

## HISTORY, CIVICS AND GEOGRAPHY (50)

### GEOGRAPHY

#### H.C.G. - Paper - 2

##### Aims:

1. To develop an understanding of terms, concepts and principles related to Geography.
2. To explain the cause- effect relationships of natural phenomena.
3. To understand the use of natural resources and development of regions.
4. To acquire knowledge of and appreciate the interdependence of nations and different regions of the world.
5. To know the availability of resources, understand, explain their uses and appreciate the problems of development in India.
6. To understand and encourage human efforts made to conserve and protect the natural environment.
7. To acquire practical skills related to the meaning and use of maps and their importance in the study of Geography.

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 consist of two questions. Question 1 will consist of short answer questions from the entire syllabus and Question 2 will consist of a question based on World Map.

Part II. Candidates will be required to choose any five questions.

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

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

## PRINCIPLES OF GEOGRAPHY

### 1. Our World

- (i) Earth as a planet  
Shape of the earth. Earth as the home of humankind and the conditions that exist.
- (ii) Geographic grid - Latitudes & Longitudes  
(a) Concept of latitudes: main latitudes, their location with degrees, parallels of latitude and their uses. (b) Concept of longitudes - Prime Meridian, time (local, standard and time zones, Greenwich Mean Time (GMT) and International Date Line (IDL). Eastern and Western hemisphere. (c) Using latitudes and longitudes to find location. Calculation of time. (d) Great Circles and their use.
- (iii) Rotation and Revolution  
Rotation - direction, speed and its effects (occurrence of day and night, the sun rising in the east and setting in the west, Coriolis effect)  
Revolution of the earth and its inclined axis - effects: the variation in the length of the day and night and seasonal changes with Equinoxes and Solstices.

### 2. Structure of the Earth

- (i) Earth's Structure  
Core, mantle, crust - meaning, extent and their composition.
- (ii) Landforms of the Earth  
Mountains, plateaus, plains (definition, types and their formation):  
Mountains - fold, residual and block.  
Plateaus - intermont and volcanic.  
Plains - structural and depositional.  
Examples from the world and India.
- (iii) Rocks - difference between minerals and rocks, types of rocks: igneous, sedimentary, metamorphic, their characteristics and formation; rock cycle.
- (iv) Volcanoes  
Meaning, Types - active, dormant and extinct.  
Effects - constructive and destructive.  
Important volcanic zones of the world.
- (v) Earthquakes  
Meaning, causes and measurement.  
Effects: destructive and constructive.  
Earthquake zones of the World
- (vi) Weathering and Denudation  
Meaning, types and effects of weathering.  
Types: Physical Weathering - block and granular disintegration, exfoliation;  
Chemical Weathering - oxidation, carbonation, hydration and solution;  
Biological Weathering - caused by humans, plants and animals.

Meaning and agents of denudation; work of river and wind.

Stages of a river course and associated land forms – V-shaped valley, waterfall, meander and delta.

Wind – deflation hollows and Sand dunes.

### 3. Hydrosphere

Meaning of hydrosphere.

Tides - formation and pattern.

Ocean Currents – their circulation pattern and effects. (Specifically of Gulf Stream, North Atlantic Drift, Labrador Current, Kuro Shio and Oya Shio.)

### 4. Atmosphere

(i) Composition and structure of the atmosphere.

Troposphere, Stratosphere, Ionosphere and Exosphere; Ozone in the Stratosphere, its depletion. Global warming and its impact.

(ii) Insolation

- Meaning of insolation and terrestrial radiation.
- Factors affecting temperature: latitude, altitude, distance from the sea, slope of land, winds and ocean currents.

(iii) Atmospheric Pressure and Winds.

- Meaning and factors that affect atmospheric pressure.
- Major pressure belts of the world.
- Factors affecting direction and velocity of wind – pressure gradient, Coriolis Effect.
- Permanent winds – Trades, Westerlies and Polar Easterlies.
- Periodic winds - Land and Sea breezes, Monsoons.
- Local winds - Loo, Chinook, Foehn and Mistral.
- Variable winds - Cyclones and Anticyclones.
- Jet Streams- Meaning and importance.

(iv) Humidity

- Humidity – meaning and difference between relative and absolute humidity.
- Condensation – forms (clouds, dew, frost, fog and mist).
- Precipitation - forms (rain, snow, and hail).
- Types of rainfall – relief/orographic, convectional, cyclonic/ frontal with examples from the different parts of the world.

### 5. Pollution

(a) Types - air, water (fresh and marine), soil, radiation and noise.

(b) Sources

- Noise: Traffic, factories, construction sites, loud speakers, airports.
- Air: vehicular, industrial, burning of garbage. Water: domestic and industrial waste.
- Soil: chemical fertilizers, bio medical waste and pesticides.

- Radiation: X- rays; radioactive fallout from nuclear plants.

(c) Effects - on the environment and human health.

(d) Preventive Measures

Car pools, promotion of public transport, no smoking zone, restricted use of fossil fuels, saving energy and encouragement of organic farming.

## 6. Natural Regions of the World

Location, area, climate, natural vegetation and human adaptation.

Equatorial region, Tropical grasslands, Tropical Deserts, Tropical Monsoon, Mediterranean, Temperate grasslands, Taiga and Tundra.

## 7. Map Work

On an outline map of the World, candidates will be required to locate, mark and name the following:

1. The major Natural Regions of the world - Equatorial, Tropical Monsoon, Tropical Deserts, Mediterranean type, Tropical grasslands, Temperate grasslands, Taiga and Tundra.
2. The Oceans, Seas, Gulfs and Straits - all Major Oceans, Caribbean Sea, North Sea, Black Sea, Caspian Sea, South China Sea, Mediterranean Sea, Gulf of Carpentaria, Hudson Bay, Persian Gulf, Gulf of Mexico, Gulf of Guinea, Bering Strait, Strait of Gibraltar, Strait of Malacca.
3. Rivers - Mississippi, Colorado, Amazon, Paraguay, Nile, Zaire, Niger, Zambezi, Orange, Rhine, Volga, Danube, Murray, Darling, Hwang Ho, Yangtse Kiang, Ob, Indus, Ganga, Mekong, Irrawaddy, Tigris, Euphrates.
4. Mountains - Rockies, Andes, Appalachian, Alps, Himalayas, Pyrenees, Scandinavian Highlands, Caucasus, Atlas, Drakensburg, Khinghan, Zagros, Urals, Great Dividing Range.
5. Plateaus - Canadian Shield, Tibetan Plateau, Brazilian Highlands, Patagonian Plateau, Iranian Plateau, Mongolian Plateau.

**INTERNAL ASSESSMENT**  
**PRACTICAL WORK/ PROJECT WORK**

1. A record file having any three of the following exercises will be maintained. (The file will be evaluated out of 10 marks).
  - (a) Uses of important types of maps.
  - (b) Directions and how to identify them - an illustrative diagram.
  - (c) Reading and using statement of scale, graphic scale and scale shown by representative fraction method. (No drawing work, only explaining their meanings).
  - (d) Reading of one town guide map or an atlas map. (Recognising the symbols and colours used, identifying directions and distances).
  - (e) Drawing and recognising forms of important contours viz. valleys, ridges, types of slopes, conical hill, plateau, escarpment and sea cliff.
  - (f) Drawing at least one sketch map to organize information about visiting an important place, a zoo or a monument.
2. Candidates will be required to prepare a project report on any one topic. The topics for assignments may be selected from the list of suggested assignments given below. Candidates can also take up an assignment of their choice under any of the four broad areas given below. (The project will be evaluated out of 10 marks).

**Suggested list of Assignments:**

- (a) **Weather records:** Maintaining and interpreting weather records as found in the newspaper for at least one season.
- (b) **Collection of data from secondary sources** (Using Modern techniques i.e GPS, Remote Sensing, Aerial Photography and Satellite imageries) : Preparing a PowerPoint presentation on current issues like – use of earth resources/ development activities/dangers of development and ecological disasters like droughts, earthquakes, volcanoes, floods, landslides cyclones and tornadoes in the world.
- (c) **Physical Features:** Collection of data from primary and secondary sources or taking photographs and preparing notional sketches of features found in the vicinity or areas visited during the year as a part of school activity.
- (d) Find out the sources of pollution of water bodies in the locality and determine the quality of water.
- (e) Collect information on global environmental issues and problems and communicate your findings through appropriate modes (posters, charts, collages, cartoons, handouts, essays, street plays and PowerPoint presentation).
- (f) **Area Studies:** Choosing any aspect from Section B (World Studies) and preparing a PowerPoint presentation or a write up on it.
- (g) **Meteorological Instruments and their uses** – Six's maximum and minimum thermometer, mercury barometer, aneroid barometer, wind vane, anemometer, rain gauge and hygrometer.