# Curriculum and Credit Framework
# For the
# Four Year Under Graduate Programme (FYUGP)
# As per provisions of NEP-2020
# Vinoba Bhave University, Hazaribag

Subject: **Geography**

To be implemented from the Academic Year **2022-23**

(From session 2022-26)

# BOCS for the Four Year Under Graduate Programme (FYUGP) under NEP-2020

## *SUBJECT - GEOGRAPHY*

## List of Subject Expert

**External Expert-**

1. Dr. Sarvottam Kumar, Associate Professor, HOD, Deptt. Of Geography and Dean of Social Sciences, DSPM University, Ranchi.

**Internal Expert-**

**Chairman**

1. Dr. Saroj Kumar Singh, Associate Professor, HOD, Deptt. Of Geography, VBU, Hazaribag

**Members**

1. Dr. P.K. Singh, Assistant Professor, HOD, Deptt. Of Geography, MCC, Hazaribag

2. Prof. Amit Soren, Assistant Professor, HOD, Deptt. Of Geography, Dept. of Geography, St.C.C. Hazaribag.

3. Dr. S.P. Pandey, Assistant Professor, HOD, Deptt. Of Geography, Jubilee College, Bhurkunda.

4. Dr. Pant Prakash Mehta, Assistant Professor, Deptt. Of Geography, St. Columba's College, Hazaribag.

## HIGHLIGHTS OF REGULATIONS OF FYUGP

### Credits of courses

The term 'credit' refers to the weightage given to a course, usually in terms of the number of instructional hours per week assigned to it. The workload relating to a course is measured in terms of credit hours. It determines the number of hours of instruction required per week over the duration of a semester (minimum 15 weeks).

a) One hour of teaching/ lecture or two hours of laboratory /practical work will be assigned per class/interaction.
   **One credit for Theory** = 15 Hours of Teaching i.e., 15 Credit Hours
   **One credit for Practical** = 30 Hours of Practical work i.e., 30 Credit Hours

b) For credit determination, instruction is divided into three major components:
   **Hours (L) –** Classroom Hours of one-hour duration.
   **Tutorials (T) –** Special, elaborate instructions on specific topics of one-hour duration
   **Practical (P) –** Laboratory or field exercises in which the student has to do experiments or other practical work of two-hour duration.

Any semester will have at least 90 working days, i.e., about 13 weeks of teaching. Each week will have 40 working hours spread over 6 days.

# Course Structure for FYUGP "Honours/Research"

## Credit Framework for Four Year Undergraduate Programme (FYUGP) under State Universities of Jharkhand [Total Credits = 160]

| Level of Courses | Semester | **MJ**; Discipline Specific Courses – Core or Major (80) | **MN**; Minor from discipline (16) | **MN**; Minor from vocational (16) | **MDC**; Multidisciplinary Courses from all the streams (9) | **AEC**; Ability Enhancement Courses (8) | **SEC**; Skill Enhancement Courses (9) | **VAC**; Value Added Courses (6) | **IAP**; Internship/ Dissertation (4) | **RC**; Research Courses (12) | **AMJ**; Advanced Courses in lieu of Research (12) | **Credits** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 100-199: Foundation or Introductory courses | **I** | 4 | 4 | | 3 | 2 | 3 | 4 | | | | **20** |
| | **II** | 4+4 | | 4 | 3 | 2 | 3 | | | | | **20** |
| | **Exit Point: Undergraduate Certificate provided with Summer Internship/ Project (4 credits)** | | | | | | | | | | | |
| 200-299: Intermediate-level courses | **III** | 4+4 | 4 | | 3 | 2 | 3 | | | | | **20** |
| | **IV** | 4+4+4 | | 4 | | 2 | | 2 | | | | **20** |
| | **Exit Point: Undergraduate Diploma provided with Summer Internship in 1st or 2nd year/ Project (4 credits)** | | | | | | | | | | | |
| 300-399: Higher-level courses | **V** | 4+4+4 | 4 | | | | | | 4 | | | **20** |
| | **VI** | 4+4+4+4 | | 4 | | | | | | | | **20** |
| | **Exit Point: Bachelor's Degree** | | | | | | | | | | | |
| 400-499: Advanced courses | **VII** | 4+4+4+4 | 4 | | | | | | | | | **20** |
| | **VIII** | 4 | | 4 | | | | | | 12 | 4+4+4 | **20** |
| | **Exit Point: Bachelor's Degree with Hons. /Hons. with Research** | | | | | | | | | | | **160** |

**Note**: Honours students not undertaking research will do 3 courses for 12 credits in lieu of a Research project / Dissertation.

# Semester wise Course Code and Credit Points

| Semester | Major, Minor subject related, Minor Vocational, Skill Enhancement, Value added, Ability enhancement & Internship Courses | | |
|---|---|---|---|
| | **Code** | **Papers** | **Credits** |
| **I** | AEC-1 | Language and Communication Skills (English or Hindi) | 2 |
| | VAC-1 | Value Added Course-1 | 4 |
| | SEC-1 | Skill Enhancement Course-1 | 3 |
| | MDC-1 | Multi-disciplinary Course-1 | 3 |
| | MN-1A | Minor from Discipline-1 | 4 |
| | MJ-1 | Major paper 1 (Disciplinary/Interdisciplinary Major) | 4 |
| **II** | AEC-2 | Language and Communication Skills (English) | 2 |
| | SEC-2 | Skill Enhancement Course-2 | 3 |
| | MDC-2 | Multi-disciplinary Course-2 | 3 |
| | MN-2A | Minor from Vocational Studies/Discipline-2 | 4 |
| | MJ-2 | Major paper 2 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-3 | Major paper 3 (Disciplinary/Interdisciplinary Major) | 4 |
| **III** | AEC-3 | Language and Communication Skills (MIL-2; Modern Indian language including TRL) | 2 |
| | SEC-3 | Skill Enhancement Course-3 | 3 |
| | MDC-3 | Multi-disciplinary Course-3 | 3 |
| | MN-1B | Minor from Discipline-1 | 4 |
| | MJ-4 | Major paper 4 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-5 | Major paper 5 (Disciplinary/Interdisciplinary Major) | 4 |
| **IV** | AEC-3 | Language and Communication Skills (MIL-2/ English-2) | 2 |
| | VAC-2 | Value Added Course-2 | 2 |

| | | | |
|---|---|---|---|
| | MN-2B | Minor from Vocational Studies/Discipline-2 | 4 |
| | MJ-6 | Major paper 6 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-7 | Major paper 7 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-8 | Major paper 8 (Disciplinary/Interdisciplinary Major) | 4 |
| **V** | MN-1C | Minor from Discipline-1 | 4 |
| | MJ-9 | Major paper 9 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-10 | Major paper 10 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-11 | Major paper 11 (Disciplinary/Interdisciplinary Major) | 4 |
| | IAP | Internship/Apprenticeship/Field Work/Dissertation/Project | 4 |
| **VI** | MN-2C | Minor from Vocational Studies/Discipline-2 | 4 |
| | MJ-12 | Major paper 12 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-13 | Major paper 13 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-14 | Major paper 14 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-15 | Major paper 15 (Disciplinary/Interdisciplinary Major) | 4 |
| **VII** | MN-1D | Minor from Discipline-1 | 4 |
| | MJ-16 | Major paper 16 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-17 | Major paper 17 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-18 | Major paper 18 (Disciplinary/Interdisciplinary Major) | 4 |
| | MJ-19 | Major paper 19 (Disciplinary/Interdisciplinary Major) | 4 |
| **VIII** | MN-2D | Minor from Vocational Studies/Discipline-2 | 4 |
| | MJ-20 | Major paper 20 (Disciplinary/Interdisciplinary Major) | 4 |
| | RC/<br><br>AMJ-1<br>AMJ-2<br>AMJ-3 | Research Internship/Field Work/Dissertation<br>OR<br>Advanced Major paper-1 (Disciplinary/Interdisciplinary Major)<br>Advanced Major paper-2 (Disciplinary/Interdisciplinary Major)<br>Advanced Major paper-3 (Disciplinary/Interdisciplinary Major) | 12/<br><br>4<br>4<br>4 |
| | | **Total Credit** | **160** |

**Number of Credits by types of Courses**

The hallmark of the new curriculum framework is the flexibility for the students to learn courses of their choice across various branches of undergraduate programmes. This requires that all departments prescribe a certain specified number of credits for each course and common instruction hours (slot time).

**Overall Course Credit Points**

| **Courses** | **Nature of Courses** | **3-Y UG Credits** | **4-Y UG Credits** |
|---|---|---|---|
| Major | Core courses | 60 | 80 |
| Minor | i. Discipline/ Interdisciplinary courses and<br>ii. Vocational Courses | 24 | 32 |
| Multidisciplinary | 3 Courses | 9 | 9 |
| AEC | Language courses | 8 | 8 |
| SEC | **Courses to be developed by the University** | 9 | 9 |
| Value Added Courses | Understanding India, Environmental Studies, Digital Education, Health & wellness, Summer Internship/ Apprenticeship/ Community outreach activities, etc. | 6 | 6 |
| Internship (In any summer vacation for Exit points or in Semester-V) | | 4 | 4 |
| Research/ Dissertation/ Advanced Major Courses | Research Institutions/ 3 Courses | | 12 |
| | **Total Credits =** | **120** | **160** |

**Abbreviations:**

| | |
|---|---|
| AEC | Ability Enhancement Courses |
| SEC | Skill Enhancement Courses |
| IAP | Internship/Apprenticeship/ Project |
| MDC | Multidisciplinary Courses |
| MJ | Major Disciplinary/Interdisciplinary Courses |
| MN | Minor Disciplinary/Interdisciplinary Courses |
| AMJ | Advanced Major Disciplinary/Interdisciplinary Courses |
| RC | Research Courses |

## AIMS OF BACHELOR'S DEGREE PROGRAMME IN GEOGRAPHY:

Geography is the study of ways in which space is involved, in the operation and outcome of bio-physical and social processes. Taking this notion the courses in Geography is framed for easy understanding of bio-physical and social processes and their outcomes**.**

The aim of bachelor's degree programme in Geography is intended to provide:

**1. Basic Concept**: The fundamental concepts and philosophical foundation of Geography need to be discussed.

**2. Understanding Landscape**: An understanding of landscape at different levels needs to be discussed and understood for a thorough knowledge of spatial dimensions.

**3. Understanding Ecosystem Structure and Potential**: To comprehend the dynamic dimensions of human and ecosystem (Man-environment) relationships.

**4. Human Perception and Behaviour**: Learning human perception and behaviour to acquire the geographical knowledge evolved over time, is essential to improve decision making process.

**5. Identification of Critical Problems and Issues**: Detection and identification of the critical problems and spatial issues are essential for sustainable development.

**6. Field Based Knowledge**: Field based knowledge is essential to understand the ground reality, spatial patterns and processes.

**7. Spatial Tools and Techniques**: The basics and applications of contemporary spatial tools and techniques are essential to make the studies more scientific and applicable.

**8. Statistical Techniques**: Use of statistical tools and techniques is essential for precise and objective geographic analysis and interpretation of complex phenomena.

**9. Applied Dimensions**: Identification of the critical problems and spatial issues form the core of the modern geography for various applications and decision making, including

**10. Planning**: Resources, Environment & Disaster Management, Land Use Planning, and Urban and Regional Development together with Climate Change Mitigation and Adaptation, etc.

**11. Case Study based Analysis**: There is a need to understand the specificities of the problems in specific areas for them in depth comprehension and solution. The case studies are essential, especially to find out the solutions to the lagging behind regions for their solutions based on first-hand information.

## Semester wise Course Structure and Examination Structure for Geography Major

| Semester | Courses | | Exam Structure | | | |
|---|---|---|---|---|---|---|
| | Code | Paper | Credits | Mid-semester Theory F.M. | End-semester Theory F.M. | End-semester Practical/ Viva F.M. |
| I | MJ-1 | Geomorphology & Climatology | 4 | 25 | 75 | |
| II | MJ-2 | Geography of India | 4 | 25 | 75 | |
| | MJ-3 | Practical | 4 | - | - | 100 |
| III | MJ-4 | Introduction of Geographical Thought and GIS, GPS & Remote Sensing, | 4 | 25 | 75 | |
| | MJ-5 | Practical | 4 | - | - | 100 |
| IV | MJ-6 | Oceanography & Biogeography | 4 | 25 | 75 | |
| | MJ-7 | Geography of Jharkhand | 4 | 25 | 75 | |
| | MJ-8 | Practical | 4 | - | - | 100 |
| V | MJ-9 | Human Geography | 4 | 25 | 75 | |
| | MJ-10 | Economic Geography | 4 | 25 | 75 | |
| | MJ-11 | Practical | 4 | - | - | 100 |
| VI | MJ-12 | World Regional Geography | 4 | 25 | 75 | |
| | MJ-13 | Settlement Geography | 4 | 25 | 75 | |
| | MJ-14 | Geography of | 4 | 25 | 75 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Transport & Tourism | | | | |
| | MJ-15 | Practical | 4 | - | - | 100 |
| **VII** | MJ-16 | Regional Planning & Development | 4 | 25 | 75 | |
| | MJ-17 | Political Geography | 4 | 25 | 75 | |
| | MJ-18 | Social & Tribal Geography | 4 | 25 | 75 | |
| | MJ-19 | Practical | 4 | - | - | 100 |
| VIII | MJ-20 | Contemporary Issues in Geography | 4 | 25 | 75 | |
| | MJ-21 | Population Geography | 4 | 25 | 75 | |
| | MJ-22 | Environmental Geography | 4 | 25 | 75 | |
| | MJ-23 | Practical | 4 | - | - | 100 |
| **TOTAL CREDITS** | | | **92** | | | |

## Semester wise Course Structure and Examination Structure for Geography Minor

| **Semester** | **Courses** | | **Exam Structure** | | | |
|---|---|---|---|---|---|---|
| | **Code** | **Paper** | **Credit** | **Mid-semester Theory F.M.** | **End-semester Theory F.M.** | **End-semester Practical/ Viva F.M.** |
| **I** | MN-1A | Physical Geography | 4 | 15 | 60 | 25 |
| **III** | MN-1B | Human Geography | 4 | 15 | 60 | 25 |
| **V** | MN-1C | Geographical Thought, GIS, GPS & Remote Sensing | 4 | 15 | 60 | 25 |
| **VII** | MN-1D | Regional Geography: India & Jharkhand | 4 | 15 | 60 | 25 |
| **TOTAL CREDITS** | | | 16 | | | |

## *Instructions to Question Setter*

# Semester Internal Examination (SIE):

There will be **Only One Semester Internal Examination (SIE) in Major, Minor and Research Courses**, which will be organized at college/institution level. However, only one End Semester Examination (ESE) in other courses will be conducted either at College/ Institution or University level depending upon the nature of course in the curriculum.

**A. (SIE 20+5=25 marks):**

There will be two group of questions-**A** and **B**. Group A is compulsory. **Question No.1 of group A will be very short answer type** consisting of five questions of 1 mark each and Question no. 2 will be short answer type consisting of one Question for 5 marks. **Group B will contain descriptive type** two questions of ten marks each, out of which any 1 is to be answered.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 20 Marks, (b) Class Attendance Score (CAS) of 5 marks. Class Attendance Score (CAS) includes the behaviour of the student towards teachers and other students of the College.

**Subject/ Code**

**F.M.** = 20 **Time** = 1Hr. Exam Year

**General Instructions:**

i. **Group A** carries very short and short answer type compulsory questions.
ii. **Answer 1 out of 2** subjective/ descriptive questions given in **Group B**.
iii. Answer in your own words as far as practicable.
iv. Answer all sub parts of a question at one place.
v. Numbers in right indicate full marks of the question.

**Group A**

1. [5x1=5]
   i. .....
   ii. .....
   iii. .....
   iv. .....
   v. .....
2. …… [5]

**Group B**

3..... [10]

4..... [10]

**Note:** There may be subdivisions in the questions of Group B.

**B. (SIE 10+5=15 marks):**

There will be two group of questions-**A** and **B**. Group A is compulsory. **Question No.1 of group A will be very short answer type** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any 1 is to be answered. The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks.

**Subject/ Code**

**F.M.** =10 **Time** = 1Hr. Exam Year

**General Instructions:**

i. **Group A** carries very short answer type compulsory questions.
ii. **Answer 1 out of 2** subjective/ descriptive questions given in **Group B**.
iii. Answer in your own words as far as practicable.
iv. Answer all sub parts of a question at one place.
v. Numbers in right indicate full marks of the question.

**Group A**

1. [5x1=5]
   i. .....
   ii. .....
   iii. .....
   iv. .....
   v. .....

**Group B**

2. ..... [5]
3. ..... [5]

**Note:** There may be subdivisions in the questions of Group B.

# END SEMESTER UNIVERSITY EXAMINATION (ESE):

**A. (ESE 75 marks):**

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

**Subject/ Code**

**F.M.** = 75 **Time** = 3 Hrs. Exam Year

**General Instructions:**

i. **Group A** carries very short / short answer type **compulsory** questions.
ii. **Answer 4 out of 7** subjective/ descriptive questions given in **Group B**.
iii. Answer in your own words as far as practicable.
iv. Answer all sub parts of a question at one place.
v. Numbers in right indicate full marks of the question.

**Group A**

1. [5x1=5]
   i. .....
   ii. .....
   iii. .....
   iv. .....
   v. .....
2. ..... [5]
3. ..... [5]

**Group B**

4. ..... [15]
5. ..... [15]
6. ..... [15]
7. ..... [15]
8. ..... [15]
9. ..... [15]
10. ..... [15]

**Note:** There may be subdivisions in the questions of Group B.

**B. (ESE 60 marks):**

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to be answered.

**Subject/ Code**

**F.M.** = 60 **Time** = 3 Hrs. Exam Year

**General Instructions:**

i. **Group A** carries very short /short answer type **compulsory** questions.
ii. **Answer 3 out of 5** subjective/ descriptive questions given in **Group B**.
iii. Answer in your own words as far as practicable.
iv. Answer all sub parts of a question at one place.
v. Numbers in right indicate full marks of the question.

**Group A**

1. [5x1=5]
   i. .....
   ii. .....
   iii. .....
   iv. .....
   v. .....
2. ..... [5]
3. ..... [5]

**Group B**

4. ..... [15]
5. ..... [15]
6. ..... [15]
7. ..... [15]
8. ..... [15]

**Note:** There may be subdivisions in the questions of Group B.

# Semester – I

## Paper – MJ-1 (Geomorphology & Climatology)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory- 04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course objective:

1. To understand the Conceptual framework of geomorphology and climatology.
2. To study the various concepts related to land surface and climate.
3. Understanding the recent climatic change phenomena

## Learning outcome:

After completion of this course the student will be able to understand the theme of the geomorphology and climatology including various theories, concepts and weather phenomena.

## Module – I:

Origin of the Earth with particular reference to Big Bang Theory; Geological time scale; Interior of Earth; Isostasy; Plate Tectonics; Earthquake and Tsunami; Vulcanicity; Folds and Faults.

## Module – II:

Evolution of Landforms- I$^{st}$ Order and II$^{nd}$ Order; Types of Weathering; Mass Movement; Landforms – Fluvial, Glacial, Aeolian, Karst and coastal; Normal cycle of erosion by W.M. Davis; Views of W. Penck on normal cycle of erosion.

## Module – III:

Atmosphere- Structure and Composition; Insolation; Heat Budget; Factors affecting the horizontal distribution of Temperature; Types of Humidity and Precipitation, Process and types of rainfall and snowfall; Atmospheric pressure Belts.

## Module – IV:

Wind- its types and General circulation; Monsoon; El Nino; La Nina and ENSO; Air masses and Fronts. Cyclone- Tropical and Temperate, Jet stream. Climate change and Extreme Weather Phenomena (Cloudburst and Drought, Heatwaves and Coldwaves); Koppen's Climatic Classification.

## Suggested books

**Geomorphology: -**


| | | | |
|---|---|---|---|
| 1 | A Textbook of Geomorphology | Dayal, P. | 2019, Rajesh Publications, Delhi |
| 2 | PRINCIPLES of geomorphology | Thornbury, w D | 2004, CBS Publishers, New Delhi |
| 3 | Principles of Physical geology, third edition | Holmes, A | 1978, ELBS Nostrand Reinhold ( u k ) co Ltd |
| 4 | The Earth's Dynamic Surface (A Book Of Geomorphology) | Sidhartha, K | 2018, Kitab Mahal, New Delhi |
| 5 | Physical geography | Khullar, D R | 2022, Kalyani Publishers, New Delhi |
| 6 | Geomorphology | Singh, savidra | 2021, Pravalika publication, Allahabad |
| 7 | भूअकृतिविज्ञान | शर्मा, जेपी | 2016, रस्तोगीप्रकाशन, मेरठ |
| 8 | भूआकृतिविज्ञान | सिंह , सविन्द्र | 2021, वसुंधराप्रकाशन |
| 9 | भूआकृतिविज्ञान | दयाल, प | 2019, राजेशप्रकाशन, नईदिल्ली |
| 10 | Introducing Physical Geography | Strahlar, A | 2016, Wiley India |
| 11 | Geomorphology | Ahmad, E | 1999, Kalyani Publishers, New Delhi |
| 12 | Physical Geography | Singh, s | 2021, Pravalika publication, allahabad |

| | | | |
|---|---|---|---|
| 13 | Geomorphology | Gautam ,A | 2015, Sharda Pustak Bhawan, Allahabad |
| 14 | Fundamentals of Physical Geography | Husain, Majid | 2021, Rawat Publications, New Delhi |
| 15 | The Dynamic Earth: An Introduction to Physical Geology | Skinner and Porter | 2000, American Museum of Natural History |

## Climatology -

| | | | |
|---|---|---|---|
| 1 | General Climatology | Critchfield, H J | 2008, Pearson Education, India |
| 2 | The Atmosphere | Lutgen, Tarbuck and Tasa | 2018, PHI Learning Pvt, new Delhi |
| 3 | Atmosphere, Weather and Climate | Barry and Chorley | 2009, Routledge India |
| 4 | Atmosphere, Weather and Climate | Sidharth, k | 2021, Kitab Mahal, Delhi |
| 5 | जलवायुविज्ञान | लाल, डीएस | 2022, शारदापुस्तकभवन, इलाहाबाद |
| 6 | Climatology | Singh , S | 2021, Pravalika Prakashan, Allahabad |
| 7 | Climatology | Lal, D S | 2022, Sharda Pustak Bhavan, Allahabad |
| 8 | जलवायु विज्ञान | सिंह,एस | 2021, Pravalika Prakashan, Allahabad |

# Semester – II

## Paper – MJ-2 (Geography of India)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives:

1. Learn the differences in terms of varied physical and demographic features of India

2. To study the economy and various types of resources in India.

3. To understand the major regions in whole.

## Learning outcome:

After the completion of the course the understanding of different aspect of India will be clear. This will include Physical, demographic, economy (industrial and agricultural), mineral wealth

## Module 1

India- Structure and Physiography, Drainage (Peninsular and Extra Peninsular); Climate Regime and Climatic Regions; Biodiversity (Flora & Fauna) of India; Indian Forests and their Environmental importance.

## Module 2

Agro-climatic regions of India; Green revolution and its consequences; Distribution and Production of Major Crops: Paddy, Wheat and Tea.

Industries: Cotton, Sugar, Mineral based; Iron and steel, Major Industrial Region of India.

**Module 3**

Minerals: Distribution of Iron ore, Bauxite, Manganese; Power Resources- Coal, Petroleum and Atomic Minerals; Status of Alternative (Renewable) energy in India.

Case study of different Regions of India: Middle Ganga, Chhotanagpur Plateau, Kashmir Valley and Malabar.

**Module 4**

Population: Distribution and Growth; Distribution of Tribes in India; Migration and Urbanization; Transport: Surface, water & Air; Foreign Trade; trends of Tourism in India; Major Tourist Places in India.

Suggested books:


1. Hussain, M., (1992): Geography of India, Tata McGraw Hill Education, New York.
2. Nag, P. and Sengupta, S., (1992): Geography of India, Concept Publishing, New Delhi.
3. Khullar, D R (2018): India: A Comprehensive Geography, Kalyani publishers, New Delhi
4. Gautam, Alka (2022): An advance Geography of India, Rastogi Prakashan, Meerut
5. Singh, R L Edt (1993): India: A Regional Geography, National Geographical Society of India, Varanasi
6. R, Tirtha (2002): Geography of India, Rawat Publications, New Delhi
7. राव एवं त्यागी: भारत की भौगोलिक समीक्षा, वसुंधरा प्रकाशन , गोरखपुर
8. बंसल, सुरेश (1999): भारत का बृहत भूगोल, मीनाक्षी प्रकाशन, मेरठ
9. चौहान एवं गौतम(2022): भारत का भूगोल, रस्तोगी प्रकाशन, मेरठ

## Paper – MJ-3 (Practical)

**Marks: Pr (ESE: 3Hrs) =100** **Pass Marks: Pr (ESE) = 40**

**(Credits: Practicals- 04) 120 Hours**

### Module I

**A.** Important latitude and longitude of globe (International date line, Prime meridian, Great circle, Arctic and Antarctic circle, Tropic of cancer and Capricorn), Calculation of local time, Construction of scale: simple, diagonal and comparative; Contour Line; Isopleth, Slope Analysis- Smith Method; Profiles; River Profile. **15x2=30-Marks**

### Module II

**B.** Climograph, Hythergraph, Rainfall Dispersion Diagram; Weather symbols, Representation by Unit/scales for atmospheric features, Bar Diagram – Simple, Compound and Multiple; Pie Diagram, Choropleth,

**15x2=30-Marks.**

### Module III

**C.** Interpretation of Indian daily weather maps (July, October and January) Toposheet Analysis – Under the Head of Relief, drainage, Settlement, Transport and Communication.

**20x1=20Marks.**

### Module IV

**D.** Practical Notebook + Viva-voce **10+10=20Marks.**

### Suggested books:


1. शर्मा, जे. पी. (2018): प्रायोगिक भूगोल, रस्तोगी प्रकाशन , मेरठ
2. सिंह, एल आरः प्रायोगिक भूगोल के मूल सिद्धांत, शारदा पुस्तक भवन, इलाहाबाद
3. Singh, L. R. (2013): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad
4. Singh and Singh (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi

# Semester – III

## Paper – MJ-4 (Introduction of Geographical Thought and GIS, GPS & Remote Sensing)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course objective:

1. To understand the Conceptual framework of geography.
2. To study the historical development and contributions of geography.
3. Understanding modern techniques in geography.

## Learning outcome:

After completion of this course the student will be able to understand the theme of the geography and its development through time as well as changing man-environment relationship.

### Module-I:

Geography as a Discipline; Nature and Scope of Geography; place of Geography in the classification of Sciences, Concept of Space and Concept of Landscape (Regional & cultural).

### Module-II:

Geography in Ancient (Greek, Rome, Arab and India) and Medieval Period; Development of Geography in Modern Period (German, French, British and American School), Contribution of Humboldt, Ritter, Ratzel, Blache and Hartshorne in Geography.

**Module-III:**

Dualism in Geography; Man-Environment Relationship, Methods and Technique in Geography- Quantitative, Behavioural, Radical, Humanistic, and Environmental, Career in Geography.

**Module-IV:**

Meaning and Introduction of Remote sensing, Relevance of Remote sensing in Geography, Advantage of Remote sensing in modern times; Meaning of Geographical information system (GIS), Application of GIS; Concept and application of Global Positioning system (GPS).

Suggested books


1. हुसैन, मा (2001): भौगोलिक विचार धाराओं का उद्भव एवं विकास, रावत प्रकाशन, नई दिल्ली
2. श्रीवास्तव, वि केः भौगोलिक चिंतन के आधार, वसुंधरा प्रकाशन, गोरखपुर
3. कौशिक एवं रावतः भौगोलिक विचार धारायें एवं विधितंत्र, रस्तोगी प्रकाशन, मेरठ
4. दीक्षित, एसः भूगोल की प्रस्तावना, वसुंधरा प्रकाशन , गोरखपुर
5. Dixit, R. D (2018): Geographical Thought a Contextual History of Ideas, Prentice Hall India, New Delhi
6. Hussain, Majid (2015): Evolution of Geographical Thought, Rawat Publication, New Delhi
7. Hartshorne, R (2002): Nature of Geography, Rawat Publication, New Delhi
8. Harvey, D. (2007): Explanation in Geography, Rawat Publication, New Delhi
9. Adhikari, S. (2015): Fundamentals of Geographical Thought, Orient Blackswan, New Delhi.
10. Peet, R. J. (1998): Modern geographical Thought, Wiley, ISBN 13; 978-1557863782
11. Jensen, J.R. 1996, Remote sensing of the environment. An Earth resource perspective, Pearson Education, New Delhi.
12. Campbell, J.B. (1996): Introduction to remote sensing, Taylor and Francis, London.
13. LIliesand, Keifer and Chipman (2004): Remote sensing and image interpretation, John Wiley and Sons, Singapore.
14. Reddy, M. Anji (2008): Remote sensing and Geographical Information system, B.S. publication,
15. Chauniyal, D.D, (2016):सुदूर संवेदन एवं भौगोलिक सूचना प्रणाली के सिद्धांत, Sharda Pustak Bhawan, Prayagraj

## Paper – MJ-5 (Practical)

**Marks: Pr (ESE: 3Hrs) =100** **Pass Marks: Pr (ESE) = 40**

**(Credits: Practicals-04) 120 Hours**

### Module I

**A.** Map and its Type, Meaning of Representative Fraction (R.F), Conventional Signs, Reduction and Enlargement of Maps; Introduction to map projection.

**15x2=30-Marks**

### Module II

**B.** Instrumental Survey- **i.** Chain and Tape Survey **ii**. Plain Table Survey- Radiation and Intersection. **iii.** Prismatic Compass Survey – Open Traverse and Closed Traverse. **15x2=30-Marks.**

### Module III

Principles of Visual Image interpretation: aerial photograph and satellite imageries; Use of pocket stereoscope; Geo-referencing. **20x1=20Marks.**

### Module IV

**D.** Practical Notebook + Viva-voce

**10+10=20Marks.**

### Suggested books:


1ण शर्मा, जे. पी. (2018) : प्रायोगिक भूगोल, रस्तोगी प्रकाशन , मेरठ

2. सिंह, एल. आरः प्रायोगिक भूगोल के मूल सिद्धांत, शारदा पुस्तक भवन, इलाहाबाद
3. Singh, L. R. (2013): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad
4. Singh and Singh: (1999) Elements of Practical Geography, Kalyani Publishers, New Delhi

# Semester - IV

## Paper – MJ-6 (Oceanography & Biogeography)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course objective:

1. To understand the Conceptual framework of Oceanography & Biogeography
2. To study the various aspects related to the same.
3. Understanding the importance of ocean and mother nature for human being.

## Learning outcome:

After completion of this course the student will be able to understand the theme of the oceanography & biogeography including various aspects, concepts and natural phenomena.

### Module -I

General distribution of land & sea, Hypsographic curve, zones of ocean bottom according to depth, Bottom relief of Atlantic & Indian oceans; Horizontal & Vertical distribution of temperature in oceans.

### Module - II

Factors affecting and Distribution of Oceanic Salinity, Density and Ocean Currents; Waves & Tides; Tide producing forces, types of tide, Deposits on ocean floor; Terrigenous & Pelagic deposits, Distribution; Coral reefs; Planktons.

## Module –III

Definition, scope & importance of Bio-Geography relation with other sciences; Development of Bio Geography; Hydrological cycle; Ecology and Ecosystem; Energy Flow in Ecosystem; Bio-geo-chemical cycles.

## Module - IV

Concept and types of Biomes; National Parks and Sanctuaries in India and Jharkhand; Biodiversity-degradation and conservation; Soil in India, factors affecting soil erosion and its conservation; Development and management of Wasteland in India.

## Suggested books:

## Oceanography-

| | | | |
|---|---|---|---|
| 1 | 0cenography for Geographers | Sharma and Vatal | 2018, Chaitanya Publishing House, Allahabad |
| 2 | Essential of Oceanography | Trujillo and Thurman | 2011, Pearson Education India |
| 3 | Oceanography | Lal, D S | 2018, Sharda Pustak Bhawan, Allahabad |
| 4 | जलवायु एवं समुद्र विज्ञान | गौतम , अलका | 2021, रस्तोगी प्रकाशन , मेरठ |
| 5 | समुद्र विज्ञान | उपाध्याय, डीपी | वशुन्धरा प्रकाशन, गोरखपुर |
| 6 | समुद्र विज्ञान | सिंह , सविन्द्र | प्रवालिका प्रकाशन, इलाहाबाद |
| 7 | Oceanography | Singh, Savindra | 2020, Pravalika Prakashan, Allahabad |

## Biogeography-

| | | | |
|---|---|---|---|
| 1. | Biogeography | Bhattacharyya, N.N. | Rajesh Publication |
| 2. | Biogeography | C.Barry Cox , Peter D. Moore | 2000, John Wiley and Sons Ltd |
| 3. | Biogeography | Garg, H.S. | 2016, SBPD Publications |
| 4. | BIOGEOGRAPHY | Agarwal, L.C. | 2018,Rawat Publication, New Delhi |
| 5. | जैव भूगोल | सिंह , सविन्द्र | प्रवालिका प्रकाशन इलाहाबाद |
| 6. | Biogeography | Singh, Savindra | 2021, Pravalika Pubication, Prayagraj |
| 7. | Biogeography And Biodiversity | R.B. SINGH | 2009, Rawat Publication, New Delhi |

# Paper – MJ-7 (Geography of Jharkhand)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives

1. To understand the Physical features and disaster risk management and mitigation in Jharkhand.
2. Analyse the mode of resource utilisation in Jharkhand
3. To study the conventional and non- conventional source of energy of Jharkhand.

## Learning outcome:

The student will gain information about Physical, economic, demographic attributes of Jharkhand state and will get to know about the mineral and energy wealth of Jharkhand.

## Module 1

Physiography and Relief, Drainage Pattern, Climate, Forest Resource and its Economic and environmental importance. Problem and mitigation of disaster risk management: lightening, Drought.

## Module 2

Agriculture: Irrigation- Types, distribution, problem and solution, Major crops- Food Crops; Population growth and distribution: Population composition- Sex, Age, Religious Community.

**Module 3**

Resources: Natural Resources-Soil, Water, Mineral resources: Coal Uranium-Distribution & development, Conventional and Non-conventional energy resources, Major Hydel Power Projects, Thermal Power Plants. Industries: Location Factors-Distribution of Iron and steel, Cement.

**Module 4**

Transport Roads and railways and development of Tourism, Eco-tourism in Jharkhand. Strategic utilisation for the leftover mining picks.

Economy and habitats of Santhals and Munda; Social, Economic and Environmental Problems of Jharkhand.

**Suggested book list:**


1. Sinha and Singh (2018): Land and People: Jharkhand, Rajesh Publications, Delhi
2. Prasad Ayodhya (2021): Jharkhand Geography of Rural Settlement, Rajesh Publication, New Delhi
3. सिंह, एस.के: (2016) झारखण्ड प्रदेश की भौगोलिक व्याख्या, राजेश प्रकाशन, नई दिल्ली
4. तिवारी, आर. के: (2009) झारखण्ड का भूगोल, राजेश प्रकाशन, नईदिल्ली
5. शर्मा एवं विक्रम (2018): छोटानागपुर का भूगोल, राजेश प्रकाशन, नईदिल्ली

## Paper – MJ-8 (Practical)

**Marks: Pr (ESE: 3Hrs) =100** **Pass Marks: Pr (ESE) = 40**

**(Credits: Practicals-04) 120 Hours**

### Module I

**A.** Hypsometric Curve of Ocean Floor; Showing Ocean Current and Salinity on Ocean Map (Pacific Ocean, Atlantic Ocean, Indian Ocean); Altimetric frequency Graph; Synoptic Chart on Ocean; Interpretation and Naming of Cyclones and cyclone Scale. **15x2=30-Marks**

### Module II

**B.** Identification of rocks and minerals, Cross Section and Interpretation of Geological Map, Geological Signs, Diagram- Food Chain, Food Web and Energy Flow; Ombrothermic Diagram. **15x2=30-Marks.**

### Module III

Survey of the area in Jharkhand allotted by HOD. (Physical Features: Landforms, drainage, biodiversity and impact of human activities on these features). Area must be taken from nearby institution on respective toposheet.

**20x1=20Marks.**

### Module IV

**D.** Practical Notebook + Viva-voce

**10+10=20Marks.**

### Suggested books:


1. शर्मा, जे पी (2018) : प्रायोगिक भूगोल, रस्तोगी प्रकाशन , मेरठ
2. सिंह, एल. आर., प्रायोगिक भूगोल के मूल सिद्धांत, शारदा पुस्तक भवन, इलाहाबाद
3. Singh, L. R (2013): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad
4. Singh and Singh (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi

# Semester - V

## Paper – MJ-9 (Human Geography)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives:

1. Know the changing human and cultural landscape at different levels.
2. Understand patterns and processes of population growth and its implications.
3. Appreciate the nature and quality of human landscapes.

## Learning outcome:

The student will be able to grasp the concept of human and cultural landscape, different approaches, different aspects of population including migration, agglomeration, urbanisation.

### Module 1

Meaning, nature and scope of human geography; Principles of human geography; Schools of thought in human geography, Probablism, Welfare approach and Gender approach

### Module 2

Evolution of man; Classification of races; Characteristics of races and their broad distribution; Human adaptation to environment: Eskimo, Masai, Semang and Bushman; Primitive people of Jharkhand: Mal Pahadia, Oraon and Birhor.

**Module 3**

World and India – Growth and Distribution of population; Major human agglomerations; Migration: Types and theories (Taylor and Lee); Trends & Pattern of Urbanization.

**Module 4**

Settlement structure rural and urban: Social, Economic, Cultural factors influencing the dynamics of settlement structure, Rural settlements: characteristics, types and regional pattern;

Suggested books:


1ण कौशिक, एस. डी. मानव भूगोल रस्तोगी प्रकाशन
2ण राव एवं दीक्षित, बी. पी.., एस. के. मानव भूगोल वसुन्धरा प्रकाशन
3. सिंह, डी. पी., मनव भूगाल के मूल तत्व, कल्याणी प्रकाशन
4. Mourya, S.D. (2017): Human Geography, Prayag Pustak Bhawan.
5. Singh, LekhRaj (2005): Fundamental of Human Geography, Sarda Publication
6. Hussain, M. (2021): Human Geography, Rawat Publication
7. Negi, B.S., Human Geography, Rastogi Publication, Meerut.

# Paper – MJ-10 (Economic Geography)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives

1. Appreciate the basic concepts and approaches of economic geography;
2. Examine the significance and relevance of theories in relation to the location of different economic activities and mode of resource utilization
3. Distinguish different types of human activities and their inter and intra relationships

## Learning outcome:

The student will get to know about the economic aspect in geography. They will also get acquainted with new concepts like sustainable development, major trade blocs, different resources of world and traditional theories that forms the base of economic geography**.**

## Module 1

Meaning and approaches to economic geography; Main concepts of economic geography; Resource: concept and classification; Resource conservation. Sustainable Development Approach.

## Module 2

Natural resources: soil, forest and water; Mineral resources: iron ore and bauxite; Power resources: coal and petroleum; Principal crops: wheat, rice and cotton.

**Module 3**

Agricultural regions of the world (Derwent Whittlesey); Theory of agricultural location (Von Thunen), Relevance of Von Thunen Model in Indian Context; Theory of industrial location (Weber); Major industries: Iron and steel, and cotton textiles and Sugar Industry.

**Module 4**

World Transport and Communication: major trans-continental railways, Sea (North-Atlantic) and air routes, Pipelines, digital highway; WTO and International trade: patterns and trends; Major trade blocs: EEC, ASEAN, OPEC, EU.

Suggested books:


1ण श्रीवास्तव, लोकेशः आर्थिक भूगोल, शारदा प्रकाशन
2ण मौर्या, एस. डी.: मानव एवं आर्थिक भूगोल, शारदा प्रकाशन
3ण सिंह, काशीनाथ एवं सिंह, जगदीशः आर्थिक भूगोल के मूलतत्व, ज्ञानोदय प्रकाशन
4. Alexander, J. W., (1963): Economic Geography, Prentice-Hall Inc., Englewood Cliffs, New Jersey
5. Gillian Morgan & Cheng Leong Goh, (2021) Human and Economic Geography, Oxford University Press, Singapore.

## Paper – MJ-11 (Practical)

**Marks: Pr (ESE: 3Hrs) =100** **Pass Marks: Pr (ESE) = 40**

**(Credits: Practicals-04) 120 Hours**

### Module I

**A.** Methods of data collection: Questionnaire/Schedule, Interview and Observation; Instrumental Survey: Indian Clinometer, Dumpy Level Survey.

**15x2=30 Marks**

### Module II

**B.** Statistical Technique – Mean, Median, Mode; Quartile and Percentile; Sampling (Random and Stratified); Proportionate diagram (Ring), Rectangular Diagram and cube diagram, Band graph, Ergograph.

**15x2=30 Marks.**

### Module III

Village Land Use Survey of any area allotted by HOD.

**20x1=20 Marks.**

### Module IV

**D.** Practical Notebook + Viva-voce

**10+10=20 Marks.**

### Suggested books:


1. शर्मा, जे. पी. (2018): प्रायोगिक भूगोल, रस्तोगी प्रकाशन , मेरठ
2. सिंह, एल. आरः प्रायोगिक भूगोल के मूल सिद्धांत, शारदा पुस्तक भवन, इलाहाबाद
3. Singh, L. R (2013): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad
4. Singh and Singh (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi

# Semester - VI

## Paper – MJ-12 (World Regional Geography)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives:

1. To study the regional aspect of three northern continents and three southern continents
2. To study the various important geographical region of these continents
3. Appreciate the speciality of these regions**.**

## Learning outcome:

After the completion of the course the student will be able to gain knowledge about different characteristic features of three northern continents and three southern continents including physical, demographic, economic aspects etc.

## Module 1

Asia: Physiography, soils, Population- factors affecting the distribution; Agriculture development, Geographical account of SAARC Nations, Regional Study of Japan

## Module 2

North America and Europe: Physiography, Climatic Zone, Population and Industries; Regional Study of USA

**Module 3**

Australia and New Zealand: General account of the Physiography, Dairy farming and demographic set-up, detailed regional study of New Zealand, Regional Study of Western Desert (Australia).

**Module 4**

Africa and South America: Physiography and Population; Savanna Grassland of Africa, Amazon Basin, extensive Agriculture of South America, Regional Study of Brazil and Egypt.

**Suggested books**:


1. Singh, K. (2021): Teen Uttari Mahadweepon Ka Bhugol, SPBD Publication.
2. Jat.B.C., (2020) Vishwa Ka Praadeshik Bhugol, Punchshil Publication
3. Memoria Chaturbhuj & Jain S.M. (2015): Geographical thought and three southern continents, SPBD Publication
4. Singh, R. (2017): Teen Dakshini Mahadesh: Australia Ek Bhaugolik Adhyan, Bihar Hindi Granth Academy, Patna.
5. Singh, J.: Teen Dakshini Mahadweepon ka bhugol, Vasundhara prakashan, Gorakhpur

# Paper – MJ-13 (Settlement Geography)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives:

1. To understand the evolution of settlement
2. To Analyse the various Settlement related theories

## Learning outcome:

The student will know about the different facets of settlement geography. Also know about development of settlement, important theories of settlement geography

## Module 1:

Meaning and scope of settlement geography**,** Evolution and growth of human settlement, Theories of evolution of Settlements; Spatial distribution.

## Module 2:

Pattern and types of Rural settlements; Rural houses in India: types, classification and regional pattern. Traditional tribal house types and pattern of Jharkhand.

## Module 3:

Urban settlements: evolution and classification, Settlement hierarchy, Factors contributing to settlement hierarchy, Central Place Theory (Christaller). Morphological structure of cities, Empirical and theoretical models (Burgess, Hoyt and Harris & Ullman).

**Module 4:**

De-population of rural areas, Transformation and planning of Indian Villages (Concept of PURA: Providing Urban Amenities in Rural Areas) Urbanisation and Contemporary urban issues: Urban renewal, urban sprawl, slums, green belts, garden cities.

Suggested book list


1. Ghosh, S. (2015): Introduction to Settlement Geography, Orient Black Swan Private Ltd., Kolkata.
2. Sinha, Sahay and Singh (2017): Introduction to Settlement Geography, Rajesh Publications, Delhi
3. Singh, R Y (1994): Geography of Settlement, Rawat Publications, New Delhi
4. सिन्हा एवं बाला (2018) : नगरीय भूगोल, राजेश प्रकाशन, नई दिल्ली
5. राव एवं शर्मा: नगरीय भूगोल, वसन्धरा प्रकाशन, गोरखपुर
6. मौर्य, एस.डी (2022): अधिवासभूगोल, शारदा पुस्तक भवन, इलाहाबाद

# Paper – MJ-14 (Geography of Transport & Tourism)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives:

1. To understand the scope of transport and tourism geography
2. To understand the characteristics of transport system in India.
3. To understand the characteristics of tourism industry in India.

## Learning outcome:

Students will get to know about the development of transport geography and policy and planning related to it. They will also understand the various aspects of tourism like meaning, motivation, tourism circuits etc.

## Module – I

Nature, Scope, Significance and Development of Transport Geography, Factors associated with the Development of Transport System.

## Module – II

Urban Transportation: Growth and Problems, Transport and Environment Degradation, Alternatives to Transport System in Mega Cities of India (MRTS: Mass Rapid Transit System). National Highway Development and Planning in India.

## Module – III

Definition of Tourism, Basis of Tourism, Types; Eco-ethno, Religious, Coastal and Adventure Tourism, National and International Tourism, Classification of tourists, Influencing Factors of Tourism, Recreation as Elements of Tourism Industry. Role of Foreign Capital.

**Module – IV**

Tourist Circuits, Tour Agencies National and International, Accommodation Types, Any 4 Major tourist places of India, Bihar and Jharkhand, Physical Economic and Social Impacts, Environmental laws and Tourism, Recent Changes in Tourism.

**Suggested books:**


1. कौशिक, देवेश (2012): परिवहन भूगोल, अर्जुन पब्लिशिंग हॉउस, दिल्ली
2. कौशिक, एस.डी. (2017): आर्थिक भूगोल के सरल सिद्धांत, रस्तोगी प्रकाशन, मेरठ
3. खत्री, एच. कुमार (2019): पर्यटन भूगोल, कैलाश पुस्तक सदन, भोपाल
4. नेगी, जगमोहन (2007): पर्यटन एवं यात्रा के सिद्धांत, तक्षशिला प्रकाशन , नईदिल्ली
5. शर्मा, संजय कुमार (2005): पर्यटन में भूगोल, तक्षशिला प्रकाशन , नईदिल्ली
6. Nelson, Velvet (2017): An Introduction to the Geography of Tourism, Rawat Publications, New Delhi
7. Geetanjlee (2010): Tourism Geography, Centrum Press, New Delhi
8. Saxena, H. M. (2010): Transport Geography, Rawat Publications, New Delhi
9. Vaidya, B. C. (2003): Geography of Transport Development in India, Concept Publishing Company, New Delhi
10. Kumar, N. (1991): Geography of transportation, Concept Publishing Company, New Delhi

## Paper – MJ-15 (Practical)

**Marks: Pr (ESE: 3Hrs) =100** **Pass Marks: Pr (ESE) = 40**

**(Credits: Practicals-04) 120 Hours**

### Module I

**A.** Map projection: simple conical map projection with one standard and two standard parallel, Mercator Projection, Polar Zenithal equidistant projection.

**15x2=30-Marks**

### Module II

**B.** Showing Population Distribution: Dot Method, Circle diagram and Spherical Diagram; Pyramid Diagram; **15x2=30-Marks.**

### Module III

A Study Tour (Any region of the Country) Report on a relevant topic related to tourism and transport.

**20x1=20 Marks.**

### Module IV

**D.** Practical Notebook + Viva-voce

**10+10=20 Marks.**

### Suggested books:


1. शर्मा, जे. पी. (2018): प्रायोगिक भूगोल, रस्तोगी प्रकाशन , मेरठ
2. सिंह, एल. आरः प्रायोगिक भूगोल के मूल सिद्धांत, शारदा पुस्तक भवन, इलाहाबाद
3. Singh, L. R (2013): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad
4. Singh and Singh (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi

# Semester - VII

## Paper – MJ-16 (Regional Planning & Development)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives:

1. To understand the regional approaches to development
2. To analyse the level of regional planning in reference to India
3. To assess the various region with respect to development and planning

## Learning outcome:

After the completion of course the student will gain knowledge about the varied aspects of regional development. The study will further carry towards the development and planning of regions in Indian context.

### Module - I

Meaning, concepts and scope of regional development and planning; Approaches to Regional Development; Approaches to Regional Planning; Theories of regional development (Myrdal and Perroux).

### Module - II

Concepts and types of regions; Evolution of Regional Planning in India; Schemes of regionalization; Macro and micro planning regions of India; Multi-level planning; Participatory planning.

**Module - III**

Regional development in India: patterns and imbalances; Planning for regional development; Role of agriculture, industry and infrastructure (transport and power) in regional development.

**Module - IV**

Area development and planning: National Capital Region and DVC; Local-level planning and Panchayati Raj; Planning for Jharkhand and North-East India.

Suggested books:


1. V. K. Puri and Chand Mahesh (1983): Regional Planning in India, Allied Publishers Limited, New Delhi
2. Ray, Jayasri (2001): Introduction to Development & Regional Planning, Orient BlackSwan, New Delhi
3. Chandna , R. C. (2016): Regional Planning and development, Kalyani Publishers
4. चंदना, आर. सी. (2016): प्रादेशिक नियोजन एवं विकास, कल्याणी पब्लिशर्स, नई दिल्ली
5. श्रीवास्तव, चौहान एवं शर्मा (1996): प्रादेशिक नियोजन एवं संतुलित विकास, वशुन्धरा प्रकाशन, गोरखपुर

# Paper – MJ-17 (Political Geography)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objective:

**1.** Learn the concept of nation and state and geopolitical theories in geography

2. Understand the different dimensions of electoral geography and resource conflicts

3. To understand the various strategically geopolitical active region.

## Learning Outcome:

After the completion of this course students will get to know about geopolitical theories, different dimensions of international relations and geopolitical scenario of strategically active region**.**

## Module - I

Meaning, scope, approaches and historical development of political geography, recent trends in political geography; Geopolitics, Contribution of Ratzel in Political Geography

## Module – II

Nations, states and nation states; Frontiers and boundaries; Capital cities, core and periphery regions. Electoral Geography- Pork barrel and Gerrymandering, Issues of Voting pattern in India

**Module – III**

Geographical basis of international relations; Conflict resolution; Strategic locations, routes and raw material; Geostrategic regions of the world; Theory of Heartland and Rimland.

**Module - IV**

Current World Order, Geo-political and geo-economic significance of Indian Ocean, West Asia and Middle East; Problems of nation building in India; Geopolitics of resources.

**Suggested books:**


1. Adhikari, S. (2009): Political Geography of India, Sharda Pustak Bhawan
2. Dikshit, R.D. (2020): Political Geography, Prentice-Hall of India, New Delhi.

3ण सक्सेना, हरिमोहन (2020): राजनीतिक भूगोल, रस्तोगी प्रकाशन

4ण चौहान, पी. आर.: राजनीतिक भूगोल, वसुन्धरा प्रकाशन

# Paper – MJ-18

## (Social Geography & Tribal Geography)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives:

1. To understand the concepts and aspects of society.
2. To analyse the social planning and policies prevalent in India.

## Learning outcome:

The student will know about the different facets of social geography. Also know about development of society, human development indicators, policies and planning

## Module - I

Meaning and scope of social geography; Concept of social space; Human development: concept and measurements; Social differentiation and stratification; Social morphology.

## Module - II

Evolution of socio-cultural regions of India; India — unity in diversity: Role of race, caste, tribe, religion and languages; Concept of social wellbeing: Rural-urban interfaces in India: health care, education and shelter; Gender issues in India; Public policy and social planning in India

**Module – III**

Tribal Geography- meaning, concept, and scope of tribal geography, Tribal rights- Land, forests, water; Emerging social problems- Health and education, malnutrition, illiteracy, Alcoholism; Industrialization and tribe, mining and tribes, displacement

**Module - IV**

Geographical distribution of Indian tribes, groups and sub-groups: Major Tribes of **India**: Tharu, Bhil, Gond, Toda, Naga and Kuki; **Jharkhand**: Ho, Chero, Asur (Tribes and their habitat- Economic activities; Socio- Political Organization- Family, Marriage and kinship, faith, beliefs and practices)

**Suggested Book List:**

| **Sl. No.** | **Book Name** | **Author's Name** | **Publication** |
|---|---|---|---|
| 1. | Social Geography | Maurya, S.D. | 2020, Sharda Pustak Bhawan |
| 2. | Social Geography | Singh, B. N. | Prayag Pustak Bhawan |
| 3. | Caste in Modern India and other essays | Shrinivasn, M. N. | 2021,Asia Publishing house |
| 4. | The Tribal culture of India | Vidyarthi, L.P. and Rai, B.K. | 1985, Concept Publishing Company |
| 5. | Tribal India | Hasnain, N. | 2022, Palaka Publication |
| 6. | Tribal Geography of India: Jammu & Kashmir | Magrey, B. | 2008, Oberoi Book Service |
| 7. | The Birhors of Chotanagpur Region: A Case study of Jharkhand | Prasad, S. | 2004, Rajesh Publication |
| 8. | Tribal India: Issue and Challenges | Sharda, M. & Kumar, I. | 2021, Rawat Publication |

## Paper – MJ-19 (Practical)

**Marks: Pr (ESE: 3Hrs) =100** **Pass Marks: Pr (ESE) = 40**

**(Credits: Practicals-04) 120 Hours**

### Module I

Socio-economic (Urban/Rural) Field Survey Report: (Meaning, types and objectives of fieldwork; Fieldwork methods and techniques; Importance of fieldwork in geography and aerial analysis supported by maps, diagrams, tables and photographs) Allotted by HOD **15x2=30 Marks**

### Module II

Histogram; Ogive; Lorenz Curve, Correlation and Regression, Scatter Diagram, **15x2=30 Marks.**

### Module III

Statistical Techniques: Mean Deviation & Standard Deviation, Variance and Co- variance, *t* test. **20x1=20 Marks.**

### Module IV

**D.** Practical Notebook + Viva-voce **10+10=20Marks.**

### Suggested books:


1. शर्मा, जे. पी. (2018): प्रायोगिक भूगोल, रस्तोगी प्रकाशन , मेरठ
2. सिंह, एल. आरः प्रायोगिक भूगोल के मूल सिद्धांत, शारदा पुस्तक भवन, इलाहाबाद
3. Singh, L. R (2013): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad
4. Singh and Singh (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi

# Semester - VIII

## Paper – MJ-20 (Contemporary Issues in Geography)

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives:

1. To understand the meaning and importance of contemporary issues in geography.
2. To understand the cause and effect of various physical and human issues.
3. To understand the modern theme in Geography.

## Learning outcome:

Students will get to know about the importance of contemporary issues in geography. They will also understand the various aspects of contemporary human and physical issues like poverty, terrorism, flood, forest fire etc.

## Module I

Meaning, Scope and Importance of contemporary issues; Importance of study of contemporary issues in Geography in the Context of Ecological Foot-print, Carrying Capacity of the Earth and Human Welfare.

**Module II**

Physical (Geomorphic/Climatic/Oceanic/Biological) issues:

Causes and effects of

a. Landslides; Soil Erosion; Earthquakes; Volcanic Explosion; Tsunami
b. Floods; Droughts; Cyclones; Cloudburst; Heatwaves and Coldwaves; Ozone depletion; El Nino and La Nina; Marine pollution,
c. Deforestation; Forest fire; Epidemics; Watershed Management, Dam Hazard

**Module III**

Human (Population/Economic/Social/Political):

Causes and effects of

a. Over population; Unemployment, Poverty; Regional disparity; Migration; Uncontrolled Urbanization.
b. Exploitation of resources; Energy Crisis and Alternative Energy.
c. Terrorism; Conflicts due to race, religion and caste; HIV/AIDS; dispersion of Corona Pandemic and politics.
d. Wars and Extremists Activity; Infiltration in India; Oil Politics; Water politics; Nuclear weapons and Star war.

**Module IV**

Modern theme in Geography:

a. Applied Geography, Sustainable Development, Liberalization, Globalization and Privatization
b. Climate Change: Global Warming, International Efforts and Response
c. Basic indicators of human and gender development; Social inequality as constraint of development
d. Population growth, Malnutrition, Food security and Hunger, Morbidity and Mortality

**SUGGESTED BOOK LIST**

| | | | |
|---|---|---|---|
| 1 | भूगोल : सिवल सेवा मुख्य परीक्षा के लिए | खुल्लर, डीआर | 2017, MacGRAW HILL EDUCATION (INDIA) PVT LTD, NEW DELHI |
| 2 | संसाधन एवं पर्यावरण भूगोल | कौशिक, एस.डी एवं गर्ग, कुलदीप | रस्तोगी प्रकाशन , मेरठ |
| 3 | Spectrum's Geography for Civil services | Spectrum Geography Team | 2022, Spectrum New Delhi |
| 4 | भारतीय राजनीति के समकालीन मुद्दे | सिंह, आरपी | 2018, के के पब्लिकेशन , नई दिल्ली |
| 5 | Climate Change and food Security | Sah, Shankar | 2014, K K Publications, New Delhi |
| 6 | Terrorism, Naxalism and Insurgency in India | Kumar, Ashok | 2018, K K Publications, New Delhi |
| 7 | Nuclear Weapons: 1945 Onwards (Strategic and Tactical Delivery Systems) | Baker, David | Haynes Publishing UK (September 12, 2017) |
| 8 | परमाणु गाथा | जोगी, सुनील | डायमंड बुक्स , नई दिल्ली |
| 9 | Dynamics of Global Terrorism | Kumar, Ashok | 2012, K. K. Publications, New Delhi |

# Paper – MJ-21 (Population Geography)

## *Advanced Major*

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives:

1. To understand the Census Process in India.
2. To analyse the Population Distribution in World and India.
3. To understand the Population Dynamics and important Theories of Population Geography.

## Learning outcome:

Students will gain knowledge about collection of population data, Population policies and the burning issues regarding population and population dynamics and structure**.**

### Module -1

Nature and scope of population geography; Sources and types of population data: census, National sample survey (NSS) and vital registration system, Census Problems in India.

### Module -2

Population dynamics: Birth rate, Death rate, MMR, IMR, TFR, Sex-ratio, age and sex structure; Occupational structure; Malthusian Theory and Demographic transition theory; human resource development: indicators and patterns.

**Module -3**

World population: growth, causes and consequences; Factors affecting population distribution; Concept of Over-population, under-population and optimum population; Population Dividend.

**Module -4**

INDIA: - Population growth; Distribution of population; Density types: (Arithmetic density, physiological density, nutritional density, agricultural density); Population problems; Population Policy, Population and Environment Interface

Suggested books:


1. Chandna, R.C., (2015) *Geography of Population*, Kalyani Publishers, Ludhiana.
2. Debjani, Roy., (2022) *Population Geography*, Books and Allied Private Limited, Kolkata
3. Chandna, R. C. and Sidhu, M. S., (1980): *An Introduction to Population Geography*, Kalyani Publishers.
4. मौर्य, एस. डी. (2017): जनसंख्या भूगोल, शारदा पुस्तक भवन, इलाहाबाद
5ण त्रिपाठी, आर. डी (2018): जनसंख्या भूगोल, वसुन्धरा प्रकाशन, गोरखपुर
6ण तिवारी, रामकुमार (2015): जनसंख्या भूगोल, प्रवालिका प्रकाशन, इलाहाबाद.

## Paper – MJ-22 (Environmental Geography)

### *Advanced Major*

**Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100 Pass Marks: Th (SIE + ESE) = 40**

**(Credits: Theory-04) 60 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 20+5=25 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 20 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 75 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type seven questions of fifteen marks each, out of which any four are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objectives:

1. To understand the Environmental Impact Assessment and rules and regulations.
2. To study the concept and components of Ecosystem and ecology
3. To study the contemporary issues regarding environmental degradation.

## Learning outcome:

After the completion of this course the student will be able to understand the importance of environment, relationship between man- environment relationship and contemporary issues related to land degradation**.**

### Module - I

Definition and Scope of Environmental Geography; Meaning and Components of Environment, Environmental Impact Assessment, Environmental Rules and Regulations in India.

### Module – II

Ecology: Definition and Scope of Ecology; Eco-Systems: Meaning, Types, structure/Components and Functioning of Eco-Systems; Soil System: Meaning and Components of Soil System.

**Module – III**

Environmental Degradation: Meaning, causes, Sources and mitigation of Air, Water and land Pollution.

**Module – IV**

Environmental Issues - Depletion of Ozone Layer and its consequences, Protection of Ozone Layer; Acid Rain- Causes and Effects; A Detailed Account of the Concept of Global Warming, Environmental Programmes and Policies – Global, National and Local levels

**Suggested books:**


1ण श्रीवास्तव एवं राव (2013): पर्यावरण एवं पारिस्थितिकी वसुन्धरा प्रकाशन
2ण नेगी, पी. एस.: पारिस्थितिकी एव ंपर्यावरण भूगोल, रस्तोगी प्रकाशन
3ण मौर्य, एस. डी.: पर्यावरण अध्ययन, प्रयाग पुस्तक भवन
4ण राव, बी. पी.: पर्यावरण अध्ययन के आधार, वसुन्धरा प्रकाशन
5. Singh, S. (2015): Environmental Geography, Prayag Pustak Bhawan
6. Gautam, A. (2021): Environmental Geography, Sharda publication

## Semester - VIII

## Paper – MJ-23 (Practical)

## *Advanced Major*

**Marks: Pr (ESE: 3Hrs) =100** **Pass Marks: Pr (ESE) = 40**

**(Credits: Practicals-04) 120 Hours**

**1.** This paper is fully dedicated to presenting a **Dissertation** on the topics that are chosen from Population Problems OR Environmental Degradation which are emerging from People-Environment interface in contemporary era. This dissertation will be a miniature of Research Thesis. So students have to acquire research aptitude for presenting a good dissertation, allotted by HOD. (**Research Aptitude**: Meaning and Definition of Research, Review of Literature, Research Objective, Research Problem/gap, Hypothesis, Research Methodology, Sources of data, Significance of the study, Referencing, Appendix, Plagiarism)

2. Students are required to present their dissertation in well versed mode and proper binding (Spiral / hard bound)

3. Dissertation must contain suitable Map, Diagram, Photographs and Table that are arranged in proper manner.

4. Students are required to present their searched findings on Power-point (PPT mode) leads to Viva-voce.

**-100 Marks**

# Geography Minor

Geography may be opted as Minor-1 by the students having **Any** Major subject.

It is intended to support the Major subject. There will be four papers of Geography minor of 4 credits each with following description:

i. Theory: 3 credits of 75 marks.
ii. Practical: 1 credit of 25 marks.

The geography Minor can be opted in odd semesters as follows:

| **Semester** | **Minor paper** | **No. of Credits** | |
|---|---|---|---|
| | | Theory | Practical |
| I | MN-1A (GEO) | 3 Credits (75 Marks)<br>(SIE=10+5, ESE =60) | 1 Credit (25 Credits)<br>(SIE= 0, ESE =25) |
| III | MN-1B (GEO) | 3 Credits (75 Marks)<br>(SIE=10+5, ESE =60) | 1 Credit (25 Credits)<br>(SIE= 0, ESE =25) |
| V | MN-1C (GEO) | 3 Credits (75 Marks)<br>(SIE=10+5, ESE =60) | 1 Credit (25 Credits)<br>(SIE= 0, ESE =25) |
| VII | MN-1D (GEO) | 3 Credits (75 Marks)<br>(SIE=10+5, ESE =60) | 1 Credit (25 Credits)<br>(SIE= 0, ESE =25) |

# Semester – I

## Paper – MN-1A , Physical Geography (Theory)

**Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75 Pass Marks: Th (SIE + ESE) = 30**

**(Credits: Theory-03) 45 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 10+5=15 marks):*

*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 10 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*

*End Semester Examination (ESE 60 marks):*

There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to be answered.

***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objective:

1. To understand the physical aspects of earth.
2. To study the all the environmental aspects of the earth like atmosphere, lithosphere, hydrosphere and biosphere

## Learning outcome:

1. Students will understand the components of the earth system – atmosphere, lithosphere, hydrosphere and biosphere.
2. Students will study the interactions among bio-physical processes in earth space.

## Module 1

Earth and solar system, Types and formation of rocks, Distribution of Earthquake and volcano, Denudation of Land Surface, Mountain, Plateau, Plain, Lake and rift valley, Landforms: Fluvial, Aeolian,

## Module 2

Atmosphere: structure and composition, Atmospheric pressure and Temperature, Planetary and Local winds, Greenhouse gases, Cyclone: Tropical and Temperate,

**Module 3**

Configuration of Oceans, Salinity and Temperature of the ocean water, Ocean current, Sea Deposits and Resources

**Module 4**

Concept of Ecology and Ecosystem, Energy flow, Biomes: Grassland, Forest; Biodiversity-loss and their Conservation

**Suggested books:**


**1-** हुसैन, माः भौगोलिक विचार धाराओं का उद्‌भव एवं विकास, रावत प्रकाशन, नई दिल्ली

2. कौशिक एवं रावतः भौगोलिक विचार धारायें एवं विधितंत्र, रस्तोगी प्रकाशन, मेरठ

3. सिंह, एस : जलवायु विज्ञान, प्रवालिका प्रकाशन इलाहाबाद

4. सिंह, सविन्द्रः समुद्र विज्ञान, प्रवालिका प्रकाशन इलाहाबाद

5. सिंह, सविन्द्रः भूआकृतिविज्ञान, वसुंधरा प्रकाशन,

6. शर्मा, जेपीः भूअकृतिविज्ञान, रस्तोगी प्रकाशन, मेरठ

7. Dixit, R D (2018): Geographical Thought a Contextual History of Ideas, Prentice Hall India, New Delhi
8. Hussain, Majid (2015): Evolution of Geographical Thought, Rawat Publication, New Delhi
9. Singh, S.(2018): Geomorphology, Pravalika publication, Allahabad
10. Singh, S. (2023): Physical Geography, Pravalika publication, Allahabad
11. Strahaler, A. (2016): Introducing Physical Geography, Wiley India

## Paper MN-1A, Physical Geography (Practical),

**Marks: Pr (ESE: 3Hrs) = 25** **Pass Marks: Pr (ESE) = 10**

**(Credits: Practicals-01) 30 Hours**

1. Meaning of Representative Fraction (R.F), Construction of scale (Simple and Comparative), Interpretation of topographical sheet 10

2. Interpretation of weather map, Rainfall and temperature graph, Hythergraph, Climograph, Weather symbols, Relief feature Representation-Choropleth and Isopleth 10

3. Viva-voce 05

## Suggested books:


1. शर्मा, जे. पी. (2018): प्रायोगिक भूगोल, रस्तोगी प्रकाशन, मेरठ

2. सिंह, एल. आरः प्रायोगिक भूगोल के मूल सिद्धांत, शारदा पुस्तक भवन, इलाहाबाद

3. Singh, L. R. (2013): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad

4. Singh and Singh (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi

# Semester – III

## Paper – MN-1B, Human Geography, (Theory)

**Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75 Pass Marks: Th (SIE + ESE) = 30**

**(Credits: Theory-03) 45 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 10+5=15 marks):*
*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 10 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*
*End Semester Examination (ESE 60 marks):*
There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to be answered.
***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objective:

**1.** To understand the man-environment relationship on the earth

2. To study the cultural aspects of human like settlement, functions etc.

## Learning outcome:

1. Know the changing human and cultural landscape at different levels.

2. Understand patterns and processes of population growth and its implications.

3. Appreciate the nature and quality of human landscapes.

### Module 1

Meaning, nature and scope of human geography, Schools of thought in human geography, Determinism, Possibilism, Neo- determinism, Probabilism.

### Module 2

Classification and characteristics of races in world and India, Human Adaptation to Environment: Eskimo, Masai, Semang, Bushman.

### Module 3

Growth and Distribution of World Population, Malthusian and Demographic Transition Theory, Human and Environment Interface.

## Module 4

Rural houses in India: types, classification and regional pattern; Evolution of urban settlements and their functional classification

## Suggested books:


1ण कौशिक, एस.डी. मानव भूगोल रस्तोगी प्रकाशन
2ण राव एवं दीक्षित, बी. पी.., एस. के.: मानव भूगोल, वसुन्धरा प्रकाशन
3ण सिंह, डी. पी. मानव भूगाल के मूल तत्व, कल्याणी प्रकाशन
4. Mourya, S.D. (2022): Human Geography, Prayag Pustak Bhawan.
5. Singh, Lekh Raj (2005): Fundamental of Human Geography, Sharda Publication
6. Hussain, M. (2021): Human Geography, Rawat Publication.
7. Negi, B.S. : Human Geography, Rastogi Publication, Meerut.


## Paper MN-1B, Human Geography, (Practical),

**Marks: Pr (ESE: 3Hrs) = 25** **Pass Marks: Pr (ESE) = 10**

**(Credits: Practicals-01) 30 Hours**

1. Bar Diagram (Simple, Multiple and compound), Pie diagram, line graph 10

2. Map projection: simple and conical map projection with one standard and two standard parallel, Mercator Projection 10

3. Viva-voce 05

## Suggested books:


1-शर्मा, जे पी : 2018प्रायोगिक भूगोल, रस्तोगी प्रकाशन , मेरठ

2.सिंह, एल आरः प्रायोगिक भूगोल के मूल सिद्धांत, शारदा पुस्तक भवन, इलाहाबाद

3. Singh, L. R (2013): Fundamentalsof Practical Geography, Sharda Pustak Bhawan, Allahabad

4. Singh and Singh (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi.

# Semester – V

## Paper – MN-1C , Geographical Thought, GIS, GPS & Remote Sensing (Theory)

**Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75 Pass Marks: Th (SIE + ESE) = 30**

**(Credits: Theory-03) 45 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 10+5=15 marks):*
*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 10 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*
*End Semester Examination (ESE 60 marks):*
There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to be answered.
***Note:*** *There may be subdivisions in the questions of group B.*

## Course objective:

4. To understand the Conceptual framework of geography.
5. To study the historical development and contributions of geography.
6. Understanding modern techniques in geography.

## Learning outcome:

After completion of this course the student will be able to understand the theme of the geography and its development through time as well as changing man-environment relationship.

## Module-I:

Geography as a Discipline; Nature and Scope of Geography; place of Geography in the classification of Sciences.

## Module-II:

Geography in Ancient (Greek, Rome, Arab and India) and Medieval Period; Development of Geography in Modern Period (German, French, British and American School).

## Module-III:

Dualism in Geography; Man-Environment Relationship, Career in Geography, Methods and Technique in Geography- Quantitative and Environmental.

**Module-IV:**

Meaning and Introduction of Remote sensing, Advantage of Remote sensing in modern times; Meaning of Geographical information system (GIS), Application of GIS, Concept and application of Global Positioning system (GPS),

Suggested books: -


1. हुसैन, मा (2001): भौगोलिक विचार धाराओं का उद्भव एवं विकास, रावत प्रकाशन, नई दिल्ली
2. श्रीवास्तव, वि केः भौगोलिक चिंतन के आधार, वसुंधरा प्रकाशन, गोरखपुर
3. कौशिक एवं रावतः भौगोलिक विचार धारायें एवं विधितंत्र, रस्तोगी प्रकाशन, मेरठ
4. Dixit, R. D (2018): Geographical Thought a Contextual History of Ideas, Prentice Hall India, New Delhi
5. Hussain, Majid (2015): Evolution of Geographical Thought, Rawat Publication, New Delhi
6. Reddy, M. Anji (2008): Remote sensing and Geographical Information system, B.S. publication,
7. Chauniyal, D. D. (2016): सुदूर संवेदन एवं भौगोलिक सूचना प्रणाली के सिद्धांत , Sharda Pustak Bhawan, Prayagraj.


**Paper – MN-1C, Geographical Thought, GIS, GPS & Remote Sensing (Practical),**

**Marks: Pr (ESE: 3Hrs) = 25** **Pass Marks: Pr (ESE) = 10**

**(Credits: Practicals-01) 30 Hours**

1. Pyramid diagram, histogram, Dot method, Circle diagram 10

2. Principles of Visual Image interpretation: aerial photograph and satellite imageries; Use of Pocket Stereoscope 10

3. Viva-voce 05

**Suggested books:**


1. शर्मा, जे पी (2018): प्रायोगिक भूगोल, रस्तोगी प्रकाशन , मेरठ
2. सिंह, एल. आरः प्रायोगिक भूगोल के मूल सिद्धांत, शारदा पुस्तक भवन, इलाहाबाद
3. Singh, L. R (2013) : Fundamentalsof Practical Geography, Sharda Pustak Bhawan, Allahabad
4. Singh and Singh (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi.

# Semester – VII

## Paper – MN-1D, Regional Geography: India & Jharkhand, (Theory)

**Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75 Pass Marks: Th (SIE + ESE) = 30**

**(Credits: Theory-03) 45 Hours**

***Instruction to Question Setter for***

*Semester Internal Examination (SIE 10+5=15 marks):*
*The Semester Internal Examination shall have two components. (a) One Semester Internal Examination Written Test (SIE) of 10 Mark (b) Class Attendance Score (CAS) including the behaviour of the student towards teachers and other students of the College of 5 marks.*
*End Semester Examination (ESE 60 marks):*
There will be two group of questions **A** and **B**. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to be answered.
***Note:*** *There may be subdivisions in the questions of group B.*

## Course Objective:

1. Learn the differences in terms of varied physical and demographic features of India and Jharkhand.
2. To understand the production pattern of major crops, minerals and industrial regions in India and Jharkhand.
3. To study the indigenous people of Jharkhand and development of tourism.

## Learning Outcome:

The student will be able to understand the diverse physical as well as cultural aspect of India. They will also know about the indigenous people and the tourist attractions of Jharkhand.

### Module 1

India: Physiography, Drainage and Climate, Biodiversity of India, Population Growth and distribution in India, Trend of Urbanization in India.

### Module 2

Green Revolution and its consequences, Agricultural crops (paddy, wheat, tea), Minerals (iron ore, bauxite), Energy resources (coal, Petroleum), Industrial regions of India

## Module 3

Jharkhand: Physiography, Drainage and Climate; Forest resources and its Economic and environmental importance, Agriculture: Irrigation types and distribution, Industrial Region of Jharkhand

## Module 4

Growth and Distribution of Population in Jharkhand, Study of tribes: (Munda, Santhal, Oraon), Eco- tourism and development of tourism in Jharkhand.

## Suggested books: -


1. Hussain, M., (1992): Geography of India, Tata McGraw Hill Education, New York.
2. Khullar, D. R: India (2018): A Comprehensive Geography, Kalyani Publishers, New Delhi
3. R Tirtha (2002): Geography of India, Rawat Publications, New Delhi
4. Sinha and Singh (2018): Land and People: Jharkhand, Rajesh Publications, Delhi
5. Prasad Ayodhya (2021): Jharkhand Geography of Rural Settlement, Rajesh Publication, New delhi

6ण राव एवं त्यागीः भारत की भौगोलिक समीक्षा, वसुंधरा प्रकाशन , गोरखपुर

7ण बंसल, सुरेश (2015)ः भारत का बृहत् भूगोल, मीनाक्षी प्रकाशन, मेरठ

10ण श्रीवास्तव, एलः भारत का भूगोल, शारदा पुस्तक भवन, इलाहाबाद

11ण सिंह, एस. के. (2016)ः झारखण्ड प्रदेश की भौगोलिक व्याख्या, राजेश प्रकाशन, नई दिल्ली

12ण तिवारी, आर. के. (2009)ः झारखण्ड का भूगोल, राजेश प्रकाशन, नई दिल्ली

20ण शर्मा एवं विक्रम (2018)ः छोटानागपुर का भूगोल, राजेश प्रकाशन, नई दिल्ली


## Paper MN-1D, Regional Geography: India & Jharkhand, (Practical),

**Marks: Pr (ESE: 3Hrs) = 25** **Pass Marks: Pr (ESE) = 10**

**(Credits: Practicals-01) 30 Hours**

1. Nature of data- primary and secondary, methods of data collection- Questionnaire and schedule. Statistical Techniques- Mean, Median and Mode 10

2. Instrumental Survey- Plane table (radiation and intersection method), Prismatic compass survey (Open and Closed traverse) 10

3. Viva-voce 05

**Suggested books:**


1ण शर्मा, जे पी 2018 : प्रायोगिक भूगोल, रस्तोगी प्रकाशन , मेरठ

2ण सिंह, एल आरः प्रायोगिक भूगोल के मूल सिद्धांत, शारदा पुस्तक भवन, इलाहाबाद

3. Singh, L R (2013): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad
4. Singh and Singh (1999): Elements of Practical Geography, Kalyani Publishers, New Delhi