

GEOGRAPHYTopic 1: Geography as a discipline-

Geographical ideas in ancient, medieval & modern periods: the contributions of Varenus, Kant, Humboldt and Ritter. Influence of Richthofen and Darwin. Vidal-de-la Blache, F. Ratzel and Indian geographic.

Contemporary geography: Post Second World War, Environmentalism, Areal Differentiation, spatial organization, Behavioural and perceptual Geography. Positivism in Geography. Humanistic Geography. Marxist Geography and critical social theory. Development in Indian Geography.

Topic-2 Origin and Evolution of the Earth-

Introduction to the solar system,

Motions of Earth: Rotation, Revolution, Occurrence of Day and Night; change of seasons; Latitudes and Longitudes; Finding time.

Earth's Interior: Origin of continents and ocean basins Wegener's Continental drift theory, Theory of Plate Tectonics Earthquakes and Volcanoes, Folding and faulting

Origin of the Earth: Nebular hypothesis (old Theory) and Big-Bang Theory. Evolution of continents, atmosphere and oceans.

Topic-3 Interior of the Earth and Distribution of oceans and continents-

Constitution of Earth's interior (based on Seismic Evidences), origin of the continents and ocean basins. Wegener's theory of Continental drift and Plate Tectonics. Plate movements and interactions- Volcanism and seismicity.

Topic-4 Landforms-

Mineral and rocks- classification of rocks, rock cycle. Important minerals geomorphic process of denudation Endogenic and Exogenic processes. Mass Wasting, Landslide, Work of River, Glacier Wind, Sea Waves etc, processes of soil formation.

Topic-5 Climate:

Atmosphere: Composition and structure. Insolation and temperature, Atmospheric pressure and winds, Atmospheric moisture, cyclones, classification of climate (Koeppen and Thornthwaite Schemes classification). Global climatic changes: Causes and effects.

Topic-6 Water (Ocean)

Geomorphology of the ocean floor, submarine relief features of Atlantic, Pacific and Indian Ocean. -Salinity, temperature.

Movement of ocean water: Currents, tides and waves. Marine deposits and coral reefs.

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Topic -7 Life on the Earth

Approaches in environmental Geography, landscape, ecosystem and perception approaches, Man and the Biosphere: Interactive and dynamic relationship. Human impact on biogeochemical cycles.

Topic-8 India:

Geographical basis of Indian State-territory; location, extent, shape and size.

Topic-9

Physiography and Drainage

Structure, Physiographic divisions, Drainage system and its evolution.

Topic-10 Climate, Vegetation and Soil-

Climate: factors controlling climate of India

Origin and mechanism of Indian monsoon; Seasons of India, Classification of climate of India (Koeppen's, Thornthwaite).

Soils: Type and distribution (I.C.A.R.), Soil problems, conservation of soil

Vegetation- Types & Distribution; conservation

Wild Life- its conservation.

Topic-11 Natural Hazards and disasters-

Causes, cases/events Consequences and management in India Environmental Hazards: Floods, droughts, cyclones, earthquakes and landslides; human adjustment to hazards; hazards perception and mitigation; environmental institutions and legislation in India.

Topic -12 People (World and India)

Trends and patterns of population growth: determinants and patterns of population distribution and density of Population, demographic transition; Human migration, Patterns of human development.

Topic-13 Human Activities: (World and India)

Primary: - Hunting, gathering, Herding (Nomadic & Commercial) fishing, mining and agriculture; Agricultural practices; some major crops.

Secondary: - Industries: Classification, Theories of localization, major Industries, recent trends in industries, world comparisons.

Tertiary:-(Services)

Quaternary-Quinary activities

Planning in India: target area planning, idea of sustainable development

Topic-14 Transport, Communication and Trade (World and India)

Transport and communication Roads, railways, waterways and airways; oil and gas pipelines, national electric grids. Communication networking-radio, television, satellite and Internet.

International Trade-Basis and components, trade balance, major trading organizations, changing pattern of India's foreign trade, sea-routes, in land water-ways, sea ports and their hinter-land.

Topic-15 Human settlements (World and India)

Temporary and Permanent settlements, rural settlements: origin, types and patterns; Urban settlements: Origin and growth of towns; functional classification of towns. Problems of urbanization in the world; urbanization in India; Urban slums and squatters. Morphology of cities; distribution of Mega-cities, problems of human settlements in Developing countries.

Topic -16 Geographical perspective on selected issues and problems

Environmental pollution-Land, Water, Air, Noise, Global Warming, Poverty, Food Security.

