VI SEMESTER

DC13A: Disaster Management (Theory)

Disaster Management

1. Classification of hazards and disasters approaches to hazard study
2. Risk perception and vulnerability assessment, hazard paradigms
3. Responses to hazards: Preparedness, trauma and aftermath. Resilience and capacity building.
4. Factors, vulnerability, consequences and management of hydrologic disasters (Flood & Drought)
5. Factors, vulnerability, consequences and management of Geologic disasters (Earthquake & Landslide)
6. Factors, vulnerability, consequences and management of Atmospheric disasters (Cyclones)

DC13B: Disaster Management (Practical)

List of practical

1. Flood Frequency Analysis (Time series)
2. Flood year determination based on peak flow data in reference to danger and extreme danger level
3. Hydrological Drought Analysis: Standardized Precipitation Index (SPI)

DC14A: Evolution of Geographical Thought (Theory)

Evolution of Geographical Thought

1. Definition, nature, scope and contents of Geography, Development of Geography and contributions of Greek, Roman and Indian geographers; Impact of 'Dark Age' on Geography and Arab contributions
2. Transition from Cosmography to Scientific Geography (Contributions of Bernard Varenius and Immanuel Kant); Dualism and Dichotomies (General vs. Particular, Physical vs. Human, Regional vs. Systematic, Determinism vs. Possibilism, Ideographic vs. Nomothetic)
3. Evolution of Geographical thoughts after pre-modern phase, contribution of German, French, British and America school of thought, Contributions of Humboldt and Ritter
4. Quantitative Revolution and its impact, behaviouralism, systems approach, radicalism, feminism in geography
5. Concept of hypothesis, theory, law and model, Changing concept of space in geography, Geography in the 21st Century

DC14B: Evolution of Geographical Thought (Practical)

List of practical

1. Hypothesis testing: t test, z test, chi square test (data base computation, testing and inferences)

DSE3A: Human Geography (Theory)

Human Geography

AH 1. Nature, scope, approaches and recent trends; elements of Human Geography

MH 2. Evolution of humans, concept of race and ethnicity

AI 3. Space, society and cultural regions (language and religion), evolution of human societies- hunting and food gathering, pastoral nomadism, subsistence farming, industrial and urban societies

4. Human adaptation to environment: Eskimo, Masai, Jarwa, Gaddi, Santhals. MH MH AH AH AH

AI 5. Population–Resource regions (Ackerman)

RM 6. Human population and environment with special reference to development–environment conflict

DSE3B: Human Geography (Practical)

List of practicals

RM 1. Population Potential and Mean Centre of Population

RM 2. Computation of Human Development Index (HDI)

SEC2: Climate Change: Vulnerability and Adaptations (Theory)

Climate Change: Vulnerability and Adaptations

1. Scope and trends of subject, Understanding Climate Change with reference to the Geological Time Scale AI
2. Evidences and factors of climate change, Green House Gases and Global Warming RM MH

RM 3. Electromagnetic spectrum, Atmospheric window, heat balance of the earth

AH 4. Economic and social impact of climate Change, impacts on Agriculture and Water; Flora and Fauna; Human Health and morbidity

RM 5. Global initiatives to climate change mitigation: Kyoto Protocol, Carbon trading, Clean development mechanism, COP, Climate fund

6. Climate change vulnerability assessment and adaptive strategies with particular reference to South Asia, IPCC reports, National Action Plan (of India) on Climate Change RM AI AI

IV SEMESTER

DC8A: Regional Planning and Development (Theory)

Regional Planning and Development

1. Concept, Types and delineation of regions.
2. Types of planning, tools and techniques of planning, principles, needs and objectives of regional planning and multi- level planning in India
3. Concepts of metropolitan areas and urban agglomerations
4. Development: Meaning and Concept of regional development with reference to India, Indicators (Economic, social and environmental) of development, growth versus development
5. Growth pole model of Perroux, growth centre model and Cumulative causation (Myrdal) and core periphery (Hirschman, Rostov and Friedman) theories for regional development
6. Strategies of regional development with reference to India, Need and measures for balanced development in India, Regional inequality, disparity and diversity

DC8B: Regional Planning and Development (Practical)

List of Practical

1. Delineation of formal region: Weighted index number
2. Delineation of functional region: Gravity Analysis (Reilly's)
3. Measuring regional disparity: Lorenz curve, Gini Coefficient and Simson's method

DC9A: Economic Geography (Theory)

Economic Geography

1. Meaning, Concepts and approaches of Economic Geography, concepts of goods, services, production, exchange and consumption, GATT, OPEC
2. Concept of economic man, theories of choices
3. Economic distance, transport costs, Transnational sea-routes, railways and highways with reference to India
4. Concept and classification of economic activities, factors affecting location of economic activity with special reference to agriculture (Von Thunen), and industry (Weber).
5. Primary activities: Subsistence (paddy) and commercial agriculture (tea), forestry (lumbering), fishing (India: inland and coastal) and mining (coal, iron in India), Secondary activities: Manufacturing (cotton textile and iron and steel), Special economic zones (SEZ) and technology parks (India), Tertiary activities: transport-types and importance, trade (e-commerce) Quaternary and Quinary-concept
6. Liberalization, privatization, globalization and Indian economy

DC9B: Economic Geography (Practical)

List of Practical

1. Agricultural Efficiency Analysis: Kendal's Method
2. Measuring transport accessibility: Konig and Shimbel index
3. Comparison of spatial industrial development: Location quotient and Geographical association

DC10A: Environmental Geography (Theory)

Environmental Geography

1. Geographers' approach to environmental studies, concept of holistic environment and system approach
2. Perception of environment in different stages of civilization
3. Concept, structure and functions of ecosystem
4. Environmental pollution and degradation (Land, water and air), Space–time hierarchy of environmental problems (Local, regional and global)
5. Urban environmental issues with special reference to waste management
6. Environmental programmes and policies – Global, national and local levels

DC10B: Environmental Geography (Practical)

List of Practical

1. Preparation of check-list for Environmental Impact Assessment of an urban / industrial project
2. Determination of soil type by ternary diagram textural plotting
3. Quality assessment of water using lab kit: pH and TDS

II SEMESTER

DC3A: Population and Settlement Geography (Theory)

Part 1: Population Geography

1. Definition, scope and contents of Population Geography, Population Geography and Demography and Sources of population data.
2. Components of population change: fertility, mortality and migration; Demographic transition model; Concept of under population, optimum population and over population.
3. Population distribution and density; Pattern of population growth in India; and Population policies in India (post-independence).

Part 2: Settlement Geography

1. Definition, scope and contents of Settlement Geography
2. Definition, nature and characteristics of rural settlements; Morphology (layout-internal and external) of rural settlements, site and situation, rural house types with reference to India; Census categories of rural settlements
3. Census definition (Temporal) and categories of Urban Settlements in India; Urban morphology and theories (Classical Models-Burgess, Homer Hoyt, Harris and Ullman); Concept of Metropolis, City-region, Conurbation and Smart city; Functional classification of cities according to Harris.

DC3B: Population and Settlement Geography (Practical)

List of Practical

1. Population data analysis: Decadal growth, population density (Arithmetic and Agricultural) and Age-sex pyramid
2. Spatial Distribution and Interactions: Nearest-Neighbour Analysis (Clerk and Evans) and Rank-Size Rule (Zipf)

DC4A: Cartograms and Thematic Mapping (Theory)

Cartograms and Thematic Mapping

1. Concepts of rounding, scientific notation, logarithm and anti-logarithm, natural and log scales
2. Concept, use, advantages and disadvantages of the representation of geographical data: Line, Bar, Dot and Sphere, Proportional circles, Isopleths and choropleth
3. Preparation and interpretation of large scale thematic maps: Geomorphological maps, climatological maps, Landuse/land cover maps and Thematic Maps
4. Application of GIS in thematic mapping, concept of Cadastral Map.

DC4B: Cartograms and Thematic Mapping (Practical)

List of Practical

1. Cartograms: Proportional squares, pie diagram, proportional divided circle, dots and spheres
2. Preparation of thematic maps: Choropleth, Isoline and Chorochromatic map