**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 |
| **(ii) Apart from plants, give three other factors that influence the rate of weathering.**   * nature of rocks * slope * climate * human activities |
| **(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. |
| **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 |
| **(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 |
| **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 |
| **(i) Apart from surface run off, give two other processes in the hydrological cycle.**   * precipitation * evaporation * transpiration * interception * infiltration * percolation |
| **(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 |
| **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 |
| **(i) What is river rejuvenation?**   * this is the renewal of the erosive activity of a river |
| **(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 |
| **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 |