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# Sanjiv

*Refresher*

# GEOGRAPHY

**Class-XI**

- Fundamentals of Physical Geography
- India – Physical Environment
- Practical Work in Geography Part-I

**For English Medium Students**



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# GEOGRAPHY—CLASS-XI (PART-I)

## Fundamentals of Physical Geography

### Unit-I. Geography as a Discipline

#### 1. GEOGRAPHY AS A DISCIPLINE

##### Chapter Summary

**Study of Geography**—When geography is studied as an independent subject, under it the physical environment of the earth, human activities and their interactive relationships are studied. Geography equips us to appreciate diversity and investigate into the causes responsible for creating such variations over time and space. It develops skills to understand the globe converted into maps and have a visual sense of the earth's surface.

**Meaning of Geography**—In very simple words, geography is the description of the earth. The term geography was first coined by Eratosthenese, a Greek scholar. The word has been derived from two roots from Greek language geo (earth) and graphos (description). Meaning of these two words are description of the earth.

**Multidimensional Nature**—The earth is multi-dimensional in nature. That is why many disciplines from natural sciences such as geology, pedology, oceanography, botany, zoology and meteorology and a number of sister disciplines in social sciences such as economics, history, sociology, political science, anthropology, etc. study different aspects of the earth's surface. Geography analyzes the associations and interrelationships between the facts arising out of the dynamic interaction between man and his physical environment.

**Geography as an integrated discipline**—Geography is a discipline of synthesis. It attempts spatial synthesis, and history attempts temporal synthesis. Its approach is holistic in nature. Geography as an integrating discipline has interface with numerous natural and social sciences. All the sciences, whether natural or social, have one basic objective, of understanding the reality.

Geography helps in understanding the reality in totality in its spatial perspective. Geography, thus, not only takes note of the differences in the phenomena from place to place but integrates them holistically which may be different at other places.

Every geographical phenomenon undergoes change through time and can be explained temporally. The changes in landforms, climate, vegetation, economic activities occupations and cultural developments have followed a definite historical course.

**Approaches to the study of geography**—There are two main approaches to the study of geography, namely—

(1) **Systematic Approach**—In systematic approach, a phenomenon is studied world over as a whole, and then the identification of typologies or spatial patterns is done.

(2) **Regional Approach**—In the regional approach, the world is divided into regions at different hierarchical levels and then all the geographical phenomena in a particular region are studied.

### BRANCHES OF GEOGRAPHY (BASED ON SYSTEMATIC APPROACH)

1. **Physical Geography—**
  - (i) **Geomorphology**—It is devoted to the study of landforms, their evolution and related processes.
  - (ii) **Climatology**—It encompasses the study of structure of atmosphere and elements of weather and climates and climatic types and regions.
  - (iii) **Hydrology**—It includes oceans, lakes, rivers and other water bodies.
  - (iv) **Soil Geography**—It studies the processes of soil formation, soil types, their fertility status, distribution and use.
2. **Human Geography—**
  - (i) **Social/Cultural Geography**—It encompasses the study of society and its spatial dynamics as well as the cultural elements contributed by the society.
  - (ii) **Population and Settlement Geography**—It studies population growth, distribution, density, sex ratio, migration and occupational structure etc. Settlement geography studies the characteristics of rural and urban settlements.
  - (iii) **Economic Geography**—It studies economic activities of the people including agriculture, industry, trade, and transport, etc.
  - (iv) **Historical Geography**—The geographical features also experience temporal changes and these form the concerns of historical geography.
  - (v) **Political Geography**—It looks at the space from the angle of political events and studies boundaries, space relations between neighbouring political units, delimitation of constituencies, election scenario and develops theoretical framework to understand the political behaviour of the population.
3. **Biogeography—**
  - (i) **Plant Geography**—It studies the spatial pattern of natural vegetation in their habitats.
  - (ii) **Zoo Geography**—It studies the spatial patterns and geographic characteristics of animals and their habitats.
  - (iii) **Ecology/Ecosystem**—It deals with the scientific study of the habitats characteristic of species.
  - (iv) **Environmental Geography**—It studies environmental problems such as land degradation, pollution and conservation etc.
4. **Branches of Geography Based on Regional Approach—On this basis geography has four branches—**
  - (i) Regional Studies/Area Studies
  - (ii) Regional Development
  - (iii) Regional Analysis
  - (iv) Regional Planning

**Physical Geography and its Importance**—Physical geography includes the study of lithosphere, atmosphere, hydrosphere and biosphere. At present, the study of physical geography is emerging as a discipline of evaluating and managing natural resources. In order to achieve this objective, it is essential to understand the intricate relationship between physical environment and human beings. Physical environment provides resources, and human beings utilise these resources and ensure their economic and cultural development. Accelerated pace of resource utilisation with the help of modern technology has created ecological imbalance in the world. Hence, a better understanding of physical environment is absolutely essential for sustainable development.

**Geographical Term—**

**1. G.P.S.—**G.P.S., *i.e.* the Global Positioning System is a simple tool to find the correct position.

**2. G.I.S.—**A computer-based set of powerful devices to capture, store, retrieval, transform and display global spatial data at will.

**3. Interface—**Biogeography was developed as a result of the interface of physical geography and human geography.

**Textbook Questions**

**Q. 1. Multiple Choice Questions :**

- (i) Which one of the following scholars coined the term 'Geography'?  
 (a) Herodotus      (b) Erathostenese      (c) Galileo      (d) Aristotle.
- (ii) Which one of the following features can be termed as 'physical feature'?  
 (a) Port      (b) Road      (c) Plain      (d) Water park.
- (iii) Make correct pairs from the following two columns and mark the correct option.

Column (A)	Column (B)
1. Meteorology	(A) Population Geography
2. Demography	(B) Soil Geography
3. Sociology	(C) Climatology
4. Pedology	(D) Social Geography

Tick the correct match :

- (a) 1. – B, 2. – C, 3. – A, 4. – D      (b) 1. – A, 2. – D, 3. – B, 4. – C
- (c) 1. – D, 2. – B, 3. – C, 4. – A      (d) 1. – C, 2. – A, 3. – D, 4. – B.
- (iv) Which one of the following questions is related to cause-effect relationship?  
 (a) Why      (b) Where  
 (c) What      (d) When.
- (v) Which one of the following disciplines attempts temporal synthesis?  
 (a) Sociology      (b) Geography  
 (c) Anthropology      (d) History.

Ans. (i) (b), (ii) (c), (iii) (d), (iv) (a), (v) (d)

**Q. 2. Answer the following questions in about 30 words.**

(i) What important cultural features do you observe while going to school? Are they similar or dissimilar? Should they be included in the study of geography or not? If yes, why?

Ans. While going to school, we observe various cultural features, such as roads, railways, ports, markets, fields, plantations etc. All these are unequal and with time more changes keep happening in them. Since the study of the variations prevailing on the earth rhythm is the main subject of geography, it is necessary to include them in the study of geography.

(ii) You have seen a tennis ball, a cricket ball, an orange and a pumpkin. Which one amongst these resembles the shape of the earth? Why have you chosen this particular item to describe the shape of the earth?

Ans. Out of the above mentioned things, the shape of the orange is similar to the shape of the earth because the fruit of the orange is like the earth and is flattened at both the ends.

(iii) Do you celebrate *Van Mahotsava* in your school? Why do we plant so many trees? How do the trees maintain ecological balance?

**Ans.** Van Mahotsava ceremony is organized every year in our school. Plantation is done to meet the shortage of trees due to deforestation due to unreasonable and natural reasons. We get oxygen, moist climate and coolness from trees. These are habitats of wild animals, so they maintain ecological balance.

**(iv) You have seen elephants, deer, earthworms, trees and grasses. Where do they live or grow? What is the name given to this sphere? Can you describe some of the important features of this sphere?**

**Ans.** Elephants, deer, earthworms, trees and grass live and grow in the biosphere. The biosphere is the abode of all kinds of creatures. The biosphere is located in the form of a narrow strip between the atmosphere and the hydrosphere.

**(v) How much time do you take to reach your school from your house? Had the school been located across the road from your house, how much time would you have taken to reach school? What is the effect of the distance between your residence and the school on the time taken in commuting? Can you convert time into space and vice versa?**

**Ans.** It takes us 15 or 20 minutes to go from residence to school. Had the school been across the street from the house, it would have taken 10 to 12 minutes. It takes less time when the distance is less and more time when the distance is bigger. Time cannot be converted into place and place into time.

**Q. 3. Answer the following questions in about 150 words.**

**(i) You observe every day in your surroundings that there is variation in natural as well as cultural phenomena. All the trees are not of the same variety. All the birds and animals you see, are different. All these different elements are found on the earth. Can you now argue that geography is the study of "areal differentiation"?**

**Ans.** The area in which a human lives is called his locality. Both physical and cultural landscapes are visible in each zone.

**Finding differences in physical, social and cultural elements—**The earth is the habitat of all kinds of creatures, small and big. The earth's surface is not uniform. It has variations in its physical features. There are mountains, hills, valleys, plains, plateaus, oceans, lakes, deserts and wilderness. There are variations in its social and cultural features too. There are villages, cities, roads, railways, ports, markets and many other elements created by human beings across the entire period of their cultural development.

**Study material of regional geography—**There is a difference in the natural and cultural environment in different regions present on the earth. There are similarities in many elements and dissimilarities in many. Due to these differences, there are different types of animals, birds, vegetation, habitat, food, living, etc. All these are studied under regional geography. The relationship between the physical environment and cultural features can be easily understood by geography, especially through regional geography. In regional geography, the area, climate, vegetation, etc. of a particular area are studied.

**To study the factors of variation along with the variation of facts on the ground—**According to the geographical conditions of the particular area existing on the surface, there are flora and fauna of that particular area. It is logical to perceive geography as the study of areal differentiation. Thus, geography was perceived to study all those phenomena which vary over space. Geographers do not study only the variations in the phenomena over the earth's surface (space) but also study the associations with the other factors which cause these variations. For example, cropping patterns differ from region to region but this variation in cropping pattern, as a phenomenon, is related to variations in soils, climates, demands in the market, capacity of the farmer to invest and technological inputs available etc.