

Geography Paper I Syllabus



Physical Geography:

1. **Geomorphology:** Origin and evolution of the earth's crust; Physical conditions of the earth's interior; Continental drift; Plate tectonics and endogenetic and exogenetic forces. Recent views on mountain building; Channel morphology; Fundamentals of geomagnetism; Factors controlling landform development; Earthquakes and Tsunamis; Slope development; Concepts of geomorphic cycles and Landscape development; Isostasy; Erosion surfaces; Geosynclines Denudation chronology; Vulcanicity and Applied Geomorphology; Geohydrology, economic geology and environment.
2. **Climatology:** Heat budget of the earth; atmospheric stability and instability. Planetary and local winds; Monsoons and jet streams; Air masses and frontogenesis, Temperate and tropical cyclones; Weather and Climate; Atmospheric circulation; Koppen's, Thornthwaite's and Trewartha's classification of world climates; Temperature and pressure belts of the world; Hydrological cycle; Types and distribution of precipitation; Global climatic change and role and response of man in climatic changes, Applied climatology and Urban climate.
3. **Oceanography:** Temperature and salinity of the oceans; Marine resources: biotic, mineral and energy resources; Coral reefs, Waves, currents and tides; Bottom topography of the Atlantic, Indian and Pacific Oceans; Heat and salt budgets, Ocean deposits; coral bleaching; sea level changes; law of the sea and marine pollution.
4. **Biogeography:** Soil profile; Soil erosion, Genesis of soils; Problems of deforestation and conservation measures; Social forestry; Wildlife; Classification and distribution of soils; agro-forestry; Factors influencing world distribution of plants and animals; Major gene pool centres and Degradation and conservation.
5. **Environmental Geography:** Global and regional ecological changes and imbalances; Ecosystem their management and conservation; Human ecological adaptations; Influence of man on ecology and environment; Environmental degradation, management and conservation; Principle of ecology; Environmental policy; Biodiversity and sustainable development; Environmental hazards and remedial measures; Environmental education and legislation.

Human Geography:

1. **Perspectives in Human Geography:** Dichotomy and dualism; Environmentalism; Quantitative revolution and locational analysis; regional synthesis; Areal differentiation; radical, behavioural, human and welfare approaches; religions and secularisation; Languages, Human development index and Cultural regions of the world.
2. **Economic Geography:** World resources and their distribution; Energy crisis; the limits to growth; World agriculture: typology of agricultural regions; agricultural inputs and productivity; World economic development: measurement and problems; Food and nutrition problems; famine: causes, effects and remedies; Food security; World industries: locational patterns and problems; patterns of world trade.
3. **Population and Settlement Geography:** Causes and consequences of migration; concepts of over-under and optimum population; Growth and distribution of world population; Population theories, world population problems and policies, demographic attributes; Social well-being and quality of life; Population as social capital. Types and patterns of rural settlements; Hierarchy of urban settlements; Urban morphology: Concepts of primate city and rank-size rule; Environmental issues in rural settlements; Functional classification of towns; Sphere of urban influence; Rural urban fringe; Satellite towns; Problems and remedies of urbanization; Sustainable development of cities.
4. **Regional Planning:** Concept of a region; Types of regions and methods of regionalisation; Growth centres and growth poles; Regional imbalances; regional development strategies; environmental issues in regional planning; Planning for sustainable development.
5. **Models, Theories and Laws in Human Geography:** Systems analysis in Human geography; Malthusian, Marxian and demographic transition models; Central Place theories of Christaller and Losch; Perroux and Boudeville; Von Thunen's model of agricultural location; Weber's model of industrial location; Ostov's model of stages of growth. Heartland and Rimland theories; Laws of international boundaries and frontiers.

Geography Paper II Syllabus



Geography of India

- 1. Physical Setting:** Space relationship of India with neighbouring countries; Physiographic regions; Structure and relief; Drainage system and watersheds; Mechanism of Indian monsoons and rainfall patterns, Tropical cyclones and western disturbances; Floods and droughts; Climatic regions; Natural vegetation; Soil types and their distributions.
- 2. Resources:** Energy, minerals, biotic and marine resources; Land, surface and ground water, Forest and wild life resources and their conservation; Energy crisis.
- 3. Agriculture:** Infrastructure: irrigation, seeds, fertilizers, power; Institutional factors: land holdings, land tenure and land reforms; Cropping pattern, agricultural productivity, agricultural intensity, crop combination, land capability; Agro and social-forestry; Green revolution and its socio-economic and ecological implications; Significance of dry farming; Livestock resources and white revolution; aquaculture; sericulture, apiculture and poultry; agricultural regionalisation; agro-climatic zones; agro-ecological regions.
- 4. Industry:** Evolution of industries; Locational factors of cotton, jute, textile, iron and steel, aluminium, fertilizer, paper, chemical and pharmaceutical, automobile, cottage and agro-based industries; Industrial houses and complexes including public sector undertakings; Industrial regionalisation; New industrial policies; Multinationals and liberalization; Special Economic Zones; Tourism including eco-tourism.
- 5. Transport, Communication and Trade:** Road, railway, waterway, airway and pipeline networks and their complementary roles in regional development; Growing importance of ports on national and foreign trade; Trade balance; Trade Policy; Export processing zones; Developments in communication and information technology and their impacts on economy and society; Indian space programme.
- 6. Cultural Setting:** Historical Perspective of Indian Society; Racial, linguistic and ethnic diversities; religious minorities; major tribes, tribal areas and their problems; cultural regions; Growth, distribution and density of population; Demographic attributes: sex- ratio, age structure, literacy rate, work-force, dependency ratio, longevity; migration (inter-regional, intra- regional and international) and associated problems; Population problems and policies; Health indicators.
- 7. Settlements:** Types, patterns and morphology of rural settlements; Urban developments; Morphology of Indian cities; Functional classification of Indian cities; Conurbations and metropolitan regions; urban sprawl; Slums and associated problems; town planning; Problems of urbanization and remedies.
- 8. Regional Development and Planning:** Experience of regional planning in India; Five Year Plans; Integrated rural development programmes; Panchayati Raj and decentralised planning; Command area development; Watershed management; Planning for backward area, desert, drought-prone, hill, tribal area development; multi-level planning; Regional planning and development of island territories.
- 9. Political Aspects:** Geographical basis of Indian federalism; State reorganisation; Emergence of new states; Regional consciousness and interstate issues; international boundary of India and related issues; Cross border terrorism; India's role in world affairs; Geopolitics of South Asia and Indian Ocean realm.
- 10. Contemporary Issues: Ecological issues:** Environmental hazards: landslides, earthquakes, Tsunamis, floods and droughts, epidemics; Issues relating to environmental pollution; Changes in patterns of land use; Principles of environmental impact assessment and environmental management; Population explosion and food security; Environmental degradation; Deforestation, desertification and soil erosion; Problems of agrarian and industrial unrest; Regional disparities in economic development; Concept of sustainable growth and development; Environmental awareness; Linkage of rivers; Globalization and Indian economy.