THE CONCEPT OF GEOGRAPHY

LESSON ONE

DAY ONE

- *At the end of this unit, students*

1. understand the meaning and basic concept of geography
2. realize the scope of geography and its relationship with other disciplines
3. discuss different approaches of geographic studies
4. realize major schools of thought in geography.

1.1 THE MEANING OF GEOGRAPHY

1. **What is Geography?**
2. **Is Geography a science?**
3. **What do we mean by "science"?**

- Science is defined as a body of knowledge that is systematized, organized, experimented and verified.
- Geography has almost all these characteristics.
- Hence, geography is a science.

- Most people think that geography is only a study of certain physical features such as place names, lengths of rivers, heights of mountains, names of countries, and capital cities of countries.
- Others think that geography studies the physical earth. However, it is much more.

- Ancient Greeks defined geography for the first time.
- They combined two words:
  - ***Geo*** *– which means earth*
  - *Graphic – which means writing*
- Therefore, their definition of geography was *a description of the earth.*

Now this definition seems very general when we compare it to the scope of current geography.

- Some of the definitions were made by scholars of the 19th and 20th century.

These definitions relate to geography's current

➔concerns

➔interests and

➔focus

- **Geography is:**

➢ *"a synthesizing discipline to connect the general with the particular through measurement, mapping, and a regional emphasis." (Alexander von Humboldt, 1845)*

✓ **"the study of the patterns and processes of human-built and environmental (natural) landscapes, where the landscapes comprise real (objective) and perceived (subjective) space."**
✓ **(Gregg Wassmansdorf, 1995)**

In its modern context, spatial perspective is concerned with "where" and "why there" questions investigating the forces behind the causes and the patterns manifested as a

☞ **The comprehensive and updated definition of Geography is as stated below.**

➔"Geography is the study of the spatial variation of phenomena and things on the earth's surface, on the one hand, and the two-way relationship existing between humankind and the environment, on the other hand."

Exercise

1. What do we mean by spatial variation of phenomena? Explain briefly by giving examples.

2. How do you understand the two-way relationship between human-kind and the environment?

3. Compare and contrast the modern and ancient definitions of geography.

4. While making spatial investigation, what are the five questions geographers ask regarding the issue they study? Which questions require descriptive and which ones are explanatory analysis?

THE SCOPE OF GEOGRAPHY

- Geography is a discipline which has a wide scope.
- It generally places special emphasis on the following four major issues:
  - ✓ **Location,**
  - ✓ **Spatial relationships,**
  - ✓ **Regional characteristics**
  - ✓ **Forces that change the earth**.

• Hence, the scope of geography emerges from these broader themes.

- The geographer's major interest is to explain the spatial variation and distribution of different phenomena over space.

The geo-sphere is considered as geography's general scope.

The geo-sphere itself is made up of five sub spheres, namely

the lithosphere,

hydrosphere,

atmosphere (troposphere),

biosphere and anthroposphere.

➔Although the scope of geography is wide it does not mean that its scope is limitless.

- *Its scope is limited in space and time.*

➔The major areas that geography focuses on are:

- The position of the earth in the universe and its movements
- The different physical features that constitute the earth's surface
- The forces that cause their spatial variations and their changes over time
- The two-way relationship between humans and their natural environment
- The condition of the lower part of the atmosphere and the subsequent weather and climatic conditions, together with their spatial distribution and variation
- The materials that make up the earth and its diverse landforms
- The major economic activities of humans and the impact on the environment

Exercise

1. State the major focuses of geography and explain how the scope of geography is wide.
2. Mention the major issues that constitute the scope of geography.
3. What are the four principal questions that geography considers?
4. Explain the difference between human and physical geography.

APPROACHES OF GEOGRAPHY

- Various geographical approaches apply either of the following two approaches:

• The systematic approach, which deals with the topical study of things
• The regional approach

A. Systematic or topical approach studies the distribution of a thing or a phenomenon by picking one topic and treating its worldwide character, organization, etc.

Example:

- ☞ Population distribution
- ☞ The geography of diseases
- ☞ Plantation agriculture, etc.

B. Regional approach, unlike the topical approach emphasizes various geographical topics or aspects of a defined region or locality.

Example:

- ☞ The geography of Africa
- ☞ The geography of Ethiopia
- ☞ The geography of North America

Exercise

1. Explain the difference between systematic approach and regional approach.
2. Take a geographical topic related to your locality and tell which approach would be suited to explain why it is so.
3. Which approach would best suit a study of the distribution of rice cultivation in Ethiopia.
4. Define the term region.
5. Categorize the following fields of study either under regional or topical approach

- **Medical geography**
- **Soil geography**
- **Population geography**
- **Geography of Africa**
- **Urban geography**
- **Population geography**

Radical changes took place in Geography in the 1930s. These were the emergence of deterministic and Possibilistic schools of thought. These schools of thoughts were dedicated to studying the human-environment relationships.

.



The most prominent of these scholars were Alexander Von Humboldt and Karl Ritter.

Alexander von Humboldt, *was a notable Prussian geographer, explorer, and naturalist. He is widely recognized for his works on botanical* ***geography*** *which laid the foundation for biogeography.*

He sought to develop a new and more meaningful organization of the earth into regions, based on intrinsic sources of coherency.He also measured and discovered the Peruvian Current, which, over the objections of ***von Humboldt*** *himself, is also known as the* ***Humboldt*** *Current. In 1803 they explored Mexico*



Carl Ritter, (born Aug. 7, 1779, Quedlinburg, Prussia—died Sept. 28, 1859, Berlin), German geographer who was cofounder, with Alexander von Humboldt, of modern geographical science.

Viewing geography as an empirical science, he maintained that its methodology required proceeding from one observation to the next, not from opinion or hypothesis to observation.

➔**The dedicated possibilistic and deterministic approaches prevailed up to the Second World War in one way or another.**

School of Determinism

- The deterministic approach advocates that the natural environment controls human beings and it is the decisive factor for any socioeconomic changes.

- It propounded the dominance of the physical environment over man's activities.
- According to this thought human beings are subordinate to the natural environment.
- Environmental determinism is a school of thought that bases its view on the idea that
- the natural environment is an influencing factor on human modes of living.
- It believes that human activities are controlled by the environment.

School of Possibilism

• **The possibilistic approach:** Unlike the deterministic approach, the core idea of the possibilistic is the possibility of two-way relationships between people and their environment.

• Although the influence of environment is unavoidable, human beings can modify (influence) their environment with the help of their skill, knowledge and experience.

- **Environmental possibilism**: *states that the environment can potentially affect people's activities but people can influence the environment to enhance their ways of life.*

  ➔According to proponents of Environmental posibilisim human beings can modify their environment in ways they wish with the help of technological developments and scientific research.

✓ Example: it is possible to use desert lands for crop production by using modern irrigation schemes.
- The physical environment does not decide how people live.
- However the physical environment influences humans' activities. Human society cannot fully tame nature and is always influenced by nature.
- These physical factors of the environment do not govern human beings.

Exercise

1. Is it possible to think of development without having natural resources? Why? Why not?
2. Explain the difference between environmental determinism and possibilism.
3. Describe the major developments in geographical thought after the 1960's.
4. What is the major concern of applied geography?

THE QUANTITATIVE REVOLUTION

The four major changes in the history of geography are:

1) **The quantitative revolution.**
2) **Regional geography,**
3) **Environmental determinism**
4) **Critical geography.**

- For centuries, geography had been primarily a descriptive science that tried to describe how things are distributed on the earth's surface.
- The subject focused mainly on the "where" of geographic features.
- Following the crises in 1940's and 1950s, development of geography into spatial analysis using rigorous mathematical formulae, borrowing from the physical sciences transformed geography into "**Quantitative Revolution**".
- This change led to a shift from ***descriptive geography*** to ***empirical law-making geography***.
- **The quantitative revolution** *was driven by the development of the computer and its ability to rapidly process data.*
- Quantitative geographers "went radical" and applied computers, statistics, and mathematical models to the study of geographers.
- With the purpose of bringing 'scientific thinking' to geography, the quantitative revolution led to an increased use of statistical techniques and mathematical models in geographic research.

Effects of Quantitative Revolution are:

➔The introduction of scientific research accompanied by quantitative techniques have led to geography being applied to solve societal problems.

- ✓ Rapid change in the methodologies used in geographical research.
- ✓ The analytical method of inquiry which in turn led to formulation of models and theories.
- ✓ Shift from descriptive geography to empirical law-making geography.
- ✓ Disagreement between scholars of different schools such as those who supported quantitative methods and those who favoured the descriptive approach arose.
- ✓ Applied geography

THE EMERGENCE OF APPLIED GEOGRAPHY

- The other significant development in modern geography is the promotion of the subject to a level of an applied science.
- This was possible largely because of the positive effects of the tremendous changes

it showed earlier, particularly by way of the quantitative revolution.

- Applied geography is the use of geographic analysis in private business, government, non-profit organizations etc.
- Applied geography solves problems and aids in decision making.
- In this regard, both the human and physical branches of geography presently
- contribute much for human progress in all spheres.

Exercise

1. What is the basic difference between descriptive and analytical geography?

2. What are the challenges that caused the quantitative revolution in Geography?

3. What are the fields of studies available as applied geography?

THE RELATIONSHIP BETWEEN GEOGRAPHY AND OTHER DISCIPLINES

• Geography is a discipline that shares facts, concepts, ideas and theories with various disciplines.

• Geography is an interdisciplinary subject that has strong links with the different disciplines of the social and natural sciences.

- Most of the contents of physical geography are related to the natural sciences, while the contents of human geography are linked with the social sciences.
- Fields of study of the social sciences include: Economics, archaeology, political science, etc.

• Geography and natural sciences: Every natural science considers geographic issues in human economic activities. Branches of natural sciences which are related to Geographic issues include: Astronomy, botany, forestry, engineering, geology, physics, etc

Exercise

1. In what ways does geography relate with natural sciences?

2. Geography has wide relationships with both natural sciences and social sciences? Explain.

3. Explain how geography and biology approaches the study of animals and plants.

4. Let us assume that there is an urban riot in a given urban area. How do Geography and Economics treat this social unrest?

EUEE QUESTIONS ON LESSEON ONE

2002

1. The beginning of new era in geography when inquiry methods began along with statistical methods is known as—
A. Determinism B. Possibilism C. Qualitative revolution D. Quantitative revolution

2. The branch of geography that focuses on study of the association b/n environmental factors and human health is
A. Epidemogeography B. Medical geography C. Biogeography D. Phytogeography

3. One of the following themes relates least to the nature of geography
A. Interaction b/n human beings and the environment
B. Distribution of natural phenomena affecting human uses of the earth
C. Social and cultural patterns of settlements
D. Analysis of the chemical composition of metallic minerals

2003.

4. . Which one of the following school of thought believes that the environment offer a range of opportunities from which an individual or group can choose
A. Possibilism B. Positivism C. Environmental perception D. Cultural determinism

5. Which of the following question could be more appropriately raised by contemporary geographers?
A. What is the name of the longest river in Africa?
B. Where do you find the deepest lake in Africa?
C. Why do we find more concentration of French speakers in Qubeec than other areas in Canada?
D. How could Emperor Haile Sellassie rule Ethiopia longer than Emperor Menelik?

2004.

6. Which of the following became the most important feature of geography in the 1950's and 1960;s?
A. The development of GIS C. Environmental determinism
B. The central place theory D. The quantitative revolution

7. Which of the following the oldest definition of geography?
A. The field of study deals with the description of the earth
B. The field of study which explain the spatial distribution of phenomena on the earth's surface
C. The study the relationship exist between human and the natural environment
D. The systematic study of landforms, climate, water resources, vegetation and human resources

8. Which of the following best indicates the central concern of modern human geography?
A. Studying social and physical environment and preparing maps
B. Identification of various types of cultural and physical features
C. Studying the spatial organization of settlements and economic activities

D. Studying the relationship that human beings have with the physical environment

2005

9/ Which of the following branches of geography deals with the nature and determinants of the production ,spatial distribution, exchange and consumption of goods and services?

A. Biogeography B. Political geography C. Economic geography D. Historical geography

10/ which of the following fields of geography is different from the others?

A. Population geography C. Cultural geography C. Soil geography D. Political geography

2006

11/ Which of the following branches of geography studies the An troposphere?

A. Climatology B. . Cultural geography C. Hydro- geography D. Population geography

12/ the philosophy of environmental determinism differs from environmental possibilism in that the latter focuses more on

A. use of geographic knowledge to solve contemporary problems
B. Application of statistical techniques
C. Study of the distribution of environmental resources
D. The two- way relationships between human and their environment

2007

13/ The germen geographer who is well known for his extensive field researcher in south Americas and for his emphases on the interrelationship between people, plants and animals within specific physical setting is

A. Luther Matthews B. Karl Ritter C. Alexander von Humboldt D. Morris Davis

14/ which of the following were mainly responsible for the emergence of applied geography as a responsible science in the latter part of the 20th century.

A. The philosophy of environmental possibilism C. The emergence of regional geography
B. The division of geography into various branches of study D. The quantitative revolution

15/ Which of the following statements about environmental determinism is NOT correct?

A. It expresses the view that human activities are controlled by the physical environment
B. It is a philosophy that traces back its origins to the ideas of ancient Greek and Roman scholars
C. It views human being as active agents in their relationship with the physical environment
D. It was an idea that dominated the thinking of many leading 18^{th} and 19^{th} century geographers

16/ Which approach of geography studies is most commonly used to study the spatial distribution of rain fall and its relationship with food production in a given regions of Ethiopia?

a. The regional approach b. The scientific approach c. The topical approach d. The descriptive approach

2008.

17. Which of the following statements about the philosophy of Environmental determinism is NOT correct?

A. It strongly influenced geographic thoughts until the early 20 th century
B. It support the view that human beings are the masters of the environments

C. Its founding ideas were laid down by Greek and Roman philosophers
D. It advocate the view that the physical environment controls human activities

18. Which of the following statements about Geography is NOT correct?
A. Geography is an interdisciplinary science
B. The scope and diffenition of Geography has remained static
C. The spatial and temporal distribution of phenomena is the core domin of Geography
D. Geography shares a wide range of information with the social and natural sciences

19. One of the following fields of Geography is different from others.
A. Cultural Geography B. Biogeography C. Soil Geography D. Climatology

2009

20 . Which one of the following geosphere of the earth is the main domain of climatology?
A. Biosphere B. Troposphere C. Anthroposphere D. Lithosphere

20. The quantitative revolution has led to
A. Increased use of descriptive methodologies in geographical studies
B. More emphasis on theory building in geographical studies
C. The use of maps in geographical studies
D. The application of statistical and mathematical techniques in geographical studies

21. Which one of the following is not correct/
A. Geography is standalone discipline that deals with various phenomena
B. The main advocator of determinism as a school of thought was Charles Darwin
C. Demography deal with the dynamic and statistic aspect of population
D. Apart of geosphere that represents the cultural landscape is Anthroposphere

22. geography help us to understand all of the following except
A. How places and landscapes are formed B. How plants absorb nutrients
C. How people and their environment interact D. What causes the diverse range of cultures and societies

2010

23. One of the following is not within the domain of geographical studies
A. The evolution of human and their environment
B. The spatial distribution of phenomena
C. The relationship between natural and human systems
D. The pattern and system of geographical phenomena

24.A branch of geography that studies the long term atmospheric condition of a given plave is
A. Meteorology B. Climatology C. Atmospherology D. Geomorphology

25. Geographers usually ask all except one of the following questions whwn they make spatial investigations.
A. "Where" are things located? C. "Who" created things?
B. "Why" are they located where they are? D. "When" did things form?

26. Which of the following is not the product of the quantitative revolution in geography?
A. Increased use of statistical methods in geography
B. The emergence of more profound scientific thinking in geography
C. Growing interest in the use of computers in geographical research
D. Increased use of descriptive method in the study of regional geography

27. Which of the following statement is correct?

A. . According to the school of Possibilism human beings are under the influence of the natural environment

B . Environmental determinism consider human beings as passive agents infuelence by physical factors

c/ Proponents of environmental Possibilism believe that there is a linear relationship people and the natural environment

d/ Environmental determinism focuses on the impact of human beings on physical environment

28. Which of the following is best represent the concern of geographers in the study of human population
    A. the impact of population pressure on natural resources
    B. The effect of cultural value on the occurrence of crimes
    C. The impact of ethnic diversity on national unity and political stability
    D. Aggregate demand, supply and resources to production

29/. Which of the following was not among the main challenges that geography faced during the late 1940's and early 1950's ?
    A. The view that geography was not useful; for problem solving
    B. The emergence of many geography department and courses
    C. The fact that geography was seen as solely descriptive and unscientific
    D. The growing demand for the autonomous subject hood of human geography

2011,

30/ Which of the following represents the sphere of water bodies?

A. Biosphere C. Lithosphere
B. Hydrosphere D. Anthroposphere

31/ A geography teacher aims to teach the course 'Introduction to climatology'. He wants to cover the spatial distribution, variation and interaction of climatic system of the world in the course. Among the following geographical approaches, which one is the best approach for the teacher to use?

A. Analytical approach C. Regional approach
B. Quantitative approach D. Systematic approach

32/ Agricultural activities carried out in Ethiopia have contributed to climate change. Climatic change has in turn an adverse impact on agricultural yields. To reduce the impact of climate change. Ethiopian farmers have developed different adaption strategies. Which school of geographical thought is concerned with such interaction between the environment and the human activities?

A. Environmental determination
B. Environmental possiblism
C. Environmental perception
D. Quantitative revolution

33/What is the use of geographic knowledge that is used to solve spatial problems called?

A. Physical geography C. Political geography
B. Human geography D. Applied geography

34/ Which sub-field of geography studies the behaviour of human population?

A. Cultural Geography
B. Political Geography
C. Population Geography
D. Historical Geography