

312/1

GEOGRAPHY

Paper 1 2017.

Time: 2 ¼ hours.



**ALLIANCE HIGH SCHOOL**

**TRIAL EXAMINATION.**

**Kenya Certificate of Secondary Education.**

**JULY 2017**

**Geography paper 1.**

**INSTRUCTIONS TO CANDIDATES:**

- This paper consists of two sections, A and B.
- Answer all the questions in section A.
- Answer **question 6** and any other two questions from section B.
- **All answers MUST be written on separate answer sheets.**

Section A	
6	
7	
8	
9	
10	
<b>TOTAL.</b>	<b>%</b>

**SECTION A. (25 MARKS)**

**Answer all the questions in this section.**

1. (a) Define isostasy. (2mks)

(b) What is the longitude whose local time is 5.00p.m when the local time at Longitude  $0^{\circ}$  is 8.00p.m? (2mks)

2. The table below shows climatic data for a station in Kenya. Use it to answer question (a).

Month	J	F	M	A	M	J	J	A	S	O	N	D
Temp $^{\circ}\text{C}$	28.9	29.7	30.3	29.9	29.7	29.2	28.4	28.7	29.6	30.1	29.2	28.7
Rainfall in MM	9.0	8.0	21.0	49.0	25.0	9.0	20.0	10.0	4.0	10.0	17.0	11.0

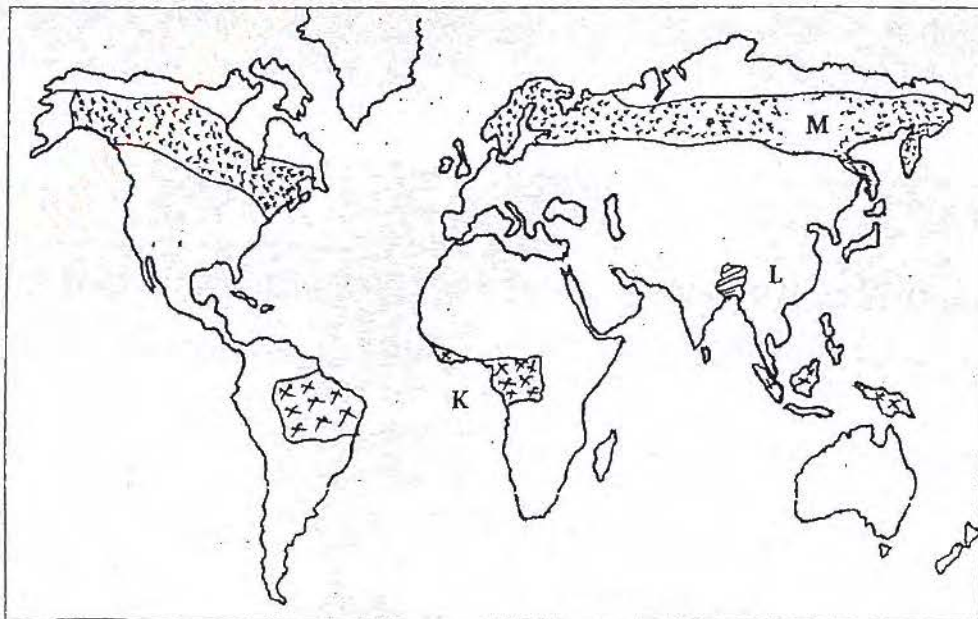
a)(i) What is the annual range of temperature at the station? (1mk)

(ii) Calculate the total rainfall for the station. (2mks)

b) If a given parcel of air at  $35^{\circ}\text{C}$  contains  $15.5 \text{ gm/m}^3$  of moisture and the given air can hold a maximum of  $20 \text{ gm/m}^3$  at the same temperature, calculate the relative humidity. (2mks)

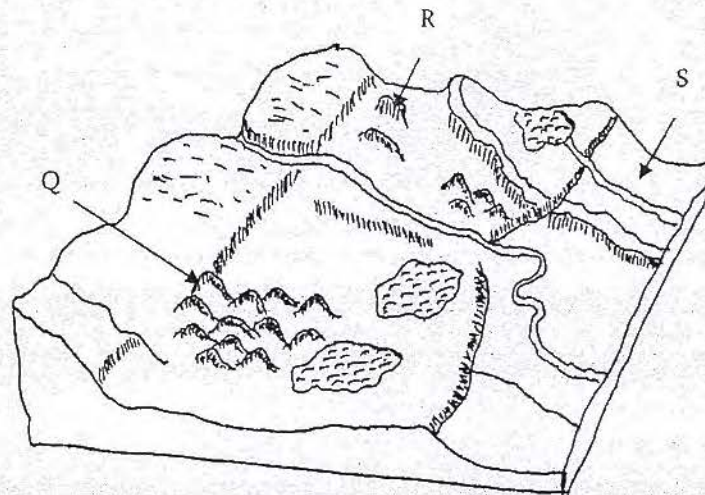
3. a)(i) Name two countries where you find temperate grass lands in the northern hemisphere. (1mks)

(ii) Name the shaded vegetation regions marked K, and L. (1mks)



b) Give two characteristics of the vegetation in the region marked M. (2mks)

4. Use the diagram below to answer the question that follows.



- a) Name the features marked Q, R and S. (3mks)
- b) Give two ways in which an esker may be formed. (2mks)
5. (a) What is soil catena? (2mks)
- (b) Give three ways in which parent material influence the nature of soil. (3mks)

### Section B.

Answer question 6 any other two questions.

6. Study the map of Busia (1:50,000) provided and answer the questions that follow.
- (a) (i) Give the longitudinal extent of the area covered by the map. (1mk)
- (ii) What is the name and height of the highest point in the area covered by the map? (2mks)
- (iii) Give three relief features in the area covered by the map. (3mks)
- (iv) Calculate the area to the east of dry weather road loose surface number B 8/3 and to the north of river sio. Give your answer in  $\text{km}^2$ . (2mks)
- (v) Calculate the bearing and direction of Bumala market from Bujumba School. (2mks)
- (b) Citing evidence from the map, identify three social activities carried out in the area covered by the map. (3mks)
- (c) (i) Draw a rectangle measuring 15cm by 12cm to represent the area enclosed by Eastings 24 and 32 and Northings 30 and 36. (1mk)

(ii) In the rectangle, mark and name:

- Funyula market. (1mk)
- Samia ridge. (1mk)
- Odiado hill. (1mk)
- Regional boundary. (1mk)

(c) Determine the visibility between Lubanga dam and Odiando market. (2mks)

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

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

ii) Explain the process of formation of chemically- formed sedimentary rocks. (5mks)

iii) Give three types of mechanically formed sedimentary rocks. (3mks)

b) Explain three ways in which rocks may contribute to the economy of a country. (6mks)

**c) Students from a neighbouring school carried out a field study on the type of rocks.**

(i) One of the rock samples they collected is igneous. Give two characteristics of this type of rock that may have assisted them in identifying it. (3mks)

(ii) Give three methods of data collection they may have used during their study. (3mks)

(iii) State three problems they are likely to have encountered during the field study. (3mks)

8. (a)(i) Define folding. (2mks)

(ii) Identify two characteristics of rocks that contribute to folding of rocks. (2mks)

(b) Study the world map provided and answer the questions below:-



(i) Name the shaded Fold Mountains marked A, B and C. (3mks)

- (ii) Using well-labelled diagrams, describe how the plate tectonics theory explains the formation of Fold Mountains. (8mks)
- (c) Students of a school in Meru intend to carry out a field study on folding.
- (i) Give three reasons why they require a route map. (3mks)
- (ii) List two types of hypothesis they are likely to use during the study. (3mks)
- (d) List four positive effects of Fold Mountains on human activities. (4mks)
- 9.(a)(i) Differentiate between a watershed and a drainage basin. (2mks)
- (ii) State four conditions necessary for the formation of a flood plain. (4mks)
- (b) Describe the following ways in which river erosion occurs:
- (i) Head ward erosion. (3mks)
- (ii) Solution. (3mks)
- (c) Explain three negative effects of rivers to the human environment. (6mks)
- (d) State five characteristics of youthful stage of a river. (5mks)
- (e) Name two features resulting from river rejuvenation. (2mks)
10. a) i) Differentiate between a desert and desert encroachment. (2mks)
- ii) Identify four features resulting from water action in desert areas. (2mks)
- b) Explain three factors that influence water deposition in desert areas. (6mks)
- c) With the aid of well labelled diagrams, describe the formation of:
- i) Barchans. (6mks)
- ii) Mushroom block. (5mks)
- d) State four negative effects of deserts on human activities. (4mks)