilin, Lrut, Lot and Litilakaras 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:
2. Mahabharata, Gitapress, Gorakhpur (Prescribed Text)

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 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 reference to Ashvaghosa, Kalidasa, Bharavi, Magha and Sriharsa and Sanskrit Dramas with special reference to Bhasa, Kalidasa, Sudraka, Visakhadatta, Ashvaghosa, Bhattanarayana )
   Unit- IV: One long question or three short notes

Core Readings:

Suggested Readings:
1. Abhijnanasakuntalam (Ed.) R.M. Bose, Modern Book Agency Pvt. Ltd., Bankim Chatterjee Street, Calcutta
3. Abhijnanasakuntalam (Ed.) H.K. Satapathy, Kitab Mahal, Cuttack
+3 FIRST YEAR SECOND SEMESTER
Core Paper - 3
DRAMATURAII 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 - arthaprkruti and Panca- arthopaksepaka
   Unit-IV- Three short notes

Core Readings:
1. **Abhijnanasakuntalam** (Ed.) M.R. Kale, Motilal Banarsidass Publishers Pvt. Ltd., New Delhi-
   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. Samjnaprakaranam 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, Sarvadhatuka, Ardhadhatuka, 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)- Srutabodha
(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:
2. Vyakaranadarpana, The Odisha State Bureau of Text Book Preparation and Production, Bhubaneswar- 2013

Suggested Readings:
2. Siddhanta-kaumudi (Ed.) Minati Mishra, Vidyapuri, Cuttack
3. Siddhanta-kaumudi (Ed.) Dr. Niranjjan Pati, Kalyani Publishers, New Delhi
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  
Group-B- Each unit carries 15 marus

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 ones

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. Samskrta 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  
4. Samskrta Sahityara Itihasa, H.K. Satapathy, Kitab Mahal, Cuttack  
5. Samskrta 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  
Group-B- Each unit carries 15 marus

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 ontes 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 Siddhantakaumudi 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.

+3 SECOND YEAR THIRD SEMESTER
Core Paper - 7
CASES AND CASE ENDINGS IN PANINIAN GRAMMAR & TRANSLATION - I

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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:** (Tritiya) 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:**
2. *Vyakaranadarpana*, The Odisha State Bureau of Text Book Prepara- tion and Production, Bhubaneswar- 2013

**Suggested Readings:**
2. *Siddhanta-kaumudi* (Ed.) Minati Mishra, Vidyapuri, Cuttack

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**+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 marus 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

Suggested Readings:
1. *Kathopanisad* with *Sankarabhasya*, Ed. Dr. Haramohan Mishra, Vidyapuri, Cuttack.
3. *Valmiki Ramayana*, (Crtical Edition), Oriental Institute, Baroda
5. *Shrimad-bhagavad-gita* (Ed.) Gambhirananda, Ramakrishna Mission

+3 SECOND YEAR FOURTH SEMESTER

Core Paper - 9
CASE AND CASE ENDING OF PANINIAN GRAMMAR, TRANSLATION- II & LEXICON

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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
   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:
2. *Vyakaranadarpana*, The Odisha State Bureau of Text Book Preparation and Production, Bhubaneswar- 2013
3. *Amarakosa* with Ramasrami tika, Choukhamba Sanskrit Series office, Varanasi

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**Syllabus-Arts**

Suggested Readings:
2. *Siddhanta-kaumudi* (Ed.) Minati Mishra, Vidyapuri, Cuttack

+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 10
ORNATE PROSE IN CLASSICAL SASNKRT

Time: 3 Hrs.  
Credit: 06

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

1. **Inscriptions**
2. **Dasakumaracaritam (Purvapithika, Dvitiya Ucchvasa)**
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:
3. Selected Sanskrit inscriptions (Ed.) by D.B. Pusalkar, Classical Publisher, New Delhi.

Suggested Readings:
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. **Sisupalabhadham** (Canto-I Verses 01-48)
   - End sem theory - 80 marks
2. **Kiratarjuniyam** (Canto-I)
   - midsem - 20 marks

Group-A: 10 bit questions covering all four units 2x10=20
Group-B: Each unit carries 15 marks 15x4=60

1. **Sisupalabhadham**
   - Unit-I & 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:

Suggested Readings:
1. **Sisupalabhadham** - Canto-I (Ed.), Devanarayan Mishra,(With Sarvankasa-tika of Mallinatha), Sahitya Bhandar, Meerut
2. **Kiratarjuniyam** (Canto- I) (Ed.) Niranjan Pati,Vidyapuri, Cuttack.
3. **Sisupalabhadham** – H.K. Satpathy, Kitab Mahal, Cuttack

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+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**  
   - End sem theory - 80 marks
2. **Vedic Grammar**  
   - mid sem - 20 marks
3. **History of Vedic Literature**

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 uttamasaya, Aia ai, Vaito’nyatra, Hr-grahor bhaschandasi, Chandasi ubhayatha, Tumarthe se-sen-ase-ase- kase-kasen-adhyai-adhyain- kadhyai-kadhyain- shadhyai-shadhyain-tavai-taven-tavenah, Va chandasi, Ses chandasi bahulam, Prakrya’ntapadam avyapare, Nipatasya ca, Supam suluk purva-savamac che-ya-da-dya- yajalah, Idanto masi, Ajjaserasuk, Dirghadati sanamapade

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:
2. Vaidika Sahitya aur Samskriti, Baladeva Upadhyaya, Chaukhamba, Varanasi

Suggested Readings:
1. Vaidika sahitya o Samskriti, A.C. Das, Grantha Mandira, Cuttack
4. Vaidika sahitya ki Ruparekha, Umashankar Sharma Rsi, Chawkamba Vidyaprakashan, Varanasi
5. Vaidika Sahitya O Samskriti, Bholanath Rout, Chitrotpala Publication, Salipur

+3 THIRD YEAR SIXTH SEMESTER
Core Paper - 13
AYURVEDA & VRKSAAYURVEDA

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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 jvitiyadhyaya) (Verses from 51 upto the end)
2. Vrksayurveda (Vrksayurvedadhyaya of Brhatsamhita)

1. Ayurveda
Unit I, II & III - (Carakasamhita, Sutrasthana, dhirgham jvitiyadhyaya)
Unit I & II- Two long questions
Unit III- Three short questions
2. **Vrksayurveda**  
**Unit-IV:** Vrksayurvedadhaya of Brhatsamhita (one long question & Three short questions)

**Core Readings:**
1. *Carakasamhita, Brahmananda Tripathy, Chaukhamba Surabharati Prakasan, Varanasi.*  
2. *Brhatsamhita of Barahamihira, Ed. Sudhakar Dwivedi, Sampurnanda Sanskrita Viswavidyalaya, Varanasi*

**Suggested Readings:**
2. *Ayurved ka Brhat Itithas*, Atridev Vidyalankar, Chowkhamba, Delhi  
3. *Carakachintanam*, Priyabrata Sharma, Chowkhamba, Delhi  

**+3 THIRD YEAR SIXTH SEMESTER**  
**Core Paper - 14**  
**TECHNICAL LITERATURE IN SANSKRIT (JYOTISA & VASTU)**

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

**Core Readings:**
1. *Jyotihsara-ratnavali, Chap I* (Ed.) Pandit Baikoli Mahapatra, Radhakrishna Pustakalaya, Satyanarayan Temple Road, Berhampur, Ganjam, Odisha  
2. *Vasturatnakara* (Ed.) Vindhyeshwari 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
5. *Rajaballavam Vastusatram*, Ed. Dr S Srikrishna Jugnu, Parimal Publication, Delhi, 2005

**+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)**

2. **Dharmasastra**

   *Yajnavalkyasruti (Vyavahārādhyāya verses 1-65)*

   Group-A-10 bit questions covering all four units 2x10=20

   Group-B- Each unit carries 15 marks 15x4=60

   **End sem theory - 80 marks**

   **Mid sem - 20 marks**

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 – *Yajnavalkyasruti* (Vyavahārādhyāya verses 1-65)

   Unit-III- Short question three

   Unit-IV- Translation of two verse

**Core Readings:**


2. *Yājñavalkyasruti* (Vyavahārādhyāya), (Ed.) Kishore Chandra Mahapatra, Jageswarilane, Balighat, Puri

**Suggested Readings:**


3. *Arthashastra* (Odia Trans.) Anantarma Kar, Odisha Sahitya Academy, Bhubaneswar


+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 CānakyanitidarpaGa) End sem theory - 80 marks
2. Nitisataka of Bharthari (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 Chanakyaniti darpaGa
   Unit-I- Two verse to be explained
   Unit-II- Three short questions

2. Nitisataka
   Unit-III, IV & V (Verses 1-50)
   Unit-III- Two short questions
   Unit-IV- Two Explanations

Core Readings:
1. CānakyanitidarpaGa (Ed.) Gunjeswar Choudhury, Choukhamba SurabharatiPrakashan, Varanasi
2. Nitisataka (Ed.) M.R. Kale, MLBD, New Delhi (Text)

Suggested Readings:
1. Sampurna Canakyaniti (Ed.), Dr. N.S. Mishra, A.K. Mishra Agencies, Cuttack
2. Nitisataka (Ed.) Naresh Jha, Choukhamba Prakashan, New Delhi

+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 Transliteretion
   i. Proof Correction of two wrongly printed Sanskrit Verses from the Prescribed text are to be 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, Chawkhambha Publication, Banaras

Suggested Readings:
1. Brht Anuvada Shiksa, Chakradhara Hansa Nautiyal, MLBD, New Delhi
2. Samskrta- nibhandhasarsh, Rammurti Sharma, Sahitya Niketan, Kanpur

Discipline Specific Elective Paper-IV INDIAN PHILOSOPHY: GENERAL IDEAS

1. Astika
2. Nastika

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 & Baudhha Yadrcchavada 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.
4. Outlines of Indian Philosophy, M. Hiriyan, MLBD, New Delhi.

+3 THIRD YEAR SIXTH SEMESTER DSE - 4
PREPARATION AND PRESENTATION OF PROJECT

Time : 3 Hrs. End Semester Theory : 50 Marks
Credit : 04 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.  End Semester Theory : 50 Marks
Credit : 04  Mid Semester Theory : 20 Marks

1. Hitopodesa Mitralabha (Prastavana, Kathámukha, Brddhavyaghraphikakatha, Mrgajambukakatha & Grudhravidalakatha)
2. Yaksaprasna of Mahabharata (Aranyakaparva, ch.313 from Verses no. 41 to 133)
3. Sabdarupa & Dhaturupa

( ‘a’ karanta, ‘i’ karanta, ‘u’karanta, ‘û’ karanta, ‘in’ bhaganta, Måtru, Pitru, Asmad, Yusmad, Tad (sabdarupas).Lat, Lan, Vidhilin, Lrut, Lot and Lltakaras 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:
2. Mahabharata, Gitapress, Gorakhpur (Prescribed Text)

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 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
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:

Reference Readings:

+3 FIRST YEAR FIRST SEMESTER
Core Paper - 2
INTRODUCTION TO SOCIOLOGY-II

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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
Syllabus-Arts

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:

Reference Readings:
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. End Semester Theory : 80 Marks
Credit : 06 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.
  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:

Reference Readings:
  4. Ram Ahuja, Indian Social System, Rawat Publications, 1993
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
Suggested Text Book:

Reference Readings:

+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:

Essential reading
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

Reference Readings:

+3 SECOND YEAR THIRD SEMESTER
Core Paper - 7
SOCIOLOGY OF GENDER

Time: 3 Hrs. End Semester Theory: 80 Marks
Credit: 06 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.
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:
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:

Reference Readings:
4. Ahuja, Ram Rural Sociology, Popular Prakashan Ltd; New edition 2011

+3 SECOND YEAR FOURTH SEMESTER
Core Paper - 9
GLOBALISATION & SOCIETY

Time: 3 Hrs. End Semester Theory: 80 Marks
Credit: 06 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:  

Reference Readings:  
4. Jha, Avinash, Background to Globalisation, Centre for education and documentation. Mumbai, 2000  

+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.
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:

Essential Readings:
   1. Maya Majumdar, Maya Marriage, Family & Kinship, Wisdom Press (ISBN), (CBCS), 2005
   3 Karve, Irawati Kinship Organisation in India, Poona, Deccan college, 1953
   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.                      End Semester Theory : 80 Marks
Credit : 06                        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
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 attending 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:
Reference Readings:
3. Young, P.V. Scientific Social Survey and Research, Prentice Hall, New Delhi, (Ref.Book) 1939

+3 THIRD YEAR FIFTH SEMESTER
Core Paper - 12
SOCIAL MOVEMENTS IN INDIA

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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
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:
  4. Dhanagare D. N. Peasants Movements in India, Oxford University Press, 1983

+3 THIRD YEAR SIXTH SEMESTER
Core Paper - 13
POPULATION & SOCIETY

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  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.
• 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:

Reference Readings:
  1. S.N. Agarwal, Population studies with Special Reference to India, New Delhi: LokSurjeetPublication, 1989
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, Reformatory)

Unit-4: Social Problems:
4.1 Alcholism,
4.2 Terrorism
4.3 Human Trafficking
4.4 Drug Addiction

Suggested Text Book

Reference Readings:
2. Ahuja, Ram Social Problems in India, Rawat, 2014
4. Ahuja, Ram Criminology, Rawat, 2001

+3 THIRD YEAR FIFTH SEMESTER
DSE - 1
SOCIOLOGY OF HEALTH

Time: 3 Hrs.  End Semester Theory: 80 Marks
Credit: 06  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:

Reference Readings:
4. Prasad, Purendra and Amar Jesani edt. Equity and Access Health Care Studies, Oxford University Press, 2018

+3 THIRD YEAR FIFTH SEMESTER
DSE - 2
SOCIOLOGY OF EDUCATION

Time : 3 Hrs. End Semester Theory : 80 Marks
Credit : 06 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
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.
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:

Essential Readings
7. Ramachandran, R Urbanization and Urban system in India, Oxford Univ. Press, New Delhi, 1989
**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
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

Reference Readings:
  5. Munshi, Indra The Adivasi Question, Orient Blackswan Private Limited,2018

+3 SECOND YEAR THIRD SEMESTER
GE - 3
INTRODUCTION TO SOCIOLOGY

Time : 3 Hrs.  End Semester Theory : 80 Marks
Credit : 06  Mid Sem 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 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:

Reference Readings:
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.
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:

Reference Readings:
4. Ram Ahuja, Indian Social System, Rawat Publications, 1993
7. The developmental stages of 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
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

Suggested Text Book:
   2. Labour Laws in India, ebook, 2012

Reference Readings:
   2. Davis, Keith, 1984 Human Behaviour at work, New Delhi, Mcgraw Hill, 1984
   3. Ramaswamy, E.A. Industrial Relations in India, Delhi, MacMillan, 1978
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

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:

SUGGESTED READINGS:
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:

SUGGESTED READINGS:
5. Advanced Differential Equations by Md Raisinghania, 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
5. Applications of matrices.

UNIT-I

Limit laws: 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 Limit Theorem (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 by classical 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


UNIT-II

Random variables: discrete and continuous random variables, p.m.f., p.d.f. and c.d.f., illustrations and 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:

SUGGESTED READINGS:

+3 FIRST YEAR SECOND SEMESTER
Core Paper - 4

CALCULUS
Time : 3 Hrs. End Semester Theory : 60 Marks
Credit : 04 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

UNIT-III
Differential Equations: Exact differential equations, Integrating factors, change of variables, Total differential equations, Differential equations of first order and first degree, Differential
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

TEXT BOOKS:

SUGGESTED READINGS:

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 ÷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 ÷2 distribution. Tests of significance and confidence intervals based on ÷2 distribution.

UNIT-IV
Exact sampling distributions: Student’s and Fisherst-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 ÷2 distributions. Test of significance and confidence Intervals based on t and F distributions.
TEXT BOOKS:

SUGGESTED READINGS:

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 off it.
8. Testing based on 2 X 2 contingency table without and with Yates’ corrections.

+3 SECOND YEAR THIRD SEMESTER
Core Paper - 6
SURVEY SAMPLING & INDIAN OFFICIAL STATISTICS
Time : 3 Hrs.  End Semester Theory : 60 Marks
Credit : 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 inprecision. Systematic Sampling: Technique, estimates of population mean and total, variances of these estimates (N=nxk). 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:

SUGGESTED READINGS:

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.
+3 SECOND YEAR THIRD SEMESTER
Core Paper - 7
MATHEMATICAL ANALYSIS

Time : 3 Hrs.
Credit : 04

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 sand limit points, Superimum and infimum, open and closed sets, sequences and their convergence. Infinite series, positive termed 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 bounded ness 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

UNIT-IV
Numerical integration. Trapezoidal rule, Simpson’s one-third rule, three-eights rule, Weddle’s rule with error terms. Stirling’s approximation to factorial n. Solution of difference equations of first order.

TEXT BOOKS:

SUGGESTED READINGS:
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

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 á, â, 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:

SUGGESTED READINGS:

**PRACTICAL**

<table>
<thead>
<tr>
<th>Credit: 02</th>
<th>25 Marks</th>
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</table>
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**

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<tr>
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<tr>
<td>Credit: 04</td>
<td>Mid Semester Theory: 15 Marks</td>
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</tbody>
</table>

**UNIT-I**


**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:**


**SUGGESTED READINGS:**


PRACTICAL
Credit: 02  25 Marks

1. Estimability when X is a full rank matrix and not a full rank matrix
2. Simple Linear Regression
3. Multiple Regression
4. Tests for Linear Hypothesis
5. Orthogonal Polynomials
6. Analysis of Variance of a one way classified data
7. Analysis of Variance of a two way classified data with one observation per cell
8. 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

UNIT-II

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

TEXT BOOKS:
SUGGESTED READINGS:

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

UNIT-I

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:
SUGGESTED READINGS:

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, Saving Your Work in R, Working with objects: Manipulating objects, Viewing Objects, Constructing data objects, Different forms of Data Objects. Descriptive Statistics and Tabulation.

TEXT BOOKS:
2. Gardener, M. Beginning R: The Statistical Programming Language, Wiley India

SUGGESTED READINGS:

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 Marks
Credit: 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, 22, 23… 2n and 32 factorial experiments, design and its analysis and applications.
UNIT-IV
Total and Partial confounding for $2n$ (nd"5), 32 and 33. Factorial experiments in a single replicate. Advantages and disadvantages. Balanced Incomplete Block Design (BIBD)-- parameters, relationships among its parameters.

TEXT BOOKS:

SUGGESTED READINGS:

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 22 and 23 factorial in CRD and RBD
7. Analysis of a completely confounded two level factorial design in 2blocks
8. Analysis of a completely confounded two level factorial design in 4blocks
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

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 Utest, Kruskal-Wallis test.

TEXT BOOKS:

SUGGESTED READINGS:

PRACTICAL
Credit : 02

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. End Semester Theory : 60 Marks
Credit : 04 Mid Semester Theory : 15 Marks

UNIT-I
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:

SUGGESTED READINGS:

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

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, fittinga various mathematical curve, and growth curves.

Time : 3 Hrs.
Credit : 04
End Semester Theory : 60 Marks
Mid Semester Theory : 15 Marks
UNIT-II

UNIT-III

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:

SUGGESTED READINGS:

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
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 Life Tables.

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:

SUGGESTED READINGS:

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 hands-on 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.  
End Semester Theory : 50 Marks
Credit : 04  
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

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:

SUGGESTED READINGS:

+3 FIRST YEAR FIRST SEMESTER
GE - 1
STATISTICAL METHODS

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

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:

SUGGESTED READINGS:
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

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:

SUGGESTED READINGS:
PRACTICAL

Credit : 02  25 Marks

1. Fitting of binomial distributions for n and p = q = ½ 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:

SUGGESTED READINGS:

**PRACTICAL**

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<thead>
<tr>
<th>Credit</th>
<th>02</th>
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<tbody>
<tr>
<td>1.</td>
<td>Tests of hypotheses for the parameters of a normal distribution (one sample and two sample problems).</td>
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<td>2.</td>
<td>Chi-square tests of association.</td>
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<td>3.</td>
<td>Chi-square test of goodness-of-fit.</td>
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<td>4.</td>
<td>Test for correlation coefficient.</td>
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<td>5.</td>
<td>Sign test for median.</td>
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<td>7.</td>
<td>Analysis of Variance of a one way classified data</td>
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<td>8.</td>
<td>Analysis of Variance of a two way classified data.</td>
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<td>9.</td>
<td>Analysis of aCRD.</td>
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<td>10.</td>
<td>Analysis of anRBD.</td>
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**+3 SECOND YEAR FOURTH SEMESTER**

**GE - 4**

**APPLIED STATISTICS**

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<tr>
<td>Credit</td>
<td>04</td>
<td>Mid Semester Theory</td>
<td>15 Marks</td>
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</table>

**UNIT-I**


**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**


**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
(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:**

**SUGGESTED READINGS:**

**PRACTICAL**

Credit : 02  
Mark: 25

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.
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