VINOBA BHAVE UNIVERSITY, HAZARIBAG

DEPARTMENT OF GEOGRAPHY

UNDERGRADUATE(B.A. Hons.) COURSES OF STUDY

UNDER
CHOICE BASED CREDIT SYSTEM (CBCS)
INTRODUCED FROM SESSION 2015-18

Part I- First Semester-Total 20 credits

Paper -1, CORE 1 (Theory) – Introduction to Geography - 5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM: 75

Module-I: Nature and Scope of Geography; Geography as a science, place of Geography in classification of Sciences, concept of space and concept of landscape (Regional & cultural)

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

Module-III: Methods and Technique in Geography- Quantitative, Behaviourial, Radical, Humanistic, and Environmental; Remote sensing, GIS, GPS and Computer Cartography, Trends in Geography in Renaissance Period.

Module-IV: Geographical Knowledge and people-Career in Geography, Noted Indian Geographers who contributed to Development of India, Man-Environment Relationship, welfare Geography, Gender Geography in Modern Times in Indian context.

Paper -2, CORE 2 (Theory)
GEO-TECTONICS AND GEOMORPHOLOGY -5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM: 75

Module I
Origin of the Earth with particular reference to Big Bang Theory; Geological time scale and related topographic and structural evolution; Isostasy: Airy and Pratt.

Module II
Continental drift theory,Plate Tectonics: plate tectonic processes--sea floor spreading, subduction, orogenesis, earthquake and vulcanicity. Folds and Faults—origin, types and their topographic expressions;

Module III
General Degradational Processes: Processes of rock weathering and their effects on landform; Fluvial processes and landforms; Glacial processes and landforms; fluvio-glacial landforms; Aeolian processes and landforms; fluvio-aeolian processes; karst and coastal Topography

Module IV: Theories and Concept of Geomorphology, Normal cycle of erosion by W.M.Davis, Views of W. Penck on normal cycle of erosion; Cycle of Pediplanation by L.C.King; Dynamic Equilibrium theory by J.T. Hack, Interruption in cycle of Erosion

Paper 3, CORE 1 & 2 Practical, 2 Credits (Teaching 4 hours per week and minimum 48 teaching hours). F.M. 50

Practical

(A) Construction of scale: simple, diagonal and comparative; Enlargement and Reduction of Maps 10 - Marks

(B) Isopleth, Slope Analysis-Smith Method; Profile; River Profile. 10-Marks

(C) Interpretation of topographical maps (relief, drainage, Settlement and communication) Conventional Signs 10-Marks

(D) Cross Section and Interpretation of Geological Sheet (Map), Geological Signs 10-Marks

(E) PNB+Viva-Voce 10- Marks

Paper 4, Generic Elective (GE-1) Theory , 5 Credit, FM 75 (to be opted by candidates from disciplines other than Geography)

Disaster Management

Module-I

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

Module- II

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

Module-III

Disaster in India: (b) Earthquake and Tsunami: Causes, Impact, Distribution and Mapping, Cyclone: Causes, Impact, Distribution and Mapping, 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

Paper 5, Generic Elective (GE-1) Practical, 1 Credit, FM 25 (to be opted by candidates from disciplines other than Geography)

Project Work/Report on relevant topics pertaining to Disaster Management, preferably on any Major Disaster in World (Natural or Man Made). **15 Marks**

Project File & Viva-Voce – **10 Marks**

Paper 6, Ability Enhancement Compulsory Course (AECC), English/MIL , 2 Credit , FM 25

Second Semester –Total 20 Credits

Paper -1, CORE 3 (Theory), Contemporary Issues in Geography - 5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM 75

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
b. Floods; Droughts; Cyclones; Ozone depletion; Tsunami; El Nino and La Nina; Marine pollution
c. Deforestation; Forest fire; Epidemics; Watershed Management

Module III

Human (Population/Economic/Social/Political):
Causes and effects of

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

Module IV

Modern theme in Geography:

a. Applied Geography, Sustainable Development, Liberalization, Globalization and Privatization
b. Climate Change, Global Warming and 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

Paper 2, CORE 4 (Theory) Climatology and Oceanography - 5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM 75

Module-I

Atmosphere- Structure, Composition, Insolation, Heat balance, Inversion of temperature. Factors affecting the horizontal distribution of temperature-Horizontal distribution of temperature. Atmospheric pressure- Vertical and Horizontal distribution- Thermal and dynamic origins pressure gradient, Monsoon

Module -II

Wind-General circulation, planetary winds, Seasonal winds, Local winds, Seasonal changes in circulation-El Nino- La Nina-SO. Air masses-lapse rates, Fronts. Cyclone-Tropical and Temperate, Jet stream.

Factors of climate change, Extreme weather- Cold and Heat wave, classification of world climate Koppen's Climatic Classification,

Module -III

General distribution of land & sea, Hypsographic cure, zones of ocean bottom accounting to depth, Continental shelf, Continental slope, Deep sea plain & Ocean deeps. Bottom relief of Atlantic & Indian oceans, Horizontal & Vertical distribution of temperature in oceans.

Module - IV

Composition of sea water- salinity-Horizontal distribution in open ocean, Enclosed & partially enclosed sea. Factors controlling Oceanic circulation in Atlantic & Indian oceans. Ocean Currents.

Waves & Tides; Tide producing forces, types of tide, Deposits on ocean floor, Terrigenous& Pelagic deposits, Distribution; Coral reefs. Planktons.

Paper 3, CORE 3 &4 Practical , 2 Credits (Teaching 4 hours per week and minimum 48 teaching hours). F.M. 50

Contemporary Techniques in Geography (Pr) 50 Marks

(A) Hythergraph, Climatograph, Windrose and Visibility Diagram 10Marks
(B) Hypsometric Curve *of* Ocean Floor, Altimetric frequency Graph; Synoptic Chart, Interpretation and Naming of Cyclones and cyclone Scale. 10marks
(C) Preparation and Interpretation of Hazard Maps in India- Flood, Drought, Landslide and Earthquake 10Marks
(D) Spherical Diagram and Ring diagram Representing Urbanization in an Area, Lorenz Curve and Scatter Diagram 10Marks
(E) Practical Note Book and Viva Voce (5+5) 10Marks

Paper 4, Generic Elective (GE-2) Theory, 5 Credit. FM 75 (to be opted by candidates from disciplines other than Geography)

Rural Development

Module-I

Defining Development: Inter-Dependence of Urban and Rural Sectors of the Economy; Need for Rural Development, Gandhian Concept of Rural Development.

Module-II

Rural Economic Base: Agriculture and Allied Sectors, Seasonality and Need for Expanding Non-Farm Activities

Module-III

Area Based Approach to Rural Development: Drought Prone Area Programmes, PMGSY

Module-IV

Target Group Approach to Rural Development: SJSY (Integrated Rural Development Programme).Provision of Services – Physical and Socio-Economic Access to Elementary Education and Primary Health Care and Micro credit

Paper 5, Generic Elective (GE-2) Practical, 1 Credit, FM 25 (to be opted by candidates from disciplines other than Geography)

Project Work/Report on relevant topics pertaining to Rural Development in India, preferably, on any Flagship Programme of the Government of India or the State Government (Jharkhand). **15 Marks**

Project File & Viva-Voce – **10 Marks**

Paper 6, Ability Enhancement Compulsory Course (AECC), Environmental Science, 2 Credit , FM 25

SECOND YEAR- Third Semester-Total 26 Credits

Paper 1, CORE 5 (Theory) – Biogeography -5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM .75

MODULE-I
Definition, scope & importance of Bio-Geography relation with other sciences, Development of Bio Geography-views of different Geographers; Hydrological cycle.

MODULE-II
Ecology and Ecosystem; Energy Flow in Ecosystem: Ecological factors of the land and their effect on plants animals; Dispersal of Plant and Animals. Bio-geo-chemical cycles

MODULE-III
Concept of Biomes, Ecotone, and Community; Forests Biomes, Grassland Biomes, Desert Biomes; National Parks and Sanctuaries in India and Jharkhand.

MODULE-IV
Climate as determinant of Bio- Resources; Biodiversity-degradation and Sustainable conservation; factors of soil formation, factors of soil erosion and its conservation, present status of soil in India, Development and management of barren lands in India.

Paper 2, CORE 6 (Theory) – Geography of India-5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM .75

MODULE-I

India; Structure and Physiography, Drainage (Peninsular and Extra Peninsular) Climate and Climatic Regions. Edaphic and Biotic regions of India; Indian Forests and their Economics importance.

MODULE-II
Agriculture systems in India, Cropping patterns in India, divide India into intensive agriculture; Agricultural regions (as per ICAR);Green revolution and its consequences. Industries: Cotton, Sugar, Mineral based, Iron and steel, granite industries in Jharkhand. Transport: Surface, water & Air-Foreign Trade.

MODULE-III
Minerals: Distribution of Iron ore, Bauxite, Manganese, Atomic Minerals. Power Resources- Coal, Petroleum, wind energy in India,

Region of Geography: Middle Ganga and Lower Ganga, and Chhotanagpur Plateau.

MODULE-IV

Studies of Geographical Problems

Problems of unreliability of rainfall, Problems of soil salinity and its mitigation. Problems of development (Land Acquisition), displacement and rehabilitation. Problems of slum and urban rehabilitation in India.

Paper 3, CORE7 (Theory) – Geography of Jharkhand -5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM 75

Module-I

Physiography and Relief, Drainage Pattern, Forest Resource and its Economic importance.

Module-II

Agriculture: Irrigation- Types and distribution, Major corps- Food Crops; Population growth and distribution: Population composition-Sex, Age, Religious.

Module-III

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-IV

House types of Munda Villages in South Chhotanagpur.

Transport Roads and railways and development of Tourism, Eco-tourism in Jharkhand.

Economy and habitats of Santhals, Oraons.

Social,Economic and Environmental Problems of Jharkhand.

Paper 4, CORE 5, 6 &7 Practical, 3 Credits (Teaching 6 hours per week and minimum 72 teaching hours). F.M. 75

(A) Instrumental Survey-i Plain Table Survey- Radiation and Intersection. ii-Prismatic Compass Survey – Open Traverse and Closed Traverse Survey. Allotted area in Jharkhand region. 20-Marks

(B) Ombrothermic Chart; Climograph; Diagram- Food Chain, Food Web and Energy Flow 15-Marks

(C) Village Survey Allotted By HOD. 25-Marks

(D) PNB+ Viva-Voce 15-Marks

Paper 5, Generic Elective (GE-3) Theory, 5 Credit, FM 75 (to be opted by candidates from disciplines other than Geography)

Climate Change: Vulnerability and Adaptation

Module-I
Science of Climate Change: Understanding Climate Change; Green House Gases and Global Warming; Global Climatic Assessment- IPCC
Module-II
Climate Change and Vulnerability: Physical Vulnerability; Economic Vulnerability; Social Vulnerability

Module-III
Impact of Climate Change: Agriculture and Water; Flora and Fauna; Human Health
Module-I V
Adaptation and Mitigation: Global Initiatives with Particular Reference to South Asia; National Action Plan on Climate Change; Local Institutions (Urban Local Bodies, Panchayats)

Paper 5, Generic Elective (GE-3) Practical, 1 Credit, FM 25 (to be opted by candidates from disciplines other than Geography)

Project Work/Report on relevant topics pertaining to Climate Change and Efforts to tackle it, preferably on any Major Climate Change Issue. **15 Marks**

Project File & Viva-Voce – **10 Marks**

Paper7. Skill Enhancement Course (SEC-1), 2 Credits, FM 25

Skill Enhancement Course – Introduction to Maps and Scales

Introduction to Maps and Scales

Module I
Elements of Maps; Scales – types- simple, diagonal and comparative and conversions; Types of Maps – Topographical Maps, Weather Maps, Thematic Maps; Methods of Representation – Qualitative and Quantitative

Module II
Heritage of Mapping in India
Mughal Period – Contribution of Raja Todar Mal
Colonial Period – The Great Triangulation Survey
Modern Period – Satellite Systems based Mapping

Mapping Organisations – Survey of India, Geological Survey of India, National Atlas and Thematic Mapping Organisation

Module III

Art and Science of Map Making

Projections – Concepts, Terminologies and Classification

Construction of Graticules – Principles; Planar Case – Polar Zenithal Stereographic Projection; Cylindrical Case – Cylindrical Equal Area, Conical Case – Simple Conical Projection with One Standard Parallel

Module IV

Mapping Techniques and Technologies: Data Mining and 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

Fourth Semester-Total 26 Credits

Paper 1,(CORE 8(Theory)-Geography of Three Northern Continents -5 Credits (Teaching 5 hours per week and minimum 60 teaching hours) FM .75

Module-I
North America
Relief of North America,Natural Vegetation, Population of North America, Cotton textile Industry and Iron- Steel Industry, Water route of great lakes and Panama route

Module-II
Europe: Physiographic division of Europe, Climate important, Demographic pattern of Europe, Industrial Development and reasons, Oceanic routes of Europe.

Module-III
Asia: Physiography, soils, population-Distributional factors of population, Agriculture development Geographical account of SAARC Nations.

Module-IV
Location of Iron and steel Industry in U.S.A and U.K, wheat belt of Columbia basin Coal resources of Europe, Regional Study of United Kingdom & British Island, Japan and USA.

Paper 2, CORE 9 (Theory) – Geography of Three Southern Continents -5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM .75

Module-I
South America :Physiography, Agriculture and demographic set-up and Regional studies of Brazil.

Module-II
Australia and New Zealand: General account of the Physiography, Dairy farming and demographic set-up, detailed regional study of New Zealand.

Module-III
Africa: Physiography, Agriculture, grasslands (Savanna) and desert environment, Regional Account of Nigeria and Egypt.

Module-IV
Geographical account of Argentina, South Africa, Zimbabwe, Social and cultural aspect of Bushman, Hotentot, Maori and Bora.

Paper 3, CORE 10 (Theory) – Geography of Travel and Tourism-5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM .75

Module – I

Nature and Scope: Definition and Nature ,Scope and Extent, Concept of tourism-Factors affecting Tourism Development- Physical & Cultural

Module – II

Classification of tourists: (A) Nationality- International,Domestic.
(B) Time of Travel- Long haul, short haul, holiday tourists, day trippers.
(C) Travel Distance Global, continental, Regional and local. -
(D) Number of Tourists- Individual and groups.
(E) Purpose- Recreation, Heritage, Nature, Religious, Health, Sports.
Role of Accommodation in Tourism.
Accommodation Types- 1) Hotels, Motels, inn, Saraies, Dharmashalas. 2) Govt. Accommodation, Tourist homes. 3) Youth Hostels, Cottages, Tents, Caravans. 4) Rail Yatri Bhavan, House Boats 5) Private accommodations and unrecognized accommodations.

Module-III

Role of Transportation in Tourism : (A)Mode of Transportation- Air, Rail, Road Water Ways.
(B) Agencies and Guides- 1) World Organizations, National organisations 2) Private agencies -National, International 3) Role of guides in tourism. 4) Licensing and recognition of guides. 5) Training Programme for Guides.

Impact of Tourism: (A) Economic impact (B) Physical and Environmental impacts (C) Socio-cultural impacts

Module-IV

Development and Planning: (A) Levels of Planning-International level planning , National level planning, Regional and Local planning
(B) Tourism Planning in India- a) Development of tourism in India and Jharkhand b) Tourism policies of India and Jharkhand
Evaluation of Potentials and Tourism Potentials and Tourism Assessment of region's ability to attract tourists- (a) Physical factors (b) Cultural factors (c) Social factors (d)Economic factors (e) Political factors
Case studies of Major Tourist Centres of Jharkhand (at least Four Major Tourist Centre's)

Paper 4, CORE 8, 9&10 Practical, 3 Credits (Teaching 6 hours per week and minimum 72 teaching hours) **F.M. 75**

Practical.

(A) Projection- Polar Zemthal, Equi-Distant and Equal Area , Conical Projection with two standard parallel — 20-Marks
(B) Gall's Projection- Mercator's world Map Write Merits and Demerits of any one projection — 20-Marks.
(C) Weather symbols, Representation of atmospheric features, Interpretation of Indian daily weather maps (July, October and January) — 20-Marks
(D) PNB + Viva-Voce — 15-Marks

Paper 5, Generic Elective (GE-3) Theory, 5 Credit, FM 75 (to be opted by candidates from disciplines other than Geography)

Sustainable Development

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

Paper 6, Generic Elective (GE-4) Practical, 1 Credit, FM 25 (to be opted by candidates from disciplines other than Geography)

Project Work/Report on relevant topics pertaining to Sustainable Development, preferably on any Sustainable Development Goals/Policies & Programmes/Efforts made at National/International Fora — **15 Marks**

Project File & Viva-Voce — **10 Marks**

Paper7, Skill Enhancement Course (SEC-2), 2 Credits, FM 25

Skill Enhancement Course – Modern Techniques of Spatial Analysis (Basics of Remote Sensing, GPS & GIS)

Module I Remote Sensing: Concept and Scope, Fundamentals of Electro-magnetic Radiation: EMR: Characteristics, Spectral regions and Bands, Interaction with earth surface features and atmosphere; 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 Urban Areas Mapping and Predicting Environmental Hazards Detecting and Analysing Tourism Landscape Changes Prospects in GIS

THIRD YEAR -Fifth Semester-Total 24 Credits

Paper 1, CORE 11 (Theory) – Human Geography-5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM .75

Module I

Meaning, nature and scope of human geography; Concepts of human geography; Man environment relationships: determinism, possibilism and probabilism, and environmentalism.

Module II

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

Module III

Growth of population; Distribution of population; Major human agglomerations; Types of Migration; Trends of Urbanization.

Module IV

Rural settlements: characteristics, types and regional pattern; Urban settlements: evolution and classification; Rural houses in India: types, classification and regional pattern.

Paper 2, CORE 12 (Theory) – Economic Geography -5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM .75

Module I

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

Module II

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

Module III

Agricultural regions of the world (Derwent Whittlesey), Theory of agricultural location (Von Thunen), Theory of industrial location (Weber), Major industries: iron and steel, and cotton textiles.

Module IV

World transportation major trans-continental railways, and sea routes, WTO and International trade patterns and trends, Major trade blocs EEC, ASEAN, Effect of globalisation on developing countries

Paper 3, CORE 11 & 12 Practical, 2 Credits (Teaching 4 hours per week and minimum 64 teaching hours) F M. 50

A) Population Projection Diagram, Dot and Choropleth Method representing Population distribution, Pyramid Diagram — 15marks
B) Ergograph, Traffic Flow Chart, Bandgraph — 15marks
C) Compound bar Diagram, Multiple bar Diagram and Line Graph — 10Marks
D) PNB : Viva Voce (5+5) — 10 Marks

Paper 4, Discipline Specific Elective (DSE)-1,Population Geography, 5 Credits (Teaching 5 hours per week and minimum 60 teaching hours) F M. 75

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

Paper 5, Discipline Specific Elective (DSE)-2, Agricultural Geography, 5 Credits (Teaching 5 hours per week and minimum 60 teaching hours) F M. 75

Module I
Meaning and scope of agricultural geography, Approaches to agricultural geography, Physical, cultural and institutional factors affecting agriculture

Module II

Crop concentration and crop diversification; Delineation of crop combination regions; Agricultural regions of the world; Detailed study of subsistence, plantation, commercial and mixed farming.

Module III

Agricultural land-use and carrying capacity; Land use pattern with special reference to India; Measures of agricultural efficiency and agricultural productivity.

Module IV

Agro-climatic regions of India; Green revolution in India; Second generation reforms in Indian agriculture: Land and institutional reforms; Organic and contract farming; Agricultural planning and policies in India.

Paper 6, Discipline Specific Elective (DSE)-Practical of DSE -1 &2, 2 Credits
(Teaching 4 hours per week and minimum 64 teaching hours). F.M. 50

A) Land Use Survey Allotted By HOD	40Marks
B) PNB + Viva Voce (5+5)	10 - Marks

Sixth Semester-Total 24 Credits

Paper 1, CORE 13 (Theory) – Environmental Geography -5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM .75

Module - I

Definition and Scope of Environmental Geography; Meaning and Components of Environment

Module – II

Ecology, Eco-Systems And Soil System:
i. Definition and Scope of Ecology ii. Meaning, Types, structure/Components and Functioning of Eco-Systems iii. Meaning and Components of Soil System

Module – III

Environmental Degradation And Pollution i. Meaning and Causes of Environmental Degradation ii. Meaning, Sources and Causes of Air and Water Pollution

Module – IV

Environmental Issues
i. Depletion of Ozone Layer, Ecological Significance of Ozone, Protection of Ozone Layer ii. Acid Rain- Causes and Effects iii. A Detailed Account of the Concept of Global Warming Environmental Programmes and Policies – Global, National and Local levels

Paper 2, CORE 14 (Theory) – Regional Development and Planning -5 Credits (Teaching 5 hours per week and minimum 60 teaching hours). FM .75

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

Evolution of Regional Planning in India; Concepts and types of regions; Schemes of regionalization; Macro 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; Local-level planning and Panchayati Raj; Planning for Jharkhand and North-East India.

Paper 3, CORE 13 &14 Practical, 2 Credits (Teaching 4 hours per week and minimum 64 teaching hours) F M 50

(A) Dumpy Level Survey, Clinometer, Sextant 15-Marks
(B) Geographical Excursion of any part of India and prepare environmental report of visited area. 15-Marks
(C) Finding CentreTendency-mean, mode, median, standard deviation 10-Marks
(D) PNB+Viva-Voce. 10-Marks.

Paper 4, Discipline Specific Elective (DSE)-3, Social Geography , 5 Credits (Teaching 5 hours per week and minimum 60 teaching hours) F M 75

Module - I
Meaning and scope of social geography; Concept of social space; Social differentiation and stratification; Social morphology.
Module - II
Social differentiation and 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; Rural-urban interfaces in India: 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; Social impact assessment of development projects

Paper 5, Discipline Specific Elective (DSE)-4, Political Geography, 5 Credits (Teaching 5 hours per week and minimum 60 teaching hours) F M 75

Module - I
Introduction: Introduction, Nature, Scope and Geopolitics. State, Nation and Nation State – Concept of Nation and State, Attributes of State – Frontiers, Borders, Shape, Size, Territory and Sovereignty, Concept of Nation- State
Module – II
Electoral Geography – Geography of Voting, Geographic Influences on Voting pattern, Geography of Representation, Gerrymandering
Module – III
Political Geography of Resource Conflicts – Water Sharing Disputes, Disputes and Conflicts Related to Forest Rights and Minerals, issues of land locked states in Asia and Africa

Module - IV

Politics of Displacement: Issues of relief, compensation and rehabilitation: with reference to Dams and Special Economic Zones.

Paper 6, Discipline Specific Elective (DSE)-Practical of DSE -3 & 4, 2 Credits (Teaching 4 hours per week and minimum 64 teaching hours). F.M. 50

A) Fieldwork: Meaning, types and objectives of fieldwork; Fieldwork methods and techniques; Importance of fieldwork in geography, Socio-economic Field Survey Allotted by HOD. 40- Marks

B) Viva-voce 10Marks