1. The diagram below shows the structure of the earth.

![Diagram of Earth's structure](image)

a) Name the parts marked p, q and R
   (3mks)

b) Name the minerals that make up Sima
   (2mks)

2. a) Draw a well labeled diagram of the hydrological cycle
   (5mks)

b) State two ways in which underground water may reach the surface of the earth
   (2mks)

3. The diagram below shows some features found in a Karst scenery

![Diagram of Karst scenery](image)

Name the features marked X, Y and z
(3mks)

4. a) What is mass wasting?
   (1mks)

b) State five factors which influence mass wasting.
   (5 mks)
5  a) Differentiate between weather and climate (2mks)
   b) The graph below shows climatic characteristics of a station in Kenya. Use it to answer the following questions.

   i) Calculate the annual range temperature.  (1mk)
   ii) Calculate the total amount of rainfall received at the station  (1mk)

**SECTION B**
*Answer questions 6 and any other two questions*

6. Study the map provided (Kericho 1:50,000 sheet 117/4) and answer the following questions.
   a)(i) What feature is found at grid reference 691700?  (2mks)
        (ii) Name two man-made features found in Grid square 6269.  (2mks)
        (iii) Measure the length of the dry weather road E222 from the junction at Kipchimchim (grid reference 530640) to the junction with all weather road in the grid square 5863. Give your answer in kilometers  (2mks)
   b) Using a scale of 1cm to represent 50m, draw a cross-section form grid reference 570670 to grid reference  620670 and name the following:
      (i) A river
      (ii) A motorable track
      (ii) Houses  (6mks)
   c) Describe the drainage of the area to the northwest of the Kericho-Lumbwa all weather road. Cite examples of the drainage patterns identified.  (6mks)
   d) Apart from the forests, name two other types of vegetation found in the area covered by the map.  (2mks)
   e) Students of a school in Kericho used the map of Kericho to prepare for a field study on tea growing in the area.
      i) Citing evidence from the map, state three conditions that favour tea growing in the area.  (3mks)
      ii) State three methods the students may have used to collect information during their study. (3mks)
7a) Draw sketch map of Kenya on it, mark and name the
(i) Lake Turkana (1mk)
(ii) River Athi (1mk)
(iii) Mount Kenya (1mk)
(iv) The equator (1mk)

b) Describe the climate conditions experienced in the Kenya highlands.

c) Explain four ways in which vegetation in the Nyika region of Kenya has adapted to the climate conditions experienced in the area. (8mks)

d) Explain how the presence of a cold ocean current influences the climate of the adjacent coastlands. (4mks)

8 a) With the aid of well labeled diagrams, describe the processes involved in the formation of a corrie lake. (4mks)

b) Explain four ways in which a glaciated landscape is of significance to human activities. (8mks)

c) Suppose students were to carry out a field study on glaciations on Mt. Kenya.
(i) Give two reasons why they would need a route map (2mks)
(ii) Name two types of moraines they are likely to study (2mks)
(iii) State two problems they are likely to experience during the field study. (2mks)

9 a) Give three examples of chemically formed sedimentary rocks. (3mks)

b) (i) State three conditions necessary for the growth of coral. (3mks)
(ii) Describe how coral racks are formed. (4mks)

c) Explain four ways in which rocks contribute to the economy of Kenya (8mks)

d) Some students are planning to carry out a field study on rock weathering around their school.
(i) List three secondary sources of information they are likely to use as they prepare for the field study. (3mks)
(ii) Apart from using secondary sources, state four other ways in which the students would prepare themselves for the field study. (4mks)