GEOGRAPHY PRACTICE

Q What are seismic waves? Give a detailed account of different types of seismic waves. (2) (4)

Ans Seismic waves are generated due to sudden movements inside the Earth's surface i.e. volcano or Earthquake, spreading outwards in all directions from the focus.

Apt. Intro keep it up.

Seismic waves helps to observe the changes in the direction of waves due to emergence of shadow zone areas, however, helps to define different layers inside the earth.

Reframe it.

Flow is broken.

Types of Seismic Waves

- Body Waves
  - P-Waves (Primary waves)
  - S-Waves (Secondary Waves)
- Surface Waves
  - L-Waves (Love-waves)
  - Rayleigh Waves

① P-Waves

a) Longitudinal in nature

b) These waves are generated first and are thus referred as Primary waves.

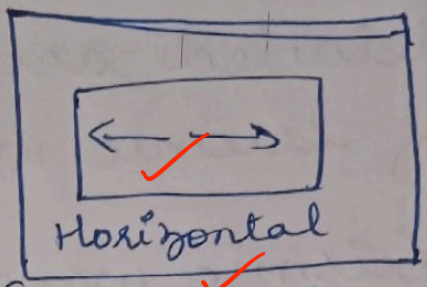


Fig: Motion in P-waves

c) P-waves travel fastest.

d) They can pass through solid as well as liquid (deflects in liquid)

e) Waves are of high frequency and helps to observe state of inner core i.e. Solid.

② S-Waves

a) Part of Body waves that are transverse in nature.

b) Waves are generated after P-waves and thus referred to secondary waves

c) Pass only through solid.

d) Creates shadow zone which helps to identify different states of core

e) Waves are of high-frequency.

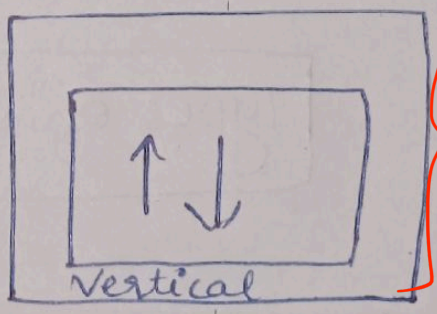


Fig: Motion in S-waves

Highlight the keywords

Good

well-explained.

③ L-waves

a) Also called as long-period waves

b) When P and S waves strike on the surface of earth, they are known as Love-waves

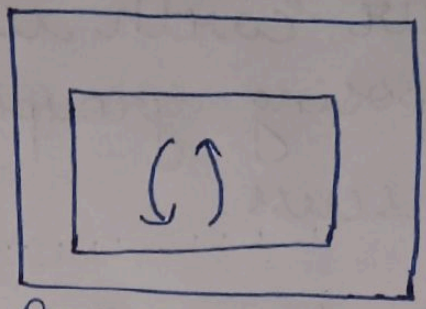


Fig: Motion in L-waves

c) The waves have low frequency.

d) Transverse in nature.

e) The waves tend to collapse the structure leading to most destruction.

f) Recorded last in seismograph.

Seismic waves helps to indicate the different layers of earth, their composition and state.

Repeated 03 times in Answer !!

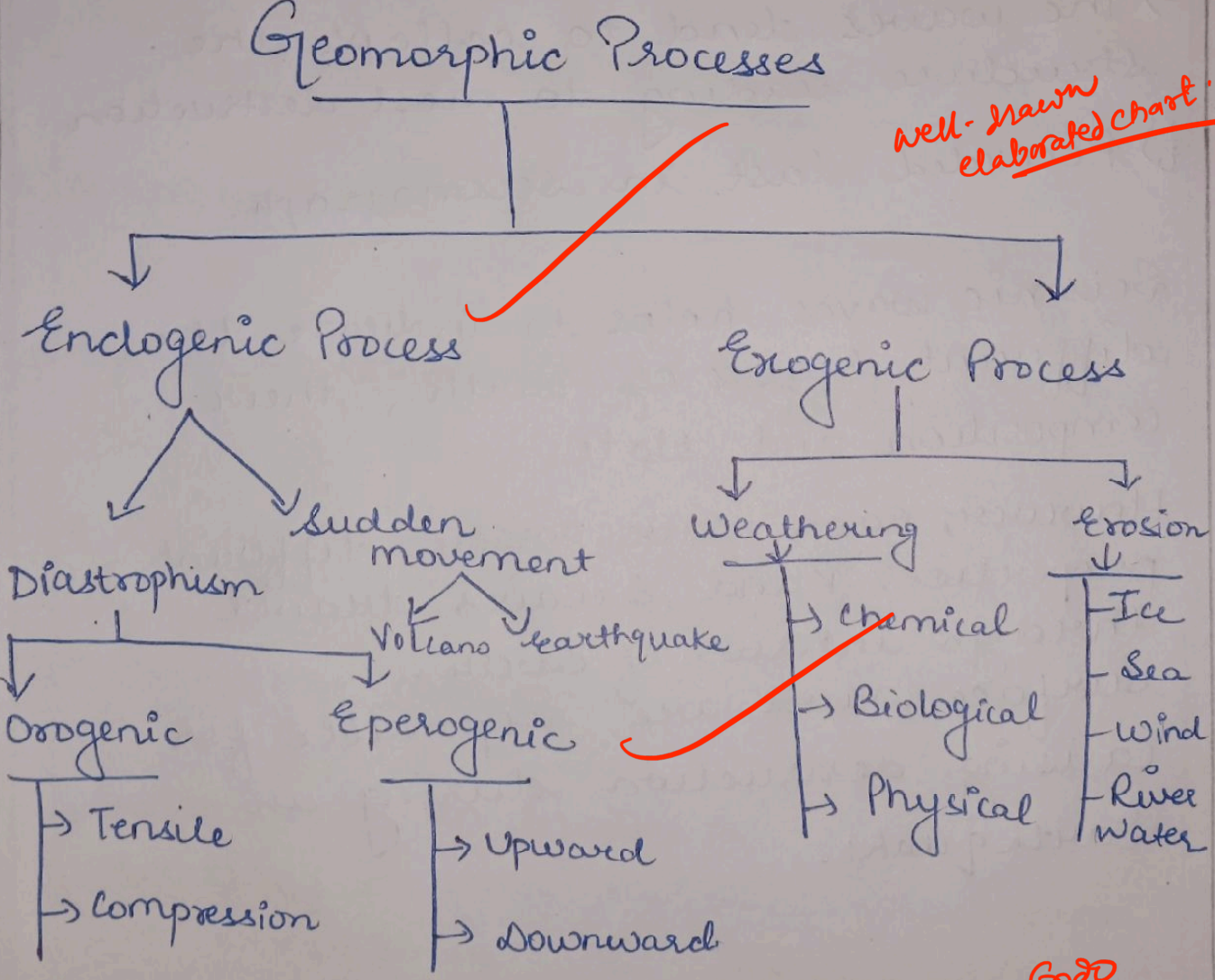
However, each wave possess different properties. P and S waves travel through interior of earth. Surface waves are responsible for causing destruction during an Earthquake.

Okay

Q. Our Earth is a playfield for two opposing groups of geomorphic processes. Discuss.

Ans The term geomorphic refers to the natural features of the earth's surface. However, the forces causing physical and chemical changes on earth's surface is known as geomorphic Processes.

skip it



well-drawn elaborated chart.

write in words as it is a playfield of two

Good

Good

Endogenic Movements

- These are the forces which are generated inside the Earth's surface.
- Leads to creation of landforms. 'constructive forces'
- Comprises of 2 types.

(1) Diastrophism - Moving or Building the portions of Earth's surface slowly or steadily falls under diastrophism.

a) Orogenic Process leads to mountain building.

* Tensile - Fault mountains [eg]: Mount Whitney, Satpura and Nilgiri range
* Compression - Fold mountains. [eg]: Himalayas, Andes, Alps Mountain

(b) Epirogenic process leads to continental building processes.

* Upward movement - Raised beaches, sea caves, etc.
* Downward movement - Parts of island subside in water.

Subsidence can be sudden leads to depression or can be slow subsidence in earth's surface.

(2) Sudden Movements: formed over a short

Period of time and mainly comprises of Earthquake and Volcano.

- Earthquake refers to sudden release of energy when two plates collide inside Earth's surface.

Diagram!

Eg: Japan experiences most of earthquakes due to minor Pacific plates.

- Volcanoes refers to rupture in Earth's surface allowing molten magma to escape in atmosphere.

Diagram!

Eg: Barren Islands, Andaman & Nicobar Islands.

Exogenic Movements

- These are the forces which are generated outside the Earth's surface
- Leads to destruction of landforms.
- Mainly comprises of weathering and erosion with a process of Denudation.
- Occur due to thermal heating mainly.
- Includes weathering, mass movement, erosion, transportation and deposition.

NOT having a single fig/dia!!!

Eg: Creates relief features like leeves, Delta, Dunes, Barchans, Fjords etc.

Thus, geomorphic processes are critical to provide unique structures and relief features to Earth's surface.

→ Good

Q What do you understand by Continental drift theory? Discuss along with the evidences that support the theory?

Ans Continental Drift theory defines the distribution and formation of oceans and continents.

Propounded by Alfred Wegener in 1912. Alfred Wegener was a renowned Geophysicist.

Keep readers/ partitioning

According to the theory, there was a single piece of landmass named as Pangea surrounded by huge water body coined as Panthalkasa, approx 250 million years ago.

Forces?

Sial & sima

↓

If not in writing at least by dual fig.

↓

However, Pangea started to split into Laurasia into north and Gondwanaland to the south.

↓

Further, Laurasia and Gondwanaland splits into continents and oceans.

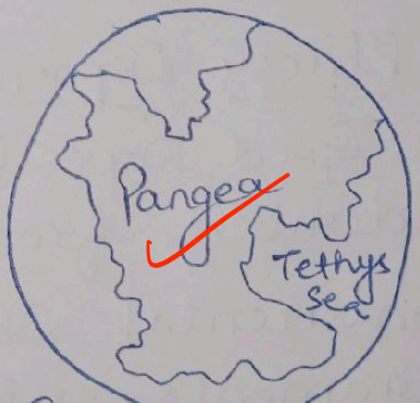


Fig. Before drifting

EVIDENCES In Support of Theory

EVIDENCES

① The Jig-Saw Fit of Continents
Eg: Shorelines of South-America and Africa seems as if they form complete part.

Fig: Present continents

② Rocks of same Age Across Oceans
Eg: Rocks and features of Pacific and southern Ocean.

③ Relation of Mountain Ranges
Eg: Appalachain Mountains of US are related to Caledonian Mountains of Scotland.

④ Fossil Remains
Eg: Fossils of Mesosaurus reptile found in South America and Africa as well.

well mentioned examples. keep it up.

⑤ Placer Deposits
Eg: Gold Deposits of Ghana have been derived from Brazil Plateau.

write-up shows content is good and clearity

Continental Drift Theory provided arguments with evidences but faced several criticism like forces (tidal or buoyancy) weak enough to move continents.