

# GEOGRAPHY

## FORM 2

### END TERM 2 2025

### MARKING SCHEME

**Instruction:** Answer ALL the questions in the spaces provided

1. (a) Give **two** dates of the year when equinox occurs. (2 marks)
  - *21<sup>st</sup> March*
  - *23<sup>rd</sup> September*
- (b) State **three** characteristics of summer solstice (3marks)
  - *There is plenty of sunshine.*
  - *High temperature is experienced around the tropics of cancer and Capricorn.*
  - *High humidity near large water bodies.*
  - *The length of day increases pole wards from the tropics.*
  - *Zones beyond the Arctic and Antarctic Circles have 24 hours of day.*
2. (a) State **three** conditions necessary for the formation of rainfall (3 marks)
  - *The air must be saturated.*
  - *The air must be cooled beyond dew point.*
  - *There must be presence of tiny particles in the atmosphere (condensation nuclei) around which droplets form.*
- (b) Describe how the highest temperature of the day is measured. (5 marks)
  - *A maximum thermometer is used.*
  - *This thermometer used mercury.*
  - *When temperature rises, mercury expands thus flows forward pushes the metal index away from the bulb.*
  - *This continues till the highest temperature is reached.*
  - *When temperature drops, mercury contracts thus retreats towards the bulb leaving the metal index where it was pushed to.*
  - *The highest temperature is obtained by reading the part of the metal index that was in contact with mercury.*
  - *After the reading, the metal index is reset using a magnet.*
3. (a) Give **three** types of maps. (3 marks)
  - *Sketch maps*

➤ *Topographical maps*

➤ *Atlas maps*

□

(b) Convert 1:50,000 to a statement scale. (2 marks)

*Convert 50,000 cm to km*

$$1\text{KM} = 100,000\text{cm}$$

$$? = 50,000\text{cm}$$

*1cm represents 0.5 km OR one centimetre represents half a kilometre*

4. Explain how rocks influence the following:

(a) Industry. (2 marks)

- *Some rocks provides raw materials to some industries. Example limestone for cement industries.*
- *Some salts obtained from some rocks are used for industrial purposes e.g. soda ash in glass and bottle industry.*

(b) Agriculture. (2 marks)

- *Some rocks especially volcanic undergo weathering over long periods of time to form very rich and fertile soils that support a wide variety of crops.*

5. Suppose you were to carry out a field study on rocks within your sub county:

(a) State **three** reasons why it is important to prepare a route map. (3 marks)

- *To show the direction to be followed during the study.*
- *To help in estimating the distance to be covered during the study.*
- *To help in preparation of a work schedule.*
- *To assist in estimating the time required for the study.*
- *To help in deciding the technique of data collection.*

(b) Give **three** methods that you would use to record data. (3 marks)

- *Labelling samples collected*
- *Photographing*
- *Note taking*
- *Tape/voice recording*
- *Field sketching/Mapping*
- *Filling in the questionnaires.*

6. (a) What is mining? (2 marks)

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

- (b) State **four** negative effects of mining on the environment. (4 marks)

- *The land is left bare with large craters which are ugly thus loss of the beauty of land.*
- *Heaps of rock waste hinders any other form of land use making such areas expensive to rehabilitate.*
- *Clearance of land before exploitation of minerals encourages soil erosion.*
- *Clearing natural vegetation in an area for mining leads to loss of plant and animal life/loss of biodiversity.*
- *Open cast mining leads to shortage of land due to displacement of people and land dereliction.*
- *Dust produced during open cast mining pollutes the atmosphere thus a health hazard.*
- *Large scale blasting of rocks causes instability of basement rocks leading to frequent occurrence or tremors.*
- *Water collects in open pits left thus creating pools that become breeding grounds for mosquitoes and snails which transmit diseases such as malaria and bilharzia.*

5. (a) Name **three** landmasses that formed from Gondwanaland according to the continental drift theory. (3 marks)

- *Africa*
- *South America*
- *Antarctica*
- *Australia*
- *Arabia*
- *India*

- (b) State **three** effects of the movement of tectonic plates. (3 marks)

- *Occurrence of powerful earthquakes.*
- *Formation of some landforms such as Fold Mountains.*
- *Leads to the formation of a new oceanic crust/spreading sea floor*

6. (a) Explain **two** causes of faulting. (4 marks)

- *Horizontal earth movements may stretch rocks due to tension thus leading to the development of cracks.*

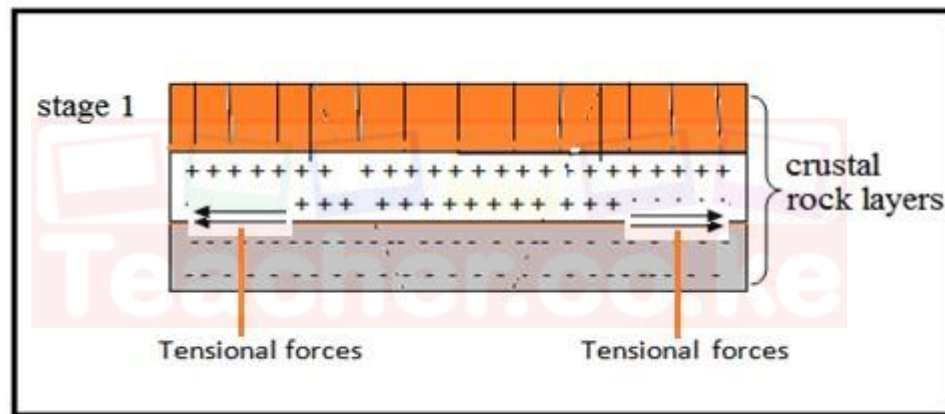
- *Horizontal movements / tectonic forces may compress the crustal rocks causing the rocks to fold. Some parts of the folded rock develop fractures hence faulting.*
- *Horizontal forces within the rocks moving past each other in opposite directions may cause fracturing during tearing / shearing.*
- *Vertical movements occur within the crust. They exert strain in the rocks making them fracture.*

(b) Apart from tension forces, give **two** other theories that explain the formation of rift valleys. (2 marks)

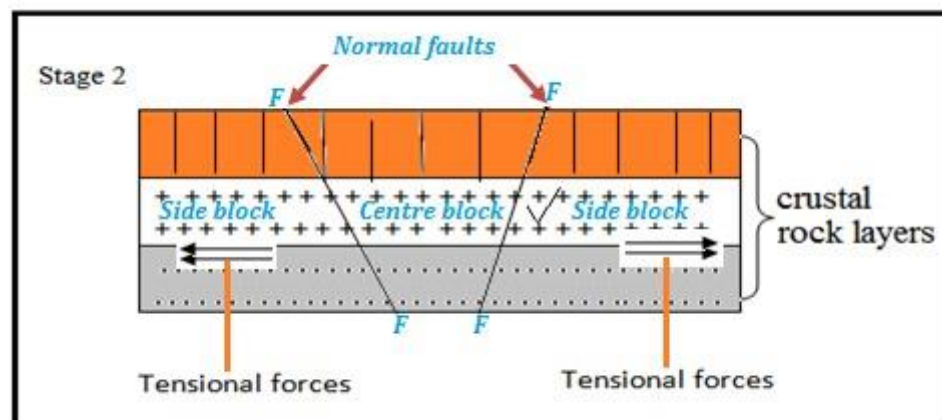
- *Formation through compression forces.*
- *Formation due to anticlinal arching.*

(c) With the aid of well labelled diagram, describe how a rift valley is formed due to tension forces. (8 marks)

- *Layers of rocks are subjected to tension forces resulting in stretching.*

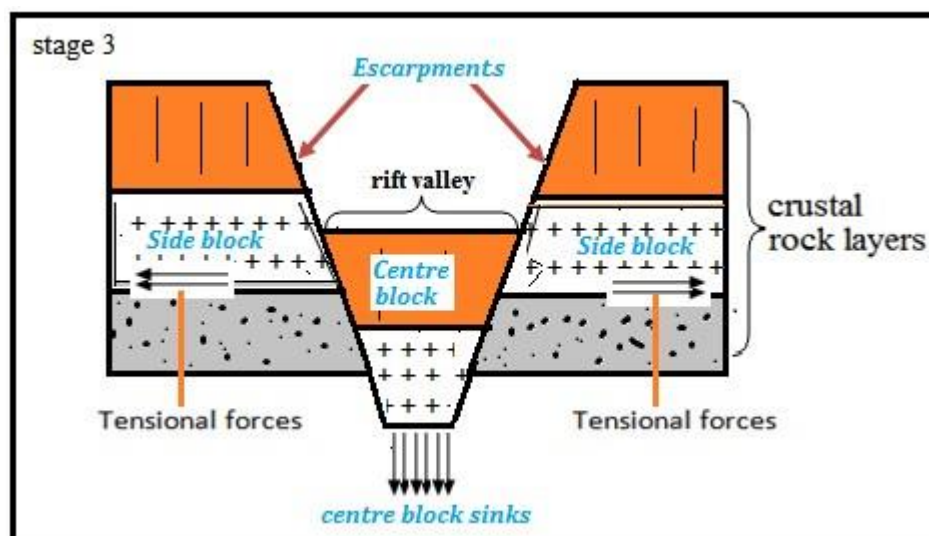


- *A strain occurs in the rock layers leading to the development of two adjacent and parallel normal faults.*



- *The land in between the two faults forms the centre block*
- *Continued tension pulls apart the land on either side of the faults (side blocks)*
- *As the side blocks are pulled apart, the centre block subsides / sinks slowly to a lower level.*

- During sinking, the fault plane is exposed forming escarpments on the sides.
- The sunken centre block at a lower level surrounded by steep slopes forms the floor of the rift valley.

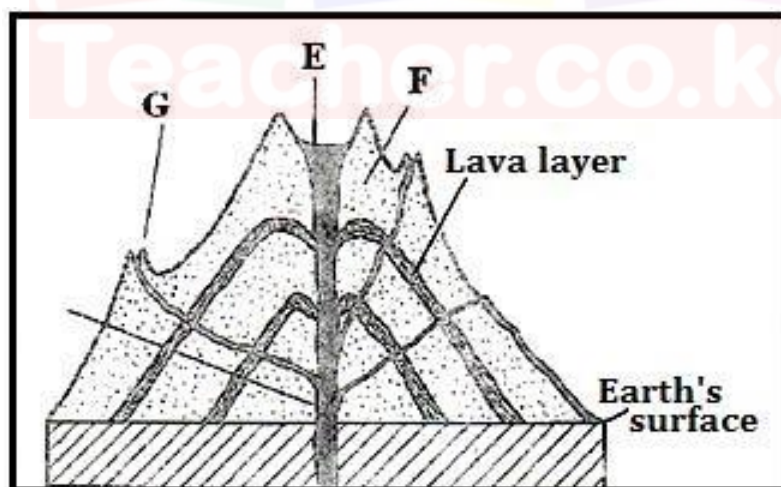


Diagrams 3 marks

Description 5 marks

Total 8 marks

7. The diagram below shows a volcanic landform.



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

- E – Crater
- F – Layer of ash / pyroclasts
- G – Parasitic cone / Conelet

- (b) Explain **three** negative influence volcanic features to human activities. (6 marks)

- Some regions with many volcanoes have a rugged landscape which hinders settlement / agriculture.
- Steep slopes of volcanoes / lava plateaus form barriers to easy construction of transport lines such as roads, railways and pipelines.

- *Some volcanoes erupt releasing deadly volcanic materials such as hot lava, deadly gases, hot ash and lava bombs that result in loss of lives / displacement of people.*
- *Volcanic mountains create a rain shadow effect resulting in aridity over the leeward side of the mountain which limits crop farming in most parts. .*
- *Regions with recent lava flows have poorly developed infertile soils that are unsuitable for crop farming. .*
- *Some powerful pyroclastic eruptions emit large quantities of ash and gases which interrupts air transport or interferes with weather patterns over a region. .*

8. (a) What is an earthquake? (2 marks)

*An earthquake refers to a sudden and rapid movement of the earth's crust.*

**OR**

*An earthquake refers to violent shaking of the ground due to sudden release of energy from below.*

(b) List **three** types of seismic waves. (3 marks)

- *Primary seismic waves*
- *Secondary seismic waves*
- *Longitudinal waves / Love waves / Rayleigh waves*

