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GEOGRAPHY

Based on: **NATIONAL INSTITUTE OF OPEN SCHOOLING – XII**

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Sample Preview of the Solved Sample Question Papers

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Solved Sample Paper - 1

Based on NIOS (National Institute of Open Schooling)

Geography - XII

Time : 3 Hours **Maximum Marks : 100**

Note : *(i)* All questions in Section 'A' are compulsory.
(ii) From Section 'B', attempt questions of only one option of your choice.
(iii) Marks for each question are indicated against it.

SECTION-A

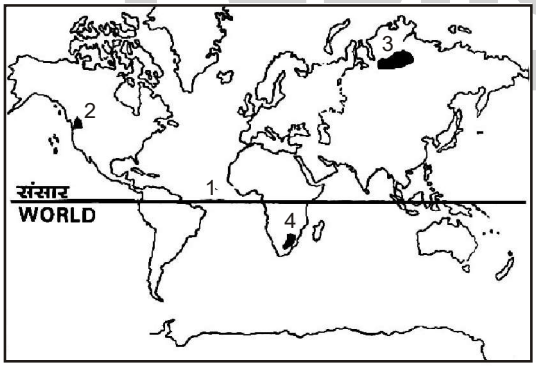
Q. 1. Four geographical features with serial numbers (1) to (4) are marked on the given Political Outline Map of the World. Identify these features with the help of the following information and write the correct names of the related features in your answer-book against each number :

(1) An important parallel of latitude;

(2) Volcano;

(3) Lava Plateau;

(4) Grassland



Ans. (1) Equator, (2) Long Valley Caldera, (3) Siberian Plateau, (4) Prairie Grassland.

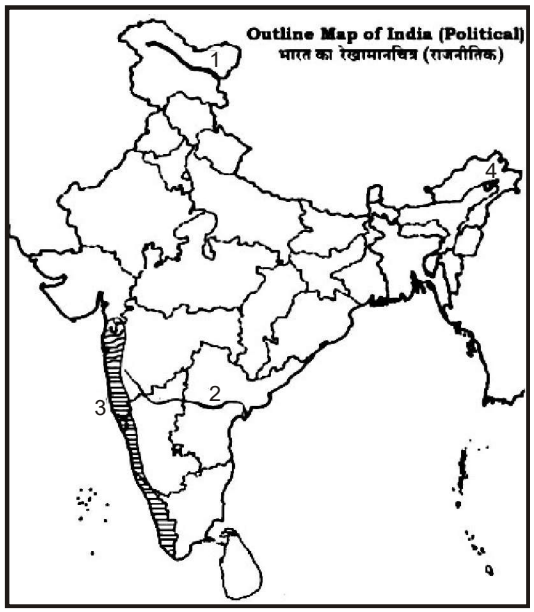
Q. 2. Four geographical features with serial numbers (1) to (4) are marked on the given Political Outline Map of India. Identify these features with the help of the following information and write the correct names of the related features in your answer-book against each number :

(1) Mountain Range;

(2) River;

(3) Natural vegetation;

(4) Petroleum-producing field



Ans. (1) Ladakh Range, (2) Pennar River, (3) Moist Tropical Evergreen, Semi-Evergreen, (4) Digboi.

Q. 3. Distinguish between net sown area and gross cultivated area.

Ans. The total land area on which crops are grown in a region is called net sown area. The net sown area and the area sown more than once together are called gross cultivated area.

Q. 4. State two main processes of heating the ocean water.

Ans. The main process of heating the ocean waters are:

1. By absorption of heat from the sun.
2. By convection of heat through the ocean bottom from the interior of the earth.

Q. 5. Why is Mumbai called 'Cottonpolis' of India? Give one reason.

Ans. Maharashtra is the leading producer of cotton textile in the country. Mumbai is the major centre of textile mills. About a half of the Cotton textile mills are located in Mumbai alone. It is, therefore, rightly called as 'Cottonpolis' of India.

Q. 6. Define the term 'ocean currents'. Which current is called a drift?

Ans. Ocean currents are the vertical or horizontal movement of both surface and deep water throughout the world's oceans. Ocean currents with higher speed are called stream and currents with lower speed are called drift.

Q. 7. What is meant by gully erosion? Name two areas affected by gully erosion.

Ans. When water moves as a channel down the slope, it scoops out the soil and forms gullies which gradually multiply and in the long run spread over a wide area. This type of erosion is called gully erosion. Gully erosion can:

- Reduce land available for agriculture.
- Generate sediment and increase flooding that affects fences, farms, roads, railways, culverts and bridges.

Q. 8. State four linguistic families on the basis of their roots and genesis.

Ans. The four linguistic families on the basis of their roots and genesis are :

- **Austric Family *(Nishada)*:** The Austric languages of India belong to the Austro-Asiatic sub-family.
- **Dravidian Family *(Dravida)*:** Dravidian languages are older than the Aryan languages.
- **Sino-Tibetan Family *(Kirata)*:** The Sino-Tibetan languages are spoken by a variety of people.
- **Indo-European Family *(Arya)*:** This is the most important of all the families of languages and spoken by a little less than three fourths of the Indian population.

Q. 9. Explain any two characteristics of dry tropical deciduous vegetation.

Ans. Dry Tropical Deciduous Vegetation is found in regions receiving annual rainfall between 70 to 100 cms. The important characteristics of dry tropical deciduous vegetation are:

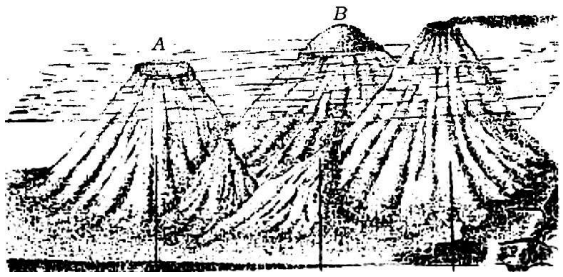
(i) Stretches of open grass are most common between group of trees. Teak is the dominant tree of this type of vegetation.

(ii) The trees shed their leaves during the long dry season.

Q. 10. Study the diagram given below and answer the questions that follow:

(a) Identify features A and B and write their correct names in your answer-book against each.

(b) How is feature A formed?



Ans. ***(a)*** Block mountain, *(b)* Fold mountain.

(b) **The Block Mountain and the Volcanic Mountain:** Fault-block landforms (mountains, hills, ridges, etc.) are formed when large areas of bedrock are widely broken up by faults creating large vertical displacements of continental crust.

Q. 11. Explain any two impacts of landslides on environment.

Ans. The slipping of masses of rocks, earth or debris downwards on the mountain slopes or banks of the rivers is called a landslide. The impact of landslides on the people in the mountains is clearly visible. The impacts of landslides on environment are:

(i) **Degrading of Environment:** Landslides are degrading the environment of mountains. Natural beauty is deminishing slowly and slowly.

(ii) Sources of water are drying up.

Q. 12. "GIS technology has enhanced the efficiency and analytic power of traditional mapping." Explain this statement in four points.

Ans. GIS technology, as an expansion of Cartographic science, has enhanced the efficiency and analytic power of traditional mapping. Now, as the scientific community recognizes the enviornmental consequences of human activities, GIS techology is becoming an essential tool in the effort to understand the process of global change. Various map and satellite information sources can combine in ways that recreate the interactions of complex natural systems. Such visualisation can help to predict what will happen to an area if it is repeatedly flooded, or what changes are expected if a particular industry is located or developed in an area.

Q. 13. Describe, in brief, the phenomenon of inversion of temperature in four points.

Ans. Long winter night, clear sky, dry air and absence of winds leads to quick radiation of heat from the surface of the earth, as well as from the lower layers of the atmosphere. This results in the cooling of the air near the earth's surface. The upper layers which lose their heat not so quickly are comparatively warm. Hence, the normal condition in which temperature decreases with increasing height, is reversed. The cooler air is nearer the earth and the warmer air is aloft. In other words, temperature increases with increasing height temporarily or locally. This phenomena is termed as inversion of temperature.

Sample Preview of The Chapter

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GEOGRAPHY

THE STUDY OF GEOGRAPHY AS A DISCIPLINE

Nature of Geography as a Discipline

1

INTRODUCTION

Geography has been derived from a Greek word *geographia*, meaning earth, and hence is considered to be the study of the earth and its lands, features, inhabitants, and phenomena. This discipline explores our world. There are two basic approaches to the study of world geography–The Regional approach and The Systematic approach. There are four phases of development of geography which are ancient, pre-modern, modern and recent. Geography as a discipline can be split broadly into two main subfields—human geography and physical geography. The former focuses largely on the built environment and how space is created, viewed and managed by humans as well as the influence humans have on the space they occupy. The latter examines the natural environment and how the climate, vegetation and life, soil, water and land-forms are produced and interact. As a result of the two subfields using different approaches a third field has emerged, which is environmental geography. Since human beings have such a major impact on the planet's landscapes and resources, and groups of people are in constant interaction with each other, Human Geography (or the spatial study of human interactions) is vital in helping us to understand our world. In their study, geographers use four interrelated approaches such as systematic, regional, descriptive and analytical approaches.

INTEXT QUESTIONS 1.1

Q. 1. What is geography?

Ans. Geography is a discipline that studies the interaction of all physical and human phenomenon. It also studies the evolving landscapes created by such interactions.

Q. 2. Why is earth's surface changing?

Ans. The continuous interaction between the environment and its user i.e. human beings are making the earth's surface to change.

Q. 3. Which are the two distinct traditions followed by Greeks?

Ans. Following are the two distinct traditions followed by Greeks:

(i) Mathematical tradition

(ii) Geographic information through travelouges.

INTEXT QUESTIONS 1.2

Q. 1. Which are the four branches of systematic geography?

Ans. Following are the four branches of systematic geography:

(i) Physical Geography

(ii) Biogeography

(iii) Human Geography

(iv) Geographical Methods and Techniques

Q. 2. Name the main branches of regional geography.

Ans. Following are the main branches of regional geography:

(i) Regional Studies

(ii) Regional Analysis

(iii) Regional Development, and

(iv) Regional Planning

INTEXT QUESTIONS 1.3

Q. 1. What are the two branches of geography?

Ans. Following are the two branches of geography:

(i) Physical Geography

(ii) Human Geography

Q. 2. Name the two techniques of geographical study.

Ans. The two techniques of geographical study are as follows:

(i) Cartography

(ii) Quantitative Methods, or

(iii) Regional Science Method

Q. 3. What is Anthropogeography?

Ans. Anthropogeography is that discipline that deals largely the racial phenomenon in their spatial context.

TERMINAL QUESTIONS

Q. 1. Answer the following questions in brief:

(i) **Define the term geography?**

(ii) **Why is geography called the mother of all sciences?**

(iii) **What are the two basic approaches in geography?**

(iv) **What are the four phases of development of geography?**

(v) **Define the terms physical and human geography.**

Ans. ***(i)*** Geography has been derived from a Greek word *geographia*, meaning earth and hence is considered to be the study of the earth and its lands, features, inhabitants, and phenomena. If we attempt a literal translation of the word Geography then it would be "to describe or write about the Earth". The first person to use the word "geography" was Eratosthenes (276-194 B.C.). Basically there are four historical traditions in geographical research which are as follows:

1. The spatial analysis of natural and human phenomena (i.e. geography as the study of distribution),
2. Area studies (i.e. geography as the study of places and regions),
3. Study of man-land relationship, and
4. Research in Earth sciences

Nonetheless, modern geography is an all-encompassing discipline that foremost seeks to understand the Earth and all of its human and natural complexities—not merely where objects are, but how they have changed and come to be.

(ii) Geography is the discipline that explores our world. It has been called the "mother of science" as all other sciences and disciplines have evolved from people's earliest attempts to understand their geographic space or place. The science of geography is likely the oldest of all sciences. Geography is the answer to the question that the earliest humans asked, "What's over there?" Exploration and the discovery of new places, new cultures, and new ideas have always been basic components of geography.

Thus, geography is often called the "*mother of all sciences*" as studying other people and other places led to other scientific fields such as biology, anthropology, geology, mathematics, astronomy, chemistry, among others.

Today, Geographers combine two approaches to their activities—that of the spatial perspective and that of the regional concept. The premise is that no event, situation or challenge in human society can be fully understood without knowledge of the distinctive qualities of the place in which they occur. Geographers, as in all fields, specialize and they approach the field from different angles. Some concern themselves with population studies, others with a mathematical perspective, and others with either economic, political, social or some cultural aspects. But all geographers tend to take a multidisciplinary approach to the study of how geographic space influences people and how, in turn, people affect their geographic place?

(iii) There are two basic approaches to the study of world geography which are as follows:

The Regional Approach: The regional approach studies the many characteristics of each region of the world. It examines systematic relationships between categories for a specific region or location on the planet.

The Systematic Approach: The systematic approach of geography, studies one issue and looks at its spatial variations in all parts of the globe. In other words, it groups geographical knowledge into categories that can be explored globally.

(iv) There are four phases of development of geography which are as follows:

(a) **The Ancient Period:** The earliest records illustrate the interests of scholars in understanding the physical domain of the earth by making maps and astronomical measurements. The Greeks are given the credit of being the earliest geographers, among whom the prominent ones are Homar, Herodotus, Thales, Aristotle and Eratosthenes.

(b) **Pre-modern Period:** This period starts from the middle of the 15th century and continues until 18th century. This period provides us the enormous information about the physical and cultural nature of the world by the travels and explorations of the early

geographers. The early 17th century witnessed the beginings of new scientific geography. Christopher Columbus and Vasco de Gama, Fesdinend Meghellan and Thomas Cook were important explorers and travellers among these. Varenius, Kant, Humboldt and Ritter led the geographers of this period. They contributed in the development of cartography and discovering new lands and developing geography into a scientific disciplines.

(c) **Modern Period:** Ritter and Humboldt are frequently referred as the founders of modern geography. Generally, latter half of the 19th century is considered as a period of modern geography. The first modern geographer in true sense was Ratzel who built the structure of modern geography on the foundations laid down by classical geographers.

(d) **Recent Period:** The development of geography during the post-Second World War period has been very rapid. The American and European geographers such as Hartshorne have contributed the maximum during this phase. Harthshorne described geography as a science dealing with a real differentiation. The present day geographers look upon regional approach and systematic approach as complimentary rather than contradictory.

(v) Geography as a discipline can be split broadly into two main subfields—human geography and physical geography. The former focuses largely on the built environment and how space is created, viewed and managed by humans as well as the influence humans have on the space they occupy. The latter examines the natural environment and how the climate, vegetation and life, soil, water, and landforms are produced and interact. As a result of the two subfields using different approaches a third field has emerged, which is environmental geography. Environmental geography combines physical and human geography and looks at the interactions between the environment and humans.

Q. 2. Distinguish between the following:

(i) **Systematic and regional geography.**

(ii) **Physical geography and Biogeography.**

(iii) **Population and economic geography.**

Ans. ***(i)*** **Systematic Geography:** Systematic geography is concerned with individual physical and cultural elements of the earth.

It includes physical geography and cultural geography. These classifications are made up of specialized fields that deal with specific aspects of geography.

It is concerned with the formulation of general laws and principles and is divided into two branches– physical geography and human geography. Each of these branches are subdivided into several specialist fields.

Regional geography is a study of regions throughout the world in order to understand or define the unique characteristics of a particular region which consists of natural as well as human elements. Attention is paid also to regionalization which covers the techniques of space delineation into regions.

Regional geography is also considered as a certain approach to study in geographical sciences (similar to quantitative geography or bunch of critical geographies). This approach to study was prevailing during the second half of the 19th and the first half of the 20th century also known as a period of prevailing regional geography paradigm when regional geography took the central position in geographical sciences. It was later criticized for its descriptiveness and the lack of theory (regional geography as an empirical approach of geographical sciences). Massive criticism was levelled against this approach in the fifties and during the quantitative revolution. Main critics were Kimble and Schaefer.

(ii) Physical geography (also known as geosystems or physiography) is one of the three major subfields of geography, as opposed to the cultural or built environment, the domain of human geography. Within the body of physical geography, the Earth is often split either into several spheres or environments, the main spheres being the atmosphere, biosphere, cryosphere, geosphere, hydrosphere, lithosphere and pedosphere.

Physical geography (or physiogeography) can be defined as that branch of science which deals with the study of processes and patterns in the natural environment like atmosphere, biosphere and geosphere.

Physical geography focuses on geography as an Earth science. It aims to understand the physical lithosphere, hydrosphere, atmosphere, pedosphere, and global flora and fauna patterns (biosphere).

Biogeography is the science which deals with geographic patterns of species distribution and the processes that result in these patterns. Biogeography emerged as a field of study as a result of the work of Alfred Russel Wallace, although the field prior to the late 20th century had largely been viewed as historic in its outlook and descriptive in its approach. The main stimulus for the field since its founding has been that

of evolution, plate tectonics and the theory of island biogeography. The field can largely be divided into five sub-fields: island biogeoraphy, paleobio-geography, phylogeography, zoogeography and phytogeography.

(iii) Economic geography is the study of the location, distribution and spatial organization of economic activities across the Earth. The subject-matter investigated is strongly influenced by the researcher's methodological approach.

Economic geography is usually regarded as a subfield of the discipline of geography, although recently economists have pursued interests that can be considered part of economic geography.

Krugman, a geographical expert, has gone so far as to call his application of spatial thinking to international trade theory the "new economic geography", which directly competes with an approach within the discipline of geography that is also called "new economic geography". The name geographical economics has been suggested as an alternative.

Given the variety of approaches, economic geography has taken to many different subject matters, including: the location of industries, economies of agglomeration (also known as "linkages"), transportation, international trade and development, real estate, gentrification, ethnic economies, gendered economies, core-periphery theory, the economics of urban form, the relationship between the environment and the economy (tying into a long history of geographers studying culture-environment interaction), and globalization. This list is by no means exhaustive.

Population geography is a division of human geography. It is the study of the ways in which spatial variations in the distribution, composition, migration, and growth of populations are related to the nature of places. Population geography involves demography in a geographical perspective. It focuses on the characteristics of population distributions that change in a spatial context. Examples can be shown through population density maps. A few types of maps that show the spatial layout of population are choropleth, isoline, and dot maps.

Population geography studies the following: Demographic phenomena (natality, mortality, growth rates, etc.) through both space and time

- Increase or decrease in population numbers
- The movements and mobility of populations
- Occupational structure
- Grouping of people in settlements
- The way from the geographical character of places e.g. settlement patterns.
- The way in which places in turn react to population phenomena e.g. immigration.

All of the above are looked at over space and time.

Biogeography is the study of the distribution of biodiversity over space and time. It aims to reveal where organisms live, and at what abundance.

Biogeography does more than ask *Which species?* and *Where*? It also asks *Why?* and *What is sometimes more crucial*? *Why not?*

The patterns of species distribution at this level can usually be explained through a combination of historical factors such as speciation, extinction, continental drift, glaciation (and associated variations in sea level, river routes, and so on), and river capture, in combination with the area and isolation of landmasses (geographic constraints) and available energy supplies.

Modern biogeography often employs the use of Geographic Information Systems (GIS), to understand the factors affecting organism distribution, and to predict future trends in organism distribution. Often mathematical models, and GIS are employed to solve ecological problems that have a spatial aspect to them.

Q. 3. Why is human geography an important part of geography? Explain with suitable examples.

Ans. Since human beings have such a major impact on the planet's landscapes and resources, and groups of people are in constant interaction with each other, Human Geography (or the spatial study of human interactions) is vital in helping us to understand our world. No other single subject allows an overview of the spatial effects of human activity and interaction. Human Geography may be viewed at many levels, from local to international. It is not a passive discipline, but has many practical applications in strategic planning.

Scope: Human geography broadly differs from physical geography in that, it has a greater focus on studying intangible or abstract patterns surrounding human activity and is more receptive to qualitative research methodologies. It encompasses human, political, cultural, social and economic aspects of the social sciences. While the major focus of human geography is not the physical landscape of the Earth (see physical geography), it is not possible to discuss human geography without going into the physical landscape, on which human activities are being played out and environmental geography is emerging, as an