# Question Bank

Class : VIII ch-2 Unstable Earth

## Fill in the blanks (1×5 = 5)

a) The Continental Crust is floating over Oceanic Crust.

b) A Richter Scale measures the intensity of the earthquake.

c) Primary wave is the fastest Seismic wave (6km/sec).

d) San Francisco was almost completely destroyed in a devastating earthquake in 1906.

e) Naturally rocks are supposed to melt in 2000°c temperature at mantle.

## Write Short notes on:- (2×5 = 10)

a) Pa hoe hoe :- A type of highly fluid lava that spread out in sheets over vast areas from the volcanoes of Hawaiian island is called 'pa hoe hoe' in Hawaiian language. the upper surface of this type of lava cools very quickly and looks like a twisted ropes.

b) Epicentre :- The point on the earth's surface just vertically above the centre or focus of the earthquake which experiences the greatest intensity is called 'Epicentre'. Being nearest, the intensity of vibration is maximum at the epicentre.

c) Pacific Ring of Fire :- About 68% of all earthquakes are observed in the vast region of the pacific ocean as 'the pacific Ring of Fire' or 'Fiery Ring of pacific' or 'Fiery Girdle of the pacific'. It is closely linked with the region of crustal dislocations and volcanic phenomenon.

d) Tsunami :- Tsunami is a japanese word means 'waves of harbour' (TSU - harbour, nami = wave or, it also means 'ferocious oceanic quake (TSU = Ferocious, 'na' = oceanic; mi = quake). It is known as destructive sea waves. Tsunami can be more destructive.

Parts of volcano :- There are 3 parts of volcano :-

(i) Vent :- Vent is the hole through which the volcanic materials come out.

(ii) volcanic pipe :- Volcanic pipe is the narrow opening which connects the vent with interior.

(iii) Crater :- Crater is the funnel shaped hollow at the centre of the volcano.

## Answer the Following

a) Explain the types of volcanoes with proper examples

Ans) The types of volcanoes are :-

(a) Active volcanoes :- The volcanoes that erupt frequently or are always emitting lava are called 'Active volcanoes'

Example :- Vesuvius of Italy, 'Etna of Sicily etc.

Active volcanoes are of two types :-

(b) Dormant volcanoes :- Dormant volcanoes are also called 'Sleeping volcanoes'. These volcanoes have been active in the past and have stopped ejecting lava now, but can erupt again in any time. Example :- Mt. Fujiyama of Japan.

(C) Extinct volcanoes :- The volcanoes which have never erupted in human history are called 'extinct' or 'dead volcanoes'.
Example :- Mt. Kilimanjaro in Africa, Mt. popa in Myanmar, Mt. Cotopaxi in Equador.

b) Explain Seismic Waves with diagram?

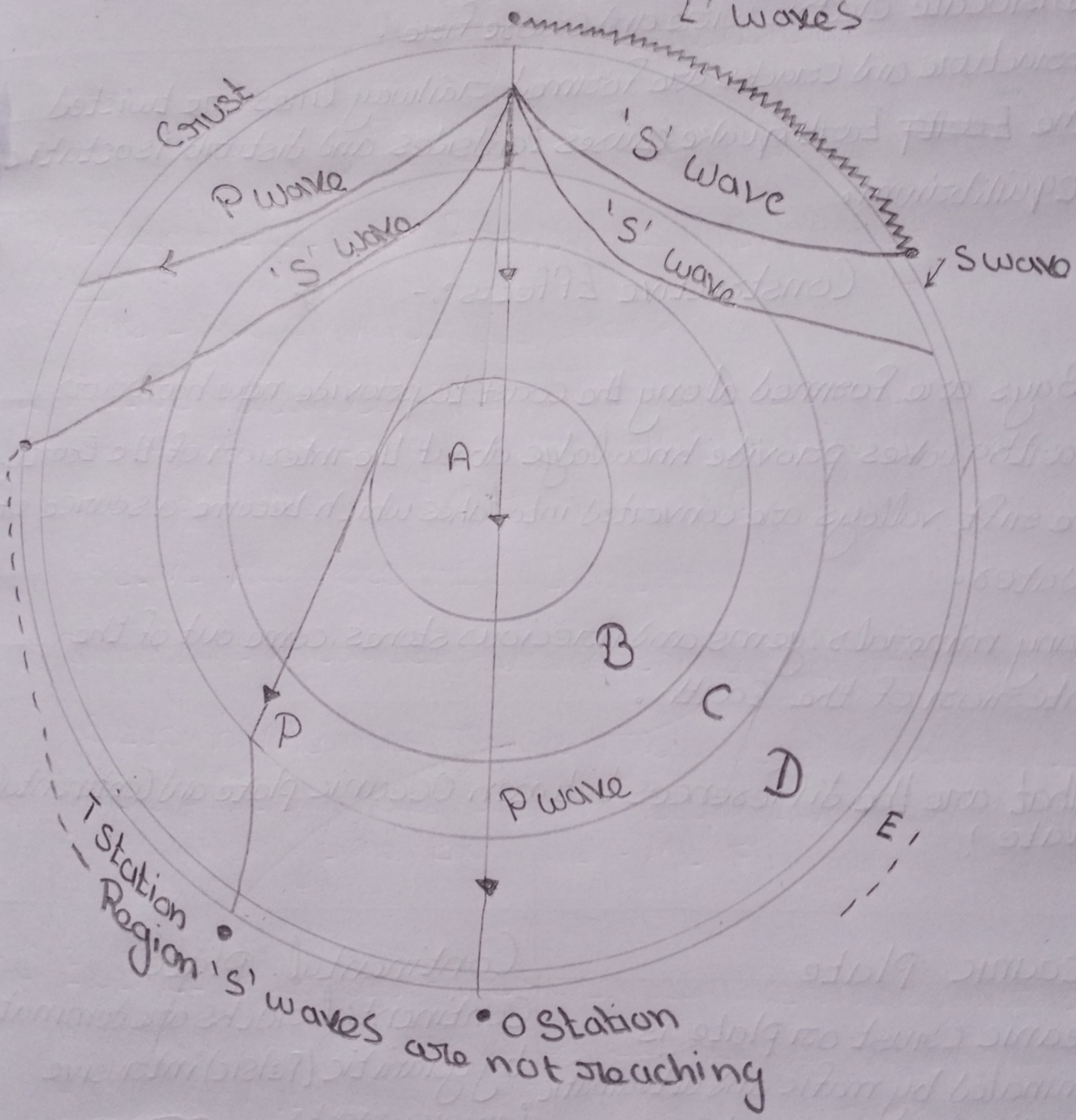
Ans) A shock wave generated by an earthquake is called 'Seismic waves'. Seismic waves are of 3 basic types: p-wave, S-wave and L-wave.

(i) Primary wave or push wave (P-wave):- This is the Fastest Seismic wave (6 to 8 km/sec) and reaches the Earth surface before all other waves. P-wave travel from the point of focus They are transmitted through solid, liquid and Gases.

(ii) Secondary wave or Shake waves (S-wave):- They travel through solids only under the crust. It reaches the earth's surface immediately after the primary wave (3-5 km/sec) Speed of secondary wave is 3/5 as fast as primary wave.

(iii) Surface waves / Long waves (L-wave):- They travel on Earth's Surface. L (surface)-waves travel at around 3 km/sec. The waves cause vibrations inside the Earth. Waves are responsible for most of damages caused by Earthquakes.

# Seismic Waves



c) Describe the Constructive and Destructive effect of Earthquakes.

Destructive Effects:-

(i) There is loss of life and property due to violent Earthquakes.
(ii) Dislocate electric wire and cause fire.
(iii) Fracture and cracks are formed, railway lines are twisted
(iv) The ~~Earth~~ Earthquake causes landsides and disturb isostatic equilibrium.

Constructive Effects:-

(i) Bays are formed along the coast to provide new harbours.
(ii) Earthquakes provide knowledge about the interior of the Earth.
(iii) The rift valleys are converted into lakes which become a source of water.
(iv) Many minerals, gems and precious stones, come out of the interior of the Earth.

d) What are the differences between Oceanic plate and Continental plate?

| | Oceanic Plate | Continental plate |
|---|---|---|
| (i) | Oceanic crust or plate is dominated by mafic and ultramafic intrusive igneous rocks. | Continental rocks are dominated by granitic (felsic) intrusive igneous rocks. |
| (ii) | The Oceanic crust is composed of dark, iron-rich rock similar to basalt. | The Continental plate is composed of light weight minerals, such as quartz and Feldspar. |
| (iii) | The Oceanic crust or plate is made up to basalt. | The Continental crust or plate is made up of granite. |
| (iv) | The Oceanic plate is denser than the continental plate. | The Continental Plate is more denser than the Oceanic Plate |
| (v) | The Oceanic Plate is thinner than the Continental plate. | The Continental plate is more thicker than the Oceanic Plate |
| (vi) | The Oceanic plate or crust is much younger than the Continental Plate. | The Continental plate is older than the oceanic plate. |

c) What are di the differences between Acid Lava and Basic lava?

| | Acid Lava | Basic Lava |
|---|---|---|
| (i) | It is highly viscous lava | It is highly fine and thin |
| (ii) | It is light coloured like granite | It is dark coloured like Basalt |
| (iii) | It has law density | It has high density |
| (iv) | It has a high percentage of silica | It is poor in silica |
| (v) | It flows slowly and results in Steepsided domes or Lava domes. | It flows rapidly as thin sheets Sheild cones. |