State Selection Board, Govt. of Odisha

Model Syllabus for Geography

Unit – I : Geomorphology, Biogeography & Soil Geography

- Origin and Internal Structure of the Earth, Isostasy, Mountain Building
- Continental Drift, Ocean Floor Spreading, Plate Tectonics.
- Earthquake, Volcanism : Cause, effect & distribution.
- Rocks and Minerals, Structure (Fold & Fault) and Landforms
- Weathering, Mass Wasting, Cycle of Erosion (Davis, Penck)
- Landforms produced by running water, Groundwater, Wind, Wave & Glacier
- Environment & Ecosystem, Structure & Function of Eco-system
  Food Chain and Food Web, Energy Flow
- Concept of Biome, Classification and World Distribution of Biomes
- Environmental Degradation & Pollution, Ma & environment
- Soil forming processes, Soil Profile, Classification & Distribution of Soils.

Unit – II: Climatology and Oceanography

- Composition and Structure of atmosphere, Elements and Factors of Climate
- Insolation & Temperature, vertical & horizontal distribution of Temperature
- Pressure Belts, Planetary, Periodic and Local winds
- Hydrological Cycle, Humidity, Forms of Condensation
- Types and distribution of Precipitation
- Air Mass: Types, Origin, Classification and Modification
- Atmospheric disturbances, Tropical and temperate Cyclones
- Classification of World Climate (Koppen and Thornthwaite)
- Global Warming, Ozone Depletion and Climate Change
- Bottom relief of Pacific, Atlantic and Indian Ocean
- Temperature and Salinity of the Ocean Water
- Waves & Tides, Currents of Pacific, Atlantic and Indian Ocean
- Coral Reefs : Types and origin, Ocean Deposits.

Unit – III: Human and Economic Geography

- Races of Mankind, Cultural Realms of the World
- Population Distribution, Growth, Demographic Structure of Population
- Fertility, Mortality and Migration, Trend of Urbanization
- Evolution of Settlements, Types and Pattern of Rural and Urban Settlements.
- Resources: Meaning, Classification, Conservation and Management
- Agriculture: its types, Agricultural location theory of Von-thunen
- Industrial location theory by Weber and Smith
- Concept of Region, Delimitation of Regions
- Central Place Theory of Christaller
- Regional Planning in India, Micro & Multilevel Planning, Rural Development

- Concept of Nation and State, Frontiers, Boundaries & Buffer Zone
- Concept of Heartland and Rimland
- Contribution of Humboldt, Ritter, Ratzel & Vidal dela Blache to Geography

Unit-IV: Regional Geography of India & Odisha
- Physiographic Divisions and Relief, River system
- Climate, Climatic regions, Mechanism of Indian Monsoon
- Soils: Types and Distribution
- Natural Vegetation, its Classification and distribution
- Population: Structure and Composition, Population growth, density, distribution
- Settlements: Rural and Urban, Classification of Towns
- Mode of occurrence and distribution of Iron Ore, Bauxite, Coal and Petroleum
- Non Conventional Sources of Energy: Wind, Solar, Geothermal, Biogas
- Agriculture and its types, Crops and Cropping Pattern, Agricultural Regions
- Location and Distribution of Iron and Steel Industry, Aluminum and Cotton Textile Industry, Industrial Regions
- Transport System: Road, Rail, Air and Water transport.

Unit - V: Applied Geography
- Cartography: Cartographic techniques in Geography, Map design & Layout
- Types of Maps, Types of Diagrams: Bars, Circles, Spheres
- Map Scale: RF, Statement and Graphical
- Choropleth, Isopleth, Isochrone Maps, Use of Symbols in Map Making
- Concept of Spheroid & Geoid, Map Projection: Types, Properties, use
- Surveying and use of Prismatic Compass, Plane Table, Levelling, Theodolite
- Socio-Economic Survey, Questionnaire, Schedule
- Interpretation of Toposheets, Weather Maps & Geological Maps
- Use of Statistical Methods in Geography : Measures of Central Tendencies,
- Measures of Dispersion, Correlation and Regression
- Geographical Information System: Concept & Components
- Aerial Photography and Remote Sensing techniques in Geography.

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