

Chapter: 2

Q.1 Choose the right option and rewrite the sentence

7

1 Which of these minerals are found in the core of the earth ?

- a. Iron - magnesium b. Magnesium - Nickel
c. Aluminium - Iron d. Iron – Nickel

Ans Which of these minerals are found in the core of the crust **Iron – Nickel.**

2 The layer of the earth on which we live

- a. Mantle b. Core c. Crust d. Continental Crust

Ans The layer of the earth on which we live **Continental Crust.**

3 The inner core is in which state ?

- a. Gaseous b. Solid state c. Semi – solid state d. Liquid state

Ans The inner core is in which state **Solid state.**

4 Which element is found in both mantle and crust ?

- a. Silica b. Magnesium c. Aluminium d. Iron

Ans Which element is found in both mantle and crust **Magnesium.**

5 There are two layers of the crust

- a. Inner and outer crust b. Continental and oceanic crust
c. Surface and Oceanic crust d. Mantle and core.

Ans There are two layers of the crust **Continental and oceanic crust.**

6 Which seismic waves can travel through liquid medium ?

- a. Primary waves b. Secondary waves
c. Surface waves d. Oceanic waves

Ans Which seismic waves can travel through liquid medium **Primary waves.**

7 The outer core is made up of

- a. Iron b. Gold c. Hydrogen d. Oxygen

Ans The outer core is made up of **Iron.**

Q.2 State whether the given statement is right or wrong and correct the wrong one.

4

1 Continental crust is made up of Silica and magnesium.

Ans Continental crust is made up of Silica and magnesium - **Wrong**

Continental crust is made up of Silica and aluminium - Correct

2 The density of various material is not the same in the interior of the earth.

Ans The density of various material is not the same in the interior of the earth.- **Right**

3 The core of the earth's interior is made up of hard rocks.

Ans The core of the earth's interior is made up of hard rocks - **Wrong**

The core of the interior of the earth is made up of the elements like iron and nickel - Correct.

4 Secondary waves cannot pass through the outer core.

Ans Secondary waves cannot pass through the outer core - **Right**

Q.3 Give Geographical Reasons

10

1 The earth is protected because of the magnetosphere.

Ans i. The earth's rotation gives rise to electric currents which creates the magnetic field.
ii. This magnetic of the earth is functional ever outside the earth's surface for quite a long distance. As a result a cover develops around the earth because of the magnetic field.
iii. The earth atmosphere field thus protected from solar winds coming from the sun.

2 The thickness of the crust below the continents is more as compared to oceans.

Ans i. The density of the crust below the continents is 2.65 to 2.90 to 3.3 gm /cm³. The density of the crust below the oceans is 2.90 to 3.3 gm/cm³.
ii. As the density of the crust below the continents is comparatively low, it keeps floating on the mantle, It does not sink into the mantle. As its the thickness of the crust below the continent is more.
iii. The density of the oceanic crust is higher than continental crust. So its sinks into the mantle leading to its low thickness.

3 Mantle is the center of earthquake and volcanic eruptions.

Ans i. The rocks in the upper layer of mantle melt due to the heat and the magma is created. The magma chambers are found in the mantle.
ii. Due to heat and pressure, the energy waves are created in mantle. Therefore these energy waves more in vertical direction and magma comes out on the surface of the earth in the form of volcanic eruptions. So mantle is the center of earthquake and volcanic eruptions.

4 There is correlation between the density of metal and their location in the interior of the earth.

Ans i. The rocks found in the crust are mainly the compound of silica, aluminium and magnesium. These compounds are light in weight therefore they are found in the outer layer of the earth.
ii. The elements like iron, nickel are found in the core of the earth, these elements are heavier in the outer layer of the earth.
iii. Thus metal low density are found in the upper level and metal with high density are found in the lower level of the interior of the earth.

5 There are discontinuities in the interior of the earth.

Ans i. The elements the temperature, the pressure or the density are not same in all the layers of the interior of the earth i.e. the crust, the mantle and the core.
ii. In the interior of the earth, the traditional areas are found between each layer i.e. between the continental crust and oceanic crust, upper mantle and lower mantle, outer and inner core. Therefore, there are discontinuities in the interior of the earth.

Q.4 Answer in detail/ brief

12

1 Why is the upper mantle called the asthenosphere ?

Ans i. The upper layer of the mantle is in liquid state.
ii. The rocks present in the crust melt due to the heat and magma is created. Magma chambers are found in this layer.
iii. The heat generated here leads to pressure and energy waves are created. These energy waves mere in vertical direction and magma comes out on the surface of the earth through volcanic eruption.
iv. The endogenitic movements continuously occur in the upper layer of mantle, therefore, it is called asthenosphere.

2 What are the two parts of the crust ? What is the basis of classification ?

Ans i. The two parts of the crust one continental crust and oceanic crust
ii. The crust is classified on the basis of crust under land under the oceans.
iii. The layer of the crust below the continent is known as continental crust.
iv. The layer of the crust below the ocean is known as the oceanic crust.

3 Magnetosphere of the earth is a result.

Ans i. The average temperature of the outer core of the earth is around 5000°C and that of inner core around 6000°C. This difference between the temperature results information of vertical current

- ii. The rotation of the earth gives eddy (circular) motion to these currents.
- iii. Electric current develop in these spiral eddies of liquid iron leads to generation of the magnetic field of the earth. This magnetic field develops a cover around the earth and it is known as magnetosphere.

