

Q 1. Answer the following questions.

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

Answer: The three layers of the earth are

1. Crust
2. Mantle
3. Core

(ii) What is a rock?

Answer: Any natural mass of mineral matter that makes up the earth's crust is called a rock. The earth's crust is made up of various types of rocks of different textures, sizes and colours.

(iii) Name three types of rocks.

Answer: The three types of rocks are

1. Igneous Rocks
2. Sedimentary Rocks
3. Metamorphic Rocks

(iv) How are extrusive and intrusive rocks formed?

Answer: The molten lava comes out of volcanoes, reaches the earth's surface and cools down rapidly to become a solid piece of rock. This is how extrusive rocks are formed. For example, basalt.

When the molten lava solidifies deep inside the earth's crust, the rocks so formed are called intrusive rocks. For example, granite.

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

Answer: The process of transformation of rocks from one type to another due to changes in certain conditions in a cyclic manner is called a rock cycle.

(vi) What are the uses of rocks?

Answer: Rocks are useful for various purposes, such as

1. They help in making roads.
2. They are used in the construction of houses and buildings.

3. Small stones are used by children in different types of games.
4. They are used in fertilisers.

(vii) What are metamorphic rocks?

Answer: The type of rocks formed when igneous and sedimentary rocks experience heat and pressure are called metamorphic rocks.

Q 2. Tick the correct answer.

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

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

Answer: a

(ii) The innermost layer of the earth is

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

Answer: b

(iii) Gold, petroleum and coal are examples of

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

Answer: b

(iv) Rocks which contain fossils are

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

Answer: a

(v) The thinnest layer of the earth is

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

Answer: a

Q 3. Match the following.

(i) Core	(a) Earth's surface
(ii) Minerals	(b) Used for roads and buildings
(iii) Rocks	(c) Made of silicon and alumina
(iv) Clay	(d) Has a definite chemical composition
(v) Sial	(e) Innermost layer
	(f) Changes into slate
	(g) Process of transformation of the rock Rocks

Answer:

(i) Core	(e) Innermost layer
(ii) Minerals	(d) Has a definite chemical composition
(iii) Rocks	(b) Used for roads and buildings
(iv) Clay	(f) Changes into slate
(v) Sial	(c) Made of silicon and alumina

Q 4. Give reasons.

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

Answer: We cannot go to the centre of the earth because the temperature and pressure at the centre of the earth are very high, and not just human beings but even rocks melt at the centre of the Earth.

(ii) Sedimentary rocks are formed from sediments.

Answer: The small fragments of rock that hit each other and break to reach the ground are called sediments. These sediments are transported and deposited by wind, water, etc., and then compressed and hardened to form a layer of rocks called sedimentary rocks. This shows that sedimentary rocks are formed from sediments.

(iii) Limestone is changed into marble.

Answer: Igneous and sedimentary rocks change into metamorphic rocks under heat and pressure. This happens in the case of limestone. Limestone, under heat and pressure, changes into marble, which is a metamorphic rock.