MARKING GUIDE FOR GEOGRAPHY PAPER 1 2016, SECTION A

1. A: Crust / Lithosphere B: Mantle / Mesosphere C: Core / Inner core /Barysphere	**2.** Mountain KIRIMANDJARO, Mountain KALISIMBI Mountain KENYA, Mountain RWENZORI, Mountain AHAGGAR, Mountain ELGON.
3. a) - Contamination of water leading to spread of water borne diseases - Destruction of infrastructure - Displacement of people - Creates new landform features - Destroys crops - Death of people/loss of live - Exposes minerals near the earth surface - Creates government expenditures	**b)** - Steepness of the slope - Heavy rainfall/climatic condition - Absence of vegetation - Man's activities - Nature of rocks - Earth's movement
- **4.** Contains elements of weather - It has many Gases - It has layers of troposphere, stratosphere, mesosphere and heterosphere - It has an Ozone layer - It is a layer above the earth surface - The temperature changes with the change of altitude	**5. a)** A scale is a ratio of the distance on the map to a corresponding distance on the ground. **b)** linear scale/graphic scale/bar scale - ratio scale/fraction representative scale - statement scale/ verbal scale
6. a) Carbonates, Chloride, Sulphates, Silicates, Evaporates, Precipitates, Limestone, Nitrates, Iron stones	**b)** - **Dynamic way or regional metamorphic way**: When metamorphic rocks are subjected to great Pressure - **Thermal way or contact metamorphic**: When metamorphic rocks are exposed to intense Heat - **Thermal-dynamic way**: caused by a combination of pressure and heat. - **Crystallization**
7. a) - **Vent eruption:** This is the volcanic eruption which produces different explosive activities; eventually it passes eruption through the open vents. - **Fissure eruption**: occurs when magma passes through cracks or line of weakness quietly and not explosive	- Wide depression/ circular wide depression - It is deep - It is formed as result of successive eruption. - It is formed through violent eruptions - It is normally on top of a volcano. - It is formed as a result of collapse

8. a) Magnitude of an Earthquake: This is a measure of the amount of energy released by an earthquake. (Seismograph).

Intensity of an earthquake: This is a measure of strength of shaking produced by the earthquake at a certain location. (Mercalli intensity scale)

b)
- Destruction of houses
- Death of people and animals
- Destruction of biodiversity
- Vulnerability of soils open against erosion
- Forced Displacement of people
- Decline of standard of living
- It increases government expenditures.
- Traumatizes some people
- Trigger of land slide

c)
- Water bodies
- Heavy rainfall
- Deforestation (absence of vegetation)
- Relief (lowland areas)
- Landslides block some river channels.
- Swamp reclamation
- Unplanned settlements.

9. a)
- Foreground
- Middle ground
- Back ground

b) A map refers to a representation of earth usually on the flat piece of paper as observed from above while **A photograph** is an image or a picture of an object taken by a camer

10. a)
- Burrowing Animals break rocks as they find their habitats
- Big animals trample over rocks and break them.
- Decaying animals decompose and form humus and rock sediments/ rock layers.
- Animal wastes like urine accelerate its rate of chemical decomposition of rocks.

b)
- Rain water reacting with mineral grains in rock to form new minerals (clays).
- Plant s and animals also cause chemical weathering. i.e as plant roots take in nutrients they remove elements from minerals.
- Carbon dioxide chemically weathers rock by creating acids.
- Oxygen chemically weather rocks by combining with a metal.

11. a) Rill erosion refers to type of Soil erosion that results in small channels caused when water running across the surface of the ground.

b) Time, Climate, Parent rock, Relief/ topography, Living organism, Vegetation cover, Human activities like mining and others

c) Rock pedestals, Mushroom rock, Zeugens, Yardangs, Inselbergs, Deflation hallows

12. a) River meander: This is the bend in a sinuous watercourse or river which forms when moving water in a stream erodes sediments from the outer curve and widens its valley and deposit it on the inner curve of the river.

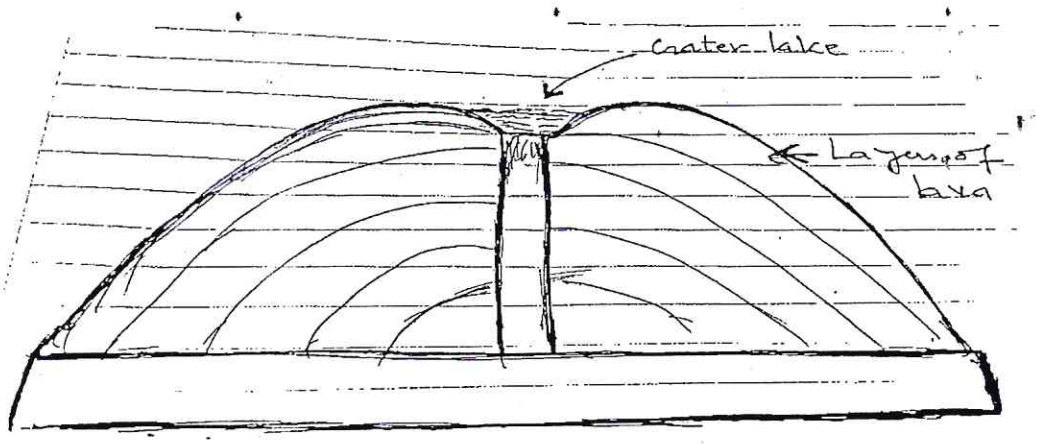
b)
- Reduction in a river gradient which leads to a reduction in river speed.
- Reduction in volume water which reduces its river capacity to transport.
- Obstacles in the stream channels example: rocks, boulders, trunk of tree, swamp vegetation, etc that can holder some of loads being transported.
- When the bed of a river channel becomes wider, water spreads out over a wider surface and this reduces the river's capacity to transport loads.

c) Braided channels, Alluvial deposits, Meander scars, levees, Oxbow lake, Meander lake, Deltas, bluffs, U shaped valley.

SECTION B

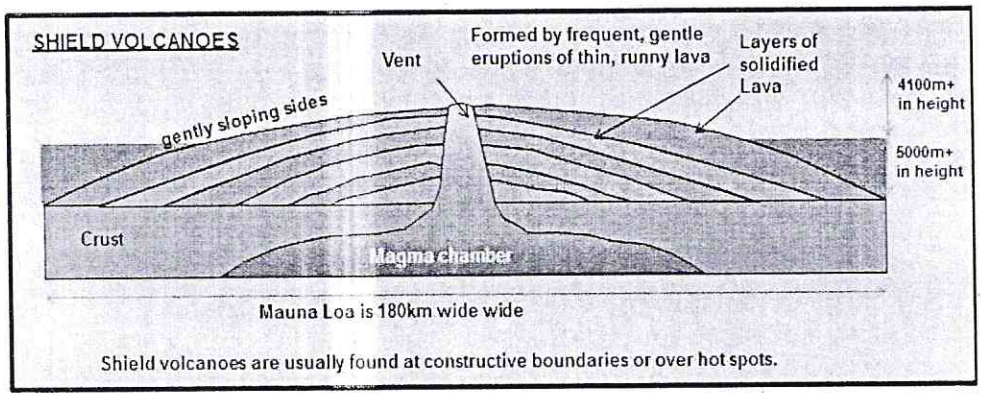
13. a) Intrusive volcanicity: this is the internal processes of eruption where molten materials solid under the earth's crust while **Extrusive volcanicity:** this is the processes of eruption where molten materials reach on the surface from internal the earth's crust it is characterized by la flows and lava domes.

b)



- When the collapse of a volcano due to enormous explosive eruption, So much molten rock expelled that the summit area collapses to form a large volcanic depression
- This will be filled with water of rain or snow. Crater Lake is formed when volcanic eruption ceases /stops, a depression is left at mouth of a vent.
- A crater lake is formed when water accumulates in a crater. A crater is formed when the top of volcano is blown of leaving behind a depression called crater and when a depression is filled by water it becomes Crater Lake.

c)

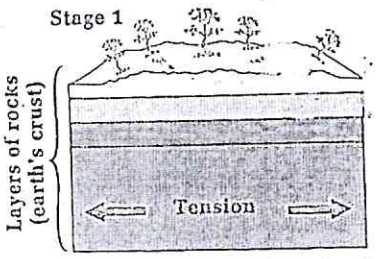


A shield volcano is a broad and gentle volcanic mountain. It is built of a basic lava dome and the lava dome flows long distance then cools in forms a low-lying broad volcanic feature called shield volcano/ basic lava dome.

- The molten materials must be as low viscosity basaltic magma
- They must be as low volatiles
- They must be low explosive eruption
- Produce large volume from lava flow
- Produce shallow or gentle upper slope
- Produce basaltic
- In general it is formed in fissure eruption

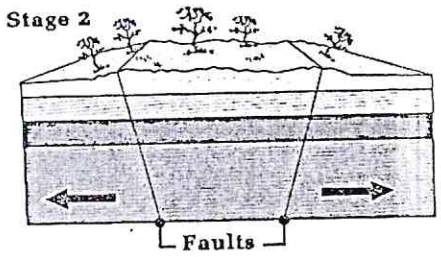
14. a) - Pressure systems - Wind systems - Underground oil reserves. - Cold ocean current of canary - Relief - Insufficient rainfall. - Sentimentality / distance from the sea. - Latitudinal location - Very long drought - High temperature - Human activities such as:	**b)** - Afforestation - Education on sustainability practices of agriculture - Controlling soil erosion - Control grazing - Reforestation - Introduction of suitable methods of farming - Irrigation of dry lands. - Stipulating sand dunes. - Introduction of energy saving stoves. - Use alternative sources of energy

15. a)

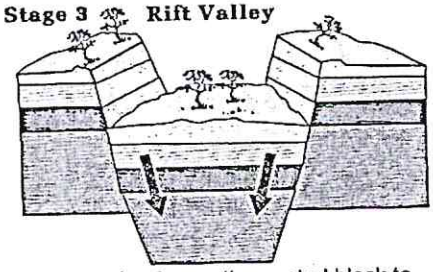


Tension forces pulling the rocks of the earth in opposite directions

Tensional forces tend to pull apart Lines of weakness leads to occurrence of normal faults on crustal rocks. Where two parallel faults occur, continued tensional forces make the middle block to sink, forming a rift valley or graben.



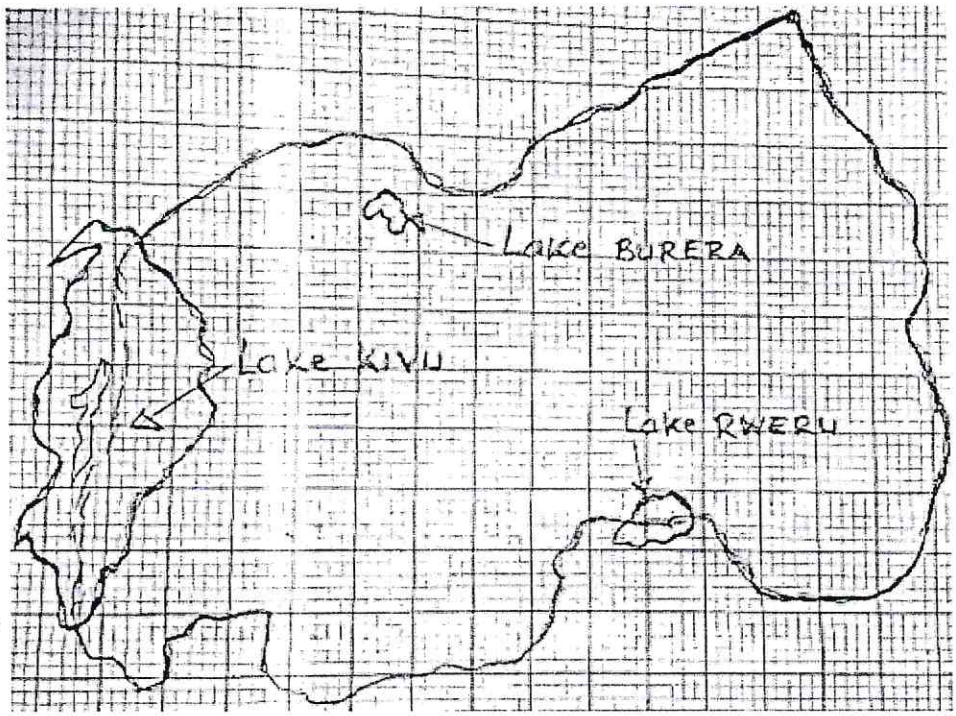
Tension forces pull the rocks until they break or crack to form faults



The tension forces the central block to drop, causing a rift valley to form on the surface.

b) - Block Mountains Such as Rwenzori influences relief rainfall formation.
- Block Mountain facilitates the growth of highland rainforests and bamboo forest vegetation.
- Rift valleys have flat and gentle slope. They favor the use of tractors.
- Rift valley lakes provide water for domestic and industrial uses.
- Rift valley lakes provide water for fishing ground.
- Rift valley lakes provide cheap water transport (navigation).
- Some rift valley lakes contain minerals for example methane gas in KIVU Lake, oil in ALBERT Lake,... hence used for mining.
- Shores of lakes contain sand and clay. Rwenzori have copper and cobalt reserves.
- Rift valley lakes and fault scarps constitute the beauty which attract tourists.
- Lumbering takes place on slopes of block mountains

16. a)



b) - **KIVU is a lake** resulting from **faulting process** or **lava damming**
- **BULERA is a lake** due to the **lava damming/ vulcanicity.**
- **RWERU is a lake** due to **alluvial deposits/ Back ponds of a river.**

17. a) Vegetation A : Tropical rain forest/ Equatorial rainforest
B: is the Savannah / grassland vegetation

b) - Difference in climatic conditions
- Differences in soil fertility
- Altitudinal location
- Influence of man's activities.

c) – Lumbering, Hunting, Mining, Agriculture, Wild life conservation, Areas for scientific research, Bee keeping, Charcoal burning, settlements, construction of transport routes

d) - Economic activities affect vegetation in these ways: (any 4points = 2marks)
- Lumbering leads to Deforestation hence disappearance of some tree species.
- Over cultivation which lead to soil infertility.
- Loss of biodiversity
- Exhaustion of some resources.
- Soil erosion due to over cultivation and lumbering.
- Fire outbreak due to careless tourists and bee keeping.

• Protection ways:
- Protection of wild life and environment
- Use of guards to protect forests from being destructed.
- Stopping burning and hunting for protection of animals
- Afforestation
- Reforestation
- Environmental education
- Diversification of economy
- Control lumbering
- Control of population growth
- Rural electrification.

END