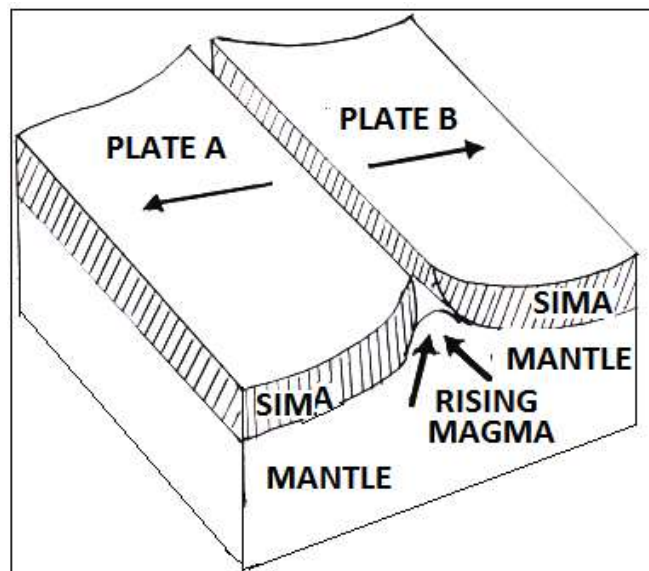


MARKING SCHEME

1. (a) What are earth movements? (1marks)
- *Earth movements are motions that occur within rocks of the crust due to tectonic forces*
- (b) Outline four causes of earth movements (4marks)
- *Magma movement within crustal rocks*
 - *Convection currents within the mantle*
 - *Isostatic adjustment of crustal rocks*
 - *Collapsing of crustal rocks due to gravitative pressure.*
- (c) Differentiate between horizontal and vertical earth movements (2marks)
- *Horizontal earth movements are motions that operate along a lateral plane within crustal rocks causing them to shorten ,stretch or shear whereas vertical earth movements operate along the earth's radius either towards the interior or towards the earth surface*
2. Describe the theory of continental drift (5marks)
- *According to Wegener, the earth was initially a single landmass called pangaee.*
 - *Pangaea was surrounded by a sima floored ocean called panthalassa*
 - *During the late pre-cambrian, Pangaea split to form two super continents called laurasia and Gondwanaland.*
 - *The two were separated by a narrow ocean called tethy's*
 - *Laurasia split during the Mesozoic era to form Eurasia and North America.*
 - *Gondwanaland split later to form Africa, south America, Australia, Antarctica Arabia and India.*
 - *Africa and India drifted Northwards to their present day location Australia drifted Eastwards the Americas westwards while Antarctica and Eurasia remained relatively static*

3. The diagram below represents a tectonic plate boundary



a. Identify the type of tectonic plate boundary represented (1mark)

Extensional boundary

b. Name three features formed along the tectonic plate boundary represented by the diagram (3marks)

- ***Rift valleys***
- ***Mid-ocean ridges***
- ***Sub-marine volcanoes***
- ***Volcanic islands***

4. (a) Define the term folding (2marks)

- ***Folding is the process through which young sedimentary rocks bend upwards or downwards due to compressional forces***

- *Folding is a process of crustal distortion which causes crustal rocks to bend upwards or down wards.*

(b) Give to factors that determine the extent of folding (2marks)

- *The strength of the compressional forces*
- *The amount of nature of rocks (rock resistance)*

(c) State two differences between symmetrical and asymmetrical folds (4marks)

- *Symmetrical folds form due to compression forces of equal magnitude while asymmetrical folds occur due to compressional forces of unequal magnitudes.*
- *In symmetrical folds, both limbs slope uniformly from the axis whereas in asymmetrical folds, one limb is steeper while the other is gentle.*

5. Explain three problems facing gold mining in south Africa (6marks)

- *Shortage of water*
- *high cost of mining*
- *Decreasing quality of gold*
- *Exhaustion of gold in some mines*
- *Increasing depth of mines*
- *Shortage of skilled labour (to be well explained)*