

312/1  
GEOGRAPHY  
Paper 1  
September 2021  
Time: 2¾ hours

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

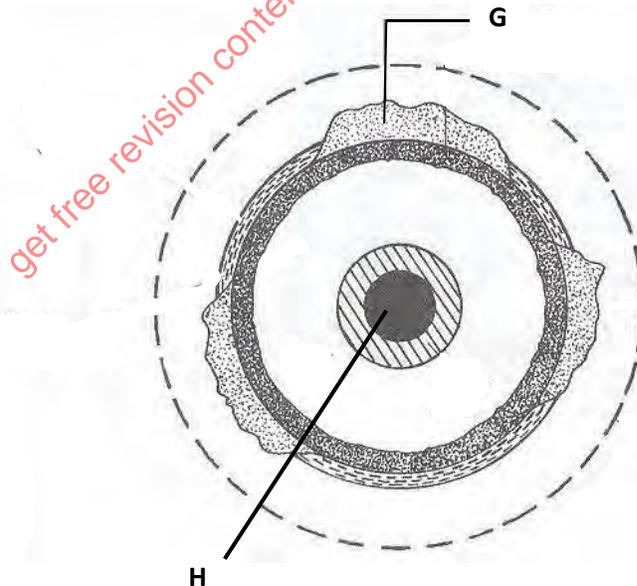
**INSTRUCTIONS TO STUDENTS**

- 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**

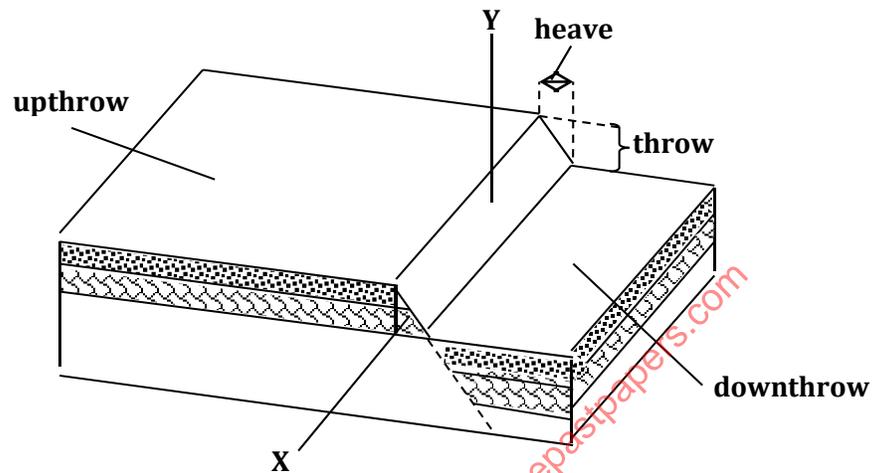
Answer **all** the questions in this section.

1. The diagram below shows the internal structure of the earth.

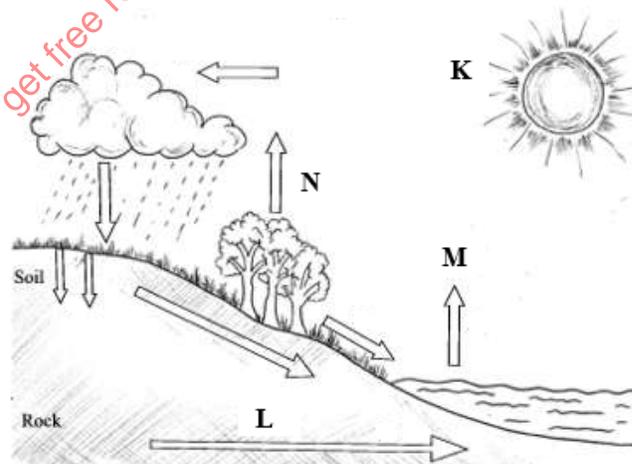


- (a) Name the parts marked **G** and **H**. (2 marks)
- (b) Name the dominant mineral in the mantle. (1 mark)

2. (a) Differentiate between absolute and relative humidity. (2 marks)
- (b) State the significance of humidity in the atmosphere. (3 marks)
3. The diagram below shows some features formed by faulting. (2 marks)



- (a) Name the parts marked **X** and **Y**. (2 marks)
- (b) State **three** effects of faulting on drainage of an area. (3 marks)
4. (a) Name **two** crater lakes in Kenya (2 marks)
- (b) State **three** characteristics of rift valley lakes (3 marks)
5. (a) Differentiate between a watershed and a catchment area? (2 marks)
- (b) The diagram below shows a hydrological cycle.



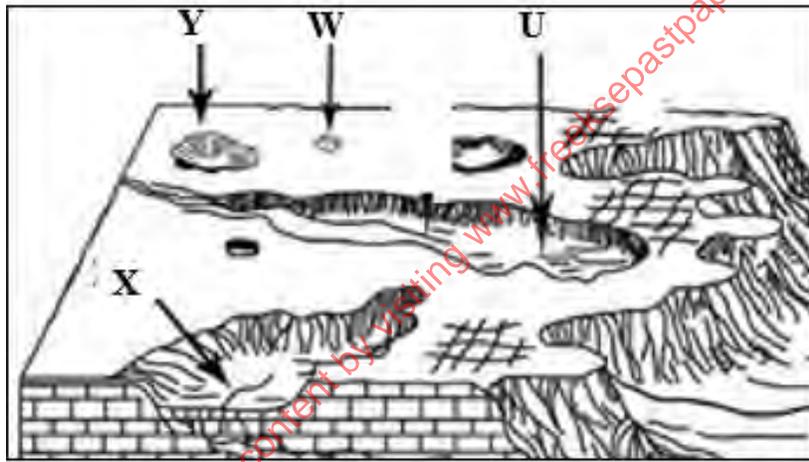
- (b) What processes do the arrows labelled **K**, **L** and **N** represent? (3 marks)

## SECTION B

**Answer question 6 and any other TWO questions from this section.**

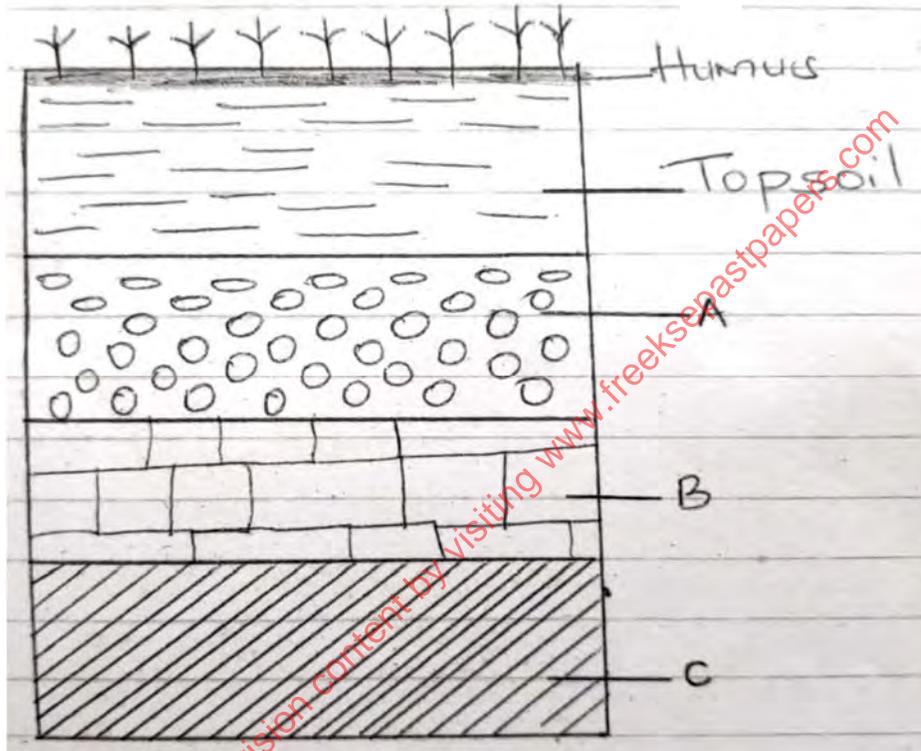
6. Study the map of Kijabe 1:50,000 (sheet 134/3) provided and answer the following questions.
- (a) (i) What type of map is KIJABE map extract? (1 marks)
- (ii) Give the six-figure grid reference of the cattle dip near Kenton. (2 marks)
- (iii) Give the longitudinal extent of the area covered by the map. (2 marks)
- (b) (i) Calculate the area to the south of the power line. Give your answer in square kilometers. (2 marks)
- (ii) Describe settlement distribution in the area covered by the map. (6 marks)
- (c) Explain **three** factors favoring cattle rearing in the area covered by the map. (6 marks)
- (d) (i) Draw a square 10cm by 10 cm to represent the area enclosed by Eastings 30 and 40 and northings 90 and 00. (1 marks)
- (ii) On it mark and label: (3 marks)
- A railway line.
  - Bamboo forest.
  - A borehole.
- (iii) What is the new scale of the square. (2marks)
7. (a) (i) Distinguish between minerals and rocks. (2 marks)
- (ii) State **three** characteristics of minerals. (3 marks)
- (iii) Name **three** types of minerals. (3 marks)
- (b) (i) Describe how intrusive igneous rocks are formed. (5 marks)
- (ii) State **three** characteristics of intrusive igneous rocks. (3 marks)
- (c) (i) What is rock metamorphism? (2 marks)
- (ii) State **three** factors that influence rock metamorphism. (3 marks)
- (d) Explain **two** economic benefits of coral limestone rocks. (4 marks)

8. (a) (i) Differentiate between orogenic and epeirogenic earth movements? (2 marks)
- (ii) Describe the origin of continents according to the theory of plate tectonics. (4 marks)
- (b) (i) Apart from an overthrust fold, name *three* other types of folds. (3 marks)
- (ii) Using well labelled diagrams, describe how fold mountains are formed. (10 marks)
- (c) Explain *three* negative effects of folding to human activities. (6 marks)
9. The diagram below shows a karst scenery. Study and use it to answer the question that follow.



- (a). (i) Identify the features labeled **W** and **Y**. (2 marks)
- (ii) State **four** conditions necessary for the formation of a karst landscape. (4 marks)
- (iii) Describe the formation of a stalagmite. (5 marks)
- (b). (i) Name **two** water erosional features on a desert landscape. (2 marks)
- (ii) Describe the formation of Zeugens. (4 marks)
- (iii) Explain **four** significance of desert landforms to human activities. (8 marks)

10. (a) Define soils (2 marks)
- (b) Explain how the following factors influence soil formation;
- (i) Parent material (4 marks)
- (ii) Human activities (2 marks)
- (c) The diagram below shows a soil profile. Use it to answer question (i) and (ii).



- (i) Name the parts marked X and Y. (2 marks)
- (ii) Describe the characteristics of the top soil (4 marks)
- (d) (i) Explain **three** causes of physical soil degeneration. (6 marks)
- (ii) State **five** ways of conserving soils (3 marks)