

CENTRAL WEST EDUCATION DIVISION
2025 MALAWI SCHOOL CERTIFICATE OF EDUCATION MOCK

GEOGRAPHY

Subject Number: M073/I

MARKING KEY



SECTION A (75 marks)

Answer all questions the three questions in this section in the space provided.

1. a. i. Conical hill (1 mark)
- ii. Trellis drainage pattern
- Dendritic drainage pattern (1 mark for of the two point)
- b. i. 366754 (3 marks)
- ii 50 feet/50ft (1 mark)
- c. 120^0 (3 marks)
- d. i. $3\text{km} + 0.8\text{km} (1) = 3.8 \text{ km} (1) = 4\text{km} (1)$
- (3 points 1 mark each) (3 marks)
- ii. It has flat land /because the contours lines are far apart. (2 marks)
- iii. Southwards/ South/ Southern direction (1 mark)



(correct map reduction i.e. square must 1cm by 1 cm 4 marks)

- ii. 1 correct placing of chibwazi Estate (2 marks)
2. Correct drawing of T323 road (2 marks)
3. New Scale = 1:100,000 (2 mark)

2. a. i. Define the term plate tectonics.

- Plate tectonics refers to the way how the lithosphere breaks and bends.

(1point 1 mark)

ii. Evidence that supports Continental Drift Theory include

- Some continents fit in a jigsaw.
- Similarities in rock sequence
- Some continents have similar climates
- Similarities in plant animal fossils

(Any 2 points 2 marks each)

iii. It is because there is no creation or destruction of plates along conservative plates.

(1 point 2 marks)

b. i These include:

- Beaches - Spits -Tombolo -bars -marine dunes

ii. When tension force (1) acts on the surface of the earth, cracks/faults develop. (1)/ When tension force continues the middle block sinks (1)/ and forms a rift valley. (1)/

(4 points 1 mark each)

iii.- Rift valleys are associated with volcanism which can lead to the formation of valuable mineral deposits

- They help in the production of Hydro- electric power energy
- Rift valleys have fertile soils that encourage agricultural activities
- They are associated with geothermal energy production through hot spring or geysers.
- They attract tourists who bring foreign exchange.

(Any 2 points 1 mark each)

c. i These include

- Active volcanoes: These are volcanoes that have erupted in recent times (for the past 10,000 years)
- Dormant volcanoes: These refer to the volcanoes that have not erupted in recent times but used to erupt long time ago. They show signs of possible eruption.
- Extinct volcanoes: These refer to the volcanoes that have not erupted at all in historic times or those that completely stopped erupting.

(Any 2 points 2 marks each)

ii. These include:

- Batholith
- Dyke
- Sills
- Laccolith/laccolite

- Phaccolith/l
- Lopolith

(Any 3 points 1 mark each)

iii. Fold mountains are formed where convergence of tectonic plates occurs(1). When the plates meet an earthquake can occur (1) and this can trigger volcanic activity (1).

d. These include:

- Death of people/loss of life
- Destruction of property
- Destruction of environment
- Homelessness

(Any 1 point 1 mark)

3.a. i. Air pressure refers to the weight that is exerted by the atmosphere on the earth's surface.

(1 point 1 mark)

ii. 1. As altitude increases air pressure decreases(1) when altitude is high, air pressure is low.

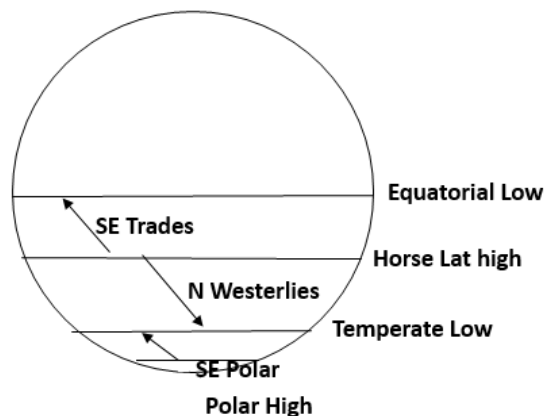
(1 point 2 marks)

2. T- 250 m

U -750 m

(2 points 1 mark each)

iii. (1) Draw a globe with main air pressure belts in the southern hemisphere.



(2 marks for the globe and any two main pressure belts)

(2) (2 marks for any two prevailing winds)

b. i These include:

-Guinea, Mali, Ghana, Togo, Senegal, Burkina Faso, Ivory Coast, Sierra Leone

(Any 2 points 1 mark each)

ii. 1. Chinook.

(1 point 1 mark)

2. These include:

- It is warm
- It is dry
- Common in spring and in winter
- Blows from western side and descend on the eastern side of the Rocky Mountains.

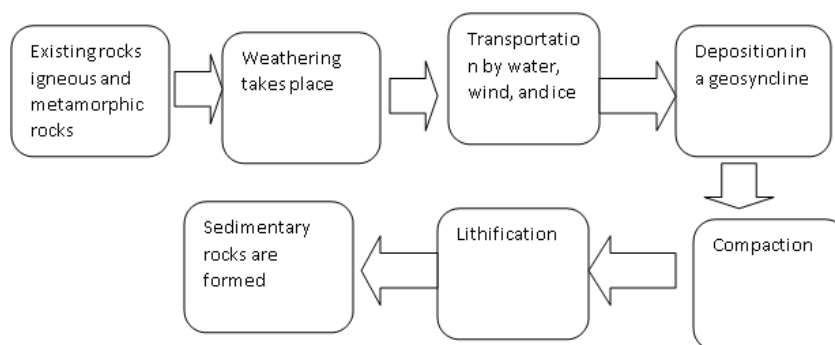
(Any 2 points 1 mark each)

3. These include:

- Melt ice hence named Ice Eater
- Increases the risk of fire in the region they blow
- They increase temperature by 19 degrees celcius within 15 minutes.

(Any 2 points 2 marks each)

c.i



(Correct flow diagram 4 marks)

ii. Economic importance of rocks include:

- They have steep slopes which cause the warm moist air to quickly rise along the leaching edge
- They break down into fertile soils.
- They are used in the production of cement.
- They are used for decoration on jewellery and buildings.
- They are sources of valuable minerals
- They act as water reservoir through aquifer.
- They provide salts for both domestic and industrial purposes.
- Clay is used in brick making and pottery
- Rocks are a source of fuel such as coal and oil.

(Any 1 point 1 mark)

d. Differentiate between rain and hail as forms of precipitation.

- Rain is liquid water that falls from cumulonimbus and nimbostratus clouds while hail is rain drops that have frozen in the sky and fall to the ground.

(2 points 2marks)

SECTION B(25 marks)

Answer one question only in this section

4. Table 1 shows rainfall and temperature data for a climatic region X. Use it to answer questions that follow.

a. i. Identify climatic region X

- tropical desert

(1 mark)

ii. Describe any **two** characteristics of this climate.

- Rain rarely falls/it is unreliable/rain is sporadic. Average annual rainfall is about 120 mm.
- In some areas there is no rainfall for several years.
- The rainfall is irregular as an entire year's worth of rain may fall in one downpour.
- The climate is common in tropical high-pressure belts.
- The mean monthly temperatures vary from 29°C in hot seasons to 10°C in cool seasons.
- Day temperatures often go over 38°C (high) because of absence of clouds.
- The climate hardly supports meaningful human activities

(any 2 points 2 marks each)

iii. Calculate the annual temperature range for the region.

Range = highest temperature – lowest temperature(1)

$$19^{\circ}\text{C} - 14^{\circ}\text{C} \text{ (1)}$$

$$= \underline{5^{\circ}\text{C}} \text{ (1)}$$

iv. Give any **two** countries in southern Africa that experience this climate.

-Namibia- -Botswana- -South Africa (Northern Cape Province)

(Any 2 points 1 mark each)

v. These include:

- Long tap root to reach out to water deep down the ground.
- No leaves to reduce loss of water through transpiration.
- Huge trunk to keep water

(Any 2 points 2 marks each)

b. i. Apart from pollution, give any other two environmental issues and problems in the world.

- Soil erosion
- High population growth
- Poor waste disposal
- Deforestation

- Desertification
- Overfishing
- Climate change
- Acidic rainfall
- Bush fires
- Global warming
- Resource depletion/over exploitation

(any 2 points 1 mark each)

ii. Explain any two causes of water pollution.

- Dumping of industrial effluent which contain chemicals into water bodies pollute the water.
- Oil leakages into the water by ships may pollute water affecting aquatic animals.
- Agricultural chemicals and fertilizers washed down by rain water and get deposited in water bodies may facilitate the growth of water hyacinth
- Poor sewer system whereby human wastes may be deposited in water bodies. causing diarrhoea and other water borne diseases.

(any 2 points 2 marks each)

iii. Describe any one effect of air pollution on human beings.

- Causes respiratory diseases such as coughs, bronchitis, asthma, lung cancer since people breath in polluted air.
- Poor visibility-polluted air may cause poor vision as the air may have smoke which affect transport especially shipping and aviation.
- Depletion of the ozone layer allows high amount of ultraviolet radiation to reach the earth which can cause skin cancer
- Global warming which causes heat waves.
- Un pleasant smells which cause discomfort

(Any 1 point 2 marks)

c i. Define ocean current.

- These are large bodies of water that circulate in regular patterns around oceans.

(1 mark)

ii. Describe any one effect of Canaries ocean current on the coastal lands of North West Africa.

- brings low temperatures
- brings winds with little or no moisture hence no rain
- causes desertification

(any 2 points 1 mark each)

5 Table 1 shows rainfall and temperature data for a climatic region Y. Use it to answer questions that follow.

a. i. Identify climatic region Y

- Mediterranean climate/ warm temperate western margin

(1 mark)

ii. Describe any two characteristics of climatic region Y.

- Temperature ranges from 21°C in summer to 10°C or below in winter.
- Area receives cyclonic or frontal rainfall which falls in form of heavy showers
- Rainfall amount is between 500 - 900mm per annum.
- Has rainfall in winter
- Mediterranean evergreen forests. These mainly consists of oaks hardwoods
- Low humidity in summer high humidity in winter.
- Summers are warm and hot while winters are cool and mild.

(Any 2 points 2 marks each)

iii

$$\text{total rainfall} = 876\text{mm} \text{ (1)}$$

$$\text{No of months} = 12 \text{ (1)}$$

$$\therefore \text{mean} = 73\text{mm} \text{ (1)}$$

(3 points 1 mark each)

iv. Describe the relationship between temperature and rainfall.

- it is inversely proportional or when temperature rises rainfall lowers and when temperature falls rainfall rises

(2 marks)

b. i. What is climate change?

- Climate change refers to variations of weather patterns especially in rainfall and temperature that lasts for an extended period of time

(1 marks)

ii. Explain any two causes of climate change.

- Deforestation may affect the hydrological cycle which may result into prolonged drought.
- Emission of greenhouse gases increase earth's temperatures since they cover the earth's atmosphere and more heat is retained within the earth (blanketing effect).
- Volcanic eruptions release huge volumes of gases like sulphur dioxide, water vapour, ash and dust into the atmosphere may block the incoming rays of the sun reaching the earth's surface causing low temperatures

- Plate tectonics and continental drift may cause changes in the position of landmasses and water bodies in relation to their latitudes.

(Any two points 2 marks each)

iii. These include:

- Limited financial resources to implement the mitigation and adaptation projects
- Dependence on Rain-fed agriculture
- Limited access to climate information
- Vulnerability to climate related disasters
- Limited capacity for climate change adaptation.

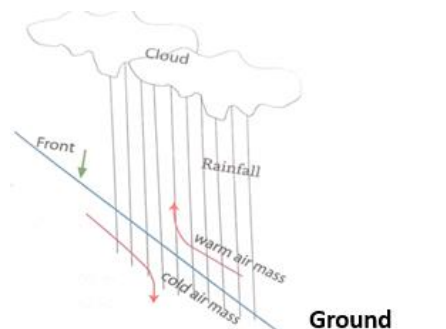
(Any 2 points 1 mark each)

c. i.- Evaporation and transpiration to provide water vapour.

- Air must be saturated to have high humidity
- Air must contain small particles of dust around which water droplets form.
- Air must be cooled below its dew point.

(Any 2 points 1 mark each)

ii.



- Frontal rainfall is formed when two air masses meet along a front. Warm air rises over the cold air because it is lighter. The rising air has a lot of moisture which cools and condensation takes place to form clouds which brings about rainfall.

(Correct diagram with correct labelling 3 marks explanation 2marks. Total 5 marks)

iii. Cumulonimbus.

(1 point 1 mark)

END OF QUESTION PAPER