

Subject-

S.S.T

Class- 7

Topic- Our Changing Earth

Learn and Write

C. Long Answer Questions

1. What are volcanoes? What are the different types of volcanoes? Give examples of each.
2. Define earthquake. Discuss the main earthquake belts on the earth.
3. Write a short note on the Theory of Continental Drift.
4. Describe the process of measuring earthquake.

D. HOTS (Higher Order Thinking Skills) Questions

1. Do you think that the continents are drifting away from one another? Give reasons to support your answer.
2. Is there adequate awareness among people of India about the natural calamities, like earthquake and tsunami?

C. 1. Volcanoes are openings in the Earth's crust through which molten material comes out from the interior of the Earth. This material consists of lava, ash, hot molten rocks, steam, gas and solid rock particles. The opening of a volcano is called the vent. There are three types of volcanoes:

(a) Active volcanoes — These erupt frequently and hurl out gases, ashes, lava and rocks.

Mt Etna in Italy is an example of an active volcano.

(b) Dormant volcanoes — These have not erupted for a long period.

Mt Vesuvius in Italy is an example of a dormant volcano.

(c) Extinct volcanoes — These are inactive volcanoes and are also called dead volcanoes.

Mt Kilimanjaro in Africa is an extinct volcano.

2. Earthquake is the sudden shaking of the Earth caused by the internal forces of the Earth.

The main earthquake belts on the Earth as follows.

(a) Circum-Pacific belt — It consists of East Asia, South America, and the coastal margins of North America. 65% of the total earthquakes of the world occur in this belt. It also coincides with the Pacific Ring of Fire.

- (b) Mid-Continental belt—This includes northern and eastern Africa, Alpine mountains, Himalayas and the Mediterranean Sea. 25% of the world's seismic events occur in this belt.
 - (c) Mid-Atlantic Ridge belt—This includes Mid- Atlantic ridge and the adjoining islands. Moderate earthquakes are recorded over here.
3. Theory of Continental Drift was given by a German meteorologist, Alfred Wegener in 1912 to explain the current position of the continents and the oceans. According to this theory, a super continent called Pangaea broke into different continents, 200 million years ago. The continents then gradually drifted to their present locations.
 4. Earthquakes scientists are called seismologists. They are the experts who study the pattern of earthquakes.

Seismograph is the instrument which records the intensity of the earthquake waves. The intensity is measured in the 'Richter scale' which has the range 0 to 9. The Richter scale clearly states that the force of the earthquake is ten times greater than that of the previous one if there is an increase of one point. All earthquakes that measure six and above on this scale, are termed as destructive.

- D. 1. Now scientists know that the continents rest on massive slabs of rock called tectonic plates. The plates are always moving and interacting in a process called 'plate tectonics'. Over the time, tectonic activity changes the Earth's surface, rearranging and reshaping its landmasses.

The continents are still moving today. Underwater exploration has revealed that the seafloor is spreading. Seafloor spreading is the process of new crust forming between two plates that are moving apart. Along a network of mountain ranges in the ocean, molten rock rises from within the Earth and adds new seafloor to the edges of the old. As the seafloor grows wider, the continents on opposite sides of the ridges move away from each other. Hence, it is evident from scientific studies that the continents are still drifting away from one another.

2. Government of India has taken several initiatives for strengthening disaster reduction strategies. Government of India constituted an expert group for improving preparedness and prevention with

respect to natural disasters caused by earthquakes, floods, etc. The group has recommended the following measures.

- (a) Creation of awareness for disaster reduction is urgently needed amongst policy makers, decision makers, administrators, professionals (architects, engineers and others at various levels) financial institutions (banks, insurance, house financing institutions) and NGOs and voluntary organisations.
- (b) Creation of awareness for improving preparedness amongst the communities, using media, school education, etc.

Hence, it is clear that the people of India are still not adequately aware about the natural calamities.

