**MARKING SCHEME**

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| **GEOGRAPHY FORM THREE****MID TERM 1,2024**1. **a) What is weathering?**
* this is the physical breakdown or chemical decomposition of rocks at or near earth’s surface in situ/without movement
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| **(ii) Apart from plants, give three other factors that influence the rate of weathering.*** nature of rocks
* slope
* climate
* human activities
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| **(iii) Explain two ways in which plants cause weathering.*** plant roots penetrate into rock joints/cracks causing them to widen and eventually disintegrate
* plants absorb minerals from rocks and this weakens the rocks causing them to disintegrate
* rotting plant remains release organic acids which react with minerals in the rocks causing chemical disintegration.
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| **Describe the following processes of weathering:** **(i) Block disintegration*** occur in areas with large diurnal temperature ranges
* high temperatures during the day intensely heat rocks causing them to expand
* at night rapid cooling occurs causing the rocks to contract
* the process of expansion and contraction is repeated over time causing stress in the rocks
* the rocks break along cracks and joints hence separate
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| **(ii) Carbonation*** common in limestone/chalk areas
* rainwater dissolves carbon (IV) oxide in the atmosphere to form weak carbonic acid
* weak carbonic acid reacts with limestone rocks to form calcium bicarbonate which is soluble in water
* the rock readily disintegrates
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| **Explain four effects of mass wasting on the environment.*** mass wasting lead to land dereliction as scars are left on the surface spoiling the beauty of the land
* as the materials move over the land they facilitate the loosening of top soil leading to erosion
* materials from a landslide may cause a barrier across a river leading to formation of a lake.
* landslides may cause a river to change its cause reducing the amount of water downstream
* landslides may cause damage to property when roads/settlements are buried
* landslides may cause loss of life when settlements are buried
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| **(i) Apart from surface run off, give two other processes in the hydrological cycle.*** precipitation
* evaporation
* transpiration
* interception
* infiltration
* percolation
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| **(ii) State three factors that determine the amount of surface run off.*** amount of rainfall
* rate of evaporation
* gradient/slope of the land
* nature of the rocks/pervious/impervious
* amount of vegetation cover
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| **Explain three factors that influence the transportation of materials by a river.*** volume of water-large water volume carry large amount of load
* gradient of the channel-steep slopes generate greater kinetic energy enabling faster flow
* nature of the load-light load is transported faster/over long distance
* amount of load-small quantity transported for a long distance/large load reduces the efficiency of a river to transport
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| **(i) What is river rejuvenation?*** this is the renewal of the erosive activity of a river
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| **(ii) Explain three conditions that lead to rejuvenation of a river.*** increase in river discharge due to increased rainfall/river capture resulting in increased erosive power
* change in rock resistance which make the river to start eroding vigorously
* change in base level due to local uplift or drop in sea level causing a steep gradient
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| **Explain three negative effects of rivers to the human environment.*** flooding of rivers may destroy property/crops/displace people
* flooding of rivers can lead to loss of human lives
* some rivers are habitat to dangerous animals which may attack human beings or destroy crops
* wide or deep rivers are a barrier to transport especially where bridges have not been constructed
* river water may be a medium of spreading water borne diseases especially when flooding occurs
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