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Introduction

The term 'Geography' was coined by the Greek scholar **Eratosthenes** who combined two Greek words 'Geo' (The Earth) and 'Graphien' (to describe). Therefore, in the literary sense, geography is the description of the Earth. Over the ages, geography has become the art and science of studying the physical characteristics of the earth and man's role in adapting to and modifying the environment.

Geography had evolved over a long period of time. Some of the earliest geographical studies go back about four thousand years ago through explorations. The early explorers travelled and tried to map the new places. The Romans, the Arabs, the Indians, the Chinese, the Germans, the French, the British and the American geographers have contributed to the development and enrichment of the subject. 'Five themes of Geography' has been widely accepted by geographers worldwide. The themes are location, place, human-environment interaction, movement and regions.

Today the discipline is not only concerned with descriptions but also with analysis as well as prediction. There are two distinct approaches or methods to study geography. They are: 1. Systematic approach and 2. Regional approach. **Systematic or nomothetic approach** was introduced by Alexander Von Humbolt, a German geographer (1769-1859). The study of specific natural or human phenomenon that gives rise to certain spatial patterns and structures on the earth surface is called systematic study. **Regional Approach or ideographical approach** was developed by Carl Ritter (1779 – 1859), a contemporary of Humbolt. The regions could be classified based on a single factor like relief, rainfall, vegetation, percapita income or there could also be multifactor regions formed by the association of two or more factors. Administrative units like states, districts and taluks can also be treated as regions.

Branches of Geography

Based on content and the available techniques, the discipline can be divided into three major domains. Each one has many sub divisions which deal with specific objectives

- a. Physical Geography,
- b. Human Geography and
- c. Geographic Techniques.

Physical Geography

It is the study of natural features of the earth such as land, water, air and living organisms. The changes taking place within and among these natural features and their resultant features are studied under its various branches. The branches of physical geography are:

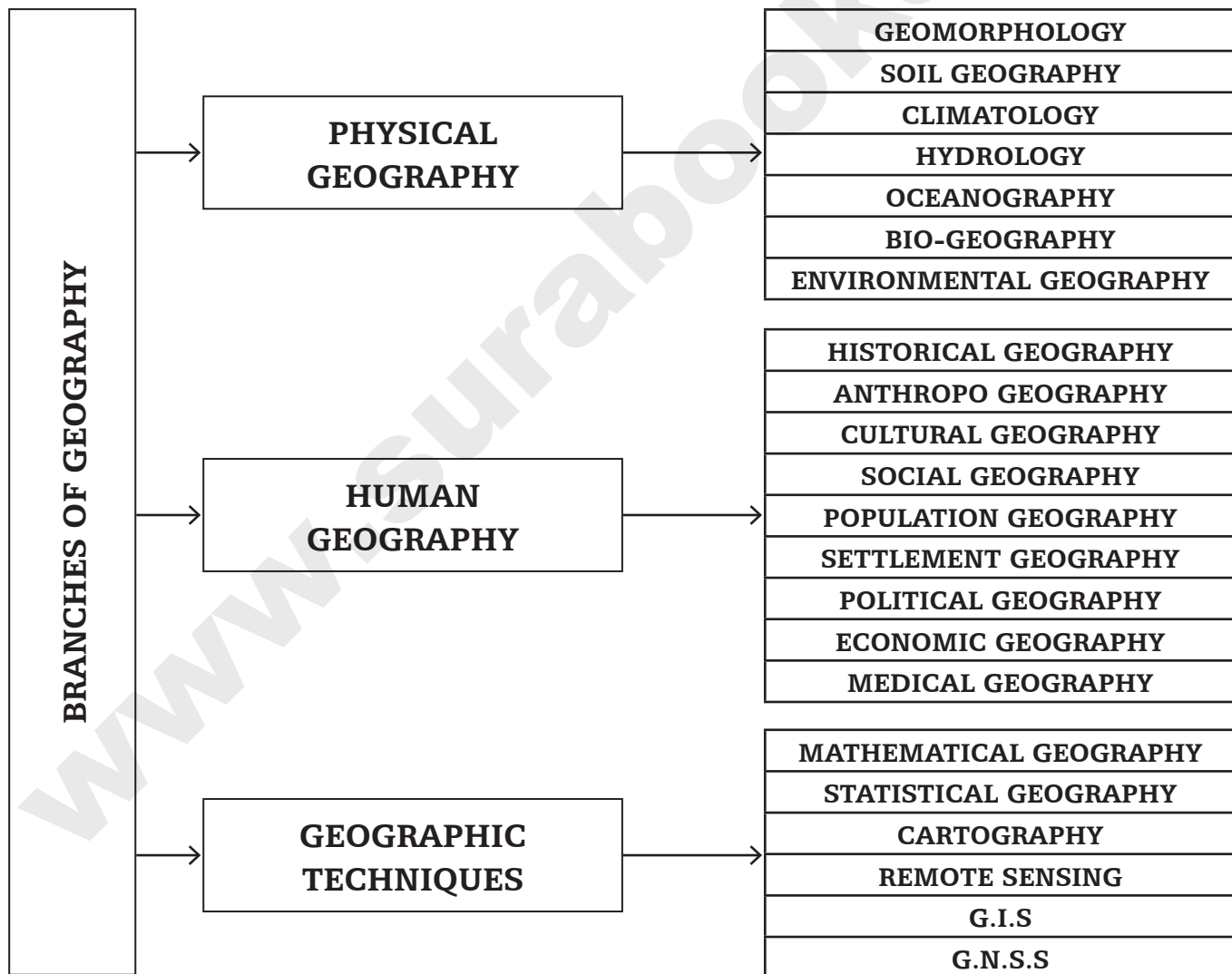
- i. **Geomorphology** deals with the distribution of land forms, their origin and the forces causing changes over these landforms. Geology provides basic information to the study of geomorphology.
- ii. **Soil Geography** is a study related to soil formation, soil profile, soil types, their fertility level and distribution. Soil erosion and conservation measures are also dealt in this branch.
- iii. **Climatology** deals with the study of global and regional weather and climatic conditions by analysing relevant statistical data. Meteorology provides basic information on the composition, structure and the changes in the atmosphere.
- iv. **Hydrology** encompasses the study of earth's realm of water such as oceans and surface water bodies like rivers, reservoirs and ponds. It also makes a study of underground water and its recharge and also pollution of water bodies.
- v. **Oceanography** is the study of seas and oceans. The shape, size, depth and bottom relief of ocean, distribution of oceans, ocean currents and various life forms existing in ocean are also studied under oceanography.

- vi. **Biogeography** is a study of ecosystems over geographical space. It also analyses the changes in the ecosystems. Phytogeography or plant Geography, Zoo Geography or animal geography and Ecology are the branches of biogeography.
- vii. **Environmental Geography** is the study of environmental issues arising out of misuse of various spheres of the earth and their implications. The ozone layer depletion, global warming, melting of polar ice caps, rising sea level and other related aspects are also given due importance. It also tries to give sustainable solutions to these problems.

Human Geography

Human Geography is concerned with the changes made by the humans over the natural or physical landscape. The ethnic and political aspects are taken into consideration. The issues like climatic change, natural and anthropogenic disasters are also the major concerns.

- i. **Population Geography** is the study of distribution and density of population, the changing patterns in age and sex composition, birth and death rates, life expectancy, literacy level and dependency ratio, migrations at national and international level and the causes and consequences of migration.
- ii. **Settlement Geography** deals with the characteristics of rural and urban settlements and transportation network. It seeks better understanding of the present landscape and plans for the future. The study is more important for town and country planning.



- iii. **Historical Geography** tries to picturise the geography of an area or region as it was in the past and studies how it has evolved over time. The forces involved in transforming region such as colonisation by the Europeans or a natural disaster are also included in the study.
- iv. **Anthropo Geography** deals with the distribution of human communities on the earth in relation to their geographical environment.
- v. **Cultural Geography** gives emphasis on the location and diffusion of customs and cultural traits such as food habits, skills, clothing and beliefs and social organisations and their developments in different parts of the earth.
- vi. **Social Geography** is closely related to cultural geography. It examines the relationships among the social groups and their social relationships in the places of their living.
- vii. **Political Geography** tries to understand the countries and their neighbours, problems of resources sharing, boundaries and territorial limits. This branch is also concerned with understanding the political behaviour of the population, relations between independent states, and patterns of voting and delimitation of electoral constituencies.
- viii. **Economic Geography** deals with the distribution of economic activities such as, primary, secondary and tertiary. The primary activities include food gathering, hunting, animal rearing, agriculture, and mining. The secondary activities include manufacturing and the tertiary activities include the service sectors such as trade, transport, communication and other related areas.
- xi. **Medical Geography** mainly deals with study of geographical aspects of origin, diffusion and distribution of various communicable diseases and health care planning.

Geographic Techniques

Geography has developed a number of methods and tools to investigate and identify the spatial structures and patterns. Besides, it also lends or borrows some methods and tools to measure and investigate precise understanding of the spatial locations and patterns.

- i. **Mathematical Geography** deals with the study of earth's size and shape, motions of the earth, concept of time and the time zones.
- ii. **Statistical Geography** is concerned with the practice of collecting, analysing and presenting data that has a geographic or areal dimension, such as census data.
- iii. **Cartography** is the study of making maps of various scales using authentic information.
- iv. **Remote Sensing** is the art, science and technique of capturing the earth surface features using sensors or cameras in airplanes or satellites, processing and presenting the spatial information to users.
- v. **Geographic Information System (GIS)** is a computer-based tool of the recent decades for geographical studies. It is used for storing, retrieving, transforming, analysing, and displaying data to prepare useful thematic maps.
- vi. **Global Navigation Satellite System (GNSS)** is used to pinpoint the geographic location of a user anywhere in the world. Airlines, shipping, travel agencies and automobile drivers use the system to track the vehicles and follow the best routes to reach the destination in the shortest possible time.
