

312/1

Paper I

GEOGRAPHY

Dec. 2022 – 2¾ hours



Name Index Number

Candidate's Signature Date

Instructions to candidates

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- (a) Write your name and index number in the spaces provided above.
- (b) Sign and write the date of examination in the spaces provided above.
- (c) This paper consists of **two** sections; **A** and **B**.
- (d) Answer **all** the questions in section **A**.
- (e) Answer **question 6** and any other **two** questions from section **B**.
- (f) Answers **must** be written in the spaces provided at the end of question 10.
- (g) **This paper consists of 20 printed pages.**
- (h) **Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**
- (i) **Candidates should answer the questions in English.**

For Examiner's Use Only

Section	Questions	Maximum Score	Candidate's Score
A	1-5	25	
B	6	25	
		25	
		25	
Total Score			

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SECTION A

Answer *all* the questions in this section.

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1. (a) Give the 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
 - (ii) Granite
 - (iii) Mudstone (3 marks)
 5. (a) Differentiate soil profile from soil catena. (2 marks)
 - (b) State **three** ways in which soil texture is important. (3 marks)
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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)

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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

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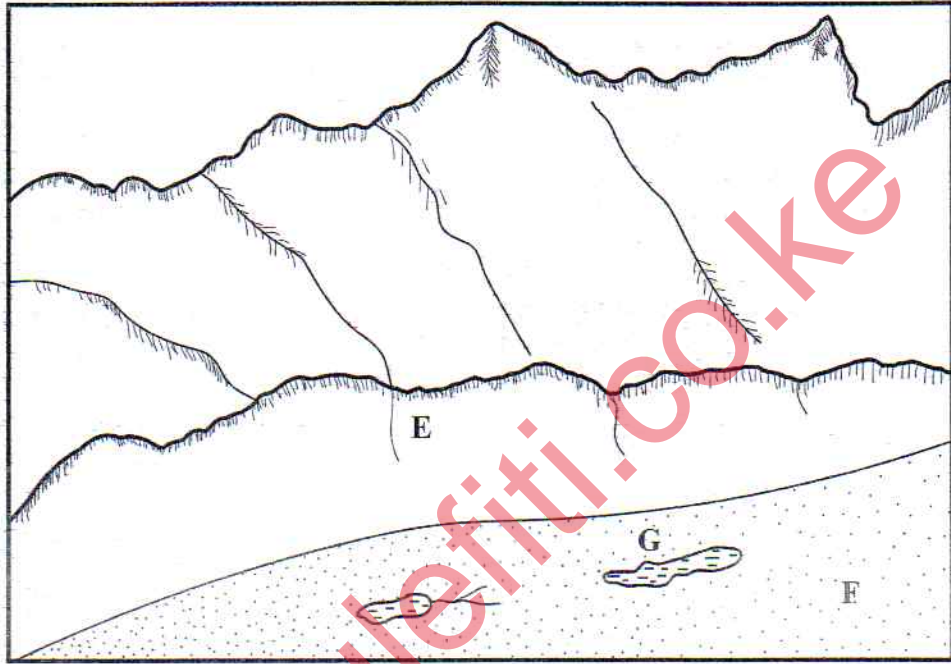
- (i) Calculate the:
- I. annual range of temperature (2 marks)
 - II. total annual rainfall (2 marks)
- (ii) Describe the climatic conditions of station X. (4 marks)
- (c) Explain how ocean currents influence the climate of adjacent coastal land. (6 marks)
- (d) Explain **three** measures that can be 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)

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- 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)

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