



Answer the following questions briefly.

(i) What are the three layers of the earth?

Ans: The three layers of the earth are core, mantle, and crust.

(ii) What is a rock?

Ans: Any natural mass of mineral materials that makes up the earth's crust is referred to as a rock.

(iii) Name three types of rocks.

Ans: The three types of rocks are igneous rock, sedimentary rock, and metamorphic rock.

(iv) How are extrusive and intrusive rocks formed?

Ans: Igneous rocks include both extrusive and intrusive types. Extrusive rocks are generated when molten magma from the earth's interior rises to the surface, cools, and solidifies on the crust. The structure of these rocks is incredibly fine grained, for example - basalt. Intrusive rocks develop when molten lava cools and solidifies deep within the earth's crust. They have big grains because they cool down slowly. Granite is a good example of this rock.

(v) What do you mean by a rock cycle?

Ans: The rock cycle is defined as the transition of one type of rock into another under specified conditions and in a cyclic fashion. Igneous rocks, for example, which develop when molten lava solidifies, can break down into minute particles, which can subsequently be transported and deposited to produce sedimentary rocks. Under heat and pressure sedimentary and igneous rocks, change into metamorphic rocks. These metamorphic rocks may break down to form sedimentary rocks, or they may melt under extreme heat and pressure to form molten magma, which subsequently solidifies to become igneous rocks.

(vi) What are the uses of rocks?

Ans: The following are some uses of rock :

- For the construction of roads, residences, and buildings.
- For use in cutting and drilling.
- Scientific inquiry is aided by the fossilized remains of plants and animals found in rocks.
- Minerals found in diverse rocks are utilised as fuels, medicines, fertilisers, and in a variety of industries.

(vii) What are metamorphic rocks?

Ans: Metamorphic rocks are the rocks that get formed under great pressure and heat. Igneous and sedimentary rocks, when subjected to heat and pressure get transformed into metamorphic rocks. For example, limestone changes into marble and clay changes to slate.

2. Tick the correct answer.

(i) The rock which is made up of molten magma is

- (a) Igneous (b) Sedimentary (c) Metamorphic

(ii) The innermost layer of the earth is

- (a) Crust (b) Core (c) Mantle

(iii) Gold, petroleum and coal are examples of

- (a) Rocks (b) Minerals (c) Fossils

(iv) Rocks which contain fossils are

- (a) Sedimentary rocks (b) Igneous rocks (c) Metamorphic rocks

(v) The thinnest layer of the earth is

- (a) Crust (b) Mantle (c) Core

3. Match the following:

Ans:

1.core	Innermost layer
2.minerals	Has definite chemical composition
3.rocks	Used for roads and buildings
4.clay	Changes into slate
5.sial	Made of silicon and alumina

Give reasons.

(i) We cannot go to the centre of the earth.

Ans: Extremely high temperature and pressure characterize the earth's core, which is located around 6000 kilometres below the ocean's surface. At the earth's core, there is just molten magma. There is no oxygen. Any live entity would not be able to survive under such conditions. As a result, we cannot go to the centre of the earth.

(ii) Sedimentary rocks are formed from sediments.

Ans: When large rocks break down into small fragments (or sediments), water and wind move the fragments and deposit them. Over time, the loose sediments compress and harden, forming layers of rocks. The rocks so formed are called sedimentary rocks.

(iii) Limestone is changed into marble.

Ans: Sedimentary rocks such as limestone, when subjected to tremendous heat and pressure, transforms into marble, which is a metamorphic rock.