

312/1
GEOGRAPHY
PAPER I
JULY/AUGUST 2010
TIME 2 $\frac{3}{4}$ HOURS

KENYA CERTIFICATE OF SECONDARY EDUCATION
FORM FOUR EVALUATION EXAMINATION

INSTRUCTIONS TO CANDIDATES

- This paper has two sections; A & B
- Answer all questions in section A. In section B answer question 6 and any other two.

SECTION A

Answer ALL questions in this section

1. a) What is a Stevenson screen? (2 marks)

b) State any two qualities that make Stevenson Screen suitable for its work. (2 marks)
2. State two effects of earthquakes in built up areas. (2 marks)
3. a) What is a lake? (2 marks)

b) State two ways in which lakes influence the natural environment. (2 marks)
4. Outline any three characteristics of Inter-Tropical Convergence Zone. (ITCZ) (3 marks)
5. (i) Name any three agents of erosion. (3 marks)

(ii) State any three characteristics of sedimentary rocks. (3 marks)
6. (i) Give any two factors that influence the formation of a dune in a desert. (2 marks)

(ii) Using a well labelled diagram, briefly describe the formation of a barchan dune. (4 marks)

SECTION B

Answer question 6 and any other TWO questions in this section.

6. Study the map of Belgut(1:50,000) provided and answer the questions that follow.
 - (i) State the six figure grid reference of Maraboi school to the North West of the MAP. (2 marks)
 - (ii) Calculate the area of Kisumu District to the N.W of the area covered by the map. (3 marks)
2. (i) Name any two natural features that suggest that the area to the east receives heavy rainfall. (2 marks)

(iii) Citing evidence from the map, give any three functions of Kiptere centre. (grid 3456) (3 marks)

3. a) Draw a rectangle measuring 10cm by 15cm enclosed by Northing 50 and Easting 30. On the sketch, mark and name:

- (i) R. Sondo
- (ii) An escarpment
- (iii) Riverline trees
- (iv) All weather road (5 marks)

b) Explain any two factors that influence settlements in the area covered by the map. (4 marks)

4. Citing evidence from the map, explain any three factors that favour tea growing in Belgut area. (6 marks)

7. a) Define the term ice sheet. (2 marks)

b) State three factors that determine the rate of glacial erosion. (3 marks)

c) Describe how the U-shaped valley is formed. (5 marks)

d) A group of students planned to carry out a field study in glaciated lowlands on land use. (i) Outline any four preparations that they made. (4 marks)

(ii) Name three possible land use that they are likely to identify during the field study. (3 marks)

e) Explain any four effects of glaciation on human and economic activities. (8 marks)

8. (i) Draw a sketch map of Africa (1 mark)

(ii) Label the area with Savannah type of climate. (2 marks)

(iii) Give any two reasons why there is no vegetation on top of mt. Kenya. (2 marks)

(iv) Name the type of grassland found in

- Africa
- Canada
- Australia

(v) Suppose students from a school near Kinare forest carried field work on vegetation. Give any three reasons why they would need a route map. (3 marks)

(vi) Describe the characteristics of savannah vegetation. (6 marks)

(vii) Explain four ways in which vegetation in the Nyika region of Kenya adapts to the climatic conditions experienced in the area. (8 marks)

9. a) Name the three major components of soil. (3 marks)

b) Briefly explain how the following factors influence soil formation.

(i) Time (2 marks)

(ii) Parent rock (2 marks)

c) (i) Differentiate between a soil Catena and soil profile. (2 marks)

(ii) Draw a well labelled diagram of a soil profile. (5 marks)

d) Explain how the following factors have contributed to soil degeneration.

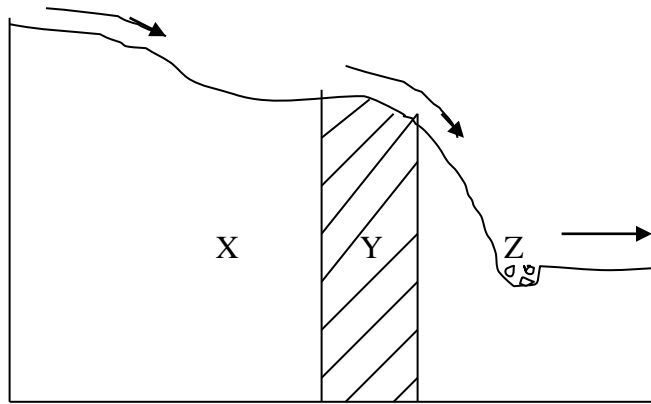
(i) Overgrazing (2 marks)

(ii) Deforestation (2 marks)

e) Explain three effects of aridity and desertification (3 marks)

f) State any four characteristics of convectional rainfall. (4 marks)

10. The diagram below represents a feature along the long profile of a river



- a) (i) Name the feature (1 mk)
- (ii) Name the parts marked x, y and z (3 marks)
- (iii) Differentiate between superimposed and antecedent drainage systems. (4 marks)
- b) (i) What is river piracy? (2 marks)
- (iii) With the aid of well labelled diagrams explain the process of river capture. (6 marks)
- c) (i) List four features that result from river rejuvenation. (4 marks)
- (ii) Students of a certain school planned to conduct a field study along the old stage of a river. Name any two features they identified. (2 marks)
- (iii) What problems could the students encounter during the field visit? (3 marks)