

# 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 patterns and processes that affect human response to natural environment.
4. To understand the use of natural resources and development of regions by mankind.
5. To acquire knowledge of and appreciate the interdependence of nations and different regions of the world.
6. To know the availability of resources, understand, explain their uses and appreciate the problems of development in India and South Asia.
7. To acquire practical skills related to the meaning and use of maps and their use in the study of geography.

### 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 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 **Map**. Candidates will be expected to answer all questions.

**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, size and its uniqueness in the solar system.

*Shape of the earth – proofs from the earliest days till 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) Geographic grid - 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 their uses. (b) Concept of longitudes - Prime Meridian, time(local, standard and time zones, GMT and International Date Line (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 alternation 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 both hemispheres. (b) Revolution of the earth, and its effects seasons in low and high latitudes. Equinoxes and solstices.*

#### 2. Structure of the Earth and Internal Processes

- (i) Earth's Structure

*Core, mantle, crust - their structure i.e. internal composition, 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, plateaus and plains.

*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.*

- (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

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

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

*Causes, measurement, effects: destructive (e.g. Tsunamis) and constructive. Map of earthquake zones of the world.*

- (vi) Folding and faulting – causes, effects and associated landforms

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

### 3. Weathering

Meaning and effects of weathering, types of weathering with examples.

*Weathering, mass wasting, mechanical weathering of rocks – disintegration (granular, exfoliation and frost action); chemical weathering – decomposition, oxidation, carbonation, hydration, solution and biological weathering – (man, plants and animals).*

### 4. 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 Map.*

- (ii) Movement of ocean waters, tides - formation, properties and patterns of tides. Currents – their circulation pattern and effects. (Specifically Gulf Stream, North Atlantic Drift, Labrador Current, Kuro Shio and Oya Shio.)

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

### 5. Atmosphere

- (i) Composition and structure of the atmosphere.

*Diagrammatic representation of atmospheric layers; as Troposphere, Stratosphere, Ionosphere and Exosphere; ozone in stratosphere, its depletion. Global warming and its effects.*

- (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, altitude, distance from the sea and slope of the land.*

- (iii) Pressure belts and types of wind.

*Pressure belts, 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, variable winds - cyclones, anticyclones and jet streams.*

(iv) Precipitation, types and causes.

*Humidity - relative and absolute process of condensation and precipitation; forms of precipitation – rain, dew, frost, snow, hail, mist, fog and smog. Types of rainfall – relief/orographic, convectional, cyclonic/ 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.*

## 6. Pollution

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

*Self-explanatory*

- (b) Sources of pollution and major pollutants; oil spills.

*Air: vehicular, industrial, burning garbage, brick kilns, etc.*

*Water: household detergents, sewage, industrial waste, offshore oil drilling, thermal pollution.*

*Soil: industrial waste, urban-commercial and domestic waste, chemical fertilizers, bio medical waste and pesticides.*

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

- (c) Effects of pollution on - environment, human health and other organisms.

*Bhopal Gas Tragedy; Chernobyl Disaster.*

- (d) Abatement of pollution.

*Air: setting standards and implementing them, using technical devices to reduce pollution.*

*Water: proper collection and disposal of domestic sewage, treatment of industrial waste to yield safe effluents, etc.*

*Nuclear: working on safe disposal of waste. Safety measures to be strictly enforced.*

## 7. Natural regions of the World

Location, area climate, natural vegetation and human adaptation (only crops grown.)

*Equatorial region, tropical grass land, Tropical Desert, Tropical Monsoon, Mediterranean, China type, Cool Temperate West coast, temperate grass land, temperate desert, taiga and tundra.*

## 8. Map Work

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

- 1. The major **natural 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 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.*

### 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:** Collecting newspaper and magazine articles of geographical value and writing a synopsis 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) **Area Studies:** Choosing any aspect from Section B (World Studies) and preparing an illustrated talk or a write-up on it.
  - (d) **Physical Features:** Collecting or taking photographs and preparing notional sketches of environmental features formed in the vicinity or areas visited during the year as a part of school activity.
  - (e) Find out the sources of pollution of water bodies in the locality and determine the quality of water.
  - (f) Collect information about global environmental issues and problems and communicate your findings through appropriate modes (like posters, charts, collages, cartoons, handouts, essays street plays, etc. to all concerned).
  - (g) **Tools and Techniques** used in the study of Geography – Maps, Map projections, Remote Sensors, Aerial photographs, Satellite images and Stereoscopy.
  - (h) **Meteorological Instruments and their uses** – Six's maximum and minimum thermometer, mercury barometer, aneroid barometer, wind vane, anemometer, rain gauge and hygrometer.

## 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 Topographical **Map**. Question 2 will be based on outline **Map** of India.

Part II Candidates will be expected to answer any **five** questions.

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

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

### PART – I

#### MAP WORK

##### 1. Interpretation of Topographical Maps

- Identification of simple landforms marked by contours, triangulated height, spot heights, surveyed trees, bench marks, relative height and colour tints or other symbols on a topographical survey of India map.
- Measuring distances using the scale given therein and marking directions between different locations, using eight cardinal points and indicated bearings.
- 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.
- Identification of drainage and settlement patterns.

##### 2 Map of India

A question will be set to locate and label on an outline map of India. Candidates will be expected to locate and label the following items – mountains, plateaus, plains, rivers and water bodies, towns, coastal features, minerals, rainfall and wind

**Mountains and Plateaus:** Himalayas, Karakoram, Aravali, Vindhya, Satpura, Western

and Eastern Ghats, Nilgiris, Garo, Khasi, Jaintia, Deccan, Chota Nagpur, Malwa Plateaus.

**Plains:** Indo-Gangetic Plains, Coastal plains - Konkan, Malabar, Coromandal and the Northern Circar.

**Rivers:** Indus, Ravi, Beas, Chenab, Jhelum, Satluj, Ganga, Yamuna, Ghaghra, Gomti, Gandak, Kosi, Chambal, Betwa, Son, Damodar, Brahmaputra, Narmada, Tapi, Mahanadi, Godavari, Krishna and Cauveri, Tungabhadra.

**Water Bodies :** Gulf of Kutch, Gulf of Khambhat, Gulf of Mannar, Palk Strait, Andaman Sea and Chilka Lake.

**Passes:** Karakoram, Nathu-La Passes.

**Latitude and Longitudes:** Tropic of Cancer, Standard Meridian ( $82^{\circ}30'E$ ).

**Direction of Monsoon Winds:** South West (Arabian and Bay of Bengal Branches) North East Monsoon.

**Distribution of Minerals:** Oil - Mumbai High (Offshore Oil Field) Digboi. Iron – Singhbhum, Coal – Jharia.

**Soil Distribution** – Alluvial, Laterite, Black and Red Soil.

**Towns** - Delhi, Mumbai, Kolkata, Chennai, Hyderabad, Bangalore, Kochi, Srinagar, Vishakhapatnam, Allahabad.

**Population** - Distribution of Population (Densely and sparsely).

### PART - II

#### GEOGRAPHY OF INDIA

##### 3. Location, Extent and Physical features

Position and Extent of India. (through Map only)

The physical features of India – mountains, plateaus, plains and rivers (through Map only)

##### 4. The climate of India.

Distribution of temperature, rainfall, winds in summer and winter and the factors affecting the

*climate of the area. Monsoon and its mechanism. Seasons –March to May – hot and dry summer; June to September – South West Monsoon; October to November - retreating monsoon. December to February – cool and dry winter. Map showing distribution of temperature, rainfall, and monsoon winds.*

## 5. Soils in India

*Types of soils (alluvial, black, red and laterite), composition and characteristics such as colour, texture, minerals, crops associated, soil erosion – causes, prevention and need for conservation.*

## 6. Natural vegetation of India

*Types of vegetation (tropical evergreen, tropical deciduous, tropical desert, littoral and mountain), distribution and correlation with their environment, uses of important trees, need for conservation and various measures.*

## 7. Water Resources

*Importance of irrigation, means of irrigation, need for conservation, rain water harvesting. and its importance.*

## 8. Minerals in India

*Coal, petroleum, iron ore, manganese, bauxite, limestone – uses and their distribution.*

## 9. Agriculture in India

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

*Agricultural seasons (rabi, kharif, zayad), climatic conditions, soil, methods of cultivation, processing and distribution of the following crops:*

- rice, wheat, millets and pulses.
- sugarcane, oilseeds.
- cotton, jute, tea, coffee, rubber.

## 10. Industries in India: - Agro based Industry and Mineral based Industry.

*Agro based Industry - Sugar, Cotton Silk, Woollen and Jute Textiles.*

*Mineral based Industry - Iron, Steel, Heavy Engineering, Petro Chemical and Electronics.*

## 11. Transport

*Roads – Express Highways, National highways, Golden Quadrilateral, Railway – Narrow, Metre, Broad gauge, Air ways, Water ways – Major Sea Ports Advantages and disadvantages of these transport.*

## 12. Waste generation and management

- (a) Sources of waste - domestic, industrial, agricultural, Municipal, Medical and nuclear plants.

*Domestic waste: paper, glass, plastic, rags, kitchen waste, etc.*

*Industrial: mining operations, cement factories, oil refineries, construction units. Agricultural: plant remains, animal waste, processing waste.*

*Municipal: sewage, degradable and non-degradable waste from offices, etc.*

*Biomedical waste: needles, syringes, soiled dressings, pathological waste from hospitals, medical labs.*

*Nuclear waste: radioactive waste.*

- (b) Impact of waste accumulation - spoilage of landscape, pollution, health hazards, effect on terrestrial, aquatic (fresh water and marine) life.

*Self-explanatory.*

- (c) Need for management of waste.

*Self-explanatory.*

- (d) Methods of safe disposal of waste - segregation, dumping, composting, drainage, treatment of effluents before discharge, incineration, use of scrubbers and electrostatic precipitators.

*Segregation of domestic waste into biodegradable and non-biodegradable by households; sweeping from gardens to be converted to compost; sewage treatment plants, incinerators in group housings.*

- (e) Need for reducing, reusing and recycling waste.

*Methods would involve governmental, social and individual initiatives.*

*Governmental initiatives: not building large dams for generating hydro electric power which leads to less land being submerged and less displacement of people. Improving efficiency of existing technologies and introducing new ecofriendly technologies.*

*Social initiatives: creating awareness and building trends of sensitive use of resources and products, e.g. reduced use of electricity, etc.*

*Individual: developing an ethical environmental consciousness e.g. refusing use of polybags, styrofoam containers, etc; reusing: plastic and glass containers; recycling: e.g. paper – this will reduce demand on wood and save trees.*

## INTERNAL ASSESSMENT

### PRACTICAL / PROJECT WORK

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 broad areas given below.

#### Suggested list of assignments:

##### 1. Local Geography:

- (a) Land use pattern in different regions of India – a comparative analysis
- (b) The survey of a local market on the types of shops and the services offered.

##### 2. Environment:

Wildlife conservation efforts in India.

##### 3. Current Geographical Issues:

Tourist destinations and development of tourism in India.

#### 4. Transport in India:

Railroads, sea ports, air routes and their development. Policies of India. countries – problems and plans for solving them.

5. List different types of industries in the States and collect information about the types of raw materials used, modes of their procurement and disposal of wastes generated. Classify these industries as polluting or environment friendly and suggest possible ways of reducing pollution caused by these units.

#### 6. Need for and trend of Industrialization in India:

Need for industrialization in India, the latest trends and its impact on economy of India.

7. Visit a water treatment plant, sewage treatment plant or garbage dumping or vermi composting sites in the locality and study their working.

## EVALUATION

The assignments/project work is to be evaluated by the subject teacher and by an External Examiner. (The External Examiner may be a teacher nominated by the Head of the school, who could be from the faculty, **but not teaching the subject in the section/class**. For example, a teacher of Geography of Class VIII may be deputed to be an External Examiner for Class X, Geography projects.)

The Internal Examiner and the External Examiner will assess the assignments independently.

#### Award of Marks (20 Marks)

Subject Teacher (Internal Examiner)	10 marks
External Examiner	10 marks

The total marks obtained out of 20 are to be sent to the Council by the Head of the school.

The Head of the school will be responsible for the entry of marks on the mark sheets provided by the Council.

### INTERNAL ASSESSMENT IN GEOGRAPHY -GUIDELINES FOR MARKING WITH GRADES

Criteria	Preparation	Procedure/ Testing	Observation	Inference/Results	Presentation
Grade I (4 marks)	Gives complete theoretical information using relevant geographical terms	States the objectives and defines the aspects to be studied.	Studies text and source material and makes a list.	States theoretical information in a coherent and concise manner using geographical terminology. Uses a variety of techniques. Shows resourcefulness. Supports investigation with relevant evidence.	Neatly and correctly stated statement of intent and conclusion matches with objectives.
Grade II (3 marks)	Provides adequate information using appropriate terms.	States objectives but not the limitations of the study.	Makes a limited list of source material only from secondary sources.	Uses sound methodology-using methods suggested. Makes a valid statement about the data collected. Attempts to develop explanations using available information.	Limited use of reference material and a presentation, which is routine.
Grade III (2 marks)	States objectives using some geographical terms but mostly in descriptive terms.	Only lists the aspects to be studied.	References are minimal.	Uses methodology in which selective techniques are applied correctly. Makes descriptive statement. Analysis is limited. Relates and describes systematically the data collected. Tries to relate conclusion to original aim.	Simple and neat with correct placement of references, acknowledgements, contents, maps and diagrams.
Grade IV (1 mark)	States intent without using relevant geographical terms but explaining them correctly.	Shows evidence of what to look for and how to record the same.	Uses methodology with some techniques but is unable to systematically record data and collect information.	Makes few relevant statements. Does not analyze data that is not presented or tends to copy analysis available from other sources. Makes superficial conclusions. Link between the original aim and conclusion is not clear.	Neat but lacking in correct placement of table of contents, maps, diagrams and pictures.
Grade V (0 marks)	Does not make any use of geographical terms.	Has not collected any relevant data and has not presented sources correctly.	Does not use any logical technique and does not follow the methodology suggested.	Does not analyze data. Does not use the suggested methods. Makes conclusions but does not relate them to the original aim.	Presents the report without reference.