

NAME.....CLASS...

.....ADM.....

JOINT EVALUATION

2021/2022 FORM 2 TERM 1 OPENER EXAM-AUGUST

GEOGRAPHY

DURATION: 1 HOUR 45 MINUTES

Instructions: Answer all the questions in the spaces provided.

1. (a) Give three sub branches of physical Geography. (3 marks)

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|---|---|
| ☐ Geology | ☐ Meteorology |
| ☐ Geomorphology | ☐ Climatology |
| ☐ Biogeography | ☐ Pedology |
| ☐ Oceanography | |

- (b) Give four heavenly bodies that make up the solar system. (4 marks)

- ☐ **The Sun**
- ☐ **Planets**
- ☐ **Asteroids**
- ☐ **Comets**
- ☐ **Natural satellites**
- ☐ **Meteoroids/meteors**

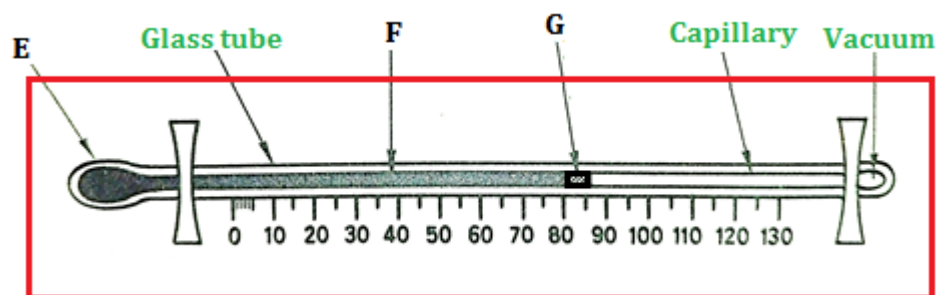
2. (a) Apart from the crust, name the other two main internal layers of the earth.(2 marks)

- ☐ **Mantle**
- ☐ **Core**

- (b) State five characteristics of the earth's crust. (5 marks)

- ☐ **The crust is divided into two layers: sial and sima.**
- ☐ **The sial lies on top of the sima.**
- ☐ **Sial rocks are rich in silica and aluminium.**
- ☐ **The sima is rich in silica and magnesium.**
- ☐ **Average density of rocks is between 2.7 to 3.0 gm/cm³**
- ☐ **The sial rocks are rigid and mainly granitic.**
- ☐ **The sima rocks are solid in state.**
- ☐ **Sima rocks are mainly basaltic and are elastic.**

3. The diagram below shows a maximum thermometer. Use it to answer question (a)



(a) Identify the parts marked E, F and G. (3 marks)

- ☐ **E – Bulb**
- ☐ **F – Mercury**
- ☐ **G – Metal index**

(b) Apart from a maximum thermometer, name three other types of thermometers found at a weather station. (3 marks)

- ☐ **Minimum thermometer**
- ☐ **Six's thermometer**
- ☐ **Wet bulb thermometer**

(c) List five factors that affect the temperature of a place. (5 marks)

- | | |
|---|--|
| ☐ Latitude | ☐ Winds |
| ☐ Altitude | ☐ Ocean currents |
| ☐ Aspect | ☐ Length of day |
| ☐ Distance from the sea | ☐ Forests |
| ☐ Cloud cover | |

4. Explain three environmental hazards associated with convectional rainfall. (6 marks)

- ☐ **Convectional rainfall at times is accompanied by very strong winds that destroys property.**
- ☐ **Thunder and lightning accompanying this rainfall at times leads to loss of lives and destruction of property.**
- ☐ **At times torrential downpours are heavy thus causing floods in some lowlands thus interfering with people.**
- ☐ **Some times this type of rainfall is accompanied with hail which destroys crops.**

5. The table below represent rainfall and temperature for City K. use it to answer question (a) and (b).

Months	J	F	M	A	M	J	J	A	S	O	N	D
Temp °C	27	25	30	25	20	18	17	24	27	28	27	28

Rainfall (mm)	50	80	100	250	150	100	25	25	100	150	220	200
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- (a) Calculate the annual range of temperature. (2 marks)

$$30^{\circ}C - 17^{\circ}C = 13^{\circ}C$$

- (b) Calculate the annual rainfall total for City K. (2 marks)

$$50+80+100+250+150+100+25+25+100+150+220+200 = 1450 \text{ mm}$$

6. (a) Differentiate between a map and a plan. (2 marks)

A map is a representation to scale of the earth or part of the earth on a flat surface such as a sheet of paper while a plan is a map of a very small place drawn using a large scale for a particular purpose.

- (b) State five qualities of a good sketch map. (5 marks)

- ☐ *Should have a title*
- ☐ *Should be neat and clear*
- ☐ *Should be enclosed in a frame.*
- ☐ *Should have a key where applicable*
- ☐ *Should have a compass direction pointing north.*

7. (a) What are igneous rocks? (2 marks)

These are rocks formed due to cooling and solidification of hot molten magma or lava.

- (b) State three differences between plutonic rocks and volcanic rocks. (6 marks)

- ☐ *Plutonic rocks are formed due to cooling and solidification of molten magma while volcanic rocks are formed due to cooling and solidification of lava*
- ☐ *Plutonic rocks are formed deep below the earth's surface while volcanic rocks are formed on the earth's surface*
- ☐ *Plutonic rocks have a slow rate of cooling while volcanic rocks have a fast/rapid rate of cooling*
- ☐ *Plutonic rocks have large size of crystals while volcanic rocks have very small sized crystals.*
- ☐ *Plutonic rocks have a coarse texture while volcanic rocks have a fine texture.*

8. (a) Define the term mining? (2 marks)

Mining refers to the process of extracting valuable minerals and fossils fuels on or from the earth's crust.

(b) Give four ways in which minerals occur. (4 marks)

- ☐ *As veins and lodes*
- ☐ *As beds and seam /layers*
- ☐ *As alluvial deposits*
- ☐ *As weathered products*
- ☐ *As evaporates.*

(c) Explain four benefits of trona mining at Lake Magadi to Kenya. (8 marks)

- ☐ *Export of soda ash earns foreign exchange to Kenya which is used in foreign trade.*
- ☐ *Trona mining has created employment opportunities to many Kenyans who earn income thus improving their standards of living.*
- ☐ *Development of glass and bottle industry as soda ash from trona provides the main raw material.*
- ☐ *Trona mining has led to development of a tarmac road and railway branch from Konza to Magadi.*
- ☐ *Provision of social amenities such as schools and a hospital thus improving living standards of the local people.*
- ☐ *The Kenyan government (national and county) earns revenue through taxation on the profit of the company.*
- ☐ *The company provides free water to the local people for both domestic and livestock use.*
- ☐ *Trona mining has led emergence and growth of Magadi town thus urbanization in the former remote area.*

9. Suppose you were to carry out a field study on trona mining at Lake Magadi:

(a) Give three stages of trona processing that you would observe. (3 marks)

- ☐ *Sieving trona from lake water*
- ☐ *Washing of trona*
- ☐ *Drying of washed trona*
- ☐ *Heating trona to separate sodium carbonate from sodium hydrogen carbonate.*
- ☐ *Grinding of soda ash*
- ☐ *Sieving and packing of soda ash.*

(b) State three follow up activities that you would carry out. (3marks)

- ☐ *Writing a report in an essay form.*
- ☐ *Drawing graphs and pie charts on numerical data collected/provided.*
- ☐ *Laboratory testing of trona samples collected.*
- ☐ *Displaying printed photographs taken on a wall.*
- ☐ *Displaying labelled samples collected.*
- ☐ *Giving a lecture to other students in other classes.*
- ☐ *Classifying data collected.*