

NAME.....ADM NO.....CLASS.....

312/1
GEOGRAPHY
PAPER 1
JUNE 2023
TIME: 2¾ HOURS

KASSU JET JOINT EXAMINATION
Kenya Certificate of Secondary Education
312/1
GEOGRAPHY

INSTRUCTIONS TO STUDENTS

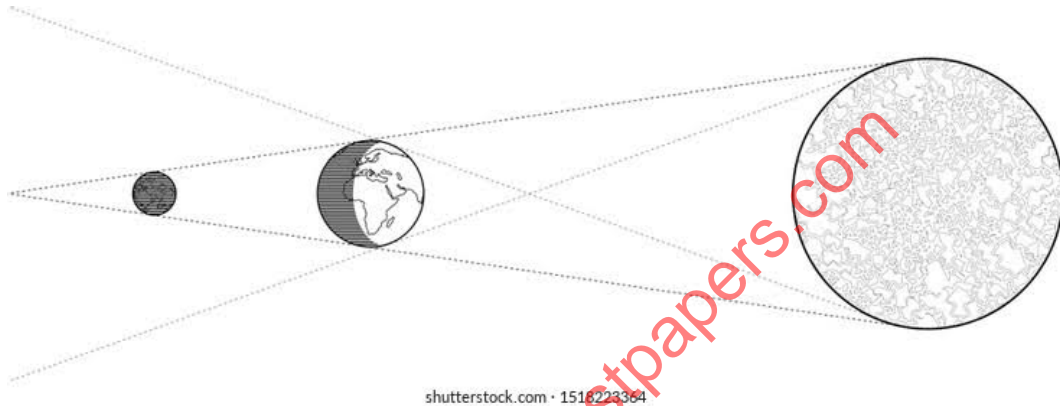
- This paper has **two** sections **A** and **B**
- Answer **ALL** the questions in section **A**. In section **B** answer questions **6** and any other **TWO** questions.

SECTION A

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

1. (a) What is the relationship between Geography and Mathematics? (2 marks)
- (b) Identify **three** branches of Geography. (3 marks)

2. (a) Use the diagram below to answer the questions that follow:



- (i) What type of Eclipse is represented by the diagram? (1 mark)
- (ii) Explain how the eclipse above occurs. (2 marks)
- (b) What is the time at Hola on 40°E when the time at Tema on 0° longitude is 12:00 noon? (2 marks)

3. (a) Apart from Fold Mountains, name three other features resulting from folding. (3 marks)
- (b) State **two** factors that determine the folding of crustal rocks. (2 marks)

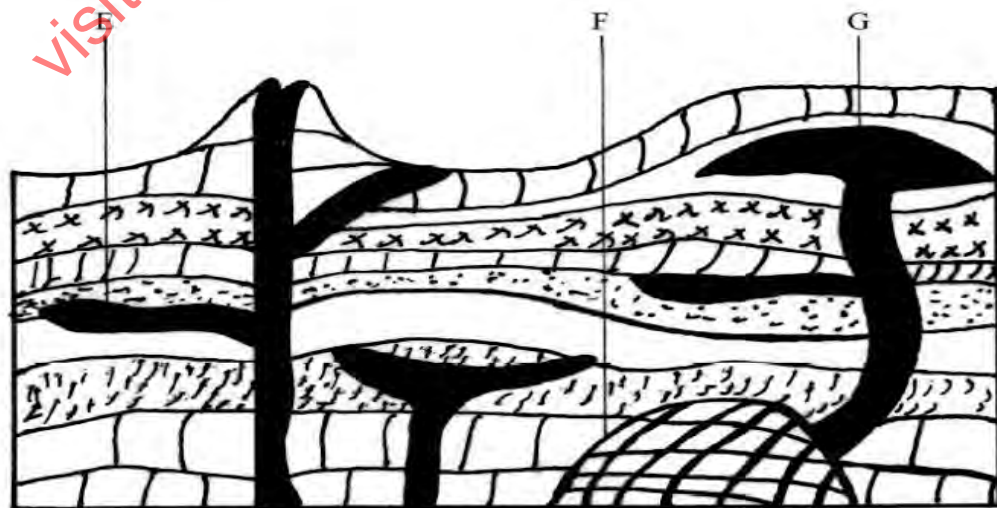
4. (a) Give **three** reasons why some Lakes of Kenya have saline water. (3 marks)
- (b) Outline **two** economic uses of lakes. (2 marks)

5. (a) What is natural vegetation? (2 marks)
- (b) State three characteristics of the Mediterranean type of vegetation. (3 marks)

SECTION B

6. Study the map of Kisumu East 1:50,000 (Sheet 116/2) provided and answer the following questions.
- (a) (i) What is the vertical interval of the map extract? (1 mark)
- (ii) Using the marginal information, give the magnetic variation of the area when the map extracts was drawn. (1 mark)
- (iii) Measure the length of the regional boundary from the map edge at grid square 9999 to Northing 97. Give your answer in kilometres. (2 marks)
- (iv) What is the approximate height of the seasonal swamp in the Kano plains? (2 marks)
- (b) (i) Using a vertical scale of 1 centimetre to represent 50 metres draw a cross section from grid reference 080920 to grid reference 080980. (4 marks)
- On it, mark and label the following:
- I. Sugarcane plantation (1 mark)
- II. Steep slope (1 mark)
- III. All weather road bound surface C543/1. (1 mark)
- (ii) Calculate the vertical exaggeration of the cross section. (2 marks)
- (c) Describe the characteristics of the big profile of river Luando (6 marks)
- (d) Citing evidence from the map, explain two factors that favour trade in the area covered by the map. (4 marks)
7. (a) (i) What is a rock? (2 marks)
- (ii) Describe the following characteristics of mineral:
- Tenacity (2 marks)
 - Lusture (2 marks)
 - Cleavage (2 marks)
- (b) (i) Name **two** examples of intrusive igneous rocks. (2 marks)
- (ii) Describe the formation of Plutonic rocks. (4 marks)
- (c) Explain **three** significance of rocks to the economy of Kenya. (6 marks)

- (d) Your class is planning to carry out a fieldwork on rocks around your school.
- (i) Outline **three** activities you would engage in before the study. (3 marks)
- (ii) State **two** challenges you are likely to face during the field study. (2 marks)
8. (a) Outline **two** ways in which river water flows within the channel. (2 marks)
- (b) (i) State three factors that influence river erosion. (3 marks)
- (ii) Describe how the river erodes through the following processes;
- Hydraulic action (4 marks)
 - Solution (2 marks)
- (c) Using a well labeled diagram, describe how the following feature are formed:
- Interlocking spurs (4 marks)
 - Natural levees (4 marks)
- (d) Explain three negative effects of rivers. (6 marks)
9. (a) (i) Differentiate between Vulcanicity and volcanicity. (2 marks)
- (ii) Describe how lava plateau is formed. (4 marks)
- (iii) The diagram below shows some intrusive features formed by vulcanicity. Use it to answer questions below.



- I. Name the features marked E, F and G. (3 marks)
- II. Explain how feature marked E is formed. (4 marks)
- (b) Students carried out a field study on volcanic rocks.
- (i) Give **four** reasons why it is necessary to collect rock samples during such a field study. (4 marks)
- (ii) State **two** problems they are likely to have experienced during the field study. (2 marks)
- (iii) Outline **two** follow-up activities. (2 marks)
- (c) (i) Give **three** causes of Earthquakes. (3 marks)
- (ii) Name **three** natural major earthquake zones of the world. (3 marks)
10. (a) (i) What is soil contenta? (2 marks)
- (ii) Give three factors that determine the colour of soil. (3 marks)
- (iii) State three ways in which mulching helps in soil conservation. (3 marks)
- (b) Explain how the following forming practices cases soil erosion.
- (i) Burning (4 marks)
- (ii) Overcultivation (4 marks)
- (iii) Give two economic uses of soil. (2 marks)
- (c) You are supposed to carry out a field study of an eroded area:
- (i) State three methods you would use to control soil erosion. (3 marks)
- (ii) What would be disadvantages of using secondary methods of collecting data in this kind of study? (2 marks)
- (iii) Identify the methods you would use to record the observations. (2 marks)