

312/1
Geography
Paper 1
March, 2011
Time: 2 ½ Hours

MOKASA JOINT EVALUATION EXAMINATION

Kenya Certificate of Secondary Education

312/1

Geography

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March, 2011

Time: 2 ½ Hours

INSTRUCTIONS TO CANDIDATES:-

- This paper consists of *two* sections; section **A** and section **B**.
- Answer *all* questions in section **A**. In section **B** answer question **6** and any other *two* questions.
- All answers *must* be written in the provided sheets.

SECTION A

Answer *all* questions in this section.

1. (a) Give two reasons why it is necessary to study nebular cloud theory (2 mks)
(b) State three causes of variation in atmospheric pressure on the surface of the earth (3 mks)
2. (a) Name the two planetary winds in the Northern Hemisphere (2 mks)
(b) State three natural causes responsible for climatic change (3 mks)
3. (a) Differentiate between intrusive vulcanicity and Extrusive vulcanicity (2 mks)
(a) State three characteristics of composite volcano (3 mks)
4. (a) What is chemical weathering? (1 mk)
(b) Study the diagram below and use it to answer the questions that follow



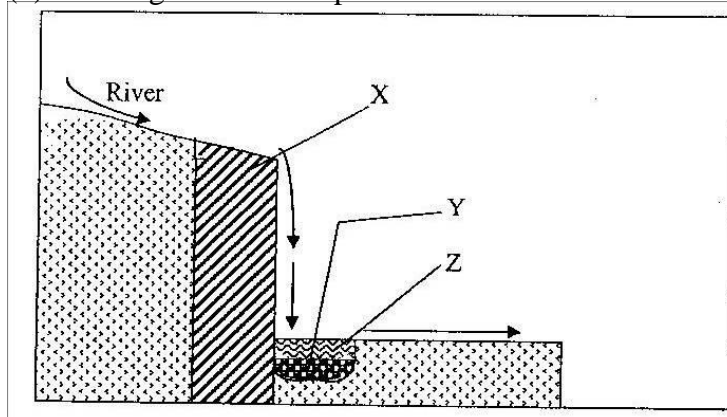
- (i) Name the weathering process shown (1 mk)
 - (ii) Name the feature marked X (1 mk)
 - (c) State two causes of mechanical weathering (2 mks)
5. (a) State three conditions necessary for the development of a Karst landscape (3 mks)
(b) Give two characteristics of a Karst landscape (2 mks)

SECTION B

6. Study the map of Homa Bay (1: 50,000) sheet 129/2 provided and answer the questions that follow
 - (a) (i) What is the distance of the dry weather road E117 from the road junction in grid square 5733 to where it crosses northing 30 (give your answer in kilometers (1 mk)
 - (ii) Calculate the bearing of the air photo principal point in grid square 5530 from the one in grid square 4539 (1 mk)
 - (iii) What is the approximate height of lake Victoria? (2 mks)
- (b) (i) Using a vertical scale of 1 cm represent 100ft, draw a cross-section along Northing 40 from easting 50 to 55 (3 mks)
On it, mark and name;
 - (i) River
 - (ii) Hill
 - (iii) Road (3 mks)
- (c) Describe the relief of the area covered by the map (5 mks)

- (d) (i) Using the marginal information, what was the magnetic variation of the area when the map extract was drawn? (1 mk)
(ii) Give three evidence from the map which show that area receives low rainfall (3 mks)
- (e) Form four students carried out a field study in the area covered by the map.
(i) Calculate the area of Olambwe Valley National Reserve (2 mks)
(ii) Using evidence from the map, suggest four functions of Lieta township (4 mks)

7. (a) Name two forces which are associated with horizontal earth movements (2 mks)
(b) Describe how the following factors cause earth movements
(i) Gravitative pressure (3 mks)
(ii) Isostatic Adjustment (3 mks)
(c) (i) Name two types of folds (2 mks)
(ii) With the aid of labeled diagrams, describe how Fold Mountains are formed (10 mks)
(c) State five negative effects of fold mountains to human activities (5 mks)
8. (a) (i) What is a drainage basin? (2 mks)
(ii) State two factors that influence the size of a river valley (2 mks)
(b) The diagram below represents a waterfall. Use it to answer the following questions



- (i) Name the feature marked X, Y and Z (3 mks)
(ii) Apart from difference in rock resistance, state two ways in which waterfall are formed (2 mks)
- (a) Describe the distinctive characteristics of the following features due to river action
(i) Gorge (3 mks)
(ii) Arcuate delta (3 mks)
(b) (i) Explain three economics benefits of rivers in Kenya (6 mks)
(ii) Form four geography students carried out a field in an area recently affected by floods
 - What methods did they use to collect data during the field study (2 mks)
 - State two types of information the may have collected during the field study (2 mks)
9. (a) (i) Differentiate between a wave and longshore drift (2 mks)
(ii) Apart from a spit, give four landforms that are formed due to wave deposition (4 mks)
(iii) With the aid of labeled diagrams, describe how a spit is formed (7 mks)
(b) Explain three factors that influence the process of deposition by waves (6 mks)
(c) Explain three ways in which corals contributes to the economic development of Kenya (6 mks)
10. (a) State three characteristics features of a rock pedestal (3 mks)
(a) With the aid of labeled diagrams describe how a zeugen is formed (7 mks)
(b) Describe two process through which wind erodes the earth's surface (4 mks)
(c) (i) State four conditions that are necessary for the formation of ox-bow lake (4 mks)
(ii) Apart from deposition, state four ways in which lakes may be formed (4 mks)
(iii) State three human activities that cause drying up of lakes in the Rift Valley in Kenya (3 mks)