

GEOGRAPHY NOTES FOR 7TH CLASS (FOR ISLAMABAD)

Unit # 1

Plains and Rivers

Exercise

1. Choose the Correct Option:

1. The course of a river has _____ distinct stages.

a. 3 b. 4
c. 5 d. 6

Correct answer: c. 5

2. The movement of a large mass of sediment down the slope due to gravity is called _____.

a. Erosion
b. **Mass wasting**
c. Weathering
d. Denudation

Correct answer: b. Mass wasting

3. Which one of the following plays key role in shaping the landscape of the earth?

a. Plateaus b. Mountains
c. **Rivers** d. Valleys

Correct answer: c. Rivers

4. The speed of the river's water is fast in _____ stage.

a. youth b. **middle**
c. old d. plain

Correct answer: b. middle

5. Delta is a _____ landform formed by the materials, deposited by a river in its mouth.

a. square b. **triangular**
c. rectangular d. circular

Correct answer: b. triangular

6. V-shaped valleys are formed in _____ course of a river.

a. **upper** b. middle
c. lower
d. middle and lower

Correct answer: a. upper

7. Plunge pools are formed by _____.

a. **waterfalls** b. winds
c. glaciers d. cyclones

Correct answer: a. waterfalls

8. The river plunges down as a _____ from overhanging hard rock.

a. **waterfall** b. tributary
c. distributary d. delta

Correct answer: a. waterfall

9. Loop like bends formed by the river in mature stage is called _____.

a. **meanders**
b. braids
c. slip off slopes
d. cliffs

Correct answer: a. meanders

10. A network of shallow river channels separated by small bars of sediments is _____.

a. meandering
b. **river braiding**
c. delta d. oxbow

Correct answer: b. river braiding

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2. Give Brief Answers to the Following Questions:

1. What is a river system?

Ans: The river system

A river system consists of a catchment area, watershed, divide, tributaries, and distributaries.

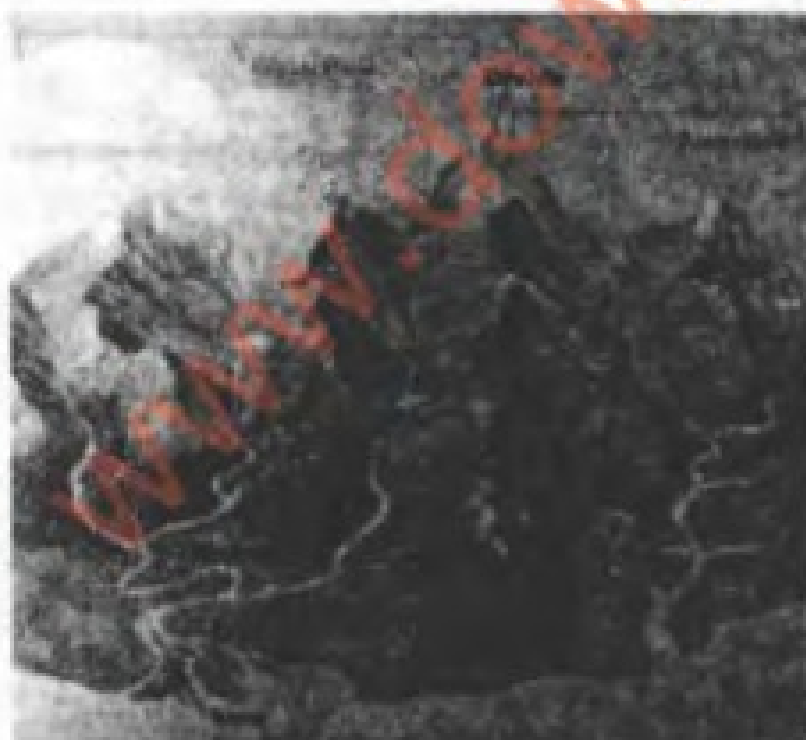
The catchment area of a river refers to all the area of land over which rain falls and is caught to serve a watershed.

A watershed is an area of land drained by the main river and its tributaries. The boundary of a watershed is marked by a ridge of higher land which is called a divide.

A divide separates one watershed from the neighbouring watershed.

A river or stream flowing into a larger river is called a tributary of the large river.

As a river passes through a delta, it splits into channels called distributaries. Distributaries are common in river deltas.



River System

2. How are depositional plains formed?

Ans: Depositional plains

These are formed by the deposition of sediments on lowlands, brought by rivers, glaciers or the wind.

3. Differentiate between erosional and coastal plains.

Ans: Erosional plains

When a mountain or plateau area is reduced to a low lying plain by weathering and erosion over a very long period of time, an erosional plain is formed which is termed as peneplain. The plains of Northern Europe and Northern Canada are erosional plains.

Coastal plains

These plains were formed when a part of the sea floor bordering a continent was uplifted. They occur in Scotland and along the South-East coast of the U.S.A. In Pakistan coastal plains are located along Sindh and Makran coast.

4. Differentiate between plains and mountains.

Ans: Mountains

- A mountain is the natural elevation of the earth's surface that rises at least 1000 meters above sea level and at least 50% of its surface consists of steep slopes.
- While hills are natural elevations on the earth's surface that resemble mountains in many ways but are of lower elevation.

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Both are conical-shaped, existing singly or in groups.

Plains

- A plain is a flat or gently rolling land surface.
- Click to link to visit the Location of the largest plain in the world
<https://www.google.com/maps/@60.9928728,42.6875227,11z>

5. Compare hot and cold deserts.

Ans: Hot deserts

Deserts located in sub-tropical areas are hot. They include the Sahara Desert (North Africa), Great Australian Desert (Australia), Arabian Desert (Saudi Arabia), Dasht-e-Lut (Iran), Thar Desert (Pakistan), Kalahari (Africa) and Mojave (North America). In summers, average temperatures range from 26.7°C to 32.2°C and in winters average temperature is 15.5°C.

Cold deserts

The tundra is a treeless plain located in the northernmost lands of the Earth. It is a cold desert and is a desolate land covered with lakes, ponds and marshes. Permafrost is an important feature of this climate.

This climate is mainly located in Northern Hemisphere. It occupies the northern fringe of Asia Europe, the North American Islands, and the coastland of Greenland.

3. Give Detailed Answers to the Following Questions:

1. What is a landform? Explain processes responsible for the change in the landscape of the earth.

Ans: Landform

Landforms are the natural features that make up the earth's surface. These natural features have different profile and relief, therefore there exists a vast variety of landforms. The major landforms on the surface of the earth are plains, plateaus and mountains. These landforms are widespread on the face of the Earth. All of us interact with some or all of these at a time.

Processes Responsible for Change in Landscape of the Earth

There are two types of processes of the Earth, one develops many patterns and landscapes and the other changes these landscapes.

Diastrophism, volcanoes, folding and faulting, originate in the interior of the earth and create mountain ranges, oceanic ridges, trenches and rift valleys.

Another of earth processes continuously evolves the surface of the Earth. These are weathering, erosion, and mass movement. They effect the surface of the earth and change the structure of landforms to other types of landforms. These processes erode, transport and deposit materials. Resultantly over along period of time, large mountains turn into small hills, and finally, these are turned into plains. A brief introduction of these processes is as under.

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i) Weathering

It is the breaking down rocks on the surface of the earth by Mechanical or Chemical means.

a) Mechanical Weathering

Mechanical weathering breaks the rock without changing its composition. Weathering by mechanical means involves processes like freezing and thawing of water, expansion and contraction of rocks and wedging by plant roots.

b) Chemical Weathering

Chemical Weathering occurs when minerals of rocks react with water and gases of the earth's atmosphere. It produces new weaker substances by changing the composition of the minerals of rocks. New weaker substances formed so, change the physical appearance of the rocks. The chemical weathering occurs through carbonation, oxidation and hydrolysis.

ii) Mass wasting

It is the movement of a large mass of sediments or a section of land, down a slope due to gravity. There are different types of mass wasting such as rockfall, landslide, avalanches, creep and mudflow.

iii) Erosion

It is the wearing and removal of land surface by rivers, winds and glaciers. Erosional processes evolve the landforms in terms of elevation, shape and size. These agents pile up their materials in a process called deposition

that results in the formation of new landforms.

Rivers, winds and glaciers not only erode the respective land surface but also carry eroded material down through the transportation process.

2. What are the Physical features of plains? Describe briefly how they are formed?

Ans: Physical features of Plains

Rivers, glaciers, and winds are major agents of change working on the surface of the earth. These agents have developed the following types of plains through erosional and depositional processes. Erosion is the wearing away and removal of exposed land by river, wind and glacier. The depositional process is the accumulation of load carried by these agents.

i. Erosional plains

When a mountain or plateau area is reduced to a low lying plain by weathering and erosion over a very long period of time, an erosional plain is formed which is termed as peneplain. The plains of Northern Europe and Northern Canada are erosional plains.

ii. Depositional plains

These are formed by the deposition of sediments on lowlands, brought by rivers, glaciers or the wind.

a) River Plains

The largest depositional plains are formed by the deposition of sediments by rivers. They are also termed as alluvial, flood or deltaic

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plains. Such plains are ideal for farming as they are flat and fertile. The Indus Plains in Pakistan are depositional Plains formed by the River Indus and its tributaries.

b) Outwash/ Till Plains

Glaciers also spread sediments of various sizes to form outwash or till plains. They are located in Northern Germany and the MidWest of the U.S.A

c) Loess plains

Loess plains are formed by the deposition of very fine particles by wind known as loess. Winds blew these particles from deserts. The Pampas of Argentina are loess covered plains.

3. Explain the importance of rivers with in respect to biodiversity and the economy.

Ans: Importance of Rivers in biodiversity and Economy

1. Biodiversity is the term used to describe the range of different organisms that live in an area, or it refers to a variety of plants and animal species of an area. Rivers provide habitats to a large number of plants and animals species.
2. Rivers conserve and sustain wetlands which are breeding grounds for many species. Wetlands are an area where soil remains saturated or flooded.
3. Rivers are also important in terms of economy as large number of people are engaged in

economic activities like agriculture and fishing. These are primary activities of the people, and are directly linked to rivers for irrigation.

4. Rivers also provide fertility to the soil. Sediment settles from the slow-moving floodwaters to form broad floodplains and fertile soils that make excellent farmland. Rivers are also a mode of producing Hydroelectric power. Hydroelectric power is the cheapest mean of energy. The economic development of countries now is dependent on the supply of power resources.
5. Rivers also provide the cheapest means of transportation as compared to air and land transportation.



River biodiversity

Learning Activity (1)

Plants and algae are the producers, while zooplankton, insects, and

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fish are consumers. Students will name some decomposers.

Ans: Fungi and bacteria

Learning Activity (2)

Identify 5 advantages and 5 disadvantages of living in a floodplain.

Ans: **Advantages of living in a flood plain**

1. Floodplains have plenty of water during flooding and the land becomes fertile.
2. Crops grow well.
3. Greenery is everywhere. Plants grow well.
4. Temperature is moderate.
5. Atmosphere and weather remain attractive.
6. Flood plains are produced.

Disadvantages of living in a flood plain

1. There is heavy rainfall. Economical loss is caused to the residents.
2. The river overflows, its banks. This flooding cause destruction.
3. Human and animal lives are damaged.
4. Crops are damaged by floods.
5. Flooding deposits sand, silt and clay.



Unit # 2

Water Sources and Management

Exercise

1. Choose the Correct Option:

1. The biggest sources of water on the earth are _____
a. springs b. Waterfalls
c. Seas d. Oceans

Correct answer: d. Oceans

2. Which one of the following is subsurface sources of the water?
a. Rivers b. Lakes
c. Aquifers d. Glaciers

Correct answer: c. Aquifers

3. The most important sources of water for agriculture in arid regions is _____
a. Springs b. Sea water
c. Glaciers d. Rainfall

Correct answer: d. Rainfall

4. Sewage waste can be used for _____ due to it's high organic content and plant nutrients.

- a. drinking b. bathing
c. washing d. irrigation

Correct answer: d. irrigation

5. The river _____ is the main resources of water in Pakistan.