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 in the spaces provided.

1. (a) Give three heavenly bodies. (3mks)
   
   (b) Distinguish between equinox and solstice. (2mks)

2. (a) What are harmattan winds. (2mks)
   
   (b) The diagram below shows a type of wind.

   - Terrestrial radiation
   - High pressure
   - Warm air
   - Low pressure
   - Hill Top
   - W

   (i) Identify the type of wind marked W. (1mk)
   
   (ii) List two characteristics of the type of the wind marked W. (2mks)

3. (a) What is a mineral? (2mks)
   
   (b) Name two metallic minerals? (2mks)

4. (a) What is climate? (2mks)
   
   (b) Explain two effects of climate change on the physical environment. (4mks)

5. (a) What is a karst scenery? (2mks)
   
   (b) Give three factors that influence the development of karst scenery. (3mks)
SECTION B:

Answer question 6 and any other two questions

6. Study the map of Kitale 1:50,000 (Sheet 75/3) provided and answer the following questions.

(a) (i) Give the longitudinal extent of the area covered by the map. (2mks)

(ii) Identify the settlement patterns found on the Northern area covered by the map. (3mks)

(b) (i) Measure the distance of the Kitale Municipality boundary. Give your answer in kilometers. (2mks)

(ii) What is the bearing of the Air photo principal point on the grid square 2912 from the Air photo principal point on grid square 3516. (2mks)

(c) (i) Draw a rectangle 15cm by 9cm to represent the area East of Easting 40 and North of Northing 20. (1mk)

(ii) On the rectangle mark and name.
   • Road C640. (1mk)
   • River Kapsara. (1mk)
   • Rogurr hill. (1mk)
   • District boundary. (1mk)

(iii) Calculate the area to the East of the District boundary and to the South of Northing 23. (2mks)

(d) (i) Identify two types of vegetation found in the area covered by the map. (2mks)

(ii) Describe the drainage of the area covered by the map. (5mks)

7. (a) What is a rock? (2mks)

(b) (i) Classify rocks according to their mode of formation. (3mks)

(ii) Identify two classes of rocks mentioned in (i) above that are formed from the already existing rocks. (2mks)

(iii) List two characteristics of rocks. (2mks)

(c) (i) List two main types of rocks dominant in Kenya. (2mks)

(ii) Explain the importance of studying rocks. (6mks)

(d) Explain four benefits of rocks to the economy of a country. (8mks)
8. (a) (i) What is mass movement? (2mks)

(ii) List the two broad categories of mass wasting. (2mks)

(b) (i) What is soil creep? (2mks)

(ii) Describe the factors that cause soil creep. (5mks)

(c) Differentiate between soils creeps and rock slide. (6mks)

(d) Explain the negative effects of mass wasting on physical and human environment. (8mks)

9. (a) Differentiate between a ocean and a sea. (2mks)

(b) (i) Identify the main cause of water movement in the ocean. (2mks)

(ii) Identify the two main water movements in the oceans. (2mks)

(c) List three processes through which erosion occurs along the Coasts. (3mks)

(d) Using a well labeled diagram describe the formation of a spit. (5mks)

(e) Describe the three types of coasts. (6mks)

(f) Explain how oceans currents influence the climate of the surroundings. (5mks)

10. (a) (i) What is ice? (1mk)

(ii) Differentiate between glacier and avalanche. (2mks)

(b) (i) Identify the two main glacier erosion processes. (2mks)

(ii) Describe the factors that influence glacier erosion. (6mks)

(c) Explain four effects of glaciations on human activities. (8mks)

(d) Students from Neive School are planning to carry out a field study of a glaciated area.

(i) State two objectives of their study. (2mks)

(ii) State two ways they would prepare for the study. (2mks)

(iii) Give two methods they would use to collect information. (2mks)