

4.2 GEOGRAPHY (312)

4.2.1 Geography Paper 1 (312/1)

SECTION A

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

1. (a) Give three forces which have contributed to the geoid shape of the Earth. (3 marks)
- (b) Name the minerals that make up the core of the Earth. (2 marks)

2. (a) List **two** examples of extrusive igneous rocks. (2 marks)
- (b) Give **three** characteristics of sedimentary rocks. (3 marks)

3. (a) Apart from aspect, list **three** other factors that influence the distribution of natural vegetation. (3 marks)
- (b) State **two** ways through which aspect influences the distribution of natural vegetation. (2 marks)

4. (a) What is a mineral? (2 marks)
- (b) Classify each of the following rocks according to their formation:
 - (i) Marble (1 mark)
 - (ii) Granite (1 mark)
 - (iii) Mudstone (1 mark)

5. (a) Differentiate soil profile from soil catena. (2 marks)
- (b) State **three** ways in which soil texture is important. (3 marks)

SECTION B

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

6. Study the map of Kisumu East 1:50,000 (sheet 116/2) provided and answer the following questions.

- (a) (i) Give the longitudinal extent of the area covered by the map. (1 mark)
- (ii) Name **three** human made features in the grid square 0193. (3 marks)
- (iii) Identify the **two** methods used to show relief on the map. (2 marks)
- (iv) Calculate the area of Kisumu town. Give your answer in square kilometres. (2 marks)
- (v) Name **two** types of natural vegetation found in the area covered by the map. (2 marks)

(b) Draw a square 10 cm by 10 cm to represent the area enclosed by Eastings 00 and 10, and Northings 80 and 90. (1 mark)

On it mark and name the following:

- (i) All weather road bound surface (1 mark)
 - (ii) River Ombeyi (1 mark)
 - (iii) Chiga market (1 mark)
 - (iv) Air photo principal point (04) (1 mark)
- (c) Describe the distribution of settlement in the area covered by the map. (4 marks)
- (d) Citing evidence, give **three** economic activities carried out in the area covered by the map. (6 marks)

7. (a) What is faulting? (2 marks)
- (b) (i) Apart from the Rift Valley, name **three** other features that result from faulting. (3 marks)
- (ii) With the aid of well labelled diagrams, describe how the Rift Valley may be formed by compressional forces. (8 marks)
- (c) Explain how faulting influences each of the following:
- (i) drainage (6 marks)
 - (ii) transport (6 marks)

8. (a) (i) Name the instruments used to measure each of the following elements of weather:
- I. Humidity (1 mark)
- II. Atmospheric pressure (1 mark)
- (ii) State **three** traditional methods of weather forecasting. (3 marks)
- (b) The statistical table below shows temperature and rainfall for a given station X in Africa. Use it to answer questions (b) (i) and (ii).

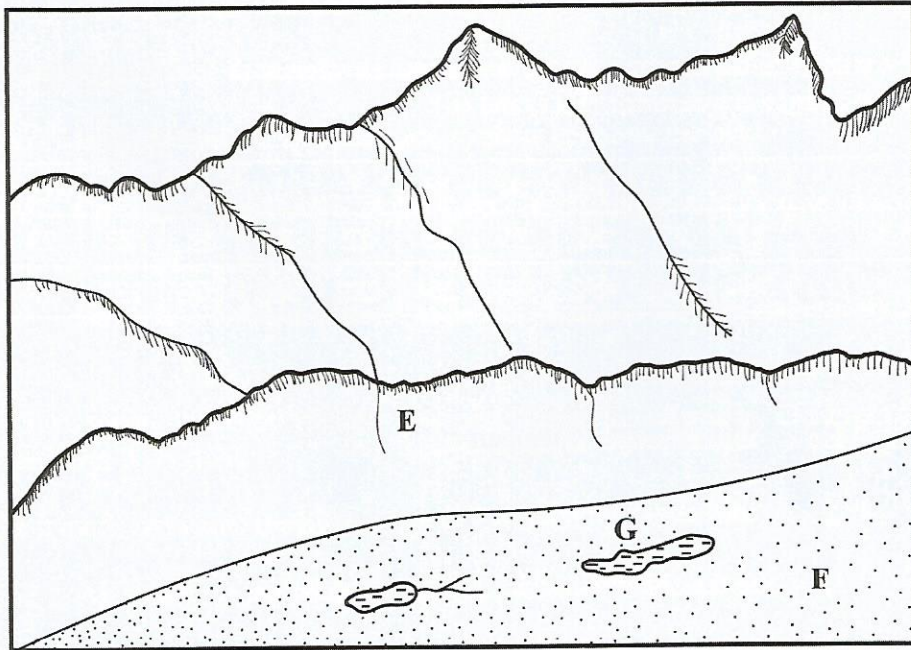
| Month | J | F | M | A | M | J | J | A | S | O | N | D |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|
| Temperature (°C) | 27 | 27 | 26 | 25 | 23 | 22 | 21 | 21 | 22 | 23 | 25 | 26 |
| Rainfall (mm) | 366 | 376 | 452 | 399 | 264 | 282 | 302 | 203 | 132 | 99 | 117 | 262 |

- (i) Calculate the:
- I. annual range of temperature (2 marks)
- II. total annual rainfall (2 marks)
- (ii) Describe the climatic conditions of station X. (4 marks)
- (c) Explain how ocean currents influence the climate of adjacent coastal land. (6 marks)
- (d) Explain **three** measures that can be taken to control desertification. (6 marks)
9. (a) Apart from landslides, list the other **two** forms of rapid mass wasting. (2 marks)
- (b) Explain how each of the following factors facilitate mass wasting:
- (i) Nature of rock material (4 marks)
- (ii) Human activities (4 marks)
- (c) Explain the effects of mass wasting on the environment. (8 marks)
- (d) You intend to carry out a field study in an area affected by landslides within the vicinity.
- (i) Give **three** reasons why it is important to seek permission from the school administration. (3 marks)
- (ii) State the advantages of studying landslides through fieldwork. (4 marks)

10. (a) (i) Name **two** mountains in East Africa that are ice capped. (2 marks)

(ii) Give **two** types of moraine. (2 marks)

(b) The diagram below represents an upland glaciated landscape. Use it to answer question 10(b)(i).



(i) Name the features marked **E**, **F** and **G**. (3 marks)

(ii) Describe how each of the following features is formed:

I. Pyramidal peak (6 marks)

II. Crag and tail (6 marks)

(c) Explain the significance of glaciated upland areas to human activities. (6 marks)