

ROCKS AND MINERALS

1. (a) Describe the following characteristics of minerals
 - (i) Colour (2mks)
 - (ii) Cleavage (2mks)
 - (iii) Hardness (2mks)
- (b) (i) Give two types of igneous rocks (2mks)
- (ii) Explain three conditions necessary for the growth of coral polyps (6mks)
- (c) State four uses of rocks (4mks)
- (d) You are planning to carry out a field study on the rocks within your school environment
 - (i) Give two secondary sources of information you would use to prepare for the field study (2mks)
 - (ii) State why you would need the following items during the field study:
 - i. A fork jembe (1mk)
 - ii. A polythene bag (1mk)
 - (iii) Suppose during the field study you collected marble, sandstone and granite, classify each of these samples according to its mode of formation (3mks)
2. (a) State two characteristics of sedimentary rocks (2mks)
- (b) Give two examples of chemically formed sedimentary rocks (2mks)
3. a) Name the type of rocks which results from the metamorphism of:
 - (i) Granite
 - (ii) Clay (2mks)

b) Give two reasons why sedimentary rocks are widespread in the coastal plain of Kenya.

(2mks)

4. (a) (i) What is a rock? (2mks)

(ii) Describe three ways through which sedimentary rocks are formed

b. Mechanically formed

c. Organically formed

d. Chemically formed (6mks)

(b) Describe two processes through which sedimentary rocks change into metamorphic rocks

(c) Give an example of each of the following types of igneous rocks

(a) Plutonic rocks (1mks)

(b) Hypabyssal rocks (1mks)

(c) Volcanic rocks (1mks)

(d) Suppose you were to carry out a field study of rocks within the vicinity of your school

(i) Name three secondary sources of information you would use to prepare for the field study (3mks)

(ii) State four activities you would carry during the field study (3mks)

(iii) State three problems you are likely to experience during the field study (3mks)

5. (a) Differentiate between plutonic rocks and volcanic rocks

(b) Describe how a lava plateau is formed

(c) (i) Name three volcanic features found in the rift valley of Kenya

(ii) Explain four negative effects of volcanicity in Kenya

(d) You intend to carry out a field study of a volcanic landscape

(i) State four reasons why it is necessary to conduct a reconnaissance

of the area of study.

- (ii) During your field work, you intend to study volcanic rocks, state why you would need the following items

6. (a) State two main conditions that influence the characteristics of igneous rocks. (2mks)
- (b) Write down three characteristics of sedimentary rocks. (3mks)
- (c) Name two examples of organic sedimentary rocks and where found in Kenya. (2mks)
- (d) Name four examples of metamorphic rocks and state the original rock from which each was formed. (4mks)
- (e) Describe the importance of rocks to human activities. (5mks)
7. (a) State with examples three classes of mechanically formed sedimentary rocks. (6mks)
- (b) Differentiate between regional metamorphism and contact metamorphism. (4mks)
8. (a) List two examples of extrusive igneous rocks. (2mks)
- (b) Differentiate between extrusive and intrusive rocks giving an example in each case. (2mks)
9. What is a rock? (2mks)
10. What is a mineral? (2mks)
11. Describe changes that occur in sedimentary rocks when they are subjected to high heat and pressure. (4mks)
12. Describe calcareous rocks. (2mks)
13. Describe carbonaceous rocks. (2mks)

14. Give examples of chemically formed sedimentary rocks. (2mks)
15. How are coral rock formed? (3mks)
16. How do rocks become metamorphic? (3mks)