

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

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

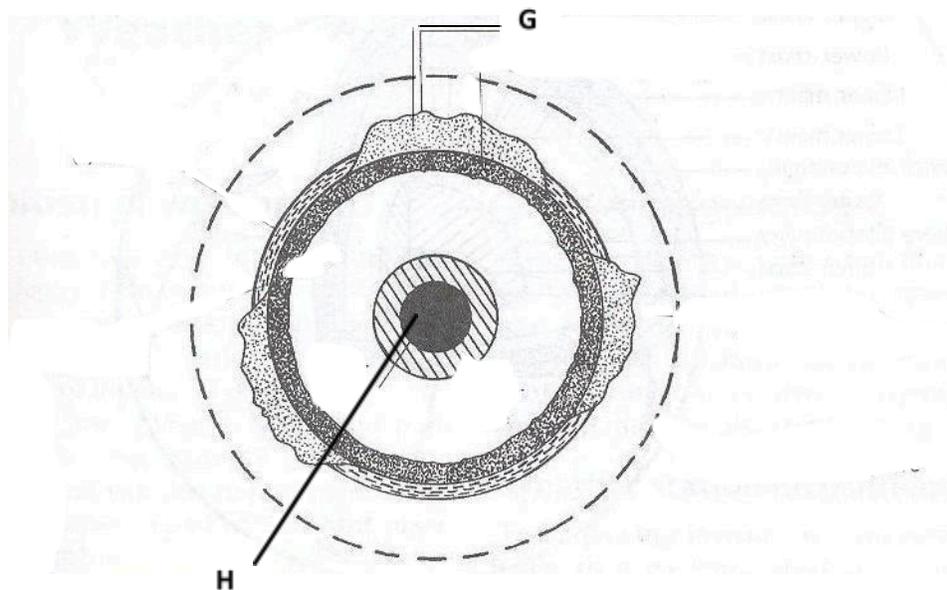
INSTRUCTIONS TO STUDENTS

- 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

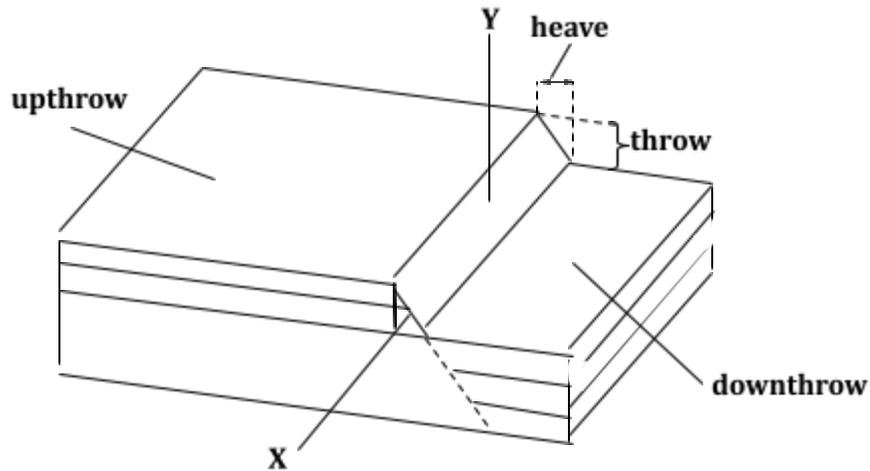
Answer **all** the questions in this section.

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

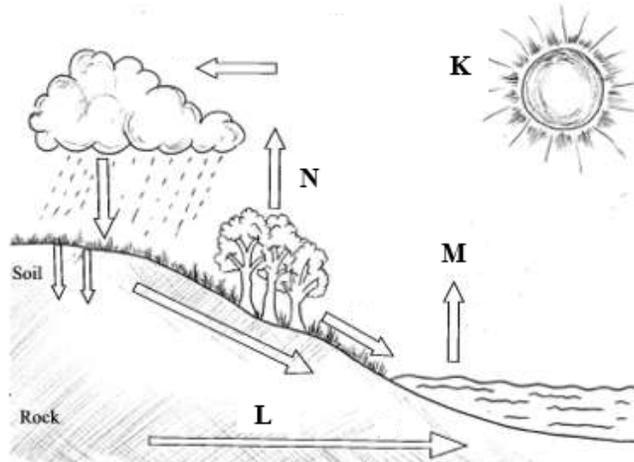


- (a) Name the parts marked **G** and **H**. (2 marks)

2. (a) Differentiate between absolute and relative humidity. (2 marks)
- (b) Name the dominant mineral in the mantle. (1 mark)
3. (a) State the significance of humidity in the atmosphere. (3 marks)
- (b) 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)

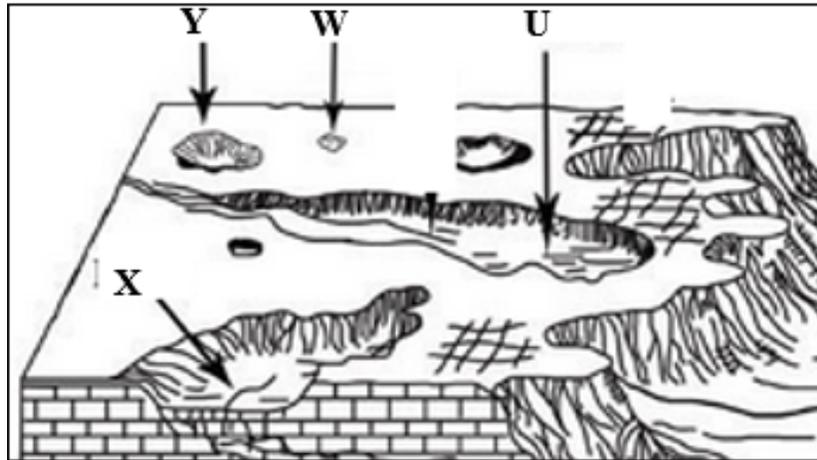
SECTION B

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

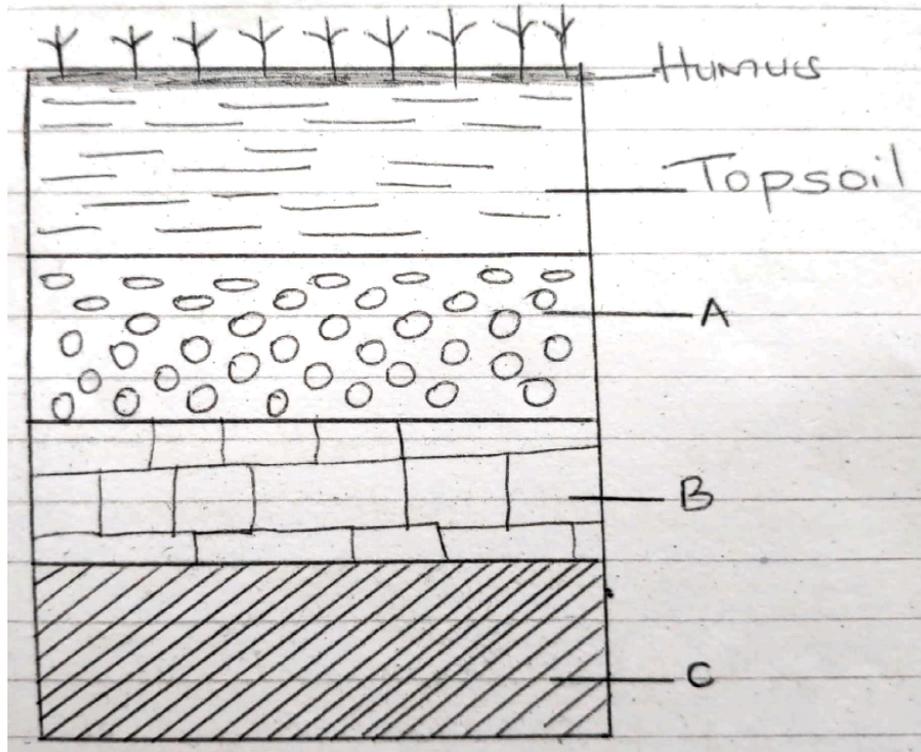
6. Study the map of Kijabe 1:50,000 (sheet 134/3) provided and answer the following questions.

- (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)