

1. Environment refers to all external conditions surrounding an organism while habitat refers to an area that provides the physical conditions under which plants and animals live **(2x1 = 2 marks)**

(b) Reasons for heat in the earth's interior

- It retained the original heat since the interior cooled slowly
- Because of the process of radioactivity

As a result of pressure exerted by the immense volume of overlying crustal rocks (3 marks)

2. (a) processes of river erosion

- Attrition
- Solution
- Abrasion/corrosion
- Hydraulic action
- **(any 2x1 = (2 marks)**

(b) Types of coasted deltas

- Bird's foot deltas
- Estuarine delta
- Actuate delta

(3x1= 3 marks)

3. (a) faulting is the breaking/ fracturing of rocks of the earth's crust

(b) Escarpments found in Kenya

- Mau
- Nyandarua
- Nguruman
- Elgeyo
- Losiolo

(any 3x1 = 3 marks)

4. (a) The hydrological cycle is the endless circulation of water from the ground to the atmosphere through evapotranspiration and back to the ground through rainfall.

(2x1=2 marks)

(b) Major hydrological input process rainfall output process

- Transpiration
- Evaporation

(3x1 = 3 marks)

5(a) characteristics of equatorial rain forests

- Trees form canopy
- Trees are tall, smooth barked with no braches at the lower sections
- Tree trunks are commonly buttressed
- Trees have broad leaves
- The forests are evergreen
- Made of mixed tree species

(any 3x1 = 3 marks)

(b) Hardwood tree species found in Kenya

- Camphor
- Mvuli

- Elgon Teak
 - Oak
 - Mahogany
 - Ebony
- (any 2 X 1 = 2 marks)**

6. (a) (i) weathering is the disintegration and decomposition of rocks at or near the earth's surface in situ while mass wasting is the downward movement of weathered rocks, materials along a slope under the influence of gravity **(2 marks)**

(ii) Factors influencing the rate of weathering

- Climate
 - Nature of rocks
 - Gradient/angle of slope
 - Time
 - Human activities
- (any 4x1 marks)**

(iii) Process of mechanical weathering

- Exfoliation
 - Granular disintegration
 - Block disintegration
 - Crystal growth
 - Frost action
 - Pressure release/unloading
- (any 4x1 marks)**

(b) (i) Biological weathering by animals

- Burrowing animals dig into cracks in rocks breaking the rocks
- Bacteria and earth weathering in rocks
- Animal urine acid in chemical weathering
- Large herds of animals weather rocks with their hooves

(ii) Biological weathering by man

- Mining, quarrying, construction and cultivation loosens and breaks rocks
 - Industrial pollution of air, water and land acids chemical weathering
 - Burning vegetation and bush fires weakens rocks exposing them to further weathering
 - Clearing vegetation exposes rocks to weathering
 - Irrigation in arid areas causes leaching of minerals which chemical weathering
- (any 2x1 = 2 marks)**

(c) (i) – mass movement is the downward movement of weathered rocks materials lubricated by water along a slope.

(ii) types of rapid mass movement

- Earthflow
 - Mudflow
 - Land slides
 - Rockslide
 - Debris fall
 - Debris slide
 - Slumping
 - Avalanche
- (any 3x1 = 3 marks)**

(d) Positive effects of weathering to human activities

- Weathering breaks rocks to form deep soils which are important for agriculture
- weathering break down some rocks to form valuable minerals which are exploited and sold for income and serve as industrial raw materials
- Rocks undergo weathering to form beautiful sceneries that attract tourists who bring foreign exchange.
- Weathering weakens rocks which makes mining and quarrying easy.
- some weathering processes such as hydrolysis form important clay minerals which are used as industrial raw materials e.g Kaolin clay.

(any 3x2 = 6 marks)

