**312/1**

**GEOGRAPHY**

**Paper 1**

**MARCH/APRIL 2017**

**Time: 2¾ hours**

**MOI HIGH SCHOOL – KABARAK**

**END OF TERM ONE EXAMINATION**

**FORM FOUR**

**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) Show how Geography is related to Chemistry. (2 marks)

 (b) The diagram below shows the interrelationship between Geography and other disciplines.

GEOGRAPHY

HUMAN AND SOCIAL SCIENCES

PHYSICAL AND BIOLOGICAL

**Y**

ECONOMICS

**X**

PHYSICS

POPULATION GEOGRAPHY

**Z**

CLIMATOLOGY

METEOROLOGY

 (i) Identify the disciplines marked **X** and **Y**. (2 marks)

 (ii) Name the subject marked **Z**. (1 mark)

2. (a) Give the forces responsible for the earth’s shape. (2 marks)

 (b) State ***three*** effects of revolution of the earth. (3 marks)

3. Use the diagram below to answer the question below:

Clouds

Rain

Warm moist air rising

 Describe how the type of rainfall shown above is formed. (5 marks)

4. (a) Apart from gravitative pressure, give ***two*** other natural causes of earthquakes. (2 marks)

 (b) State ***three*** effects of earthquakes on human environment. (3 marks)

5. Describe processes leading to the formation of drumlins. (5 marks)

**SECTION B**

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

6. Study the map of Kitale 1:5000 (sheet 75/3) provide and answer the following questions.

 (a) (i) What is the magnetic variation of the map? (1 mark)

 (ii) Calculate the area of the land bounded by All Weather Road Loose surface C638, C641 and Dry weather road C637. (2 marks)

 (iii) What is the six figure grid reference of the trigonometrical station in Kitale DC. (2 marks)

 (b) (i) Give ***two*** methods used to represent relief on the map. (2 marks)

 (ii) Citing evidence from the map, give ***four*** economic activities carried out in the area covered by the map. (4 marks)

 (c) Draw a rectangle measuring 15cm by 10cm to represent the area enclosed by Eastings 24 and 33 and Northing 17 and 26. On the rectangle mark and name the following:

 (i) River Koitobos

 (ii) The All Weather Loose Surface road C641.

 (iii) The seasonal swamp

 (d) Describe the drainage of the area covered by the map. (4 marks)

 (e) Students from Swerwa Secondary School are supposed to carry out a field study on vegetation in Kiptaberr forest.

 (i) Give ***three*** uses of vegetation they are likely to identify during the study. (3 marks)

 (ii) State ***three*** problems they are likely to experience during the study. (3 marks)

7. (a) What is a rock? (2 marks)

 (b) (i) Name ***three*** examples of intrusive igneous rocks. (3 marks)

 (ii) Describe ***three*** ways in which sedimentary rocks may be formed. (6 marks)

 (c) (i) Describe how a sill is formed. (4 marks)

 (ii) State the characteristics of a composite volcano. (4 marks)

 (d) Explain ***three*** ways in which volcanic mountains positively influence human activities. (6 marks)

8. (a) What is secondary vegetation. (2 marks)

 (b) Explain how the following factors influence the distribution of vegetation

 (i) Aspect (2 marks)

 (ii) Precipitation (3 marks)

 (iii) Identify ***three*** vegetation zones of Kenya. (3 marks)

 (c) (i) The diagram below represents zones of natural vegetation on a mountain within the tropical region. Use it to answer questions that follow.

5000

Height in meters

F

4000

E

3000

D

2000

1000

Savanna

0

 Name the vegetation zones marked **D, E** and **F**. (3 marks)

 (ii) Describe the characteristics of tropical savanna vegetation. (8 marks)

 (d) State ***four*** significances of vegetation to human activities. (4 marks)

9. (a) (i) What is a delta? (2 marks)

 (ii) State ***three*** conditions which favour formation of a delta. (3 marks)

 (iii) Give ***two*** examples of arcuate deltas in Africa. (2 marks)

 (iv) Apart from arcuate delta, name ***two*** other types of deltas. (2 marks)

 (b) Describe the following processes of river erosion

* Abrasion (3 marks)
* Hydraulic action (4 marks)

 (c) State ***three*** ways in which gorges are formed. (3 marks)

 (d) (i) Using a well labelled diagram, describe dendritic drainage pattern. (3 marks)

 (ii) State ***three*** negative effects of rivers on human activities. (3 marks)

10. (a) Differentiate between soil texture and soil structure. (2 marks)

 (b) (i) Apart from organic matter, name ***four*** other components of soil. (4 marks)

 (ii) State ***four*** ways in which humus contributes to the quality of soil. (4 marks)

 (iii) Explain how the following farming practices may result to loss of soil fertility.

* Continuous irrigation (2 marks)
* Overgrazing (2 marks)
* Overcultivation (2 marks)

 (c) Give ***three*** soil farming processes (3 marks)

 (d) State how natural vegetation may prevent soil from erosion. (6 marks)