

Chapter - 3

Landforms and Life

Q.1 Facts that Matter

- 1. Types of Landforms on the earth's surface :** Mountains, Hills, Plateaus, Plains, Valleys, Deserts, Canyons, Islands, Peninsulas, Deltas form the major landforms on the earth's surface.
- 2. Why are northern plains fertile? :** Northern plains are fertile as they are formed by the interplay of three perennial rivers as they deposit alluvium and makes the soil fertile.
- 3. Significance of Landforms :** landforms help to define how people live, work, and interact with their environment, shaping their history, economy, and cultural identity. Landforms present various opportunities in different sectors, including economic, environmental, and cultural aspects e.g. tourism, agriculture, mining and natural resources, renewable energy, water resources, urban development and infrastructure, cultural and heritage value, conservation and biodiversity.
- 4. What are Volcanes? :** A volcano is an opening or vent through which magma erupt in form of lava forming a new land as it cools and solidifies.
- 5. Desert in an arid region. why? :** Deserts have extremely high as low temperature and scarce vegetation. They receive low rainfall turning the area into a barren land.
- 6. Define biodiversity :** It is the variety of life found on Earth i.e different types of flora and fauna.

Q.2 Multiple Choice Questions

- 1. What is altitude?**
b) Height above sea level
- 2. The formation of volcanic mountains is due to _____.**
b) Volcanic activity
- 3. The largest plateau in the world is _____.**
b) Tibetan Plateau
- 4. Which of these landforms cover the highest altitude?**
d) Mountains
- 5. Floodplains are one of the type of plains formed by _____.**
b) Rivers
- 6. 'Mountains are considered sacred in many traditions'. Which mountain is considered holy by Hindus and Buddhists?**
d) Himalayas

7. The largest tributary of the Ganga is _____.
b) Yamuna
8. The highest peak in South India is _____.
b) Anaimudi
9. Which plateau in India is known for its fertile black soil and volcanic origin?
d) Deccan Plateau
10. The sudden fall of snow and ice from mountains is called _____.
c) Avalanche

Q.3 Study the picture, and answer the questions that follow.

- a. Identify the landform.

The picture is of a Plateau

- b. Why are they called 'storehouse of minerals'?

Plateaus are called 'storehouses of minerals' as the soil of the plateaus are enriched with various types of minerals.

- c. How are they different from plains in terms of their surface features?

The plateaus differ from plains in terms of their surface features as plateaus have at least one side with a steep slope, while plains are vast gently undulating land.

Q.4 Fill in the blanks.

1. The East African Plateau is famous for **gold** and **diamond** mining.
2. **Hills** are elevated areas lower than mountains.
3. The precipitation of water in a solid state is called **snow**
4. **Desert** are large and dry expanses with very little precipitation.
5. The Nohkalikai Falls drop down 340 metres from the **Cherrapunji** Plateau in Meghalaya.

Q.5 Match the items given in Column A with their correct pair in Column B.

- | Column A | Column B |
|--|---------------------------------|
| 1. First Indian woman to climb Mount Everest | C. Bachendri Pal |
| 2. Highest peak in the world | D. Mount Everest |
| 3. Roof of the world | E. Tibetan Plateau |
| 4. Highest mountain of the Alps | A. Mont Blanc in Western Europe |
| 5. Gobi Desert in Asia. | B. Cold Desert |

Q.6 Assertion & Reason Based Questions

- a) Both A and R are true, and R is the correct explanation of A.
- b) Both A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- d) A is false, but R is true.

Choose the correct option.

1. **Assertion (A)** : In many mountainous regions of the world, herding is more preferred occupation than agriculture.

Reason (R) : The mountain terrain is usually rugged or rough and has steep slopes.

2. **Assertion (A)** : Mosses are small green plants which bloom flowers and spread over with cushion like cover.

Reason (R) : Lichen is a plant like organism that grows by clinging on walls, rocks and trees generally.

1. a) **Both A and R are true, and R is the correct explanation of A.**
2. d) **A is false, but R is true.**

Q.7 Case Study Based Question

Read the paragraph given below and answer the following questions.

- a. **How is tourism both beneficial and harmful for people living in the mountains?**

Tourism is beneficial because it provides income, jobs, and supports local businesses. However, excessive tourism can harm the fragile mountain environment by causing pollution, deforestation, waste disposal problems, and pressure on natural resources.

- b. **Suggest any two ways by which tourism in mountainous regions can be made sustainable.**

Promoting eco-tourism and regulating the number of visitors. Encouraging responsible practices like waste management, use of renewable energy, and conservation of natural habitats.

- c. **How do religious pilgrimages and adventure sports contribute differently to mountain tourism?**

Pilgrimages attract people for spiritual reasons and help preserve cultural traditions, boosting local hospitality services.

Adventure sports like skiing or paragliding attract thrill-seekers, encouraging infrastructure development such as ski resorts and equipment rentals.

Both, together diversify the sources of income for mountain communities.

Q.8 Answer the following questions.

1. **Name any two hot and cold deserts of the world.**

The hot and cold deserts of the world are-

Hot deserts : The Sahara Desert in Africa and the Thar Desert in Asia.

Cold deserts : The Gobi and the Ladakh desert in Asia.

2. What is a valley?

A valley is a lower area between hills or mountains, often with a river or stream flowing through it.

3. Define precipitation.

Precipitation is water from the atmosphere reaching the ground in any form — rain, snow and hail are the most common forms of precipitation.

4. What is meant by 'terrain'?

Terrain is a piece or stretch of land, from the point of view of its physical features. It describes the ground's shape and characteristics. eg. rocky.

5. What is a confluence? Give an example.

Confluence is the meeting point of two or more rivers. For e.g. The Triveni Sangam at Prayagraj (Allahabad) is the confluence of the Ganga, Yamuna, and the mythical Saraswati rivers.

6. Differentiate between mountains and plateaus. Write any two points.

Mountains have steep slopes, plateaus have flat surfaces.

Mountains are higher in altitude, plateaus are comparatively lower.

7. What are montane forests and where are they commonly found? Name a few common animals found there.

Mountain forests are types of forests found in mountainous regions, characterised by coniferous trees like pines and firs.

These forests are commonly found in the Himalayas and other high-altitude areas around the world. At higher altitudes only grasses, mosses and lichens are found.

Some typical animals found in mountain habitats are: the Golden eagle, Peregrine falcon, Canadian lynx, Snow leopard, Ibex, Himalayan tahr, Mountain hare, Yak, Grey fox and Black bear.

8. Why are Gangetic plains densely populated?

Gangetic plains are densely populated because of the easy availability of water, fertile soil and favourable climate.

They are ideal for growing crops of all kinds—Food crops such as rice, wheat, maize, barley and millets and Fibre crops such as cotton, jute and hemp.

The major occupations of people in this region include river fishing and agriculture.

As plains have a gentle slope, river navigation is easy and supports a lot of economic activities.

Besides this, numerous festivals, ceremonies and rituals are conducted near the river.

9. 'Human adaptation and resilience are represented by various ways in which people settle in different ways'. How?

Human adapt and become resilient to challenges in various landforms in the following ways

- (a) Mountains - People have adopted the method of terrace farming. To protect from snow, houses in mountains have slanting roofs.
- (b) Plains - Earlier agriculture was rainfed but now new irrigation facilities are developed to reduce dependence on rainfall.
- (c) Plateaus - Plateaus are not very fertile landforms. So, People are engaged in mining activities as plateaus are a storehouse of minerals.
- (d) Deserts - People in deserts are nomadic, they move from one place to another in search of water and other resources.

10. Living in the mountains involve natural challenges. Explain.

Challenges of life in the Mountains:

Avalanches : The sudden fall of snow, ice or rocks from a mountainside, often occurs when the snow starts melting. It destroys homes and blocks access.

Landslides : The sudden collapse of a mass of earth or rock from a mountainside is triggered by heavy rain, earthquakes, or human activity. It can damage infrastructure and hinder travel and farming.

Heavy Snowfall : Large snow accumulations can isolate communities, disrupt travel, and damage buildings.

Cloudburst and Flash Floods : A sudden local flood, often caused by a cloudburst. It can wash away homes and livestock.

‘Learn with fun’

- 1. Students to write their own experience. (eg: The icy land: Greenland)
- 2. The Char-dham yatra is a sacred, Hindu pilgrimage in the lap of Himalayas. It consists of four sites- Yamunotri, Gangotri, Kedarnath and Badrinath. The Yatra is undertaken to attain moksha (salvation). The shrines open in April/May and close in Oct/Nov depending on weather condition.
- 3. Students to depict their own creativity. (eg: Thar desert: The Golden Sand)
- 4. (Eg. PASTA)
 - Use olive oil
 - Load it with fibre-rich vegetables.
 - Usage of light, nutrient rich sauce instead of heavy cream.
 - Students to mention their own favourite food.

5. Ria must have faced an Avalance.

Causes - 1) Heavy snowfall and rain

2) Steep slopes

3) Earthquakes and rockfalls