

# **SIDO KANHU MURMU UNIVERSITY, DUMKA**

# **DEPARTMENT OF GEOGRAPHY**

# UNDERGRADUATE COURSES OF STUDY B.A. (General) Geography

UNDER

CHOICE BASED CREDIT SYSTEM (CBCS)

INTRODUCED FROM SESSION 2016-19

#### SEMESTER - I

**Core Course: Geography - I** 

# **Introduction of Geography**

(Credits: Theory-4, Practicals-2)

**THEORY** 

Lectures: 60

**Full Marks: 75/60/15** Time: **03** Hrs.

#### **Module I**

Introduction:- The nature of Geography, objective and relevance. Role of Geography in the classification of Science, Geography, Major themes and sub themes.

#### **Module II**

Geography as the study of environment, Man environment, environment relationship, ecology and ecosystem. Environmental determinism, possibilism.

#### Module III

Recent trends in geography with special reference to India. Environmental degradation, Disaster and environmental Management.

## **Module IV**

Issues related to human resources:- Carrying capacity of the earth. Indicator of develop regional imbalances.

# **Practical**

Time:3 Hrs

FM: 25/20/5

Module –I History of Cartography , types of maps, Scale si compound, Diagonal; Maps enlargement and red	•
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Module – II Modern Techniques of map making composition of computer cartography (GIS)	nents
Module - III PNR + Viva Voce	_5

#### SEMESTER - II

**Core Course: Geography - II** 

# **Physical Geography**

(Credits: Theory-4, Practicals-2)

**THEORY** 

Lectures: 60

**Full Marks: 75/60/15** Time: **03** Hrs.

- Module I Origin of the earth (Theories) Jeans & Jeffry &
   Otto Schmidt , Interior of the earth condimental Drift
   Theory, Plate tectonics and Mountain Building,
   Isostasy.
- Module- II Cycle of erosion (Davis & Penck) Topography-Fluvial, Arid, Glacial, Karst, Coastal, Volcanic eruption & Earthquake.
- Module-III Composition & structure of the Earth Atmosphere, Air Masses and fronts, classification of climate Koeppen, Temperate & Tropical Cyclones, Heat Budget of the earth- Green House effect, Global warming.
- Module IV Bottom relief of Indian & Atlantic Ocean; Salinity of

Ocean water, Tides, Ocean Deposits, Coral Reefs.

# **Practical**

FM: 25/20/05 Time:3 Hrs.

**Module** – I Drawing of Climograph and Hythergraph and their interpretation, Isopleth of climate. 10

Module –II Study Topographical Map of India with respect of Relief, Drainage, Settlement & Communication Pattern. 10

Module- III Project Report Viva- Voce. 05

#### SEMESTER - III

**Core Course: Geography - III** 

# Geography of India and Jharkhand

(Credits: Theory-4, Practicals-2)

**THEORY** 

Lectures: 60

**Full Marks: 75/60/15** Time: **03** Hrs.

- Module- I Physical geography of India, geological structure of Himalaya Mountain. Indian climate, Drainage System of India and their functional significance.
- Module –II Soil types of India. There distribution and characteristics. vegetation types and their distribution forest resource. Minerals and power resource. The status of their use and need of conservation. Geographical region- Middle Ganga plains, Tamil Region.
- Module- III Spatial distribution of population and density, population explosion, Sex composition Causes and effects. Regional disparities in Social and economic development.

Module – IV Resources – Forest and minerals habitat and Economy of Santhal and Oraon, Tourism development and its prospects, Environment of tourism and tourism policy in Jharkhand.

# **Practical**

FM: 25/20/05 Time: 3Hrs.

Module- I Basic principles of land surveying with (prismatic Compass ) open and close Travers , Plane Table, Radiation & intersection, Indian Clinometer – 10

**Module- II** Projection:- Conical Projection with one standard parallel and Two standard Parallel, Simple cylindrical equal Area and Equidistant Projection. – 10

**Module- III** Project Report Viva- Voce. 05

# **SEMESTER - IV**

**Core Course: Geography - IV** 

# **Human Geography**

(Credits: Theory-4, Practicals-2)

**THEORY** 

Lectures: 60

Full Marks: 75/60/15 Time: 03 Hrs.

- Module- I Nature and scope of human geography, Branches of human Geography. Physical and social profile of social groups. Ethnic groups, tribal groups and religion groups in India.
- Module- II Early economic activities of mankind, food, gathering, Hunting, fishing and shifting Cultivation.

  Human Adaptation to the environment (i) Cold region Eskimo (ii) Hot region- Bushman.
- Module- III Distribution of Population :- World distribution pattern, Geographical factors of distribution concepts of over population, under population and optimum population, Slump population and environment in India

.

**Module- IV** Migration :- Push and Pull Factors; National and International Types; Population Policy in India.

# **Practical**

FM: 25/20/05 Time: 3 Hrs.

**Module- I** Statistical Methods:- Use of mean, Median, Mode and Standard deviation in data analysis and Mapping.

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- Module- II Map Projection:- Polyconic, Bonnes, Zenithal equal- Area and Equidistant. -10
- **Module- III** Project Report Viva- Voce . -5

#### SEMESTER - V

Discipline Specific Elective (DSE): Geography - V

(Any one Paper: Environmental Geography/Population Geography)

# **Environmental Geography**

(Credits: Theory-4, Practicals-2)

**THEORY** 

Lectures: 60

**Full Marks: 75/60/15** Time: **03** Hrs.

- Module- I Meaning and importance of environmental Geography- concept of Environment Relationship of environmental Geography with earth Science, Physical Science and Biological Sciences.
- Module- II Meaning and structure of Environment, components of Environment Meaning of Ecology and Ecosystem, types and functioning of Ecosystem Productivity and stability- biosphere as an ecosystem.
- Module- III Energy flow in the ecosystem tropic levels food chains and food web- ecological pyramids- Circulation of elements in the ecosystem Biochemical cycles.

  Biomes- Blomes of tropical rainforests, Tropical

deciduous and savanna biomes. Human impact on Environment- Environmental pollution (i) Air Pollution (ii) Water Pollution (iii) Noise Pollution (iv) Land Pollution, Depletion of ozone layer, Green House Effect, Environmental impact Assessment (EIA)

Module- IV Natural Hazards and degradation of Environment
Volcanoes earthquakes and cyclones. Conservation and
Management of Physical and cultural environment.

International and national policies on protection of earth
environment- Role of UNO.

# **Population Geography**

(Credits: Theory-4, Practicals-2)

**THEORY** 

Lectures: 60

**Full Marks: 75/60/15** Time: **03** Hrs.

#### **Module -I**

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

**Module-II** 

World population: growth, causes and consequences;

Factors affecting population distribution; Migration: types

and determinants; Urbanization: trends and pattern

**Module -III** 

Population dynamics: fertility and mortality, age and sex

structure; Occupational structure; Malthusian Theory and

Demographic transition theory; human resource

development: indicators and patterns.

**Module -IV** 

INDIA:- Population growth; Distribution of population; Density

types; Population problems; Population Policy.

**Practical** 

FM: 25/20/05 Time: 3 Hrs.

- Module- I Maps- meaning classification- Atlas wall Maps, Wall Maps, Topographical, Cadastral Maps Physical and cultural maps. 10
- Module– II Scales:- Meaning, significance, types statement-RF, Conversion of Scales Graphical Scale, Linear and Diagonal Scales with illustration. 10

#### **SEMESTER - VI**

Discipline Specific Elective (DSE): Geography - VI

(Any one Paper: Field Work (Socio-Economic)/Social Geography)

Field work (Socio-Economic)

(Credits: Theory-4, Practicals-2)

**THEORY** 

Lectures: 60

**Full Marks: 75/60/15** Time: **03** Hrs.

# **Objectives:**

Main objective of the field work is to provide the students with the understanding of ground reality of a chosen village/town by observation; mapping of land quality, land-use and cropping pattern and conducting Socio- economic survey of the households with help of a specially prepared questionnaire.

## **Course Contents:**

Module- I To procure Topographic map of 1:50,000 or 1:25,000 Scale; To study the settlements Selected in its regional setting. Collect demographic, Social & economic data of the village/town from census reports

to study the temporal changes in the profile of such characteristics.

- Module- II Procure a cadastral map of the Village/town for filed mapping of the features of land- use and land quality. Procure/ prepare the settlement site map through rapid survey to map the residential commercial recreational (Parks; Playgrounds), educational religious and other prominent features.
- Module- III Conduct a Socio-economic Survey of the households with a structured questionnaire. Supplement the information by personal observations and perceptions.
- **Module- IV** Based on results of the land use and socioeconomic enquiry of the households, prepare a critical field survey report, Photographs and sketches, in addition to maps and diagrams may supplement the report.

# **Social Geography**

(Credits: Theory-4, Practicals-2)

**THEORY** 

Lectures: 60

**Full Marks: 75/60/15** Time: **03** Hrs.

#### Module - I

Meaning and scope of social geography; Social differentiation and stratification; Social morphology.

#### Module - II

Social region formation: Bases of social region formation; Evolution of socio-cultural regions of India; Role of race, caste, tribe, religion and languages; India — unity in diversity

#### Module – III

Concept of social wellbeing; Physical quality of life; Human development: concept and measurements; Health care, education and shelter; Gender issues in India

#### Module - IV

Public policy and social planning in India; Appraisal of Five-Year Plans and social policies in India; Social policy and planning for drought and flood prone areas;

# **Practical**

FM: 25/20/05 Time: 3 Hrs.

- **Module- I** Importance of field instrument survey- scope and purpose, principals and application of selected survey instruments.
- Module- II Chain survey: Use of tapes- open traverse, triangulation survey; plane table. Plan preparation resection- one point and two point problem, three point problem, Tracing paper method.
- **Module-III** Prismatic compass:- Open and closed traverse, elimination error, Bowditch method
- Module- IV Dumpy level:- Traverse survey, contour plan preparation. Theodolite- horizontal and vertical (height) measures, accessible and inaccessible method.
- Module- V Other smaller instruments- Sextant, Abney level and Indian clinometer, height measurements; coastal instruments mapping; Survey of a selected area. Preparation of base map by the use of surveying instruments; environmental impact assessments of an area where base maps are not available.

# Skill Enhancement Courses (SEC)

# **Skill Enhancement Course (SEC)**

#### **Maps and Scales**

(Credits 2)

**Lectures: 30** 

Full Marks: 75 Time: 03 Hrs.

#### Module I

Map Reading/Appreciation: Basics of Map Reading; Map as a tool of Information; Bases of Map Classification; Directions: Cardinal Directions; Primary Inter- Cardinal; Secondary Inter- Cardinal; Locational System: Dates and time; latitude; Longitude and Graticule; Time Zone and International Date Line; Geographic Locations: Continents and Oceans; Nations; State Capital; Major Cities of the World; Mountains and Rivers.

# **Module II**

Elements of Maps; Scales: types- simple, diagonal and comparative and conversions; Types of Maps – Topographical Maps, Weather Maps, Thematic Maps;

# **Module III**

Art and Science of Map Making; Projections – Concepts, Terminologies and Classification; Construction of Graticules – Principles; Mapping Organisations – Survey of India, Geological Survey of India, National Atlas and Thematic Mapping Organisation.

## **Module IV**

Mapping Techniques and Technologies: Data Mapping; Visualisation of Themes – Bar Diagrams, Pie Diagrams, Isopleth Maps, Choropleth Maps; Satellite Imaging Systems; Digital Images and Maps; Using Open Source Geospatial Datasets – Google Earth and Wikimap.

# **Skill Enhancement Course (SEC)**

# **Modern Techniques of Spatial Analysis**

(Credits 2)

**Lectures: 30** 

Full Marks: 75 Time: 03 Hrs.

# **Module I**

Remote Sensing: Concept and Scope; Types of Remote Sensing:

Air borne and Space borne; Aerial photos: Types and

Characteristics; Remote Sensing satellites: Platforms and sensors;

**Module II** 

GPS - Principles and Components; India's Space Programme -

Satellites, Data products and their Applications; Remote Sensing

application in resource mapping and environmental monitoring.

**Module III** 

Theoretical Basis of a GIS Definitions, Historical Development,

Components of a GIS Types of Geospatial datasets: Raster, Vector,

Surface - Attributes and Functionality.

**Module IV** 

Applications of GIS; Nature of GIS Applications Studies on Land

cover and Land use; Change in Forest Areas Mapping and

Predicting Environmental Hazards; Prospects in GIS.

**Skill Enhancement Course (SEC)** 

**Disaster Management** 

(Credits 2)

**Lectures: 30** 

Full Marks: 75 Time: 03 Hrs.

# Module – I

Disasters: Definition and Concepts: Hazards, Disasters; Risk and Vulnerability; Classification

# **Module-II**

Disaster in India: (a) Flood: Causes, Impact, Distribution and Mapping; (b) Drought: Causes, Impact, Distribution and Mapping

#### **Module-III**

Disaster in India: (a) Earthquake and Tsunami: Causes, Impact,
Distribution and Mapping; (b) Manmade disasters: Causes, Impact,
Distribution and Mapping

## **Module -IV**

Response and Mitigation to Disasters: Mitigation and Preparedness, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts during Disasters

**Skill Enhancement Course (SEC)** 

# **Sustainable Development**

(Credits 2)

**Lectures: 30** 

Full Marks: 75 Time: 03 Hrs.

## Module –I

Sustainable Development: Definition, Components, Historical Background and Scope; The role of higher education in sustainable development;

## Module -II

The Millennium Development Goals: National Strategies and International Experiences

# **Module –III**

Sustainable Regional Development: Need and examples from Cities and Mountains; The human right to health; Poverty and disease; The Challenges of Health Coverage in High-Income Countries;

# **Module –IV**

Inclusive Development: Education, Health; Climate Change:
Policies and Global Cooperation for Climate Change; Sustainable
Development Policies and Programmes: The proposal for SDGs at
Rio+20; Illustrative SDGs; Goal-Based Development; Financing
for Sustainable Development; Principles of Good Governance;
National Environmental Policy.