

GEOGRAPHY

Geography focuses on understanding the Earth's physical features and the impact of human activities on these features. A degree in Geography provides valuable skills in data collections, analysis, and research. With a Master degree, graduates can work as geographical survey researchers and urban planners etc. Geography puts this understanding of social and physical processes within the context of places and regions. It looks at the differences in cultures, political systems, economies, landscapes and environments across the world, and the links between them. Students need to practice Mock Test to exalt in their exams. RITA ACME FOCUS [RAF] definitely will fulfil the dreams of young aspirants. Mentally and physically students are ever willing to accept the challenge to perform well in their exams...Our Mock test will be an ideal preparatory to match the original exam. RAF help the students for making a golden future.

Class V

(A): Rivers, anticlines, meanders, synclines, tributaries, deltas, distributaries, and block mountains.

(B): Mountains, Mountain ranges include the Andes, Rockies, Alps, Great Dividing Range, Himalayas, and the Atlas Mountains. Mountain ranges also include the folding, formation of mountains.

(C): The development and characteristics of volcanic mountains

Plateaus: formation and characteristics, plateaus types, distribution in the world.

(D): Narmada, Rhine, Nile. Plains, their genesis and characteristics, types of plains, and their distribution worldwide People and landforms.

(E): Pacific, Indian, Arctic, Atlantic, and Southern oceans. Sea: Distribution of inland and peripheral waters in the sea (Bering sea, North Sea, Caribbean Sea, Black sea, Aral Sea, Caspian Sea, Arabian sea, dead sea and red sea).

(F): Amazon, Rhine, Nile, Danube, Indus, Ganga, Huang Ho, Ob, Yangtze, Finding the above on a map of the world.

(G): An introduction to the various sorts of agricultural techniques used worldwide. Subsistence Farming, Intensive Farming, Extensive Farming, Shifting Cultivation, Meaning and examples of food and cash. Crops: wheat, cotton, rice, jute, and sugarcane. Commercial agriculture: definition and examples, Green Revolution: A quick explanation of how the green revolution aided agriculture's growth.

(H): Metallic and non-metallic mineral types, Non-Metallic: Mica, Limestone, mineral fuels. Metallic: Uranium, bauxite, manganese, Iron ore, gold, silver, and copper. Mica, limestone, mineral fuels.

(I): North America and South America: North America. Introduction, Location, Boundaries, Political splinters (capitals, countries and capitals), Key physical characteristics, placing the above on a map, Case Study: Lumbering in Canada, South America.

Class VI

(A): Representation of Geographical Features: Introduction to maps; distinctions between maps, sketches, plans, and globes. Significance of Maps. Types of maps based on scale; Scale: its application and meaning; Direction: eight cardinal points; Symbols: Rivers, anticlines, meanders, synclines, tributaries, deltas, distributaries, and block mountains are depicted in the diagrams (with a brief explanation).

(B): Landforms: Landform types; Mountains and Valleys: endogenous and exogenous mechanisms that lead to the production of mountains and valleys. Mountains: Mountain ranges include the Andes, Rockies, Alps, Great Dividing Range, Himalayas, and the Atlas Mountains. Mountain ranges also include the folding, formation of mountains, meaning and characteristics of young fold mountains, and distribution of young fold mountains worldwide.

(C): (Urals, Appalachians, Aravalli's): Location on the world map; Faulting: its definition, the origin and characteristics of block mountains, their distribution globally (Black Forest, Vosges, Vindhyas), and the significance of mountains. The development and characteristics of volcanic mountains (Mount Fujiyama in Japan and Mt. Kilimanjaro in Africa); Plateaus: formation and characteristics, plateaus types, distribution in the world (The Deccan plateau in India, The east African Plateaus in Kenya, Tibet Plateau, Tanzania, and Uganda), rich in mineral deposits.

(D): Valleys: formation and characteristics of rift valleys, distribution of rift valleys in the world – Narmada, Rhine, Nile. Location on the world map; Plains: their genesis and characteristics, types of plains, and their distribution worldwide (Gangetic plains of India and plains of North America); Location on the world map. People and landforms: How do landforms affect human life? (A contrast of living between the plains and the mountains)

(E): Water Bodies Oceans: the characteristics and significance of the Pacific, Indian, Arctic, Atlantic, and Southern oceans; Sea: Distribution of inland and peripheral waters in the sea (Bering sea, North Sea, Caribbean Sea, Black sea, Aral Sea, Caspian Sea, Arabian sea, dead sea and red sea); Lakes: Major global lakes, their locations, characteristics, and significance (Baikal, Lake Omega, Lake Titicaca, Chilka lake and Lake Victoria).

(F): Rivers: where the world's major rivers are located, what makes them unique, and how significant they are (Mackenzie, Mississippi, St Lawrence, Amazon, Rhine, Nile, Danube, Indus, Ganga, Huang Ho, Ob, Yangtze, Murray). Causes of water body contamination (in general); finding the above on a map of the world.

(G): Agriculture: An introduction to the various sorts of agricultural techniques used worldwide, Subsistence Farming, Intensive Farming

Extensive Farming, Shifting Cultivation, Meaning and examples of food and cash crops: wheat, cotton, rice, and jute, and sugarcane, Commercial agriculture: definition and examples. Plantation agriculture: definition and examples (tea, rubber, coffee); Finding the world's major crop-producing regions on the map. Green Revolution: A quick explanation of how the green revolution aided agriculture's growth.

(H): Minerals: Ores and Minerals (meaning and examples); Metallic and non-metallic mineral types; Non-Metallic: Mica, Limestone, mineral fuels (coal and petroleum), natural gas; Metallic: Uranium, bauxite, manganese, Iron ore, gold, silver, and copper; Mica, limestone, mineral fuels (coal and petroleum), natural gas; Mining techniques; Mineral preservation; Location of the aforementioned minerals on the globe.

(I): Study of Continents: North America and South America; A simple explanation of how continents were formed, North America, Introduction, Location, Boundaries, Political splinters (capitals, countries and capitals) Key physical characteristics; Placing the above on a map; Case Study: Lumbering in Canada, South America; Introduction, Location, Boundaries, Political splinters (capitals, countries and capitals); Key physical characteristics, Placing the above on a map. Case Study which includes life in the Amazon River basin.

Class VII

(A): Representation of Geographical Features: Use of Colours on Topographical Sheets Blue – Water body Red – Settlements Yellow – Agriculture Brown – High relief Green – Forests. It also teaches the students use of scales for measurement: types of scales (representative fraction, linear scale).

(B): Measuring distance on the map using scales (straight line); Weather and Climate; Elements of Weather include Temperature, Atmospheric pressure, Humidity, Precipitation (rain, dew, hail, snow), and Winds, Cloud (different types).

(C): Difference between Weather and Climate; Weather Instruments include Thermometer, Rain gauge, and Barometer, Hygrometer, Anemometer and wind vane.

(D): Atmosphere: Introduction to the Chapter; The Atmosphere's Composition, including the percentage of different gases; Structure of the Atmosphere - A brief description of Troposphere, Stratosphere/Ozone layer, Thermosphere, Mesosphere, Exosphere.

(E): Weathering and Soil Formation: Types of rocks; Weathering and Soil.

(F): Industries; Introduction; Need for industries in the world; Agro-based industries; Factors related to the establishment of an industry.

(G): It also talks about the important industries of the world including Iron and Steel, Cotton Textile, Information Technology, fishing; important centres of these industries; Pollution due to industries and its prevention.

(H): Study of Continents – Europe, Africa, Australia, Antarctica; Europe: Location, Area, Political & Physical Features, Climate, Natural Vegetation, Wildlife; Forest, Minerals & Power Resources; Africa: Location, Area, Political & Physical Features, Climate, Natural Vegetation, Wildlife; Minerals.

(I): Australia: Location, Area, Political & Physical Features, Climate, Natural Vegetation, Wildlife; Forest and Minerals; Antarctica: Location, Physical Features, Climate, and Natural Vegetation.

Class VIII

(A): Representation of Geographical Features: On the basis of Topographical Sheet: Interpret contours on the sheet (height, shape);

Identify landforms through contours; Types of slopes (steep, gentle).

(B): Hills, Plateaus, and Ridges (gap, saddle, colt, pass); Settlement patterns:

Temporary and permanent; Nucleated, dispersed and linear; Interpret and analyse the given timesheet.

(C): Population Dynamics: Distribution of population in the world

Overpopulation and under population: meaning with examples of countries from the world; Impact of overpopulation and under population on the society; Factors affecting the population of a place, birth and death rate, immigration and emigration; Composition of population – Age and sex, rural and urban; population pyramid.

(D): Migration: Introduction Types of migration-immigration, emigration, rural-urban and urban-urban. (Examples from the world)

Impact of migration on the socioeconomic structure of the society (examples from India and the world); Brain Drain: introduction, causes of brain drain, positive and negative impacts of brain drain.

(E): Urbanisation: Meaning and causes; Positive and negative impacts of urbanisation; satellite cities; Concept of Smart Cities (examples from the World); For More Information on Smart Cities and Satellite Cities, Watch the below Video.

(F): Natural and Man-made Disasters; Natural and manmade disasters: Meaning and examples; Disaster management and its importance (in general); safety measures to be taken in case of floods, earthquake and fire Role of the government in disasters and its management; Case Studies: Floods in Assam/Bihar (Causes, effects, impacts on life and environment); Earthquake in Nepal (2014): (Causes, effects, impacts on life and environment); Oil Spills-Coastal areas of the United States: (Causes, effects, impacts on life and life and environment).

(G): Asia – The Largest Continent; Location and Extent, East Asia, North Asia, Central Asia, South-East Asia, South-Central Asia, Western Asia; Physiographic: Northern lowlands, Central highlands, Plateaus, River basins, Islands; Climate: Factors affecting Climate of Asia, Types of Climate: Tundra, Temperate, Tropical, Desert, Equatorial; Natural Vegetation and Wildlife, Tundra, Taiga, Tropical Deciduous, Thorny, Equatorial.

(H): India – Geographical Features; India – Its location and extent, its neighbouring countries; Political divisions of India – States/ UTs and Capitals; Physiographic Divisions of India –The Himalayas, Northern plains, Peninsular plateau, Thar desert, Coastal regions, Islands; Conservation of Forest and wildlife in India; National parks, biosphere reserve, wildlife sanctuaries; Climate and Natural vegetation: Factors affecting climate, Monsoon; Types of Natural vegetation: Tropical rain forest, deciduous forest, thorny, Tidal Forest, Montana forest.

(I): India Human Resources: Human resources – meaning, Distribution of population in India (rural urban, geographical distribution, sex ratio); Role of health and education in developing human resources (to be done briefly); Skilled and unskilled human resource (meaning and examples only); Impact of skilled human resource on the socio-economic development of the country (examples from India).

Class IX

(A) OUR WORLD: (1) EARTH AS A PLANET; the Earth as a Unique Planet, Realms of the Earth, shape, and size of the Earth, Proofs of the Earth's Shape, Earth as a home of humankind and the Conditions that exist here; (2) LATITUDES AND LONGITUDE: Introduction, The main five; parallels of Latitudes, The climatic zones of the Earth, concept of Longitudes, The Great Circle Routes, Calculation of longitude and Time, International Date Line, world Time Zone; (3)ROTATION AND REVOLUTION; Movement of the Earth, Rotation of the Earth and alternation of day and night; Revolution of the Earth and seasonal change.

(B) STRUCTURE OF THE EARTH: (4) EARTH'S STRUCTURE: Introduction, Structure of the Earth - Care, Mantle, Crust-Meaning and there, composition; (5) LANDFORMS OF THE EARTH: Introduction, significance and Types of mountains, Introduction, significance and Types of plateaus, Introduction significance and Types of Plains. (6)ROCKS AND ROCK CYCLE: Introduction, Types of Rocks and their classification - Igneous,

Sedimentary, and metamorphic rocks, Rock Cycle, Geomorphic and economic importance of rocks.

(C) INTERNAL PROCESSES: (7) VOLCANOES: Introduction, Types, classification; on and Causes of volcanoes; World distribution of volcanoes, Effect of volcanic activities;(8) EARTHQUAKES: Introduction, causes of Earthquakes; consequences of effects of Earthquakes, Earthquake fore casting.

(D) WEATHERING: (9) WEATHERING AND DENUDATION: Introduction, Meaning, Types, Effects of weathering, Denudation, work of river -Stages of a river course, work of wind and associated Landforms.

(E) HYDROSPHERE: (10) TIDES AND OCEAN CURRENTS: Introduction, Meaning of Hydrosphere, ocean currents; Effects of ocean currents; Tides-causes magnitude and Types; Effects of Tides.

(F) ATMOSPHERE: (11) COMPOSITION AND STRUCTURE OF THE ATMOSPHERE: Introduction–Atmosphere; Composition of atmosphere, Structure of the atmosphere; Ozone in stratosphere Global warming; Consequences of global warming; (12) INSOLATION: Introduction heating of the atmosphere; Differential heating of land and water; Factors affecting distribution of temperature-latitude; altitude, distance from the sea, ocean currents, winds; clouds and rainfall, slope of the land, vegetation and nature of the soil. (13) ATMOSPHERIC PRESSURE AND WINDS: Introduction - Concept of atmospheric pressure; Factors affecting air pressure; Distribution of pressure on the Earth's Surface Wind; systems of the Earth. Types of winds - Permanent winds, Periodic winds, Local winds, Special winds – Tropical cyclones, Anticyclones; (14) HUMIDITY: Humidity meaning and definition Difference between relative and absolute humidity; Evaporation and condensation - Forms of Condensation; Precipitation Forms of precipitation Types of rainfall - Convectional, Orographic and Cyclonic Factors affecting the distribution of rain fall.

(G) POLLUTION: (15) POLLUTION-TYPES AND SOURCES: Introduction Types and Sources of Pollution – Air Pollution, Water Pollution, Soil Pollution, Radiation Pollution, Noise Pollution (16) EFFECTS OF POLLUTION: Introduction Effect of pollution Effect of air pollution on human health; Effects of water pollution; Effects of soil pollution; Effects of noise pollution; Effect of radiation Bhopal Gas Tragedy Chernobyl Disaster. (17) POLLUTION - PREVENTIVE MEASURES: Introduction Preventive, measures carpooling; Promotion of Public -

Transport No Smoking Zone; Restricted use of fossil fuels; saving energy National Environmental Engineering Research Institute (NEERI); Encouragement of organic farming.

(H) NATURAL REGIONS OF THE WORLD: (18) NATURAL REGIONS OF

THE WORLD: Introduction; Natural Regions of the World - Equatorial Regions.

(I) Tropical: Grasslands Tropical Deserts; Tropical Monsoon Mediterranean; Temperate

Grasslands Taiga, Tundra. (DMAP WORK (WORLD MAP) map work (WORLD MAP) 'The Major Natural Regions of The World the Oceans, Seas, Gulfs and straits, Rivers Mountains Plateaus.

CLASS X

(A) GEOGRAPHY OF INDIA: (1) Location, Extent and Physical features of India (Maps only) Location and extent, India and Its neighbouring countries; (2) Climate of India:

Introduction, Variations and Contrasts in climate, Four Seasons, Local winds, The Rainy seasons, The cold Seasons, Annual Distribution of Rainfall, Monsoon and Its Mechanism.

(3) Natural Vegetation: Introduction, Environmental Factors, Types of Natural, Vegetation, Need for forest, Conservation Forest products and their uses.

(B) Soil and Water Resources: Soil Resources in India; Important of Soil, formation of soil, Soil Erosion, Soil conservation, classification of soil, characteristics of Different soil;(5) Water Resources: Surface and Ground Water, Importance of irrigation in India, Need for irrigation in

India, Conservation of water, Rainwater harvesting.

(C) Mineral and Energy Resources: (6) Introduction, Uses and distribution of - Iron ore, Manganese, Bauxite, Copper; (7) Conventional source of Energy - Coal, Petroleum, Natural gas, Non Conventional source - Solar energy, wind energy, Biogas, Tidal Energy, Geothermal Energy.

(D) Agriculture in India: (8) Introduction: Agriculture its importance in India, Agricultural Seasons, Green Revolution, Problems of Indian, Agriculture Types of farming in India;
(9) Food crops: Rice Wheat, A climatic contrast between Rice and wheat; Millets - Jowar, Bajra, Rag. (10) Cash crop: Agro-Fibres - Cotton, jute, Oilseeds-Mustard, Soyabeans and ground nuts. Plantation crops - Sugarcane Beverages - Tea, coffee.

(E) Manufacturing Industries in India: (11) Agro-based: Cotton textile industry; Problems of cotton textile industry; Silk industry; Sericulture in Karnataka; Artificial silk. Sugar Industry; (12) Mineral based: Introduction, classification of Industries, Iron and Steel Industry, Electronics, Petrochemicals.

(F) TRANSPORT: (a) Importance of Transport system; Significance of Transport system; Mode of Transport; (b) Indian Railways - Types of Railway gauges, Railways management; Progress of Indian Railways, Advantage and Disadvantage of Indian Railways; Problems of Indian Railways. (c) Airways: classification of Airports, Advantage and disadvantage of Air Transport, Problems facing the Aviation sector of

India; (d) Water ways: Importance of waterways; Types of water ways; National water ways; Advantage and disadvantage of Water Transport; Coastal shipping Advantage and disadvantage.

(G) Waste Management: Introduction, accumulation of waste and its impact on Environment. Pollution - Impact of air, water and Soil Pollution, Health hazards - Caused by wastes; Waste management and 3RS- Reducing, Reusing and Recycling.

(H) Interpretation of Topographical Maps: Concept of Map: Types of Map, Topographical Survey; Maps Uses of Topographical; Map; The importance of Colours in Topographical Maps; Significance of convene

Tonal signs and symbols Legend, Glossary of conventional signs and Symbols.

(I) SCALES: Necessity and Importance of Scales; Representation of Scale on a Map; Converting statement of scale in to R.F. Converting R.F into statement of scale; Construction of Graphical scale.

CLASS XI

(A) Geography as a discipline: Definition, scope, nature of geography, Branches of geography, future scope of branches of Geography.

(B) Geotectonic: Earth interior, isostasy, sea floor spreading, continental drift theory, plate tectonics' theory. Folds, faults, volcanicity, earthquake...

(C) Geomorphology: Weathering and mass wasting and resultant landforms, classification and evolution of fluvial, coastal, Aeolian, and glacial landforms...

(D) Hydrosphere: Definition and relation with the environment, hydrological cycle, run off, Topography of ocean floor, ocean deposit, temperature, salinity and density...

(E) Biosphere: Nature and extent, components, ecosystem(concept, types components), tropic level, food chain, food web, energy flow, biogeochemical cycles, factors of plants growth, biomes(concept and classification); Economic geography.

(F) Resources: i) Concepts, theories, characteristics, classification, creating factors of resources; ii) Utilisation of world Resources: Forest, fishing, grazing, land use pattern, water resources, mining and power resources...

(G) Model of economic system: Theories of location of economic activity, WTO and international trade, sustainable development, impact of globalisation; Conservation of resources; Practical...

(H) Fundamental of practical Geography: i) Map: classification and components of map...; ii) Concept of scale: plain, comparative, diagonal, Venire...; iii) Identification of the Rocks and minerals...; (Quartz, Talc, Feldspar, Magnetite, Chalcopyrite, Galena, calcimine, Gypsum, Bauxite, Granite, Dolerite, Pegmatite, Sandstone, Shale, Limestone, Gneiss, Schist, Phyllite, Laterite.)

(I) Cartograms: i) Line diagram, bar diagram (simple, compound, composite) square diagram, dots and spheres, proportional circles, flow diagram, star diagram, age-sex
 Pyramid...; ii) Concept of Isopleths and chropleth...; iii) Temperature and Rainfall graphs...

CLASS XII

(A) Geomorphology: i) Geomorphic processes and associated landforms; ii) Work of ground water and associated landforms; iii) Marine processes and associated landforms; iv) Development of river network and landforms on uniclinal and folded structure.

(B)Theories of Geomorphology: i) Normal cycle of erosion by W. M. Davis; ii) Views of peck on normal cycle of erosion; iii) Cycle of Pedi planation by L.C. King;

iv) Dynamic equilibrium theory by J.T. Hack

(C) Climatology: i) Composition and structure of atmosphere; ii) Atmospheric disturbances; iii) Climate change (climate classification, climatic regions of the world, climate and vegetation, evidence and causes of climate change, Role of human being on climate change.

(D) Soil and biogeography: i) Factors and processes of formation, soil profile, properties, fertility and productivity, plant nutrition, world soil groups, soil degradation and conservation...; ii) Biodiversity (Definition, types, loss of biodiversity, importance, significance and conservation, biodiversity and man, strategies of conservation of biodiversity...

(E) Geographical Thought: i) Definition scope and content of geography, geography as spatial science...; ii) Geography in ancient (Greek and roman) and mediaeval period (Arabian); iii) Classical of geography in 19th century (Humboldt and Ritter); iv)

Development of geography in 20th century; v) Development of schools of thought in modern geography (German, British, American, Indian), Economic geography.

(F) Economic Activities: i) Primary activities; ii) Secondary activities; iii) Tertiary activities; iv) Quaternary activities; v) Quandary activities.

(G) Population and Human settlements: i) Population of India compared to six countries – China, Australia, USA, Canada, Russia and Brazil. ii) Demographic attributes at National level – trends and patterns of: 1. Rural urban population 2. Age and sex composition 3. Literacy levels 4. Working and nonworking population; implications for development; iii) Impact of migration on distribution of population (worldwide); iv) Demographic Transition model; v) Rural settlements -Types and patterns in hill areas, plains and coastal locations; Distinction between Rural and Urban settlements; Rural and Urban Population; vi) Factors affecting the types (distinction between compact and dispersed) and patterns (linear, circular, star shaped, rectangular, shapeless) of rural settlements in plains, coastal areas, mountains and plateau areas; (vii) Urban settlements - size, classification of towns as per the latest census; Definition of an Urban area according to the latest census; Urban agglomeration, conurbation, urban sprawl; Factors that influence the growth of urban centres in India; Problems and advantages of urban growth-slums; Practical.

(H) Map projection: i) Basic of classification and suitability of projection; ii) Properties, method of construction, uses and limitations; iii) Graphical construction of polar zenith stereographic, simple conical with one standard parallel polyclinic, bone's cylindrical equal area and Mercator's projections.

(I) Statistical Tools: i) Definition and importance of statistics, Data (collection of data, presentation of data), frequency distribution (line diagram, Bar diagram, pie diagram, Histogram, polygon, frequency curve, ogive); ii) Measures of central tendency (mean, median, mode); iii) Measures of dispersion (Range, mean deviation, standard deviation, quartile deviation, Lorenz curve, Gina coefficient).