INSTRUCTIONS TO CANDIDATES:
(a) This paper has two Sections A and B.
(b) Answer all the questions in Section A.
(c) Answer question 6 and any other two questions from Section B.
(d) All answers must be written in the answer booklet provided.
(e) Candidates should check the question paper to ascertain that all the papers are printed as indicated and no questions are missing.
SECTION A:
Answer all questions from this section.

1. (a) State three proofs that the earth is spherical. (3 marks)
(b) Name three effects of the earth’s rotation. (3 marks)

2. (a) What is an air mass? (2 marks)
(b) Give three benefits of humidity in the atmosphere. (3 marks)

3. Use the diagram below to answer the questions that follow:-

(a) What causes sea breeze? (2 marks)
(b) State two effects of sea breeze. (2 marks)

4. (a) What is faulting. (2 marks)
(b) Give three ways through which a rift valley may be formed. (3 marks)

5. (a) State two reasons why a river may deposit its load. (2 marks)
(b) Give three ways through which a river carries its load. (3 marks)
SECTION B:

Answer question 6 and any other two questions from this section.

6. Study the map of Kitale 1:50,000 (sheet 75/3) and answer the following questions.
   (a) (i) Convert the R.F scale given in the map to a statement scale. (2 marks)
   (ii) Name the three districts neighbouring Kitale to the East of the map. (3 marks)
   (b) (i) Measure the distance of the murram road B10/2 to the South West of the area (from Kitale) upto the junction at Knight’s Corner. (Give the distance in kilometers). (2 marks)
   (ii) Calculate the area of Kiptaberr forest within the confines of the District boundary. (2 marks)
   (iii) Name two manmade features in the grid square 3517. (2 marks)
   (c) (i) What is the longitudinal extent of the area covered by the map. (3 marks)
   (ii) Citing evidence state three factors that determine human settlement in the area. (3 marks)
   (d) (i) The area shown in the map has several estates for agriculture. List four characteristic this type of agricultural practice. (4 marks)
   (ii) Describe the drainage of the area shown in the map. (5 marks)

7. (a) (i) What is ground water. (1 mark)
   (ii) Give three sources of ground water. (3 marks)
   (b) What are the ideal conditions for the formation of artesian basin? (4 marks)
   (c) Explain how the following factors influence the existence of ground water.
      (i) Precipitation. (2 marks)
      (ii) Influence of the nature of rocks. (2 marks)
      (iii) Influence of vegetation cover. (2 marks)
   (d) State two other factors which influence the existence of ground water. (2 marks)
   (e) You are supposed to carry out a field study of the area with ground water.
      (i) Give reasons why you need a work schedule. (3 marks)
      (ii) Write three objectives for your study. (3 marks)
      (iii) State three possible problems you are likely to encounter during the study. (3 marks)

8. (a) (i) State three ways in which a glacier is formed. (3 marks)
   (ii) Explain the two major processes of glacial erosion. (4 marks)
(b) (i) State three causes of glacial deposition. (3 marks)
(ii) List three erosion features of glacier in the highland areas. (3 marks)

(c) (i) Describe how drumlins are formed. (4 marks)
(ii) Explain four benefits of glaciation and glaciated landscape. (8 marks)

9. (a) (i) What is climate? (2 marks)
(ii) Name two instruments found in a Stevenson screen. (2 marks)

(b) The diagram below shows climatic regions of Kenya.

(i) Name the climatic regions marked 1, 2, 5 and 7. (4 marks)
(ii) Explain four climatic characteristics of the region marked 3. (4 marks)

(c) (i) Describe the characteristics of desert type of climate. (4 marks)
(ii) Explain three consequences of climate change. (6 marks)
(iii) Name three countries that experience tropical monsoon type of climate outside Africa. (3 marks)

10. (a) (i) What is a rock? (2 marks)
(ii) Explain the process of formation of mechanically formed sedimentary rocks. (5 marks)

(b) Explain three ways in which rocks are significant to economy of Kenya. (6 marks)

(c) Students from your school carried out a field study on the type of rocks:
(i) One of the rock samples they collected is coral. Give three uses of this type of rock. (3 marks)
(ii) Give three methods of data collection they may have used during their study. (3 marks)
(iii) State three problems they are likely to have encountered during the field study. (3 marks)