



**SIDO KANHU MURMU UNIVERSITY,**  
**DUMKA**  
**JHARKHAND**

**DEPARTMENT OF GEOGRAPHY**

POSTGRADUATE COURSES OF STUDY

*UNDER*  
*CHOICE BASED CREDIT SYSTEM (CBCS)*  
*INTRODUCED FROM SESSION 2016-18*

**SYLLABUS FOR M. A. GEOGRAPHY UNDER CHOICE BASED**

**CREDIT SYSTEM UNDER SIDO KANHU MURMU  
UNIVERSITY DUMKA, JHARKHAND.**

<p><b><u>Semester I</u></b>  <b>GEOG-*FC40I - History of Geographical Thought</b>  <b>GEOG-402- Geomorphology</b>  <b>GEOG-403- Climatology</b>  <b>GEOG-404- Practical Paper</b></p>	<p><b><u>Semester II</u></b>  <b>GEOG- **SB405— Research Methodology</b>  <b>GEOG – 406— Population Geography</b>  <b>GEOG – 407— Regional Geography: India And Jharkhand</b>   <b>GEOG – 408— Practical Paper</b></p>
<p><b><u>Semester III</u></b>  <b>GEOG –***OE409 – Regional Planning and Development (India)</b>   <b>GEOG –410 – Settlement Geography</b>  <b>GEOG– 411 – Oceanography</b>  <b>GEOG – 412 – Practical Paper</b></p>	<p><b><u>Semester IV</u></b>  <i>Students can opt one of the three electives from Each paper</i>  <b>GEOG– E413 – (Geography of Ecosystem and Resource Management; Biogeography; Soil Geography)</b>   <b>GEOG E414 – (Geography of Tourism and Transport; Geography of Energy; Social Geography)</b>  <b>GEOG- E415- (Urban Geography and Planning; European Union : A Meso Regional Study; Political Geography)</b>  <b>GEOG-416- Dissertation</b></p>

Theory Papers shall have Nine (09) Questions. Two (02) questions shall be set from each module. Question No. One (01) shall be compulsory consisting seven MCQ or very short answer type questions carrying two marks each. Examinees are required to answer any Four Questions from the rest. All questions are of equal value.

**Abbreviation**

**\*FC- Foundation Course**

**\*\*SB- Skill Based**

**\*\*\*OE- Open Elective**

**Semester-I**

**Paper I**

**HISTORY OF GEOGRAPHICAL THOUGHT**

**Course contents:**

**Full Marks:100(70+30)**

**Time:3 Hrs**

**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<sup>th</sup> 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

**Paper-II**  
**GEOMORPHOLOGY**

**Full Marks:100(70+30)**

**Course contents:**

**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.

Paper-III

**CLIMATOLOGY**

**Full Marks:100(70+30)**

**Course contents:**

**Module 1:**Nature and scope of climatology and its relationship with meteorology, 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, temperate 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.

**Paper-IV**  
**PRACTICAL PAPER**

**Time:6 Hrs**

**Full Marks:100**

**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)**

**F.M.:50**

**Time:3 Hrs**

**Course contents:**

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

**Section-B(IV-B)**

**F.M.:50**

**Time:3 Hrs**

**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.

**Semester-II**  
**Paper-V**  
**Research Methodology**

**Full marks: 100(70+30)**

**Time:3 Hrs**

**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

## Paper -VI

### POPULATION GEOGRAPHY

**Full marks:100(70+30)**

**Time:3 hrs**

#### **Course content:**

#### **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

## **Paper-VII**

### **REGIONAL GEOGRAPHY:INDIA AND JHARKHAND**

**Full marks: 100(70+30)**

**Time:3 hrs**

#### **Section 'A'-India**

##### **Course contents:**

##### **Module 1:**

Physical framework and geological formations.Climatic and vegetation regions,Agro-climatic 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.

## Paper-VIII

### PRACTICAL PAPER

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

**Full marks:100**

**Time:3 hrs**

#### Section 'A'

##### Course contents:

- 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
- 3.Interpretation of Topological sheets in any one: settlement,landforms,drainage system. 10
- 4.Practical Note Book 10
- 5.Viva-voce 10

#### Section 'B'

##### Survey by selected instruments:

##### Course contents:

- 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

**Semester-III**  
**Paper-IX**  
**OCEANOGRAPHY**

**Full marks: 100(70+30)**

**Time:3 hrs**

**Course contents:**

**Module 1:**

Nature and scope of Oceanography, History of Oceanography, Origin of ocean basin, 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.

## **Paper-X**

### **SETTLEMENT GEOGRAPHY**

**Full marks: 100(70+30)**

**Time: 3 hrs**

#### **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, Empirical 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.

**Paper – XI**

**Regional Planning and Development (India)**

**Full marks: 100(70+30)**

**Time : 3 Hours**

**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.

## **Paper XII**

### **Cartographic & Quantitative technique**

**Full Marks : 100**

**Time : 6 Hours**

**Course content:**

#### **Module – I**

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

20

#### **Module – II**

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

20

#### **Module – III**

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

15+5=20

Field tour and report (any geographical region of country) 15+5

#### **Module – IV**

Practical note-book and viva-voce

10+10=20

## **Semester-IV**

**(Elective/Optional Papers – XIII; XIV & XV and XVI-Practical)**

### **Paper XIII**

#### **Geography of Ecosystem and Resource Management**

**Full marks: 100(70+30)**

**Time : 3 Hours**

**Course Contents:**

#### **Module – I**

Ecosystem: Concept and component, Ecological concepts, Trophic level, Ecological pyramid, Ecological niche, Food Chain and Food webs.

#### **Module-II**

Major terrestrial ecosystem of world: Agriculture forests, Grassland and desert, Biodiversity and its conservation.

#### **Module – III**

Conservation and management of the resources: Meaning, Principles and approaches to conservation and management methods, Problems of resources utilization, Resources appraisal and policy making.

#### **Module – IV**

Preservation and conservation of ecosystem through resources management, carrying capacity of the earth, Man-environment relationship: resources use and ecological imbalance with reference to soil, Forests and energy resources.

Or

**BIOGEOGRAPHY (Paper – XIII)**

Course Contents :

**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.

or

**SOIL GEOGRAPHY (Paper – XIII)**

**Module – I:** Nature, scope and significance of Soil Geography, its relationship with Pedology. Soil forming factors: parent material, organic, climatic, topographic, Spatio-temporal dimensions. Processes of soil formation and soil development: physical, biotic and chemical. Soil Profile: development; Soil catena, pedogenic regims; podzolization, laterisation, calcification and gleezation.

**Module – II:** Soil organisms, macro-animals (earthworms, sowbugs, mites, centipedes, rodents and insects), Microanimals and plants – Nematodes, Protozoa rotifers; fungi, bacteria, algae and actinomyces.

**Module – III:** Physical properties of soils: morphology, texture, structure, water, air, temperature and other properties of soil; Chemical properties of soil and soil reaction; Genetic classification of soils, Taxonomic classification of soils zonal, azonal and intra-zonal soils, their characteristics and world patterns. Soil erosion, degradation and conservation.

**Module – IV:** Evaluation of land and soil: Parametric and non parametric systems Land capability classification, Soil survey, modern techniques, field study of soil profile and their characteristics. Soil reclamation and management: Soil survey and landforms in environmental management; Integrated soil and water management; Sustainable development of soil resources with reference to India.

## Paper XIV

### **Geography of Tourism and Transport**

**Full marks: 100(70+30)**

**Time : 3 Hours**

**Course Contents:**

#### **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 perceptual, 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.

Or

**GEOGRAPHY OF ENERGY (Paper – XIV)**

**Module – I :** Introduction : nature and scope; concepts, definitions and types of energy resources: energy system.

**Module – II :** Energy development and environment: Concept of entropy; historical background of energy use and development' issue related to energy use and environment, case studies of developed and developing countries.

**Module – III :** Geopolitics of Energy:- Global trends of energy production and consumption; issues related to trade, energy crises and various related treaties and agreements.

**Module – IV :** Energy in India:- Sectoral and temporal pattern of energy consumption: in agriculture, transport and industries; Spatial pattern of energy use with reference to different states and rural and urban areas, metropolitan cities; energy needs. Planning: various energy related agreements of India with other countries; Institutional arrangements, policy models and energy management process in India.

Energy Conservation:- Future prospects and challenges of global energy trends and problems; methods of energy conservation; traditional vs. modern, energy management and sustainable development; potential zones of energy conservation.

Or

**SOCIAL GEOGRAPHY (Paper – XIV)**

**Module – I :** Nature and development of social geography, philosophical bases of social geography-Positivists; structuralist; radical, humanist, post-modern and post structuralist; social geography in the realm of social sciences.

**Module – II :** Space and society : Understanding society and its structure and process; geographical bases of social formations; contribution of social geography to social theory; power relations and space.

**Module – III :** Towards a social geography of India; Social differentiation and region formation; evolution of socio-cultural regions of India; bases of social region formation; role of race, caste, ethnicity; religion and languages; Indian unity and diversity; social transformation and change in India.

**Module – IV :** Social well-being: Concepts of social well-being, physical quality of life, Human development; measurement of human development with social, economic and environmental indicators; Rural urban deprivation in India with respect to health care; education and shelter; deprivation and discrimination issues relating to women and under privileged groups; Patterns and bases of rural and urban society.

Public policy and social planning in India; review of Five year Plans and area plans towards social policy in India; Strategies to improve social well-being in tribal, hill, drought and flood prone areas; Social and environmental impact assessment of development projects.

## **Paper XV**

### **Urban Geography and Planning**

**Full marks: 100(70+30)**

**Time : 3 Hours**

#### **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.

Or

**European Union : A Meso Regional Study (Paper – XV)**

**Module – I:** Introduction: A brief survey of the history of European Union Integration; (Institutions of the Union: The Council of EU Parliament, European Commission, The Court of Justice, Economic and Social Committee etc.) Common Policies of the EU and their implementation.

**Module – II :** Natural Framework: Natural regions based on physical, climatic and biotic characteristics. Pollution & Human Settlement: Size, Structure & Composition, Population dynamics, Urbanization and Migration.

**Module – III :** Resources & Economy<sup>6</sup>: Natural resources, mining, agriculture, industry, tourism, trade & transport activities. Their spatial and temporal variations.

**Module – IV :** Regionalisation and Regional Development; Socio-economic and cultural dimensions of regionalization; Geographical profile of Individual countries in terms of regional development. The role of European Union in the Asian Countries in general and India in particular.

Or

**POLITICAL GEOGRAPHY (Paper – XV)**

**Module – I :** Nature, scope, subject matter and recent development in political geography, approaches to study; major schools of thought.

**Module – II :** Geographic Elements and State: Physical Elements; Human elements; Economic elements; Political Geography and environment interface.

**Module – III :** Themes in Political Geography; State, Nation, Nation-State and Nation-building, Frontiers and boundaries, Colonialism, decolonization, Neocolonialism, federalism and other forms of governance. Changing patterns of World Powers Perspectives on core-periphery concept, Conflicts and cooperation.

**Module – IV :** Geopolitical significance of Indian Ocean: Political geography of any one of the following regions: SAARC Region, South-East Asia, West Asia, East Asia, European Union.

Political geography of contemporary India with special reference to: The changing political map of India, Unity and diversity: centripetal & centrifugal forces; stability & instability' Interstate issues (like water disputes & riparian claims) and conflict resolutions insurgency in border states; Emergence of New States; Federal India: Unity in Diversity.

**Note :** The region may also be selected from the regions not referred to above, depending on the expertise available with the Department.

**Paper XVI**

**Dissertation**

As per Elective/Optional papers being taught in the department.

**Full Marks : 100**

**Time : 6 Hours**

**Module – I**

- (a) 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).

25

**Module – II**

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

25

**Module – II**

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

25

**Module – IV**

Viva-Voce

25