

PAPER 2: GEOGRAPHY (50)

CLASS IX

There will be one paper of two hours duration carrying 80 marks and Internal Assessment of 20 marks.

The question paper will consist of Part I and Part II.

Part I (compulsory) will be divided into two sections, Section 1 and Section 2. Section 1 will consist of short answer questions from the entire syllabus and Section 2 will consist of a question based on Maps. Candidates will be expected to answer all questions.

Part II will consist of Section 1 and Section 2. Candidates will be required to choose four questions from Section 1 and two from Section 2.

Candidates will be expected to make the fullest use of sketch maps, diagrams, graphs and charts in their answers.

Questions may require answers involving the interpretation of photographs of geographical interest.

SECTION A

PRINCIPLES OF GEOGRAPHY

1. Our World

- (i) *Earth as a planet – shape, size and its uniqueness in the solar system.*

Shape of the earth – proofs from the earliest days and today. Size of the earth in proportion to the other planets and the unique position of the earth. Measurements of the earth. Earth as the home of humankind and the conditions that exist here.

- (ii) *Latitudes and longitudes; locating places on the Earth; longitude and time; local and standard time; Great Circle routes and International dateline.*

(a) Concept of latitudes: main latitudes, the location with degrees, parallels of latitude and the uses they have. Reading latitudes north and south of the equator. (b) Concept of longitudes - Prime Meridian, time (local, standard and time zones, GMT and IDL). Eastern and Western hemisphere.

(c) Using latitudes and longitudes to find locations. Uses of the Great Circle.

- (iii) *Rotation of the earth and the alteration of day and night; Revolution of the earth and seasonal changes; Inclination of the earth's axis and its significance.*

Movements of the earth and their effects:
(a) Rotation – direction, speed, occurrence of day and night, effect of the inclination of the axis on the duration of day and night in summer and winter in each hemisphere.
(b) Revolution of the earth, effect on seasons in low and high latitudes. Equinoxes and solstices.

2. A. Structure of the Earth and Internal Processes

- (i) *Structure - crust of the earth (Lithosphere).*

Core, mantle, crust - their structure, thickness, pressure, temperature, density. Forces originating in the interior of the earth – movements due to temperature and pressure in the interior of the earth.

- (ii) *Landforms of the earth – mountains, types of mountains, types of plateaus, types of plains - structural, erosional, depositional. Examples from the world and India. World map showing the distribution of these features as listed.*

Self-explanatory.

- (iii) *Rocks - difference between minerals and rocks, types of rocks: igneous, sedimentary, metamorphic, their characteristics and formation; rock cycle.*

Self-explanatory.

- (iv) *Volcanoes - causes and distribution; volcanic cone and fissure eruption.*

Volcanoes (fissure), shield volcanoes, central type (cone) formation and structure. Intrusive (dykes, sill, batholiths) and extrusive (dome, basic lava shield). Phenomena like hot springs, geysers, tsunamis. Important volcanic zones of the world.

- (v) *Earthquakes – causes, effects and their distribution.*

Causes, measurement, effects: destructive and constructive. Map of earthquake zones of the world.

- (vi) *Folding and faulting – causes, effects and associated landforms like fold mountains, horsts, rift valleys - their features/examples.*

Vertical and horizontal movements and associated features of folding and faulting; synclines and anticlines, rift valley and horsts (block mountains), fold mountain, diagrams of the mountain formations. Map of world showing major fold, block mountains and rifts.

(The following topic i.e. Agents of Gradation and External Processes and the sub-topics under it are to be taught with topic 1(e) of Internal Assessment, i.e. Drawing and recognizing forms of important contours ...).

B. Agents of Gradation and External Processes: meaning and effects of weathering, its three major types - soil formation, idealised soil profile and its characteristics.

Weathering, mass wasting, mechanical, chemical and biological weathering, landslides. Soil types and their characteristics. Idealized soil profile and its formation. Soil degradation and conservation.

- (i) *Work of rivers – stages, formation of different features - (valley, gorges, canyons, waterfalls, meanders, oxbow lakes, deltas, estuaries). Diagrams and photographs of these features.*

Course, stage; terms like source, mouth, channel load, gradient, catchment area, tributary, meander, confluence, river piracy. Erosion, transportation, deposition by water; features formed: gorge, canyon, v-shaped valley, rapids, waterfalls, alluvial plain, floodplains, oxbow lakes, deltas, estuary. Map work – major rivers and waterfalls of the world.

- (ii) *Work of ice – mountain glaciers and formation of associated features –*

glacial valleys, cirques, aretes, moraines and their types.

Mountain (valley), glaciers, process of erosion, transportation and deposition by glaciers; erosional features - pyramidal peak, cirques, cirque lakes, U-shaped valleys, hanging valleys; depositional features – moraines, fluvio-glacial deposits – outwash plains, kames, drumlins. Types of moraine – ground, lateral, medial and terminal; diagrams, photographs of these features.

- (iii) *Work of wind – formation of associated features, viz. mushroom rocks, yardangs, sand dunes and their types - transverse, longitudinal and crescentic; loess.*

Types of deserts, wind erosion, rock pedestal (mushroom rocks); deposition: sand dunes, loess. Location of deserts on maps. Diagrams, photographs.

- (iv) *Work of sea waves – associated landforms in coastal areas, viz. cliff, caves, stacks, sand bars and beaches.*

Work of sea waves, corrosion, attrition, hydraulic action, solvent action; features formed – sea cliffs, caves, stacks, sandbars, beaches. Photographs, diagrams.

3. Hydrosphere

- (i) *Importance of oceans. Distribution of land and water; features like isthmus, gulf, bay, strait, island.*

Earth the watery planet, features like isthmus, gulf, bay, strait, islands; map showing the oceans and seas, water bodies and associated features as listed in the world.

- (ii) *Movement of ocean waters, tides - formation, properties and patterns of tides. Currents – their circulation pattern and effects.*

Factors that cause tides, the nature of tides, periodicity, neap and spring tides. Circulation pattern and effect of currents on climate.

4. Atmosphere

- (i) *Composition and structure of the atmosphere as Troposphere, Stratosphere, Ionosphere and Exosphere; ozone in stratosphere, its depletion and global warming.*

Diagrammatic representation of atmospheric layers; their height and properties; gases, temperature, pressure. Role of the atmosphere and the need to protect it.

- (ii) *Insolation – heat balance, heat zones.*

Heat balance, heat budget; heat zones of the earth, factors affecting temperature like differential heating and cooling of land and water, latitude, distance from the sea.

- (iii) *Pressure belts, winds – permanent winds, seasonal winds, local winds and variable winds.*

Pressure belts, factors affecting direction and velocity of wind – pressure gradient, Coriolis effect, altitude, latitude, rotation of earth. Permanent winds – trades, Westerlies and Polar Easterlies; seasonal winds – monsoons, periodic winds, land and sea breezes, cyclones and anticyclones.

- (iv) *Precipitation, types and causes, distribution of rainfall in the world and factors affecting the distribution of rainfall.*

Humidity - relative and absolute. Precipitation - process of condensation and precipitation; forms of precipitation – fog, snow, hail. Types of rainfall – relief, convectional, frontal with examples from the different parts of the world. Distribution of average annual rainfall; areas of high, low and moderate rainfall in the world.

- (v) *World climatic types – Equatorial, Tropical Monsoon, Tropical Desert, Mediterranean type, Cool Temperate Continental (Steppe, Prairie), Cool Temperate Oceanic (China type), location, study of temperature and rainfall of one station in each climatic type; corresponding patterns of vegetation.*

Location, graph of temperature and rainfall of Equatorial type - Kuala Lumpur/ Jakarta/ Colombo; Tropical Monsoon type - Chennai/ Kochi; Tropical Desert type - Quetta/ Wadi/ Haifa; Mediterranean type - Beirut; Cool Temperate Oceanic type - Shanghai/ Osaka; Cold Temperate Continental – Calgary/ Yakutsk. Description of the climate and seasons.

SECTION B

HUMAN AND ECONOMIC GEOGRAPHY

1. World Studies

*There would be a choice among the World Study areas. Candidates can choose **any one**.*

Human response to nature of resources, the availability of resources, uses, its development, factors that have contributed to the present level of development or the comparisons between the regions of similar activity.

- i. *Rubber plantations in Malaysia.*

The location, occupations and the manner in which they are affected by their natural surroundings. The types and nature of resources and the uses. The nature of plantation economy. Description of the layout and life on a plantation.

- ii. *Lumbering in Canada.*

The land, its extent, recent settlement, the resource and its quality - the rivers, the coniferous forests, the tree types, their economic viability, the changes in lumbering over the years, life of a lumbering settlement, the role of railways and rivers in transportation. The problems facing lumbering today, the conservation programme and its effect. The industries of paper, pulp and the factors affecting their location in British Columbia.

- iii. *Commercial grain farming in Central USA and intensive agriculture in Egypt.*

Prairie landscape: climatic conditions and vegetation adaptation, grain cultivation, methods, commercial, mechanized, large scale farming. Dust bowl tragedy.

Egypt: crop rotation, irrigation, main crops, the effect of irrigation and the role of the Aswan dam.

2. Map Work

A question will be set to locate and label on an outline map of the world the following information -

1. The major **climatic regions** of the world - Equatorial, Tropical Monsoon, Tropical Desert, Mediterranean type, Cool Temperate Continental (Steppe, Prairie), Cool Temperate Oceanic (China type).
2. The oceans, seas, gulfs - all major oceans and seas of the world - Caribbean Sea, North Sea, Black Sea, Caspian sea, Baltic Sea, Mediterranean Sea, Gulf of Alaska, Hudson Bay, Gulf of St. Lawrence, Gulf of Mexico, Gulf of Panama, Gulf of Guinea, Strait of Magellan, Strait of Gibraltar, Strait of Malacca and Isthmus of Suez.
3. Rivers – Fraser, St. Lawrence, Missouri and Mississippi, Colorado, Amazon, Parana, Paraguay, Nile, Zaire, Niger, Orange, Rhine, Seine, Volga, Danube, Murray, Darling, Hwang Ho, Ganga, Godavari, Mekong, Irrawaddy, Tigris, Euphrates.
4. Mountains – Rockies, Andes, Appalachian, Alps, Himalayas, Pyrenees, Scandinavian Mountains, Carpathians, Ethiopian Highlands, Drakensburg, Khinghan, Zagros, Tien Shan, Arakan Yoma, Central Japanese Alps.
5. Plateaus – Canadian Shield, Labrador Plateau, Tibetan plateau, Brazilian highlands, African Rift Valley, Iranian Plateau.

CLASS X

There will be **one** paper of **two** hours duration carrying 80 marks and Internal Assessment of 20 marks.

The Paper will consist of **two** parts, Part I and Part II.

Part I (compulsory) will consist of **two** questions. Question 1 will be based on **Contour Maps**. Question 2 will be based on **Map Work** on SAARC countries (India, Pakistan, Bangladesh and Nepal).

Part II will consist of questions based on Section B of the syllabus. There will be a choice of questions.

Candidates will be expected to make the fullest use of sketch maps, diagrams, graphs and charts in their answers.

Questions set may require answers involving the interpretation of photographs of geographical interest.

SECTION A

CONTOUR MAPS AND MAP WORK

1. Identification of simple landforms marked by contours, spot heights, surveyed trees, bench marks and colour tints or other symbols on a topographical survey of India map.
2. Measuring distances using the scale given therein and marking directions between different

locations, using eight cardinal points and indicated bearings.

3. Marking the site of prominent villages and/or towns, types of land use and means of communication with the help of the index given at the bottom of the sheet.
4. Identification of drainage and settlement patterns.
5. **Map Work**

A question will be set to locate and label on an outline map of the SAARC countries, items studied in topics **6-10** of **Section B**. Countries to be covered – India, Pakistan, Nepal and Bangladesh.

Candidates will be expected to locate and label the following items - mountains, plateaus, plains, rivers and seas, towns, passes, coastal features, mineral and crop locations, rainfall, winds/climatic regions and soil types.

Mountains and Plateaus: Himalayas, Aravali, Vindhya, Western and Eastern Ghats, Deccan Plateau and Satpura Range.

Plains: Indo-Gangetic Plains and Plains of the Indus.

Rivers: Indus, Ravi, Beas, Chenab, Jhelum, Satluj, Ganga, Yamuna, Narmada, Godavari, Mahanadi, Tapti, Krishna and Cauveri.

Passes: Khyber Pass.

Towns: Delhi, Mumbai, Kolkata, Chennai, Hyderabad, Bangalore, Karachi, Lahore, Islamabad, Dhaka, Chittagaon, Kathmandu.

SECTION B

GEOGRAPHY OF SOUTH ASIA

6. (a) *Position and extent of SAARC countries India, Pakistan, Bangladesh, Nepal and extension areas i.e. Myanmar and Afghanistan.*

Need to include Myanmar and Afghanistan as an extension of these areas. Comparison in terms of location, extent and population.

- (b) *The physical features of India, Pakistan, Bangladesh and Nepal - the distribution of rivers, mountains, plateaus and plains and their human significance.*

The unique features of the distribution of physical features and drainage. Impact of physical features of the above mentioned countries on the occupation and lifestyle of the population of these countries.

7. *The climate of South Asia.*

Distribution of temperature, rainfall, winds in summer and winter and the factors affecting the climate of the area. Monsoon phenomena and its mechanism. Seasons – hot and dry, hot and wet, cool and dry, cool and wet. Map showing distribution of temperature, rainfall, and monsoon winds.

8. *Soils in India - red soils of the crystalline tracts and southern Deccan; Black cotton or Regur soils over the Deccan lavas; Alluvial soils, characteristics of the northern plains; Laterite soils.*

- Major types of soils: alluvial, regur, red and laterite.
- Composition and characteristics such as colour, texture, minerals, crops associated.

- Soil erosion: causes and prevention.
- Soil conservation.

9. *Minerals in India – Coal, Petroleum and Iron ore.*
Self-explanatory.

10. *Agriculture in India - methods of farming of rice, wheat, millets and pulses. Farming of sugarcane, oilseeds, cotton, jute, tea, coffee, rubber.*

Types of agriculture in India: shifting, subsistence, intensive, extensive, plantation, mixed, commercial. Indian Agriculture – problems and solutions.

- Climatic conditions, soil, methods of cultivation and distribution of the following crops:
 - rice, wheat, millets and pulses.
 - sugarcane, oilseeds.
 - cotton, jute, tea, coffee, rubber.

11. *Industries in India – Iron and Steel, Heavy Engineering, Petrochemical, Electronics.*

Distribution and concentration: their special needs and the present level of development in India.

12. *Development of energy resources in India - conventional and non-conventional.*

The availability of fuel coal, oil and natural gas, hydel power resources in India. Alternate sources of energy: biogas, solar energy, wind mills, thermal energy, atomic energy sources. The role of sharing energy resources between countries with special reference to hydro-electric power projects (Kosi, Chukka, Tarbela) and water sharing issues and problems.

13. *Agro based industries in India – Sugar, Cotton and Silk Textiles.*

Their distribution, and factors affecting their location. Needs and level of development in India.