PONDICHERRY UNIVERSITY  
PUDUCHERRY 605 014

B.Sc(BRANCH VIII) GEOGRAPHY

REGULATIONS

**Aim of the Course:**
The Degree of Bachelor of Science in Geography aims to introduce the students to advances in Geography. At the end of the course, the students are expected to have good working knowledge in the subject of Geography and mapping skills.

**Eligibility for Admission:**
Candidates for admission to B.Sc Geography shall be required to have passed Higher Secondary Examination conducted by the Government of Tamil Nadu with Geography as one of the subjects of study or an examination accepted as equivalent thereto, subject to such conditions as may be prescribed therefore.

**Duration of the Course:**
The Course shall be of three years duration spread over six semesters. The maximum duration to complete the course shall be 5 years.

**Eligibility for admission to Examination:**
75 per cent with 15% condonation (i.e., % of attendance required prescribed if any).

**Medium:**
The medium of instruction shall be English and Hindi.

**Passing Minimum:**
Passing eligibility & classification for the award of the Degree is as follows:

40 percent in each of the prescribed papers.
### PONDICHERRY UNIVERSITY

**B.Sc(BRANCH VIII) GEOGRAPHY MAIN**

*(Revised Syllabus and Scheme of Papers/Examinations (Semesters I to VI) (For the candidates admitted from the academic year 2009-10))*

<table>
<thead>
<tr>
<th>Semester</th>
<th>Paper I</th>
<th>Paper II</th>
<th>Exam Hours</th>
<th>Marks</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Geography of Natural Resources</td>
<td>Geography of Human Resources</td>
<td>3</td>
<td>100</td>
<td>MT1</td>
</tr>
<tr>
<td></td>
<td>Thematic Mapping</td>
<td>Thematic Mapping</td>
<td>3</td>
<td>75</td>
<td>MP1</td>
</tr>
<tr>
<td>II</td>
<td>Geography of Resource Utilization</td>
<td>Geography of Industries</td>
<td>3</td>
<td>100</td>
<td>MT2</td>
</tr>
<tr>
<td></td>
<td>Surveying I</td>
<td>Surveying I</td>
<td>3</td>
<td>75</td>
<td>MP2</td>
</tr>
<tr>
<td>III</td>
<td>Natural and Human Resources of Asia</td>
<td>Natural and Human Resources of India</td>
<td>3</td>
<td>100</td>
<td>MT3</td>
</tr>
<tr>
<td></td>
<td>Thematic Mapping and Interpretations</td>
<td>Thematic Mapping</td>
<td>3</td>
<td>75</td>
<td>MP3</td>
</tr>
<tr>
<td>IV</td>
<td>Economic Geography of Asia</td>
<td>Economic Geography of India</td>
<td>3</td>
<td>100</td>
<td>MT5</td>
</tr>
<tr>
<td></td>
<td>Surveying II</td>
<td>Surveying II</td>
<td>3</td>
<td>75</td>
<td>MP4</td>
</tr>
<tr>
<td>V</td>
<td>Basics of Geoscience</td>
<td>Climatology</td>
<td>3</td>
<td>100</td>
<td>MT6</td>
</tr>
<tr>
<td></td>
<td>Geographic Thought</td>
<td>Human Geography</td>
<td>3</td>
<td>100</td>
<td>MT7</td>
</tr>
<tr>
<td></td>
<td>Agricultural Geography</td>
<td>Agricultural Geography</td>
<td>3</td>
<td>100</td>
<td>MT8</td>
</tr>
<tr>
<td></td>
<td>Mapping Terrain and Climatic Data</td>
<td>Map Projections</td>
<td>3</td>
<td>75</td>
<td>MP5</td>
</tr>
<tr>
<td>VI</td>
<td>Geomorphology</td>
<td>Methods in Geography</td>
<td>3</td>
<td>100</td>
<td>MT9</td>
</tr>
<tr>
<td></td>
<td>Oceanography</td>
<td>Political Geography</td>
<td>3</td>
<td>100</td>
<td>MT10</td>
</tr>
<tr>
<td></td>
<td>Environmental Studies</td>
<td>Political Geography</td>
<td>3</td>
<td>100</td>
<td>MT11</td>
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<tr>
<td></td>
<td>Map Projections</td>
<td>Environmental Studies</td>
<td>3</td>
<td>75</td>
<td>MP6</td>
</tr>
</tbody>
</table>

**NOTE**

1. Practical examinations will be held at the end of even semesters.

2. The practical marks of 75 include 50 marks for the practical work in the Practical Examination and 25 marks for the Record which includes 15 marks for the Record and 10 marks for the viva.

3. There is no change in the pattern of question paper in the case of theory papers. Section A will contain **FIVE** questions out of which the candidates have to answer (not exceeding 1000 words) **THREE** questions (3X20=60 marks). Section B will contain **TWELVE** questions out of which the candidates have to answer (not exceeding 100 words) **TEN** questions (10X4=40 marks).

4. The question papers for the Practical papers will be set by the Practical Examiners concerned. There will be no Question Bank.
B.Sc (BRANCH VIII) GEOGRAPHY MAIN
SEMESTER I

PAPER I: GEOGRAPHY OF NATURAL RESOURCES


3. Distribution, utility and conservation of water resources.

4. Biodiversity. Types of forests and their uses. Fishery resources. Livestock resources.

5. Distribution, production and problems of conservation of major mineral and energy resources: Iron ore, copper ore, manganese ore, tin ore and bauxite ore, coal, petroleum and natural gas.

REFERENCES
PAPER II: GEOGRAPHY OF HUMAN RESOURCES


3. Age and sex structure, literacy, occupational structure, birth and death rate. Religion and race. Rural and urban population.


5. Population and resource relationship. Future resources. The dilemma of limited reserves of resources and increasing population and utilization of resources. Human resource regions of the world.

REFERENCES

PRACTICAL I: THEMATIC MAPPING


2. Cartographic symbols: Point symbols (Dots, circles and spheres). Line symbols (Isopleths and flowlines). Area symbols (Choropleth). Qualitative and quantitative symbols. Line graphs and bar graphs. (atleast one exercise for each).


4. Representation of Transport Data: Traffic and commodity flows.

NOTE: Representation of the above data has to be done employing suitable methods and cartographic symbols.

REFERENCES
SEMMESTER II

PAPER III: GEOGRAPHY OF RESOURCE UTILIZATION


2. Natural and human determinants, distribution, production and consumption of cereal crops: Rice, wheat, corn, barley, millets and pulses.

3. Natural and human determinants, distribution, production, and consumption of non-cereal crops: Cotton, jute, sugarcane, sugarbeet, tea, coffee and rubber.

4. Livestock: Distribution, production and consumption of livestock products.

5. Internal and international trade of the above agricultural products.

REFERENCES

PAPER IV: GEOGRAPHY OF INDUSTRIES

1. Meaning and types of industries. Factors influencing the location of industries. Industrial development and environmental pollution.

2. Distribution and production of industries: Iron and steel, aluminium, sugar, cement and chemical industries.

3. Distribution and production of industries: Automobile, ship building, aircraft and paper industries.

4. Distribution and production of industries: Dairy and forest-based industries. Internal and international trade of the above products.

5. Major industrial regions of the world: Industrial regions of U.S.A., Russia, Europe and India.

REFERENCES
PRACTICAL II: SURVEYING I

1. Surveying: Meaning, history, types and principles.

2. Chain and tape surveying: Open and closed traverses

3. Prismatic compass surveying:
   i. Open traverse radiation method
   ii. Open traverse intersection method
   iii. Closed traverse radiation method
   iv. Closed traverse intersection method
   v. Bowditch method of closing error

4. Indian Clinometer: Finding out the height of accessible and inaccessible points.

REFERENCES
SEMESTER III

PAPER V: NATURAL AND HUMAN RESOURCES OF ASIA

1. Asia in the context of the world. Relief, climate, soils and natural vegetation.


4. Power resources: Coal, petroleum and natural gas. Hydrothermal and atomic power.


REFERENCES

PAPER VI: NATURAL AND HUMAN RESOURCES OF INDIA

1. India in the context of the world and Asia. Relief, climate, drainage, soil and natural vegetation. Marine resources.


REFERENCES
PRACTICAL III: THEMATIC MAPPING AND INTERPRETATIONS

1. Representation of population data: Distribution, density, growth, age and sex structure and sex ratio.


4. Map Interpretation: Conventional signs and symbols used in the Indian Topographical maps. Marginal Information. Study and interpretation of Indian Topographical maps of hilly, plain, desert and coastal areas.

NOTE: Representation of the above data has to be done employing suitable methods and cartographic symbols.

REFERENCES
SEMESTER IV

PAPER VII: ECONOMIC GEOGRAPHY OF ASIA


2. Area and production of crops: Rice, wheat, maize and millets. Oil seeds (Mustard, castor, groundnut and palm oil).

3. Area and production of crops: Sugarcane, cotton, tea, coffee and rubber.


REFERENCES

PAPER VIII: ECONOMIC GEOGRAPHY OF INDIA


2. Area and production of crops: Rice, wheat, jowar, maize and bajra. Oilseeds (Mustard, castor and groundnut).

3. Area and production of crops: Sugarcane, cotton, jute, tea, coffee and rubber.


REFERENCES
PRACTICAL IV: SURVEYING II

1. Plane Table Surveying:
   a. Open traverse radiation method
   b. Open traverse intersection method
   c. Closed traverse radiation method
   d. Closed traverse intersection method
   e. Resection method: Mechanical method (Tracing paper method) and Graphical method (Llano’s method and Bessele’s method)

2. Dumpy Level Surveying: Levelling.

REFERENCES
SEMESTER V

PAPER IX: BASICS OF GEOSCIENCE


5. Weathering and Mass Wasting: Definition, causes and significance.

REFERENCES

PAPER X: CLIMATOLOGY


REFERENCES
PAPER XI: GEOGRAPHIC THOUGHT


3. Brief study of Schools of Geography: German, French, British, American, Arabic and Russian.


REFERENCES
PAPER XII: HUMAN GEOGRAPHY


2. Evolution of Man. Races of mankind: Types, characteristics and distribution.

3. Modes of life of selected primitive societies: Eskimos, Pygmies, Bushmen, Khirghiz and Masai (House types, dress, food habits and rhythm of life).


REFERENCES
PAPER XIII: AGRICULTURAL GEOGRAPHY


2. Determinants of agricultural land use: Physical, economic, social, behavioural and technological determinants.


4. Von Thunen’s Theory of Agricultural location and its recent modifications. Types and systems of agriculture. Whittlesey’s classification of agricultural systems.


REFERENCES
PRACTICAL V: MAPPING TERRAIN AND CLIMATIC DATA


2. Contour Diagrams: Representation of various landforms using contours.

3. Construction of climatic diagrams: Climatic graph, climograph, hythergraph, climatograph and ergograph.


FIELD TRIP : To places of geographical importance.

REFERENCES
SEMESTER VI

PAPER XIV: GEOMORPHOLOGY


3. Work and landforms associated with aeolian process.


REFERENCES

PAPER XV: OCEANOGRAPHY


2. Major relief features of the Atlantic, Pacific and Indian ocean floor.


REFERENCES
PAPER XVI: METHODS IN GEOGRAPHY

1. Methods and approaches in Geography: Systematic, regional, systems, empirical/inductive and theoretical/deductive.

2. Role of Field work in geography. Scale of study. Scale of measurement. Types and sources of data: Primary and Secondary data. Sampling methods: Random, systematic, stratified, purposive, point, line and area sampling.


REFERENCES
PAPER XVII: POLITICAL GEOGRAPHY


3. Role of physical elements in Geopolitics (Location, shape, size, relief and climate). Role of demographic, economic and socio-cultural elements in geopolitics (Foodstuff, power resources, strategic minerals, population, language and religion).


5. Geographic interpretation of Geopolitical affairs: Palestine, Gulf Region, Tibet and Indo-Pak, SAARC and ASEAN. River water Disputes: Indus, Yamuna, Ganges, Cauvery and Godavary.

REFERENCES
Objectives: 1. To know about the environment
2. To understand the surrounding
3. To know about biotic interaction

45 Lecture Hours  Maximum: 100 marks


Renewable and nonrenewable resources:
  a. Forest resources: Use and overexploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
  b. Water resources: Use and over utilization of surface and ground water. Floods and drought, conflicts over water, dams- benefits and problems.
  c. Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources. Case studies.
  d. Food resources: World food problems, changes caused by agriculture and over-grazing, effects of modern agriculture, fertilizer- pesticide problems, waterlogging, salinity. Case studies.
  e. Energy resources: Growing energy needs. Renewable and nonrenewable energy resources. Uses of alternative energy sources. Case studies.
  f. Land resources: Land as a resource. Land degradation. Man induced landslides. Soil erosion and desertification. Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles. (10 Hours)

2. Ecosystems: Concept of an ecosystem. Structure and function of an ecosystem. Producers, consumers and decomposers. Energy flow in the ecosystem. Ecological succession. Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following ecosystems:
   a. Forest ecosystem
   b. Grassland ecosystem
   c. Desert ecosystem
   d. Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries) (6 hours)

4. **Environmental pollution**: Definition, causes effects and control measures of:
   e. Noise pollution  f. Thermal pollution and  g. Nuclear pollution

Solid waste management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution.
Pollution case studies. Disaster management: floods, earthquake, cyclone and landslides. **(8 hours)**


**Text Books:**

**Suggested Books:**
Field Work (5 hours)

- Visit to a local area to document environmental assets: river/forest/grassland/hill/mountain
- Visit to a local polluted site: Urban/Rural/Industrial/Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems: pond, river, hill slopes, etc
PRACTICAL VI: MAP PROJECTIONS


3. Construction, properties, merits, demerits and uses of Zenithal Projections: Gnomonic, Stereographic, Orthographic, Equidistant and Equal Area Projection.


REFERENCES