GEOMORPHIC PROCESSES AND LANDFORMS OF THE EARTH 8-06-2021

1) Difference between Endogenetic and Exogenetic forces.

The differences are as follows.

Endogenetic Forces	Exogenetic Forces
i) Endogenetic forces originate are the internal forces that exist deep inside the earth	i) Exogenetic forces are the external forces that operate and act on the surface of the Earth
ii) Endogenetic forces produce after effects that are visible only after it causes sudden damage	ii) Exogenic forces create changes visible over a period of thousands or millions of years.
iii) It causes natural devastation and physical change in the earth's surface like earthquakes, volcanoes and formation of mountains or valleys	iii) It causes physical changes in the earth's surface like sea, sand dunes etc.
iv) Fold mountains, Intermountain plateau and rift valley are formed as a result of endogenic forces	iv) Alluvial plains, Residual mountains, Dissected plateau are formed as a result of exogenetic forces.

2) Difference between weathering and Erosion

The differences are as follows

Weathering	Erosion
i) Weathering is the displacement of solids by wind, water and ice	i) Erosion is the disintegration, decomposition of rocks, soil and minerals by direct contact with the atmosphere
ii) The weathered materials are not displaced	ii) The eroded materials are displaced
iii) The different types of weathering include physical, chemical and biological weathering	iii) The different types of erosion are water, wind, ice, thermal and gravity erosion

iv) Weathering is caused due to atmospheric factors like air pressure

ii) Wind, water, ice and human activities are some of the causes of erosion

3) Difference between Aggradation and Degradation

Ans The differences are as follows.

Aggradation	Degradation
i) Aggradation refers for the increase in land elevation, typically in a river system, due to the deposition of sed-ment	i) Degradation refers to the low-ring of a fluvial surface -h as a stream bed or floo -plain through erosional proce -ses.
ii) It refers to an increase in the base level of a river	ii) It refers to a decrease in the base level.
iii) Alluvial and delta plains, loess, are formed.	iii) Peneplain and pediplain are formed.

4) Difference between Epirogenic and Orogenic.

Ans The differences are as follows.

Epirogenic	Orogenic
i) Occurs vertically	i) occurs horizontally.
ii) It results in the format-ion of block mountains Rift valley, continents	ii) It results fold mountain

5) Name the landforms produced by diastrophism and sudden movement

Ans The landforms produced by diastrophism are Rift valley, Block mountain, submerged and emerged coasts And the landforms produced by

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sudden movement are volcanic mountain, lava plateau etc.

6) What are the agents of exogenetic forces?

Ans The agents of exogenous forces are river, glacier, wind sea waves

7) What are the two phenomenons in Epirogenic movement?

Ans The two phenomenons in Epirogenic movement are Upliftment and subsidence.

8) What are the two divisions of orogenic movement?

Ans The two divisions of orogenic movement are compression and tension.

~~9) What are the~~

9) Define Mountain.

Ans An extensive area of the earth's surface which rises over 1000m above sea level with conical peaks, broad base, deep gorges and steep slopes is known as Mountain.

10) Classify Mountain. Define each of them with example

Ans Mountains are of four types based on their mode of formation.

(i) Fold Mountains (ii) Bloch (or Fault) mountains (iii) Volcanic mountains iv) Residual Mountains.

i) Fold Mountain. They are formed due to the folding of soft sedimentary rock layers of the earth's crust Eg the Himalayas

(ii) ~~Displacement~~ -

ii) Bloch mountain. They are formed by the displacement of raised blocks of rocks due to the fracture or fault produced on the earth's crust by compressional or tensional forces on hard rocks. E.g. Satpura in India, Vosges in France.

(iii) Volcanic Mountain - Aggradation of accumulated lava, ash and dust ejected from the magma chamber in the earth interior, eventually, dantom volcanic mountain.

(iv) Residual or Relict mountain - Denudation or prolonged erosion of pre-existing mountain may, even...

ii) Define Fold Mountain. Name the young and old fold mountain

Ans The mountain which are formed due to folding of soft sedimentary rocks layers of the earth crust are called Fold Mountains

The young Fold Mountains are the Alps, Himalayas, Rockies and Andes etc.

The old Fold Mountains are the Aravalis Range, the Appalachian and the Ural Mountains.

iii) What are the characteristics of Fold Mountains?

Ans The characteristics of fold mountains are

i) They occupy extensive area.

ii) They are associated with anticlines and synclines

iii) Have usual narrow peak or summit

iv) They are formed by orogenic movement

v) They are made up of sedimentary rocks

3) Discuss the origin of fold mountains according to Plate Tectonics Theory.

Ans Plate Tectonic Theory is one of the most important theory regarding the origin of the Fold mountains. D.L Pichon the father of the Theory explained Plate Tectonics Theory in 1968 According to this theory, continental crust consists of seven big plates, eight medium plates and twenty small plates. The seven big plates are Eurasian plate, Pacific Ocean

plate, North American plate, Arabian-Nubian Plates are separated from below ocean -areas are located Plates are flo current which into that layer 2cm per year boundaries a diverging plate boundary a

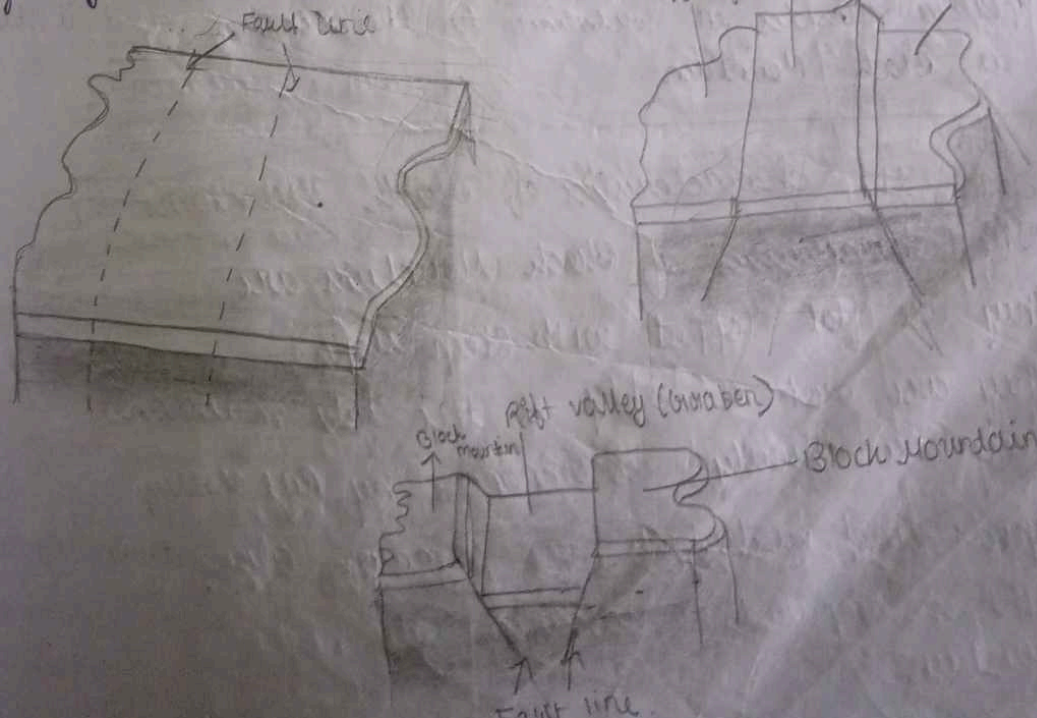
iv) Define Block diagram

Ans The mounta crust by fault lines Mountain in Germany

plate, North American Plate, South American plate, North American plate, Indo-Australian plate, African plate and Antarctica plate. Plates are separated by fault lines and extend upto 70 km below ocean areas and 150 km below the continents. Plate boundaries are located along margins of earthquake epicentre. Plates are floating on Asthenosphere due to convectional current which is shifted, pulled and consumed back into that layer. They move very slowly about 1 or 2cm per year. There three types of moving plate boundaries are converging plate boundary at convection, diverging plate boundary at separation and neutral plate boundary at intersection.

14) Define Block Mountains with examples and suitable diagram

Ans The mountains formed by natural faults in the earth's crust by epirogenic movement and between two parallel fault lines, upthrust and downthrust is known as Block Mountain. Eg- Satpura in Central India, Black Forest in Germany and Vosges in France.



17) What is the another name of Block Mountain?
Ans The another name of Block Mountain is Fault Mountain

18) What is Horst?
Ans Upthrusted block of a plateau between two parallel fault lines forms a valley appears like a Block mountain is called Horst in Germany. e.g. Satpura.

19) What is Graben?
Ans Subsided block of land lying between two parallel fault lines forms a valley known as Rift valley. This is known as Graben in Germany. Eg: The river Rhine flows through the Rift valley between the vosges and the Black Forest

20) What is Monadnock?
Ans Monadnock is the small rounded hill locks which are found in the peneplain region and formed by the erosional works of the river or running water. Eg

21) What is Mesa?
Ans The small, flat topped, steep sided small eroded hills are called Mesa. They are made up of Basalt. Mesa are common in Deccan plateau region.

22) What is Butte?
Ans The small mesas are called butte.

23) Define Mountain of accumulation.
Ans The mountains which are formed as a result of the cooling down of lava and other materials that come out of volcano during volcanic eruption are called volcanic mountain. They are also known as Mountain of accumulation.

24) Classify volcanic mountain along with definition.

Ans Volcanic mountains are classified into three types on the basis of nature of eruption.

(i) Active volcano - The volcanoes that continue eruption or have erupted in recent times is called active volcano. Eg: Vesuvius in Italy, Barren in India.

(ii) Dormant volcano - Volcanoes with signs of possible eruption in future are called dormant volcanoes. Eg- Mt Fuji in Japan.

iii) Extinct volcano - Volcanoes that have erupted in the pre-historic times and signs of no possible eruption in future are called extinct volcanoes. Eg- Narcondam in India.

v) Types are not found	vi) There are three types - Active, Dormant and extinct
vii) They are also known as Mountain of Denudation	vii) They are also known as mountain of accumulation

26) State the characteristics of Relict mountains

Ans The characteristics of Relict mountains are

i) They have rounded tops rather than narrow summit.
ii) They have gentle slopes and are not lofty.
iii) They are less rugged with wide river valleys.
iv) They are made of ancient rocks.

27) Define Compression and Tension.

Ans When from both sides pressure come towards each other is called compression

When from one point pressure is sent to other, it is called tension.

28) State the characteristics of volcanic mountain.

29) Define Plateau.

Ans Plateaus are step sided, flat topped highlands with elevation generally varying between 300 m and 600 m above sea level
eg: Plateau of Tibet.

30) Classify Plateau according to their mode of formation. Define each type with suitable diagram. Example and diagram.

Ans. Plateaus are step sided, flat topped highlands with elevation generally ranging between 300 m and 600 m above sea level e.g. Plateau of Tibet

Plateau are of three types

i) Intermontane Plateau - Due to eo The plateaus which are formed due to earth movement, during the formation of fold mountain. These plateaus are actually enclosed by the Fold mountains. So they are called 6 Intermontane plateau 'Inter' means between mountain. Eg- Plateau of Tibet lies between Elburz in the north and Zagros in the south.

ii) Dissected Plateau - An extensive high plateau is reduced into smaller blocks of plateau along with irregular surfaces due to the continue process of weathering and erosion by the natural agents like river, glacier, wind. In humid regions plateau intersected by deep narrow valleys is dissected. Dissected Plateau. e.g. Chotanagpur plateau of India.

iii) Volcanic Plateau - Horizontal flow of lava which gushes out from the earth's interior through fissure eruption and spreads over the land surface in great thickness and solidifies to form lava or Volcanic plateau Eg- Deccan Trap of Maharashtra in India.

Intermontane Plateau

Define Plain with
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eg- Ganga Delta

Classify plains
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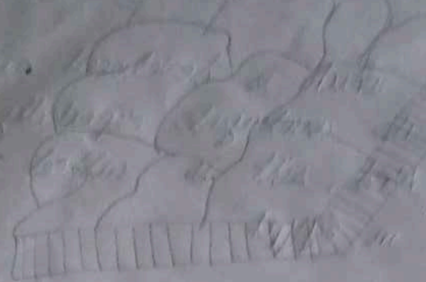
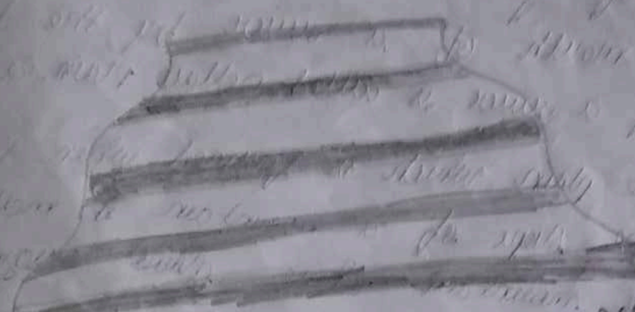


Dissected Plateau



Volcanic Plateau

31) Define Plain with example.

Ans The landforms which are smooth and level having the aver-age altitude almost 150 m above sea level are called plains. Eg. Ganga Delta Plains.

32) Classify plains with example.

Ans The landforms which are smooth and level having the average altitude almost 150m above sea level are called plains. Eg- the Ganga Delta plain.

Plains are classify according to following types.

i) Depositional plains - The plains which are formed by the deposi-tion of materials brought by various agents of transpor-tation such as rivers, winds, waves and glaciers.

Depositional plains are classified into five types

Alluvial Plain - The plains which are formed by the deposition of silt and sand are called alluvial plains. Eg

- Flood plain - A high plain which is developed when in rainy season river floods its courses repeatedly as a result of which deposition of sand, silt is called flood plain. Eg Flood plain of river Nile in Egypt.
- Deltaic plain - A triangular plain land which looks like the letter of greek alphabet, 'Δ' (delta) and it is formed at the mouth of a river by the deposition of silt carried by a river is called deltaic plain. Eg - Ganga - Brahmaputra Delta.
- Glacial Plain - The plain which is formed when the glacier descends down the slope of a mountain it melts at the foothills of the mountain where glacial originated stands and gravels are deposited to form glacial plain. e.g. Padabi valley of in Kashmir.
- Lacustrine Plain - Parts of Bal lake in Kashmir, Imphal valley of Lohitak lake in Manipur
- Loess Plain - Eg. Hawang Ho river valley in China.

iv) Erosional Plain - A highland when reduced to low plain land by the through the long term erosional work by the natural agents like river, glacier, wind are called Erosional plain.

There are two types of Erosional plain:

- Peneplain - The plain which is formed when an ancient highland/plateau is reduced to a plain land through denudation, that is long continued erosion by either river, glacier or wind is known as Peneplain. Eg - Parts of Chotanagpur plateau.
- Pediment - The sloping stony plain which is formed either at the foot of a mountain produced by wind

... by the deposition of
... Plain. Eg- Ganga-Brahmaputra Delta.

... when the glacier
... it melts at the
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... Loktak lake, Langthabal valley in Manipur
in China.

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There are two types of structural plain

(iv) Structural Plain - The extensive plain which is formed without any earth movement, where sedimentary rocks layers arranged one above another for a long period of time is known as structural plain. Eg- Siberian plain.

There are two types of structural plain.

Emerged coastal plain - The wide emerged coastal plain which are formed when continental shelf may be uplifted from the sea bed are called Emerged plain. Eg- Coastal plain of Gulf of Mexico.

Submerged Plain - The narrow plains which are formed when coastal margin subside are called submerged plains Eg. Turan basin.

33) Differentiate between Intermontane and Dissected plateau.

Ans The differences are as follows.

Intermontane	Dissected
i) The plateaus which are formed due to earth movements during the formation of fold mountain are called Intermontane plateau eg. Tibetan plateau.	i) The plateaus which are formed by the erosion of high plateau by river, glacier, wind etc. are called Dissected plateau Eg Chotanagpur plateau
ii) These plateaus are of high height	ii) These plateaus are of less heights
iii) These plateaus are actually enclosed by the fold mountain	iii) These plateaus are associated with accordant hills and intersected with wide river valleys
iv) Fossils are found in these plateaus.	iv) These plateaus are rich in mineral.

25) Difference between Volcanic and Relict Mountain.

Volcanic	Relict.
i) Volcanic Mountains are the mountains that came which are formed as a result of cooling down of lava and other materials that came out of volcano during volcanic eruption.	i) Relict mountains are the mountains that are formed as a result of erosion of fold, Block and volcanic mountain by the natural agents like water.
ii) They are conical in shape with narrow summit	ii) These mountains are rounded and don't have narrow summit
iii) They are formed as a result of orogenous forces.	iii) They are formed as a result of orogenous force.
iv) They are formed of igneous rock.	iv) They are formed of either metamorphic or igneous rock
v) These mountains are higher in altitude than Relict mountain	v) These mountains are comparatively lower
vi) There are three types - Active, Dormant and Extinct.	vi) Types are not found.
vii) They are also known as mountain of accumulation.	vii) They are also known as mountain of denudation.

Difference between Peneplain and Pediment.

Peneplain	Pediment
a) Peneplain is an eroded ancient highland.	a) Pediment is sloping stony plain.
b) Its main agent is erosion and denudation.	b) Its main agent is lap erosion by wind abrasion
c) It is found with isolated hills of hard rocks. Eg:- Parts of Chotanagpur Plateau	c) It is found at the foot of a mountain. Eg - Plains at the foothills of the Atlas mountain in Sahara desert