# **MASTER OF ARTS**

|                | Duration : 24 Months ( 2 Years) Eligibility : Graduation in Geography |                                       |                |                        |              |                     |              |              |              |                     |   |   |                      |
|----------------|---|---------------------------------------|----------------|------------------------|--------------|---------------------|--------------|--------------|--------------|---------------------|---|---|----------------------|
|                |   | Cours                                 | e Struc        | ture o                 | of Geo       | graph               | y 1st        | Seme         | ster         |                     |   |   |                      |
| Course Details |   |                                       |                | External<br>Assessment |              | Internal Assessment |              |              |              | Credit Distribution |   |   | Allotted<br>Credits  |
| _              |   |                                       |                | Major                  |              | Minor               |              | Sessional    |              |                     |   |   | Subject              |
| Course<br>Code | Course Type   | Course Title                          | Total<br>Marks | Max<br>Marks           | Min<br>Marks | Max<br>Marks        | Min<br>Marks | Max<br>Marks | Min<br>Marks | L                   | Т | Р | wise<br>Distribution |
|                | 1   | 1                                     |                | Т                      | heory Gr     | oup                 |              |              |              |                     | 1 | 1 |                      |
| 6HMGE101       | Core Course-1   | History of<br>Geographical<br>Thought | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                    |
| 6HMGE102       | Core Course-2   | Climatology                           | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                    |
| 6HMGE103       | Core Course-3   | Geomorphology                         | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                    |
| 6HMGE104       | Core Course-4   | Resource and<br>Environment-I         | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                    |
|                | Practical Group   |                                       |                |                        |              |                     |              |              |              |                     |   |   |                      |
| 6HMGE105       | Practical   | Practical Paper                       | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                    |
|                | Grand Total   |                                       | 500            |                        |              |                     |              |              |              | 15                  | 5 | 0 | 20                   |

Minimum Passing Marks are equivalent to Grade C

Minor-Pre University Test

Sessional weightage-Attendance 50%, Three Class Tests/Assignments 50% L-Lectures, T-Tutorials, P-Practicals

|                |                      |   |                 | _                      | <b>FER OF</b> | _                   |              |              |              |                        |   |   |                              |  |
|----------------|----------------------|---|-----------------|------------------------|---------------|---------------------|--------------|--------------|--------------|------------------------|---|---|------------------------------|--|
|                |                      | Duration : 24 M                                   | <u>Ionths (</u> | 2 Years                | s) Eligib     | ility : Gi          | raduatio     | on in Ge     | ography      | 7                      |   |   |                              |  |
|                |                      | Course S  | tructi          | ure of                 | Geog          | raphy               | <b>2nd</b>   | Seme         | ster         |                        |   |   |                              |  |
| Course Details |                      |   |                 | External<br>Assessment |               | Internal Assessment |              |              |              | Credit<br>Distribution |   |   | Allotted<br>Credits          |  |
| Courses        |                      |   | Tatal           | Major                  |               | Minor               |              | Sessional    |              |                        |   |   | Carbin at aution             |  |
| Course<br>Code | Course Type          | Course Title                                      | Total<br>Marks  | Max<br>Marks           | Min<br>Marks  | Max<br>Marks        | Min<br>Marks | Max<br>Marks | Min<br>Marks | L                      | Т | Р | Subject wise<br>Distribution |  |
|                |                      |   |                 | Th                     | neory Gro     | up                  |              |              |              |                        |   |   |                              |  |
| 6HMGE201       | Core Course-1        | Regional<br>Geography<br>: India and<br>Jharkhand | 100             | 50                     | 17            | 20                  | 8            | 30           | 12           | 3                      | 1 | - | 4                            |  |
| 6HMGE202       | Core Course-2        | Population<br>Geography                           | 100             | 50                     | 17            | 20                  | 8            | 30           | 12           | 3                      | 1 | - | 4                            |  |
| 6HMGE203       | Core Course-3        | Research<br>Methodology                           | 100             | 50                     | 17            | 20                  | 8            | 30           | 12           | 3                      | 1 | - | 4                            |  |
| 6HMGE204       | Core Course-4        | Resource and<br>Environment-II                    | 100             | 50                     | 17            | 20                  | 8            | 30           | 12           | 3                      | 1 | - | 4                            |  |
|                |                      |   |                 | Pra                    | nctical Gr    | oup                 |              |              |              |                        |   |   |                              |  |
| 6HMGE205       | Practical            | Practical   | 100             | 50                     | 17            |                     |              | 50           | 17           | 3                      | 1 | - | 4                            |  |
| Skill Courses  |                      |   |                 |                        |               |                     |              |              |              |                        |   |   |                              |  |
| *              | Skill<br>Enhancement | Skill<br>Enhancement<br>Elective Course-<br>1     | 50              | -                      | -             | -                   | -            | 50           | 20           | 1                      | - | 1 | 2                            |  |
|                | Grand Total          |   | 550             |                        |               |                     |              |              |              | 16                     | 5 | 1 | 22                           |  |

MACTED OF ADTC

Minimum Passing Marks are equivalent to Grade C Minor-Pre University Test Sessional weightage-Attendance 50%, Three Class Tests/Assignments 50% L-Lectures, T-Tutorials, P-Practicals

# **MASTER OF ARTS**

|   |                                 |   |                |                        |              |                     | 1            |              |              |                     |   |   |                              |
|---|---------------------------------|---|----------------|------------------------|--------------|---------------------|--------------|--------------|--------------|---------------------|---|---|------------------------------|
| Duration : 24 Months ( 2 Years) Eligibility : Graduation in Geography |                                 |   |                |                        |              |                     |              |              |              |                     |   |   |                              |
| Course Structure of Geography 3rd Semester                            |                                 |   |                |                        |              |                     |              |              |              |                     |   |   |                              |
| Course Details  |                                 |   |                | External<br>Assessment |              | Internal Assessment |              |              |              | Credit Distribution |   |   | Allotted<br>Credits          |
|   |                                 |   |                | Major                  |              | Minor               |              | Sessional    |              |                     |   |   |                              |
| Course<br>Code  | Course Type                     | Course Title                                    | Total<br>Marks | Max<br>Marks           | Min<br>Marks | Max<br>Marks        | Min<br>Marks | Max<br>Marks | Min<br>Marks | L                   | Т | Р | Subject wise<br>Distribution |
|   | Theory Group                    |   |                |                        |              |                     |              |              |              |                     |   |   |                              |
| 6HMGE301  | Core Course-1                   | Regional Planning<br>and Development<br>(India) | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                            |
| 6HMGE302  | Core Course-2                   | Settlement<br>Geography                         | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                            |
| 6HMGE303  | Discipline Specific<br>Elective | Oceanography                                    | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                            |
| 6HMGE304  | Discipline Specific<br>Elective | Environment and<br>Ecology                      | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                            |
| Skill Courses   |                                 |   |                |                        |              |                     |              |              |              |                     |   |   |                              |
| 6HMGE305  | Practical                       | Practical                                       | 100            | 50                     | 17           |                     |              | 50           | 17           | 2                   |   | 2 | 4                            |
| *   | Skill Enhancement               | Skill Enhancement<br>Elective Course-II         | 50             | 25                     | 8            | -                   | -            | 25           | 8            | 1                   | - | 1 | 2                            |
|   | Grand Total                     |   | 550            |                        |              |                     |              |              |              | 15                  | 4 | 3 | 22                           |

Minimum Passing Marks are equivalent to Grade C

L-Lectures, T-Tutorials, P-Practicals

Minor-Pre University Test

Sessional weightage-Attendance 50%, Three Class Tests/Assignments 50%

# **MASTER OF ARTS**

| Duration : 24 Months ( 2 Years) Eligibility : Graduation in Geography |  |  |                |                        |              |                     |              |              |              |                     |   |   |                              |
|---|--|--|----------------|------------------------|--------------|---------------------|--------------|--------------|--------------|---------------------|---|---|------------------------------|
|   |  | Course   | Structu        | ire of                 | Geog         | raphy               | 4th 9        | Semes        | ter          |                     |   |   |                              |
| Course Details  |  |  |                | External<br>Assessment |              | Internal Assessment |              |              |              | Credit Distribution |   |   | Allotted<br>Credits          |
|   |  |  |                | Major                  |              | Minor               |              | Sessional    |              |                     |   |   |                              |
| Course Code   | Course Type  | Course Title   | Total<br>Marks | Max<br>Marks           | Min<br>Marks | Max<br>Marks        | Min<br>Marks | Max<br>Marks | Min<br>Marks | L                   | Т | Р | Subject wise<br>Distribution |
|   | Theory Group   |  |                |                        |              |                     |              |              |              |                     |   |   |                              |
| 6HMGE401  | Core Course-1  | Urban Geography and<br>Planning                          | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                            |
| 6HMGE402  | Core Course-2  | Geography of Tourism<br>and Transport                    | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                            |
| 6HMGE403  | Discipline Specific<br>Elective                          | Biogeography   | 100            | 50                     | 17           | 20                  | 8            | 30           | 12           | 3                   | 1 | - | 4                            |
|   | Practical Group  |  |                |                        |              |                     |              |              |              |                     |   |   |                              |
| 6HMGE404  | Project /<br>Dissertation<br>/Internships & Viva<br>Voce | Project /<br>Dissertation<br>/Internships & Viva<br>Voce | 200            | 100                    | 33           | -                   | -            | 100          | 40           | -                   | - | 8 | 8                            |
|   | Grand Total  |  | 500            |                        |              |                     |              |              |              | 9                   | 3 | 8 | 20                           |

Minimum Passing Marks are equivalent to Grade C

Minor-Pre University Test

Sessional weightage-Attendance 50%, Three Class Tests/Assignments 50%

L-Lectures, T-Tutorials, P-Practicals

#### SKILL ENHANCEMENT ELECTIVE COURSES

|                                       |                                   | Non-Technical  |          |  |  |  |  |
|---------------------------------------|-----------------------------------|--|----------|--|--|--|--|
| Elective No. Department/ Faculty Name |                                   |  |          |  |  |  |  |
|                                       | Faculty of Information Technology |  |          |  |  |  |  |
| Ι                                     | SCIT 201                          | Data Entry Operation   | 2(1+0+1) |  |  |  |  |
| II                                    | SCIT 301                          | Multimedia   | 2(1+0+1) |  |  |  |  |
| III                                   | SCIT 501                          | Web Designing with HTML                                      | 2(1+0+1) |  |  |  |  |
| IV                                    | SCMIT 201                         | Web Development  | 2(1+0+1) |  |  |  |  |
| V                                     | SCMIT 301                         | LINUX  | 2(1+0+1) |  |  |  |  |
|                                       |                                   | Faculty of Management  |          |  |  |  |  |
| Ι                                     | SMGT 201                          | Briefing and Presentation Skills                             | 2(1+0+1) |  |  |  |  |
| II                                    | SMGT 301                          | Resolving Conflicts and Negotiation Skills                   | 2(1+0+1) |  |  |  |  |
| III                                   | SMGT 802                          | Entrepreneurship Development                                 | 2(1+0+1) |  |  |  |  |
|                                       |                                   | Faculty of Commerce  |          |  |  |  |  |
| Ι                                     | SCOM 201                          | Tally ERP 9  | 2(1+0+1) |  |  |  |  |
| II                                    | SCOM 302                          | Multimedia   | 2(1+0+1) |  |  |  |  |
| III                                   | SCOM 803                          | Data Analyst   | 2(1+0+1) |  |  |  |  |
|                                       |                                   | Faculty of Humanities  |          |  |  |  |  |
| Ι                                     | SHBA 301                          | Pursuing Happiness   | 2(1+0+1) |  |  |  |  |
| II                                    | SHBA302                           | Communication Skill and Personality Development              | 2(1+0+1) |  |  |  |  |
| III                                   | SHMA301                           | Tourism in M.P   | 2(1+0+1) |  |  |  |  |
|                                       |                                   | Faculty of Science   |          |  |  |  |  |
| Ι                                     | SSBI 301                          | Mushroom Cultivation   | 2(1+0+1) |  |  |  |  |
| II                                    | SSPH 301                          | House Hold Wiring  | 2(1+0+1) |  |  |  |  |
| III                                   | SSPH 301                          | Basic Instrumentation  | 2(1+0+1) |  |  |  |  |
| IV                                    | SSPH 301                          | DTP Operator   | 2(1+0+1) |  |  |  |  |
| V                                     | SSCH 301                          | Graphic Designing  | 2(1+0+1) |  |  |  |  |
|                                       |                                   | Faculty of Education   |          |  |  |  |  |
| Ι                                     | SCBE 403                          | Understanding of ICTC (Information Communication Technology) | 2(1+0+1) |  |  |  |  |
| II                                    | SCPE 201                          | Yoga Education   | 2(1+0+1) |  |  |  |  |
|                                       |                                   | · · · · · · · · · · · · · · · · · · ·                        |          |  |  |  |  |

# HISTORY OF GEOGRAPHICAL THOUGHT

#### Module 1:

The field of Geography: Its place in the classification of sciences, geography as social science and natural science.

Selected concepts in the philosophy of geography: Logical Positivism, areal differentiation and spatial organization.

#### Module 2:

Dualism in Geography: Systematic and Regional Geography, Physical and Human Geography, Determinism and Possibilism.

Laws, theories and models, the quantitative revolution, Behaviourism, post modernism.

#### Module 3:

Regional Geography: Concept of region, Regionalization and the regional methods.

Historical development: Contributions of different scholars during Ancient, Medieval and Modern period.

#### Module 4:

Geography in the 20 th century :Concept and methodological developments, Status of Indian geography.

Future of geography, Radical geography; Feminist Geography, geographical thought with reference to changing views on man-environment relationship. Geography and public policy

## CLIMATOLOGY

### Module 1:

Nature and scope of climatology and its relationship with meterology, composition and structure of the atmosphere.

Insolation, heat balance of the earth, Green house effect, vertical and horizontal distribution of temperature, local winds, jet streams, general circulation in the atmosphere.

### Module 2:

Tropical, temperature and high latitudes weather system-concept of air mass and atmospheric disturbances. Cyclones-tropical and temperate. Stable and unstable atmosphere: environmental lapse rate, dry and wet adiabatic lapse rate and atmospheric stability.

Ocean-atmosphere interaction-El Nino, southern oscillation (ENSO) and La Nina. Monsoon winds, Norwesters.

### Module 3:

Climatic classification of Koppen and Thornthwaite

Climate changes: Evidences, possible causes

Applied Climatology: Climate, Hydrology and Water Resources;

Urban climate and global environment change: The nature of the urban climates, Urban Heat Island (UHI), Impact of the urban climate on Global Environment Change (GEC).

#### Module 4:

Global warming, environmental impacts and society's response, Atmospheric effects of thunders, Thunderstorms and Droughts. Climate Impact Assessment.

## GEOMORPHOLOGY

### Module 1:

Nature and scope of geomorphology, fundamental concepts, geological structures and land forms.

Regional geomorphology of peninsular India, Ganga plains, Chotanagpur plateau and west coastal plains.

### Module 2:

Eath movements: Epeirogenic, Orogenic and Cymatogenic Earth movement, Isotasy, Plate Tectonics.

Seismicity: Vulcanicity, orogenic structures with reference to the evolution of Himalaya

### Module 3:

Exogenetic Processes: Concept of gradation, agents and processes of gradation, causes, types and classification of weathering.

Mass movement, erosional and depositional processes and resultant landforms, slope evolution, down wearing, parallel retreat.

### Module 4:

Dynamics of fluvial, glacial, Aeolian, marine and karst processes and resulting landforms.

Applied geomorphology, application geomorphic mapping, environmental geomorphology, geomorphic hazards.

## **RESOURCE AND ENVIRONMENT-I**

UNIT-1:- Resources ; Concept of Resource, Meaning of Resources ,Nature of Resources And Components of Resources. Classification of Resources

Unit-2 Environment ; Meaning of Environment, Components and Man-Environment Relationship.

UNIT-3:- Soil Resources, Water Resources, Mineral Resources ,Power Resources ,Biotic Resources :vegetation and animals.

UNIT-4:- Human Resources; importance of Resources, Population ; population Distribution ,Affecting Factors of Population. Population Growth. Components of Population.

## **PRACTICAL PAPER**

The syllabus for practical is divided into two sections-Sec A and B

The Practical examination including field work examination of six hours duration

# Section-A(IV-A)

#### Course contents:

| 1 | Importance of field instruments survey: scope and purpose, principal<br>and applications of selected survey instruments, plane table resection,<br>two point and three point and three point problems, tracing paper<br>method. | : | 15 Marks |
|---|---|---|----------|
| 2 | Prismatic compass; open and closed traverse, elimination of error-<br>Bowditch Method.  | : | 15 Marks |
| 3 | Viva-voce.  | : | 10 Marks |
| 4 | Practical Note Book   | : | 10 Marks |

Section-B(IV-B)

# Field work (project report)-50

# Allotted by Departmental Council (Any part of Jharkhand region)

### Objectives:

The main objective of the field work (Physical) to conduct an extensive survey of a continuous wider region and identify salient landforms, their genesis and their impact on human life, flora and fauna.

### **Course contents:**

- 1. To trace the prominent features of the area to be surveyed, identify salient landforms feature of the selected area on a topographical sheet.
- 2. To identify the landforms on the surface while in the field. Also note the agents of erosion, transportation and deposition associated with the landforms.
- 3. To identify the classify the biodiversity in the area (flora & fauna)
- 4. To observe the relationship of various landforms, with land use, settlement structure and life style of people.
- 5. Based on observations of the above characteristics prepare a field survey report. The report need to be supplemented with maps, sketches, photographs etc.

# **REGIONAL GEOGRAPHY: INDIA AND JHARKHAND**

## Section 'A'-India

### Module 1:

Physical framework and geological formations.Climatic and vegetation regions,Agroclimatic regions and Industrial regions.

Macro-Regions:Genesis and changing profile, Geography and federalism, Indian Federalism, Reorganization of state.

### Module 2:

Mineral and power resources, population Development environment interface, Policies and programmes.

Case studies of Macro/Micro regions.

a)Middle Ganga Plain b) Chotanagpur Region c) National Capital Region(NCR)

# Section 'B'-Jharkhand

### Module 3:

Physical basis of Regionalization and Human Resources

Economic and inter-linkages-Mineral Resources, Agriculture Landscape and industrial region.

### Module 4:

Population Development-environment interface, policies and programs.

Urbanization, tourism, problems of planning and development.

## **POPULATION GEOGRAPHY**

### Module 1:

Population Geography: Scope and objectives: development of population geography as a field of specialization ;Population Geography and Demography.

Sources of population data; their level of reliability and problems of mapping of population data; Census process of major countries.

#### Module 2:

Population Distribution: Density and growth, world patterns and their determinants; India: Population distribution, density and growth profile

Population dynamics: Demographic transition theories, Measurements of fertility and mortality, Migration: National and International patterns.

#### Module 3:

Population composition: Age and sex, literacy, religion, caste and tribes, rural and urban; Occupational structure in India.

Trends of Urbanization in India, Problems of urbanization.

### Module 4:

Population and development: Population-Resources region and level of population and socio-economic development, concepts of under population, over population and Optimum population.

India's population policies, population and environment, implications for the future.

Importance of research in Population Geography

# **Research Methodology**

### Module – I

Methods of geographical studies; Research: Meaning of Research; Objectives of Research; Motivation of Research;

### Module - II

Types: Applied and Fundamental; Conceptual and Empirical; Descriptive and Analytical; Quantitative and Qualitative; Research Approaches;

### Module – III

Research methods Vs Research Methodology; Hypothesis, theories, laws and models; Research Idea and Research question, Literature Review; significance of research; Research design: data collection and analysis; Deciding the methods.

### Module – IV

Recent trends in research: E-research; Determining Sample Design; Presentation of research findings: Writing Essays, Reports and Dissertations (report writing and presentation); Understanding Assessment; Scientific journals (impact factor, citation); Using Research Results; Ethical Issues in Social Research; Criteria of good research; problems encountered by researchers in India.

## **Resource and Environment -II**

Unit-1 Environment ;Meaning, Classification of Environment ,Composite Nature of it's Elements; Fundamental Principles of Man Environment Interrelationship.

Unit –2 Man –Environment Interactions Incontext of Population size. Types of Economy and Modern Technology,

Unit -3 Exploiation of Natural Resources ; Environmental Hazards ,Water Resources ; Exploiatation and Environmental Hazards. Exploiatation, Power Resource, Soil and Biotic Resource.

Unit-4 Population Explosion ,Food Security, Deforestation ,Global Warming,Bio diversity and Conservation , Environment Management and Sustainable Development.

## **PRACTICAL PAPER**

The syllabus for practical is divided into two sections-Sec-A and Sec-B.The practical examination including field work examination.

## Section 'A'

- 1. Geological maps, construction of sections and interpretation. Methods of representing and mapping of population data 10
- 2. Mercator's sinusoidal, galls projection mollweide's projection, International Map Projection. 10
- Interpretation of Topological sheets in any one: settlement, landforms, drainage system.
- 4. Practical Note Book
- 5. Viva-voce

10

10

## Section 'B'

Survey by selected instruments:

- 6. Dumpy level, Sextant, Abney level and Indian Clinometers, Field work filling by level, Determination of height by Sextant. Slope determination of Hill side. (Area allotted by the HOD)
  15
  - Methods of field study: preparation of questionnaire / interview schedules 15
- 7. Profiles-serial, projected, super imposed and composite (on the basis of Topographical sheets). 10
- 8. Practical Record and Viva Voce

5+5

# **Communication Skill & Personality Development**

Objective: To make the students understand the basics of personality, public speaking, language,

Listening, conversation & writing skills, along with the communication process Syllabus THEORY –

### Unit- I:

Basics of Personality, Do's and Dont's in Personality, Salutations and Greetings, Presenting Yourself, Proper Introduction of Oneself.

### Unit- II:

Administration- your work style, Overcoming Phobias, Public Speaking, General Etiquettes and Mannerism, Time Management, Attire, Attitude, Self Actualization, Magic of Positive Thinking.

### Unit- III :

Tips of Preparing CV, Interviews tips.

### Unit-IV:

Language Skill, Writing Skill, Speaking Skill, Listening Skill, Conversation Practice, Mysticism of Body Language, Basics of Grammar.

### Unit- V :

Communication- Meaning, Functions, Channels, Process, Barriers and Interpersonal Skills.

### PRACTICAL -

- 1. To present self introduction of yours.
- 2. Mock interview.
- 3. Group discussions.
- 4. SWOT analysis of self.
- 5. Extempore.
- 6. Debate.
- 7. Preparation of CV.
- 8. Role play.
- 9. Present a speech.
- **10.** Make a power point presentation of communication.

#### **Reference Books:**

- 1. Business Communication, Universal Pub. Agra Dr. Ramesh Mangal
- 2. English Grammar- Wren & Martin
- 3. Putting your best foot forward- Lt. Co. (Dr.) Pramod Deogirikar

#### Chairperson

#### Dean (Academics)

(Academic Council)

(Board of studies) (Registrar) Seal

**Outcome-** After the completion of this subject the learners will understand the basics of personality, public speaking, language, Listening, conversation & writing skills, along with the communication

process.

# **Regional Planning and Development (India)**

## Module I:

Regional concept in Geography, Merits and limitations for application to regional planning and development approaches to delineation of different types of regions and their utility in planning, planning process: sectoral, temporal and spatial dimensions, Short-term and long-term perspective planning.

### Module II:

Types of region: Formal and Functional, Uniform and Nodal, Single purpose and Composite region in the contest of planning, Physical regions, resource regions, Special purpose region-river valley regions, Metropolitan regions.

### Module III:

Planning for region's development; Regions hierarchy; Multi-level planning in national context; decentralized planning; people's participation in planning.

### Module IV:

Indicators of development and their data sources, measuring levels of regional development and disparities – a case study of Jharkhand, regional development in India – problem and prospects.

## SETTLEMENT GEOGRAPHY

### Module 1:

Evolution and growth of human settlement, Theories of evolution of Settlements; Spatial and temporal trends in size and growth of settlements.

Spatial distribution: Pattern and types of Rural settlements; Theoretical models (Nearest Neighbour and Gravitational model).

#### Module 2:

Settlements structure: Morphological structure of cities, Emperical and theoretical models (Burgess, Hoyt and Harris & Ullman). Functional classification of urban centers.

City region and rural-urban fringe.

#### Module 3:

Functional typology of villages; Social, Economical, Cultural factors influencing the dynamics of settlement structure. Settlement hierarchy: Theories of Christaller and Losch (CPT) and their application to settlement hierarchy. Factors contributing to settlement hierarchy. Measurement of centrality and hierarchy.

#### Module 4:

Issues, Perspectives and policies on population and human settlements. Interface between human settlements and environment. Contemporary urban issues: Urban renewal, urban sprawl, slums, green belts, garden cities. Transformation and planning of Indian Village.

## **OCEANOGRAPHY**

### Module 1:

Nature and scope of Oceanography, History of Oceanography, Origin of ocean basis, Major features of ocean basin

### Module 2:

Physical and chemical properties of sea water (density, temperature, salinity etc.), Ocean currents, Wave and Tides.

#### Module 3:

Marine Biological Environment, Types of Organisms, Plankton, Nekton and Benthos, Major marine environments-Coastal, Estuaries, Delta and Deep pelagic environment.

#### Module 4:

Relief of Indian Ocean, Marine deposits and resources, Coral reefs, Impacts of human on the marine environment. Climatic and eustatic changes.

## **Environment and Ecology**

Unit -1 Ecology: Definition and Scope; Ecosystem : Meaning , Types, Characteristics, Structure/ Components and Function;

Unit-2 Ecosystem: Trophic level, Ecological Pyramid, Ecological Niche, Food Chain; Food Webs : Bio-geo-chemical cycle, Hydrological cycle, Nitrogen cycle, Carbon cycle.

Unit-3 Major terrestrial ecosystem of the world: Agriculture ecosystem, Forest ecology, grass plain ecosystem, Desert ecosystem.

Unit-4 Biodiversity :Definition ,Classification,Importance,Depletion, Conservation; Biodiversity Conservation policy; National bio –diversity, Hot spot of bio diversity;

# **Practical Paper**

## Unit – I

Resources techniques and design, Methods of data collection and sampling.

## Unit – II

Construction and interpretation of Climograph, Hythergraph, Isopleth, Chloropleth, Pyramid diagram, Erograph, Lorenz Curve, Flow Diagram; Nearest neighbor Analysis.

## Unit – III

Field Study- Survey and report (approved by the Head of the Department)

Field tour and report (any geographical region of country)

## Unit – IV

Practical note-book and viva-voce

## **COURSE CODE: 6SCMIT201**

# WEB DEVELOPMENT

# **COURSE OBJECTIVE:**

- 1. To understand to develop web application using open source technologies
- 2. To understand XML scripting language and deploying application on Apache Web Server
- 3. To understand Web Server configuration
- 4. To understand MySQL database deployment for web applications.

## Syllabus:

## **UNIT - I: Introduction and Web Development Strategies**

History of Web, Protocols governing Web, Creating Websites for individual and Corporate World, Cyber Laws, Web Applications, Writing Web Projects, Identification of Objects, Target Users, Web Team, Planning and Process Development.

# UNIT - II: HTML, XML and Scripting

List, Tables, Images, Forms, Frames, CSS Document type definition, XML schemes, Object Models, Presenting XML, Using XML Processors: DOM and SAX, Introduction to Java Script, Object in Java Script, Dynamic HTML with Java Script.

## UNIT - III: Java Beans and Web Servers

Introduction to Java Beans, Advantage, Properties, BDK, Introduction to EJB, Java Beans API Introduction to Servelets, Lifecycle, JSDK, Servlet API, Servlet Packages: HTTP package, Working with Http request and response, Security Issues.

### UNIT - IV

JSP Introduction to JSP, JSP processing, JSP Application Design, Tomcat Server, Implicit JSP objects, Conditional Processing, Declaring variables and methods, Error Handling and Debugging, Sharing data between JSP pages- Sharing Session and Application Data.

### UNIT – V

Database Connectivity, Database Programming using JDBC, Studying Javax.sql.\*package, accessing a database from a JSP page, Application-specific Database Action, Developing Java Beans in a JSP page, introduction to Struts framework.

## **Practicals:**

- 1. Implements Basic HTML Tags
- 2. Implementation of Table Tag
- 3. Implementation of FRAMES
- 4. Design A FORM In HTML (Yahoo registration form)
- 5. Validation of FORM Using Java Script.
- 6. Program for exception handling using multiple catch statements and also create your Own exception.

# **Urban Geography and Planning**

### Module – I

Bases: Meaning and scope of Urban Geography, Recent trends in urban Geography, Processes and pattern of Urbanization, Origin and evolution of urban settlements, Geographical approaches to the study of Urbanization.

#### Module – II

Characteristics : of cities in different historical period with special reference to India, Definition of Urban places and areal classification of urban places on the basis of size and function, Functional classification of towns.

#### Module – III

Spatiality and models: Size and spacing of cities: Rank size rule, law of Primate City, Nearest Neighbor Analysis; City region; Rural urban fringe, Central Place Theory of Christaller and Losch; Theories of internal structure of cities (Burgess, Hoyt and Harris & Ullman).

#### Module – IV:

Urban Issues and Planning: Urban problems-Environment, Urban poverty, Slums, Transportation, Housing, Crime.

Meaning and concept of urban planning, Components of urban planning; Planned City – Chandigarh, Master Plan, the urban planning administration in India; The town and country planning organization (TCPO), New trends in urban planning, National Urban Policy.

## **Geography of Tourism and Transport**

### Module – I

Nature, Scope, Significance and Development of Transport Geography, Factors associated with the development of transport system, Physical Economic, Social, Cultural and Institutional, Technological and Regional development and transport development.

#### Module – II

Transport policy and planning, transport development in developing countries, urban transportation, Growth and problems of urban transportation, Transport and environment degradation, Vehicular pollution and congestion, Alternatives to transport system in Mega cities of India. National highway development and planning in India.

#### Module – III

Basis of tourism, Definition of tourism, Factors influencing tourism, Historical, Natural, Social, Cultural and Economical. Motivating factor for pilgrimages, leisure, Recreation, elements of tourism as an Industry. Geography of tourism, its spatial affinity, Areal and Locational dimension comprising physical, cultural, Historical and Economical. Tourism types; eco-ethno' Coastal and adventure tourism, National and International tourism, Globalization and tourism.

#### Module – IV

Tourism circuits-short and longer detraction, Agencies and international, Indian hotel industry, Impacts of tourism, Physical economic and social and perceptional, Positive and negative impacts, Environmental laws and tourism, current trends spatial pattern and recent changes, Role of foreign capital and impact of globalization on tourism.

# **Biogeography**

Module – I :

Scope and development of Biogeography. Environment, Habitat and Plant-animal association, biome types.

Module – II :

Elements of Plant geography, distribution of forests and major communities. Plant successions in newly formed landforms. Examples from flood plains and glacial fore fields.

Module – III :

Zoogeography and its Environmental Relationship.

Module – IV :

Palaeobotanical and Palaeo climatological records of environmental change in India. National Forest Policy of India. Conservation of Biotic Resources.

# **Practical Paper**

## $\mathbf{UNIT} - \mathbf{I}$

A Study Tour/Project Report on relevant topics: Impact of human activities on Ecosystem and Resource Development of a Region (to be approved by the Departmental Council).

## UNIT – II

A Study Tour/Project Report on a relevant topic related to tourism and transport of a region (to be approved by the Departmental Council)

## $\mathbf{UNIT} - \mathbf{III}$

A Study Tour/Project Report on urban issues of a city or town (to be approved by the Departmental Council)

## $\mathbf{UNIT}-\mathbf{IV}$

Viva-Voce