**NAME INDEX NO**

**312/1 DATE**

**GEOGRAPHY**

**PAPER 1**

**DEC 2021**

**2 HRS 45MINS**

**MECS JOINT EXAMINATION**

**GEOGRAPHY**

**PAPER 1**

**Instructions to candidates**

1. This paper has two sections: **A** and **B**.
2. Answer **all** the questions in section **A**.
3. Answer question **6** and any other **two** questions from section **B.**
4. All answers must be written in the answer booklet provided.
5. This paper consists of **5** printed pages.

**GEOGRAPHY 312/1**

**SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION(25MARKS)**

1. (a) What is the relationship between Geography and Mathematics (2mks)

(b) State three reasons why it is important to study Geography. (3mks)

1. (a) Give three components of the solar system. (3mks)

(b) State two characteristics of the outer core in the internal structure of the earth. (2mks)

1. (a) Give two reasons why it is necessary to study the plate tectonic theory. (2mks)

(b) Name three types of boundaries associated with the plate tectonic theory. (3mks)

1. (a) State three ways in which plants adapt to hot desert conditions. (3mks)

(b) State two climatic conditions experienced in Sahara Desert. (2mks)

1. (a) What is an ocean tide? (2mks)

(b) Name three types of ocean tides. (3mks)

**SECTION B: ANSWER QUESTION SIX AND ANY OTHER TWO FROM THIS SECTION (75MARKS)**

 6 Study the map of Kijabe 1:50,000 provided and answer the following questions.

 (a) i) What is the sheet title of the map provided. (1mk)

 ii) What is the latitudinal extent of Kijabe. (2mk)

 (b) i) Measure the distance of all weather road bound surface from Limuru to the saw mill at grid square 3497. (2mks)

 ii) Calculate the area of thicket vegetation found at the southern part of Kijabe. (2mks)

 iii) Citing evidence from the map, give three social services offered in Kijabe area. (3mks)

 (c) i) Describe the drainage of the area covered by Kijabe area. (5mks)

 ii) Explain two ways how relief has influenced the distribution of settlement in the area covered by the map. (4mks)

 (d) Draw a rectangle measuring 6cm by 3cm to represent the area enclosed by easting 27 to 33 and northing 94 to 97. (1mk)

 On the rectangle mark the following features

 **.** Thicket vegetation (1mk)

 **.** A Railway (1mk)

 **.** Post office (1mk)

 (ii) Calculate the new scale of the rectangle (2mks)

7.(a) i) Differentiate between weather and climate (4mks)

 ii) State two conditions necessary for the formation of fog. (2mks)

(b) i) Briefly describe the working of Aneroid barometer. (4mks)

 ii) State three effects of sea breeze on the adjacent land mass. (3mks)

 (c) i) Explain how the following factors influence climate

 Ocean currents (2mks)

 Altitude (2mks)

 ii) State three characteristics of equatorial climate. (3mks)

(d) With the aid of well labelled diagram, describe the formation of land breeze. (5mks)

 8.(a) i) What is faulting? (2mks)

 ii) Name three types of faults. (3mks)

 (b) i) State three effects of faulting on drainage. (3mks)

 ii) Briefly describe the formation of a crater by subsidence method. (5mks)

 (c) i) List three causes of earthquakes. (3mks)

 ii) Name three major earthquake zones of the world. (3mks)

d ) You intend to carry out a field study in the Rift Valley.

 i)Name three methods of data collection you used. (3mks)

 ii) State three problems you are likely to face during the field study. (3mks)

 9. (a) i) List three types of desert according to the nature of the surfaces. (3mks)

 ii) State two factors that contribute to development of deserts. (2mks)

 iii)Highlight three reasons why wind is a dominant agent of erosion in arid areas. (3mks)

(b) i) Explain two processes of wind erosion (4mks)

 ii) Name three features of wind deposition in arid areas. (3mks)

(c) i) With the aid of well labelled diagrams describe how a rock pedestal is formed.

(8mks)

 ii)Give two ways in which wind transports its load. (2mks)

 10. (a) i) Name two types of glaciers. (2mks)

 ii)State two reasons why there are no ice sheets in Kenya. (2mks)

 iii) Explain two processes of glacial erosion (4mks)

(b) The diagram below shows types of moraine in a valley glacier. Use it to answer the following questions



i)Name the type of moraines marked A, B and C. (3mks)

 ii)Explain how the movement of a valley glacier is influenced by the following factors:

 Temperature changes (2mks)

 Width of a glacier channel (2mks)

(c) With the aid of well labelled diagrams, describe how a cirque is formed (6mks)

 (d) Students from Mumbai girls intended to carry out a field study on a glaciated lowland area.

 ( i) State two objectives intended for the study. (2mks)

 (ii) Name two features they are likely to have observed during the field study (2mks)