

GEOGRAPHY

UNIT-I – GEOMORPHOLOGY

Origin of the Earth - Interior of the Earth - Crust - Mantle - Core - Geomorphic Processes - Diastrophism – Fold – Fault – Earthquake – Volcanoes – Continental Drift – Plate Tectonics – Rocks – Rock types – Soil profile – Agents of Denudation – Running water - Glacier – Wind – Waves – Underground Water – Cycle concept of Davis and Penk.

UNIT-II – CLIMATOLOGY

Structure and Composition of atmosphere – Insolation – Heat balance – Factors affecting the horizontal and vertical distribution of temperature – Major Pressure belts of the world – Winds – planetary winds – Local winds – Humidity – Forms of Condensation – Clouds – Precipitation – Rainfall types – Air masses - Fronts – Cyclones – Climatic Classification of Koeppen and Thomthwaite.

UNIT- III – OCEANOGRAPHY

Relief of Ocean floor – Bottom Topography of Atlantic ocean, Pacific Ocean and Indian Ocean – Distribution of temperature of oceans – salinity of oceans – waves – Tides and ocean currents – Coral reefs-Deposits of Ocean floor Resources of Oceans.

UNIT- IV - HUMAN GEOGRAPHY

Man and his environment – Human Adaptations in Equatorial regions – Mediterranean Regions Grasslands – Determinism and possibilism - World Population – Growth – Distribution pattern – Population Problems – Migration – Types – Causes and consequences – Settlements – Rural Settlements – Urban Settlements – Types of Urban and Rural Settlements – Site and situation – Functional Classification of Towns – World Urbanization.

UNIT-5 - ENVIRONMENTAL STUDIES

Concept of Eco-system Eco crisis – Climatic Conditions – Adaptation of animals and Plants in different climatic conditions – Balance of Eco-system – Need for conservation of Eco system – Natural Hazards – Flood - Drought – Forest fire – Earthquake and volcanic eruptions – Manmade disasters Nuclear explosions, Fire and Oil spills.

UNIT-6 - ECONOMIC GEOGRAPHY

Resources – Types – Agriculture – Types of Agriculture – Major Crops – Rice – Wheat – Cotton – Tea – Coffee – Sugar cane – Minerals-Types – Iron ore – Bauxite – Manganese and Mica – Power Resources – Coal - Petroleum Hydro Power – Nuclear power – Forest Resources – Forest based industries – Iron and steel Industries - Te xt ile industries – Ship building industries – Automobile Industries – Major fishing grounds of the world – Transport – Road ways – Railways – Waterways – Airways – Trade – international trade – World Trade Patterns.

UNIT-VII - REGIONAL GEOGRAPHY

Definition – classification of regions – Functional and Formal regions – Agricultural regions – Cultural Regions of the world – Human Races and types. Regional imbalance – Need for regional planning.

UNIT-VIII – CARTOGRAPHY

Maps – Types of Maps – Map scale and Types – Map Projections – Classification – Cylindrical – Conical and Zenithal projections – Map design and layout – Map compilation and generalization sources of data - Primary and secondary data – Computers and cartography.

UNIT- IX- GEOGRAPHY OF INDIA

Location of India – physiographic divisions – Climate of India – Climatic Divisions – Forest types – Soil types – Agriculture – Problems of Indian Agriculture – Crops – Wheat – Rice – Cotton – Sugarcane – Tea – Coffee – Minerals – Iron ore – Bauxite – Manganese – Mica – Copper – Industries – Iron and steel – Cotton textile. Sugar industries-cement industries - Engineering Industries – Transport -National Highways - Railways – Inland water ways – Airways – Ports Major ports of India – Population – Distribution - density – problems of over population – National population policy Trade – Pattern of foreign Trade of India.

UNIT - X - GEOGRAPHY OF TAMILNADU

Location of Tamilnadu - Relief – climate - soil – rivers - vegetation – Fisheries - Agriculture – Impact of green Revolution – Cultivation of major crops – Mineral wealth of Tamilnadu - Industries – Population Transport – Roadways Railways – Ports and Airports of Tamilnadu. Urbanization – Million cities of Tamilnadu.

Professor Academy