

Syllabus for MSc (Geography) Entrance Examination of VMOU

UNIT-I Geomorphology: Fundamental Concepts of Geomorphology, Geological time scale, Processes of development of land forms; Endogenetic and exogenetic forces, Orogenesis and important phases of mountain building, Mountain building theories, Continental drift and plate tectonics, Denudation processes; weathering and erosion, Concept of geomorphic cycles; Davis and Penk, Landforms associated with fluvial, glacial, arid, coastal and karst cycles, Slope forms and concepts of slope evolution, Environmental and Applied geomorphology and Geomorphic hazards.

UNIT-II Climatology: Composition and structure of atmosphere, Insolation, Heat budget, Distribution of temperature, atmospheric pressure and general circulation of winds; Monsoons and jet streams, Stability and instability of atmosphere, Air-masses and fronts, Temperate and tropical cyclones, Types and distribution of precipitation, Classification of world climates; Koppen's and Thornthwate's schemes and Hydrological cycle.

UNIT III Oceanography: Relief of Oceans; hypsometric curve, Bottom relief of Indian, Atlantic and Pacific oceans, Ocean deposits, Coral reefs, Temperature, density and salinity of oceans, Ocean circulations; tides and ocean currents, Sea-level changes, Marine resources and their utilization.

UNIT IV Environment Geography: Components of environment and ecology, Physical factors influencing world distribution of plants and animals, Types, forms and functions of ecosystem; forest, grassland, marine, desert and mountain ecosystems, Bio-diversity; depletion and conservation, Environmental pollution; types, causes, effects and solutions, Climate change; global warming and ozone depletion, Environmental hazards and disasters; types, effects and management and Environmental Impact Assessment (EIA).

UNIT V Cartography: Scale, Types of maps and their interpretation, single purpose and composite maps; choropleth, isopleth and chorochromatic maps, Statistical diagrams; one, two and three dimensional diagrams, Climatic graphs; climograph, hyther graph and climatograph, Map projections; classification and their specific uses and Toposheets.

UNIT VI Economic Geography: Spatial organisation and classification of economies, Factors affecting spatial organization of economic activities; primary, secondary, tertiary and quaternary, Classification of resources, Forest, power and mineral resources, Conservation of resources, World energy crisis, Globalisation and its impact on world economy and Major regional trade blocks and their economic integration.

UNIT VII Human Geography: Modern school of thought in Human Geography possibilism, determinism, neo-determinism, Migration its causes and types, Distribution of important races of the world, distribution of human population in the world.

UNIT VIII World Regional Geography: Broad physical feature: mountains, plateaus, plains, deserts, major rivers, agriculture types, power resources, major industrial regions, inter-continental railways, major ocean routes.

UNIT IX Geography of India: Physiographic divisions, Climate, Vegetation, Drainage, Major soil types, Water resources, Irrigation, Agriculture; major food and commercial crops, Green revolution and food security, Agro-climatic regions, Mineral and power resources, Major industries and industrial regions, Population distribution and growth, Population problems and policies, Tribes, Tribal areas and their problems, Regional disparities in social and economic development, Regional planning in India and planning regions, Development of road, rail and inland water ways and Natural disasters in India; earthquakes, floods, droughts, cyclones and tsunami.

UNIT X Geography of Rajasthan: Physiographic divisions, Climate, Rivers and lakes, Soils and vegetation, Minerals and power resources, Agriculture and irrigation, Agro-

climatic regions, Livestock, Major industries and industrial regions, Sites of geo-tourism, Population; distribution, density, growth, sex-ratio, literacy, SC and ST population, Environmental problems; desertification, deforestation and soil erosion, Bio-diversity and its conservation and Development programmes.