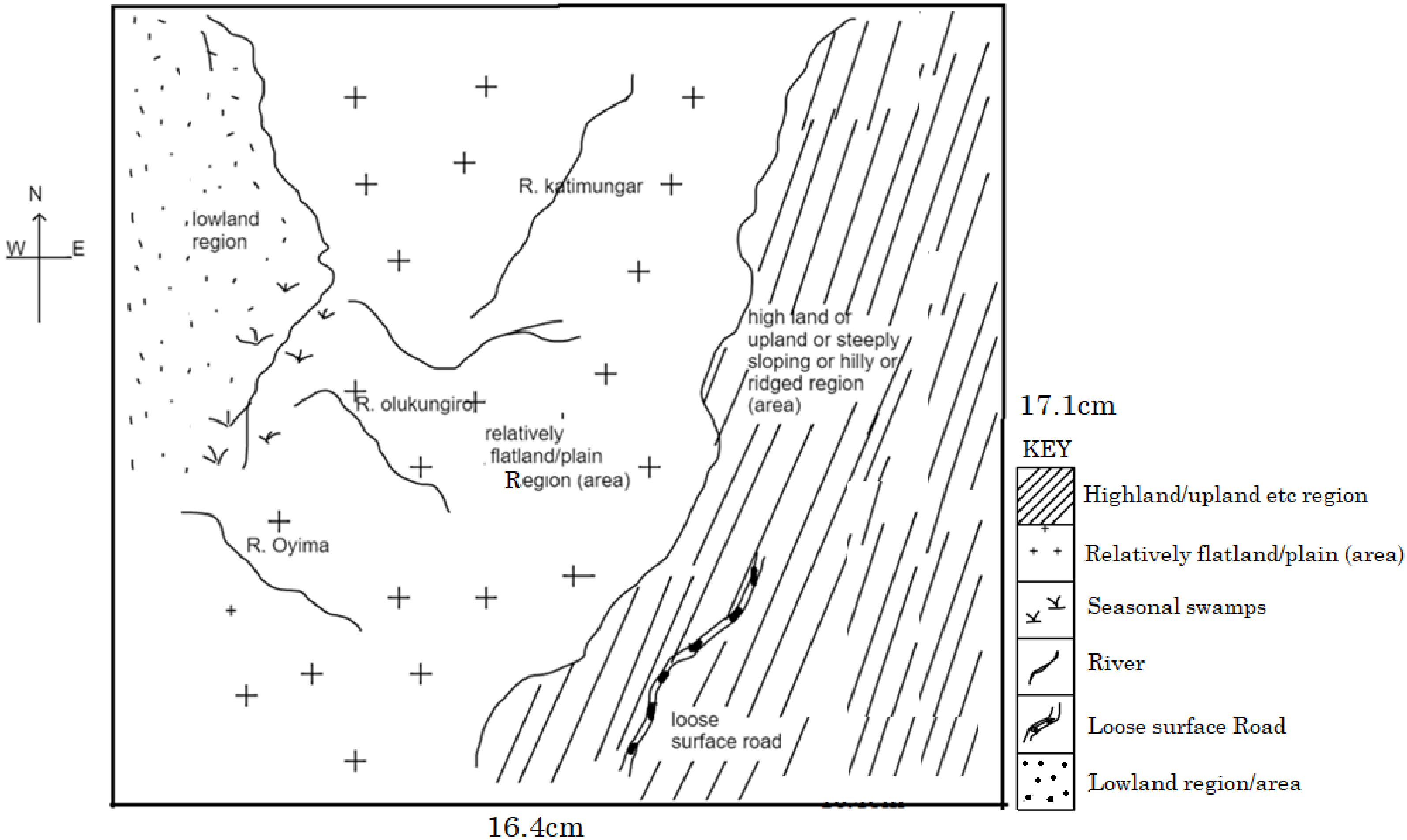
MATIGO EXAMINATIONS BOARD

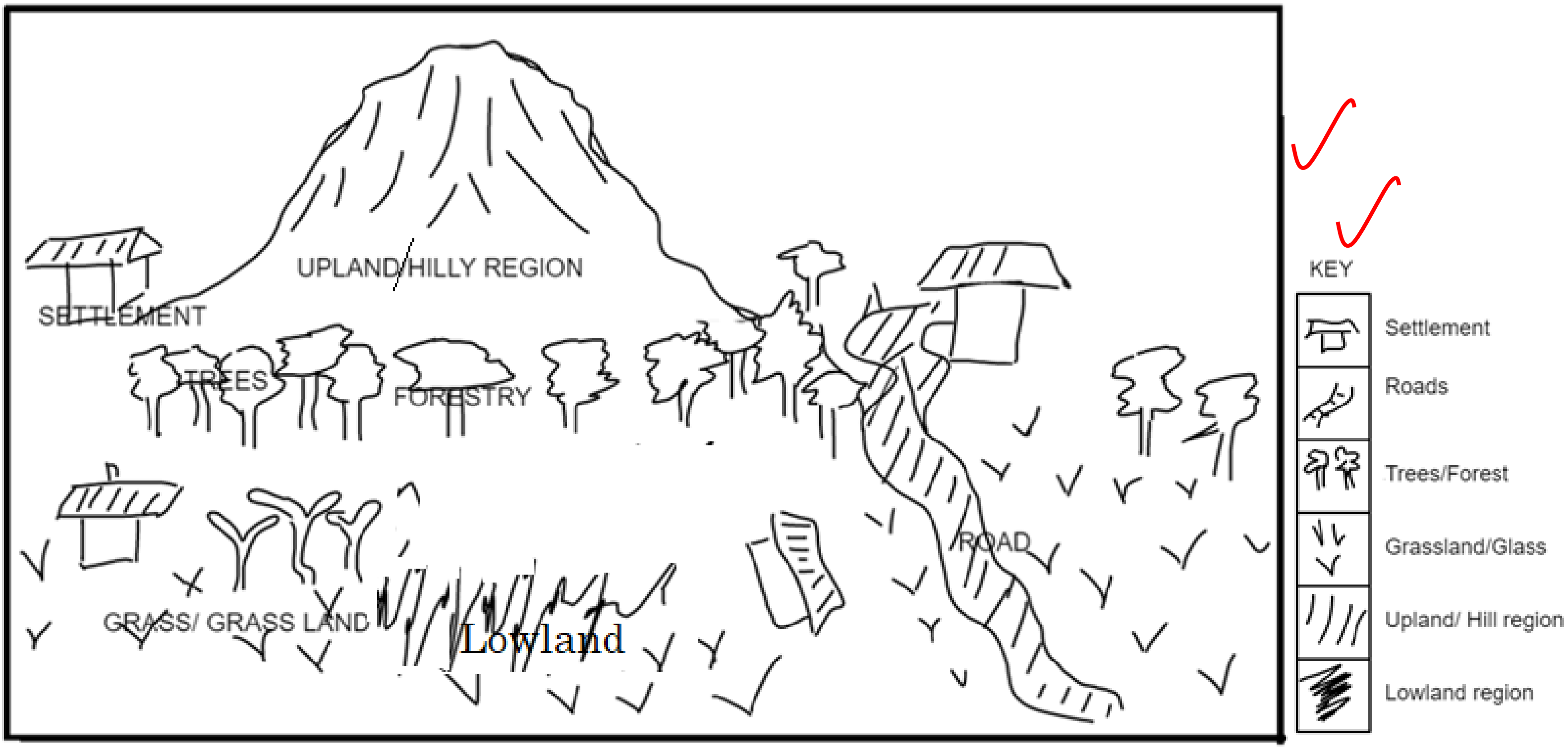
P250/1
GEOGRAPHY
(PHYSICAL GEOGRAPHY)
MARKING GUIDE 2023
PAPER 1

Qn	Answer	marks
	This paper has 3 sections: **A, B** and **C**, Section A is factually marked, section B and C are marked by impression. Read thoroughly through all the candidate's work and make comments before giving an award. Follow the guidelines below for impression marking. 0 – Totally irrelevant I – 8 rudimentary/scattered facts 9 – 11 'O' level answer 12 – 14 Basic 'A' level answer 15 – 17 Good but not outstanding 18 – 20 Very good answer 21 – 25 Excellent answer. N.B 1. Avoid unnecessary crossing of the candidate's work 2. When in doubt consult your team leader.	
(a)(i)	The man-made feature found at G.R 802091 is a borehole	01
(ii)	The G.R of the Air Photo principal point on Kakuta ridge in the North East is 821162	01

<table>
<tr>
<td>(b)</td>
<td>A SKETCH MAP OF ALEREK REDUCED BY 0.4 TIMES SHOWING TWO RELIEF REGIONS,TWO DRAINAGE FEATURES AND ONE TRANSPORT ROUTE

</td>
<td>M1 – 04 Marks (T, F, K, D)
Features – 05 Marks

Total 09</td>
</tr>
<tr>
<td>(c)(i)</td>
<td>The new scale for the map drawn; formula; New scale = original scale X reduction formula
New scale = ${}^1/_{50,000} \times {}^4/_{10} = {}^1/_{125000}$
New scale = 1: 125000</td>
<td>Method /formula: 01 mark
Answer : 01 mark</td>
</tr>
</table>

(ii)	**Description relief:** • The area has hills /uplands in the South /South East • There are low lands in the North, Central, and Western etc. • There are Conical hills in the South East • There are ridges in the South, South East, and North etc. • There are Saddles/Cols in the South, North West, and South East etc. • There are steep slopes on hills in the South, South, South East, West, and North East. • There are gentle slopes in the South and North East. • There are broad valleys in the West and North. • There are spurs in the South East etc. *N.B Candidates may specify or use place names to locate relief features.*	*Max* 07
(d)	**Problems faced by the people living in the area.** • Difficulty in construction of roads due to steep slopes of highlands or ridges in the South & South East e.g. Abiting, Adwor etc. • Soil erosion due to steep slopes e.g. Apekidor in the South East etc. • Mass wasting / landslides due to steep slopes in the South & South East e.g. Apekidor etc. • Difficulty in mechanization of agriculture etc. due to steep slopes in the South, South East etc. • Limited land for cultivation due to steep slopes e.g. Abiting etc. • Limited land for settlement due to steep slopes e.g. Apekidor etc. • Flooding due to presence of low lands/swamps in the West, North West etc. • Pests and disease vectors from the swamps in the West, North West etc. *N.B: Points must be illustrated with examples from the map extract. without examples, a candidate gets zero* P.T.O	*Any* 5×1 $= 05$ *marks*

	COMPULSORY PHOTOGRAPH INTERPRETATION QUESTION	
2(a)	A LANDSCAPE SKETCH OF THE AREA SHOWN ON THE PHOTOGRAPH SHOWING TWO RELIEF REGIONS, THREE LAND USE TYPES AND TWO VEGETATION TYPES. 	*MI* = 03 (*title*, *frame*, *key*) *Features* = 07 *Total* 10
(b)	**Accounting for the formation of the land form feature in the background:** • The feature should be identified as either volcanic hill, inselberg /tor/volcanic plug. • Process of formation (of all the above) is vulcanicity. • -The cause/origin of vulcanicity is radio activity and convectivity, geo-chemical reactions: This resulted in creation of lines of weakness or vents. • Through these lines of weakness viscous magma was intruded into the earth's crust, cooled and solidified in the crust. • Weathering and erosion later exposed the intrusion which became more resistant to form inselberg /tor or residual hill. **OR** • Through the lines of weakness lava and ash were extruded on to the earth's surface, where they cooled and solidified.	07

	• Denudational processes acted on the extrusion forming a volcanic hill/plug.	
(c)	**Relationship between relief and land use:** • Low land/plain land /flat land in the foreground (right fore ground) is used for settlement due to easy construction. • Gentle slopes in the left middle ground are used for settlement due to easy construction. • Gentle slopes in the right middle ground are used for forestry due to well-drained soils, easy accessibility etc. • Gentle slopes in the right middle ground are used for road construction due to easy construction. • Gentle slopes in the middle ground are used for crop cultivation due to presence of well drained fertile soils and easy accessibility and mechanization.	*Relief* *Location* *Land use* *Reason* Any 3×2 $= 06$ *marks*
(d)	Areas should include: • Nakasongola • Kumi • Soroti • Mubende • Kachumbala (Bukedea) • Tororo (Plug) **Reasons:** • Presence of volcanic plug/ hill, inselberg, tor	Area – 01 mark Reason – 01 mark *Total 02marks*
3(a)	**Distinguish between Tectonic movements and Diastrophic movements.** Tectonic movements are differential movements of the earth's crust which are either lateral or Vertical, rapid or slow within the earth's crust. They are caused by geochemical reactions and radioactivity. • Examples include faulting, warping, folding, earth quakes and vulcanicity. *While:* Diastrophic movements are differential movements (disturbances) of the earth's crust arising from geochemical reactions and radioactivity but excluding Vulcanicity. • Examples include faulting, warping, folding, earthquakes.	03 *Consider :* *Definition* *Origin /causes* *Examples.* 03 *Definition* *Origin /causes* *Examples*
(b)	**With reference to specific examples from East Africa examine the effect of faulting on the landscape.** • Candidates should; • Define faulting • State the origin / cause	

- Describe the landforms due to faulting giving examples in East Africa
- Draw diagrams/illustrations.

Faulting refers to fracturing/breaking/rapturing of rocks due to strain and stress which subsequently leads to dislocation and displacement of rock strata.

Faulting is caused by connectivity and radioactivity within the mantle which generate heat that melts mantle rocks, creating convection currents which exerts forces on the earth's crust responsible for the formation of a wide range of relief features in East Africa.

Effects of faulting on the land scape include:

Rift valley: A rift valley refers to an elongated trough bordered by two or more in facing fault scarps. The rift valley of East Africa is in two arms i.e. Eastern arm and western arm.

The formation of the rift valley has been explained by *3 theories*.

Tension theory: This was put forward by J W Gregory.

According to this theory radioactive and convective currents produced tension forces within the earth's Crust.

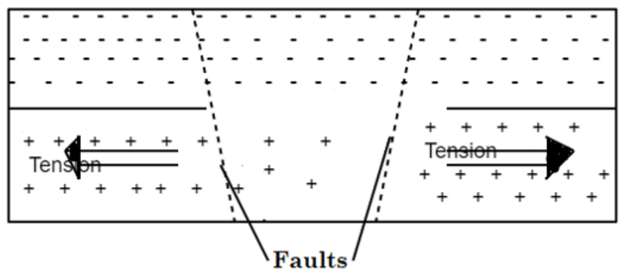
Tension forces pulled the earth's crust in opposite directions. As a result normal faults were produced displacing rock strata.

Side blocks were separated from the middle block.

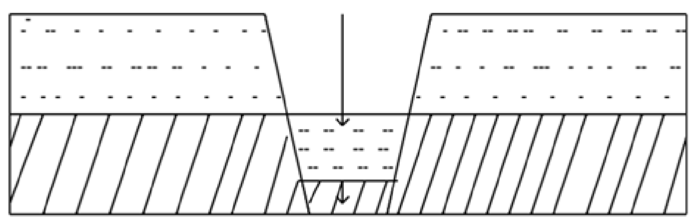
The middle block later lowered/sank under its own weight forming a rift valley with gentle slopes.

Erosion and mass wasting later modified the slopes.

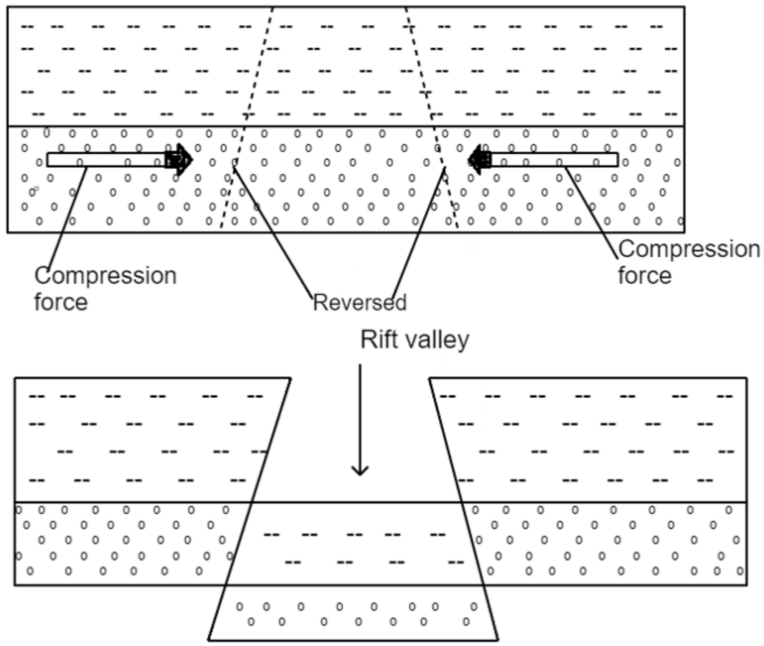
This theory is more applicable to the Eastern Kenya Rift valley (Gregory Rift)



Riftvalley



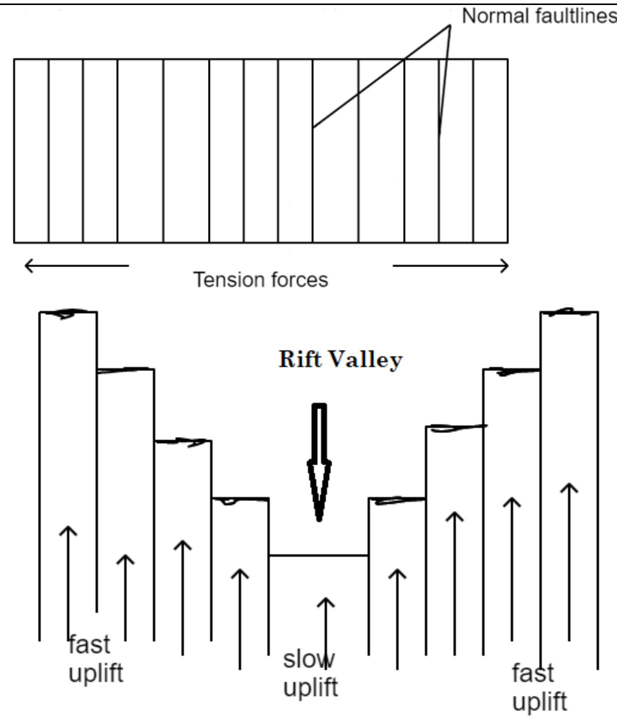
Compression force theory: This theory was put forward by **EJ wayland**. According to this theory, strain developed in East Africa crust as compression forces pushed in the same directions (converged).
As a result reversed faults were produced.
The side blocks were forced to over-ride (up thrust), hanging above the central block.
The central block thus forced the rift valley with steep/sharp edges.
The sharp edges were later modified by erosion and mass wasting.
The theory is more relevant to the western arm of the east African rift valley especially the Albertine Rift Valley.



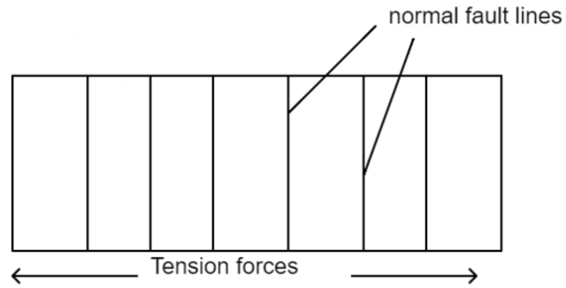
19

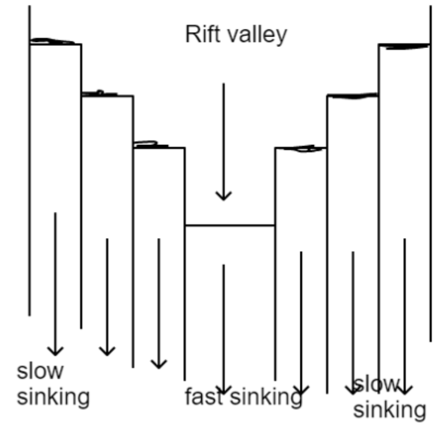
Differential theory: (differential uplift and relative subsidence/sinking)

Differential uplift theory:
This theory was put forward by **Dixey** and **Troup**. This theory dealt with the Nairobi part of East African rift valley of Kenya that is step- faulted.
According to this theory, there was a period of general uplift of part of the East African Crust.
This led to formation of several parallel fault lines.
Blocks on the either side of the central block rose faster while the middle block lagged behind in stages.
At each stage a block formed a terrace e.g. kendang scar near Nairobi appearing as several terraces rising from the rift valley floor.
The gap in the middle of terraces formed the rift valley.

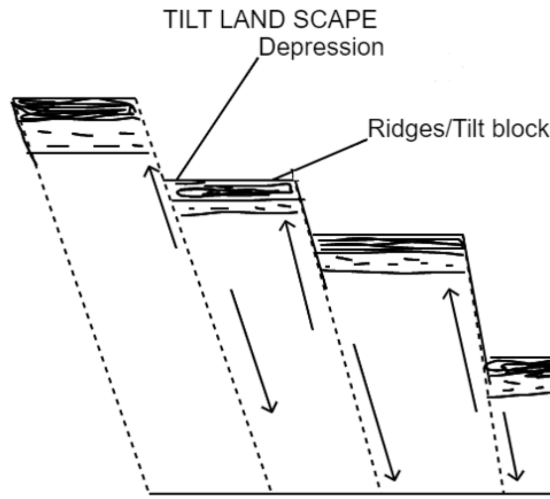


Relative sinking (subsidence)theory:
This theory was also put forward by **Troup and Dixey**
According to the theory, there was extensive faulting in East Africa which created multiple parallel faults.
That within the mantle, there is intense heat originating from radioactivity and geo chemical reactions. This heat melts down the interior rocks. These rocks then begin to move in form of convective currents upwards towards the crustal plates.
When these rocks become colder and hence heavy, they sink or flow back in the mantle and as they do so they exert a drag force which pulls the crust blocks downwards thus sinking of the crustal blocks along each fault.
The central block sank faster than those on either side to form a step or terraced rift valley.





Tilt block landscape:
This is an upland of inclined crustal blocks. It has angular inclined ridges and depression formed by multiple faulting and vertical movements which displaced the faulted crustal blocks at different rates to form a series of tilted faulted blocks. Examples are Aberdare ranges in Kenya and kichwamba in Uganda.

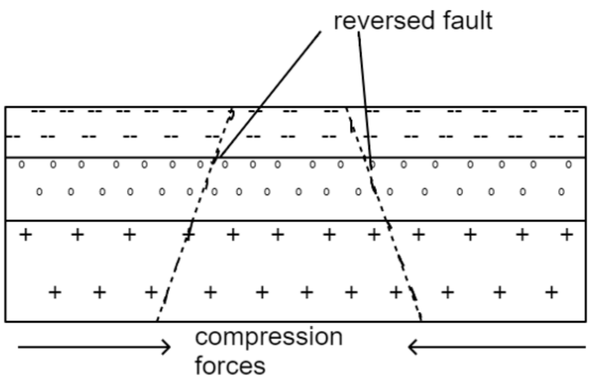


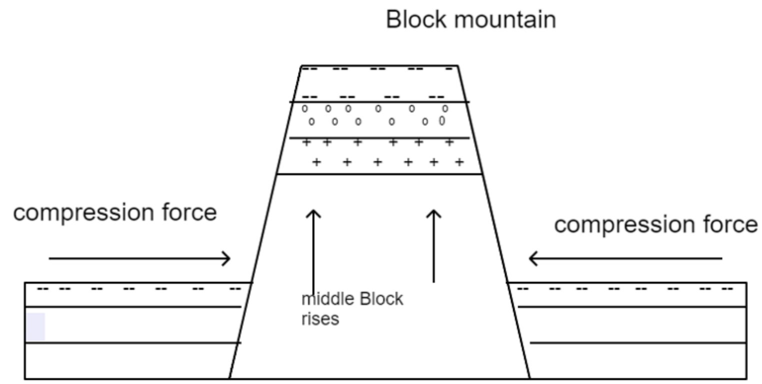
Block mountain / Horst: this is an upland boarded by fault scarps on either side.
Examples of block mountains are Rwenzori ranges in Uganda, Pare and Usambara in Tanzania.
The formation of block mountains explained by three theories i.e

- Compression force theory by way land;

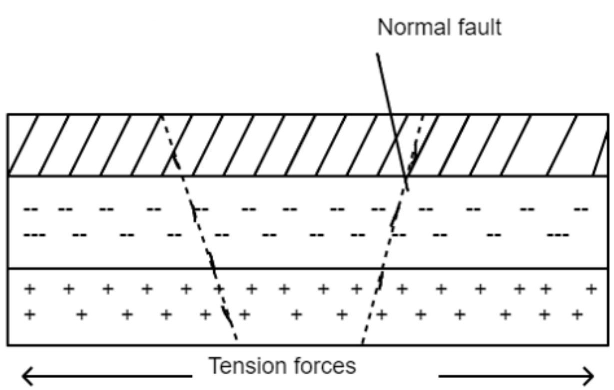
According to this theory compression forces pushed crustal block of land on either side resulting into stressing hence the development of reserved fault lines.

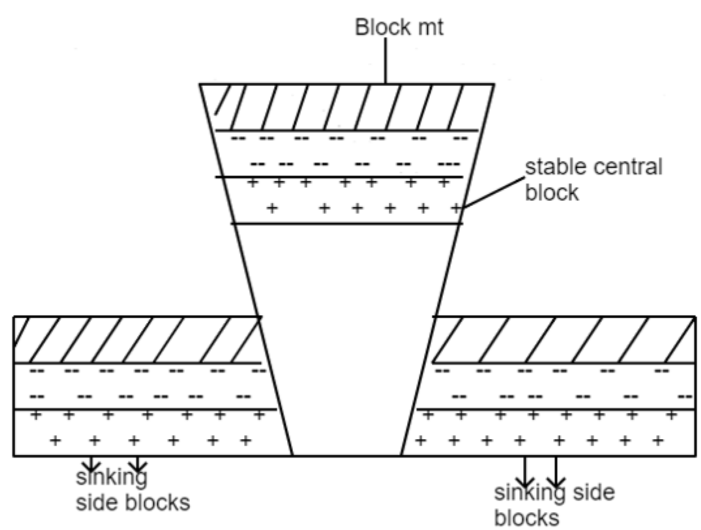
The fault lines divided the crust block into three parts. As the compression forces continued, the middle/central block was thrust upwards above the two adjacent blocks/ surrounding blocks to form a block mountain



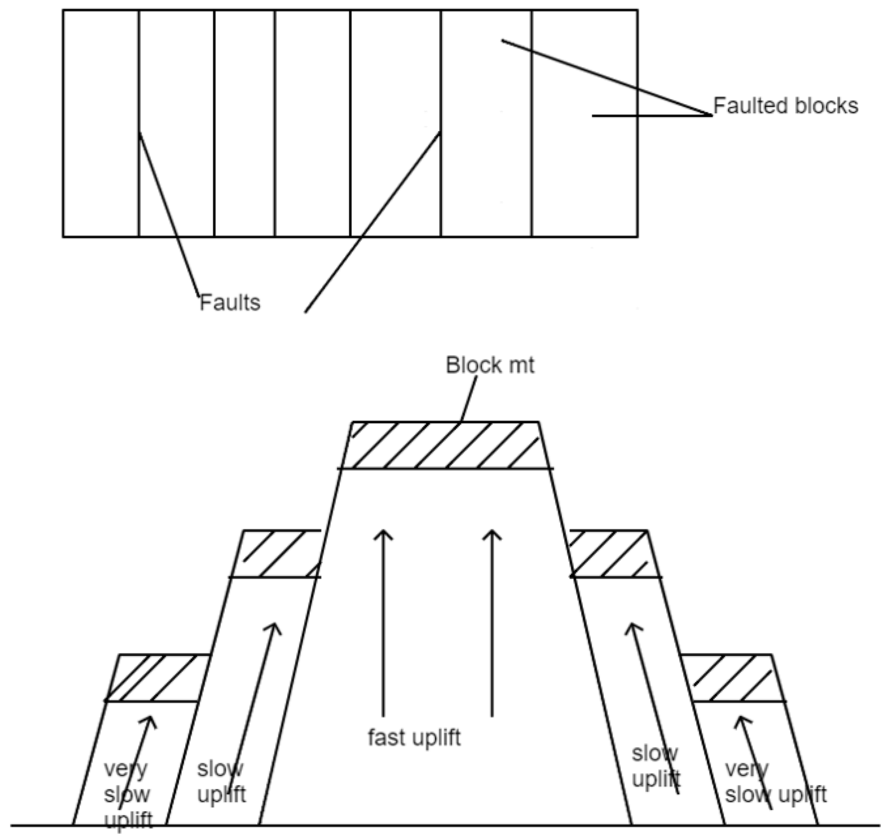


Tension forces theory: this theory also explains the formation of block mountain. According to this theory tension forces act on the earth's crust by pulling in opposite direction from each other. This is when convection currents move horizontally in different directions hence the development of parallel normal faults in the crust.
The faults divide the crust into three parts.
The continued tension forces lead to the subsidence (sinking) of the side blocks.
The middle block remains stable high above the side blocks as a block mountain.

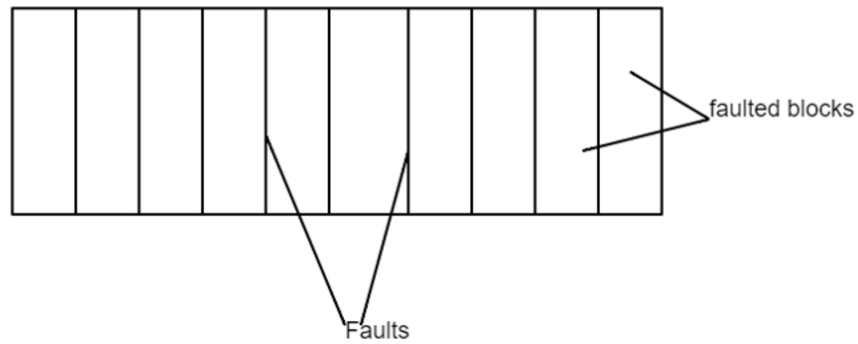


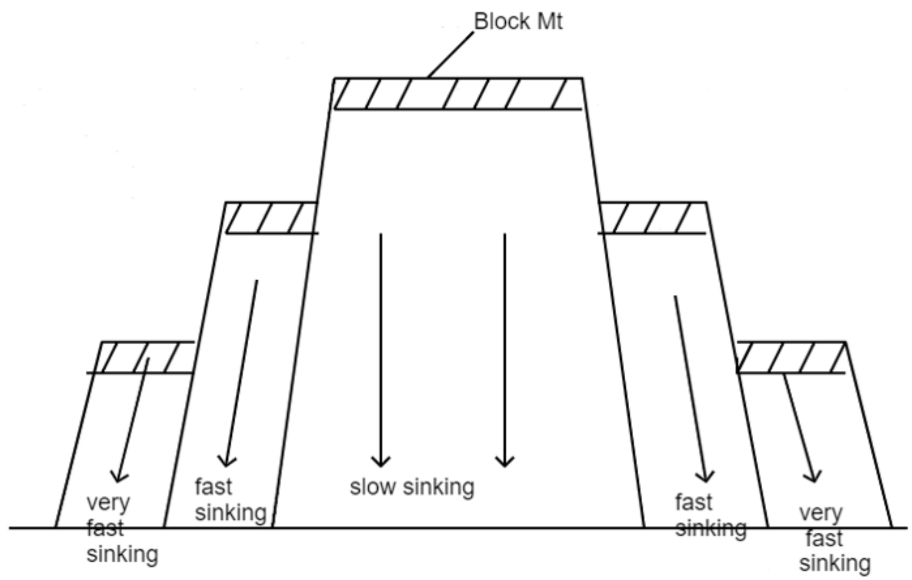


Differential uplift theory equally explains the formation of block mountains.
According to this theory tension or compression forces led to the occurrence of multiple fault lines hence creating multiple crustal blocks.
This was followed by general uplift of the faulted area
Forces of uplift operated on the crustal blocks with varying strength.
The up lift was strongest on the central blocks which rose higher than the side blocks to form the peak of the block lagged behind to form the sides of the block mountain.

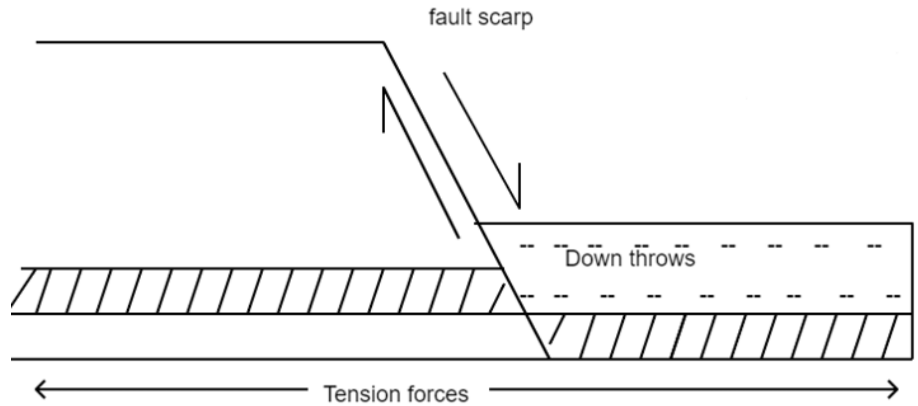


Relative sinking theory. This equally explains the formation of block mountains
According to the theory faulting due to tension and plate tectonics movements resulted in the formation of parallel multiple fault lines.
This was followed by gradual general sinking of the faulted region due to sinking convective currents. The sinking was however not uniform as the side blocks sank at a faster rate than the central blocks which lagged behind to form block mountains.





Fault scarps/Escarpments: This is another feature produced by faulting on the land scape
A fault scarp is a steep slope a long s fault
It is formed when convective currents underground led to the development of tension forces which created normal fault line.
The rocks on one side of the fault line are displaced down wards to form escarpment/ fault scarp



Examples of fault scarps include Butiaba, Kyambura, Kichwamba, BISO all in the western Uganda (western arm of rift valley) Nandi and Mau scarps in the eastern arm of the rift valley.

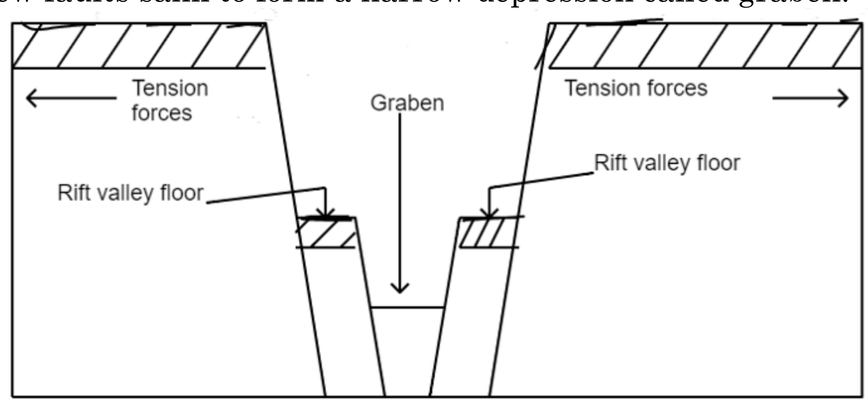
Graben: This is a narrow depression found in the floor of the rift valley.

It is formed by either tension or compression force within the rift valley floor that causes secondary faulting.

According to the tension theory, the earth's crust was subjected to tension forces which pulled the crust apart to form normal faults an this forced the middle block to sink down forming a rift valley

Secondary faulting occurred on the rift valley floor causing new normal parallel faults.

The block between the new faults sank to form a narrow depression called graben.



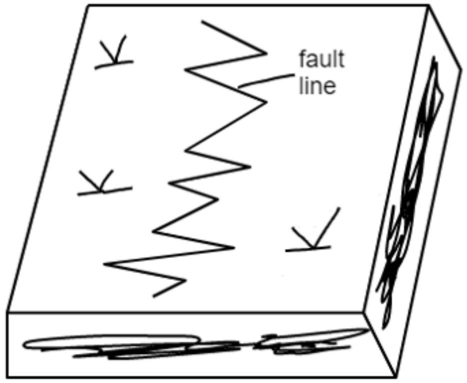
Examples of Grabens include: Albert, George, Edward, Tanganyika, Turkana etc.

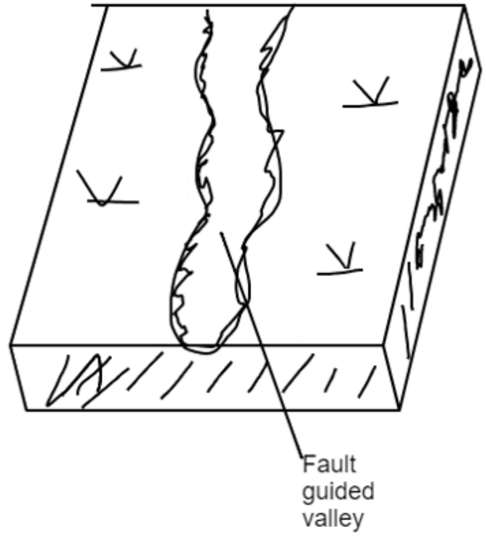
Fault guided valley: This is a depression located along a single fault.

It develops following the pattern of a fault line.

It occurs where a single fault line develops in the land as result of tensional and compressional forces.

The rocks along the fault line are displaced and shattered making them easily eroded away by a river to form a fault guided valley.





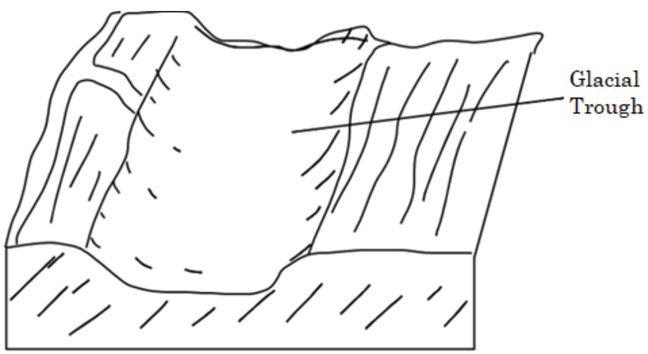
Examples of fault- guided valleys are rivers Aswa in Northern Uganda, Kerio Valley in Kenya, etc.

4 Account for the formation of land forms associated with the glacial trough in East Africa.

Candidates should;

- Define glacial trough and explain its formation
- Describe processes of glacial erosion.
- Explain formation of features associated with glacial troughs.
- Diagrams/illustrations must be given.

Glacial trough is a broad flat – bottomed and steep sided valley with roughly U- shaped cross profile. It is formed when glacial processes of plucking and abrasion widen and deepen a former river valley. Example include Mubuku, Kamusoso, Bujuku all on mountain Kenya. Kiranga Valley on mountain Kilimanjaro.



Land forms associated with glacial through result from glacial erosional processes which include.

Plucking. This is the process which removal of rock fragments along the landscape as the glacier moves downslope.

The weight of glaciers exerts a force on the land scape and as the glacier starts moving, the force drags off protruding loose rock fragments leading to formation of glacial features.

Abrasion. This is a grinding process or sand papering effect in which rock particles such as pebbles and boulders embedded in the glacier are used as a grinding tool along the glacier channel.

Frost shattering/freeze and thaw: this process involves expansion and breaking up of rocks due to extreme pressure created by snow/ice within the jointed rocks.

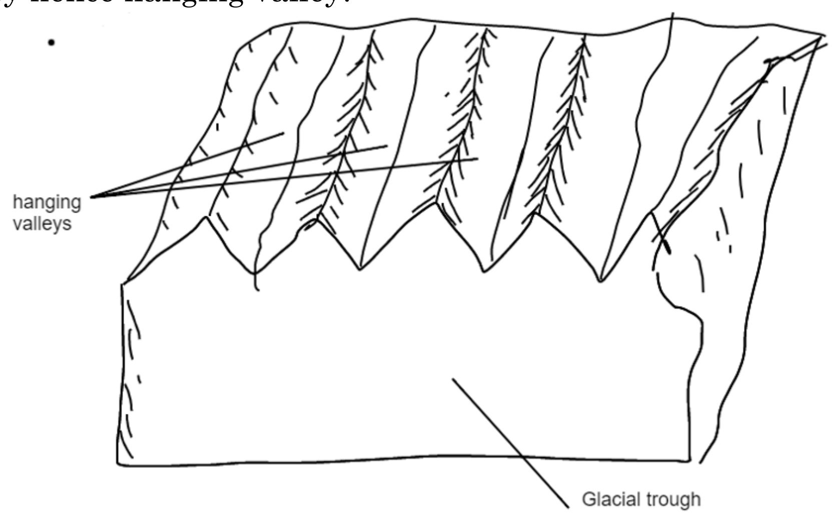
When glaciers form in a jointed rock, they exert pressure on the sides of the joints leading to break up.

Basal sapping (Basal slip).This is where the glaciers slip and slide over the underlying rock floor thereby polishing and scouring the surface. Hence it is the force of the moving ice that does the erosion.

Through the above processes a number of land forms associated with glacial troughs have got formed and these include:

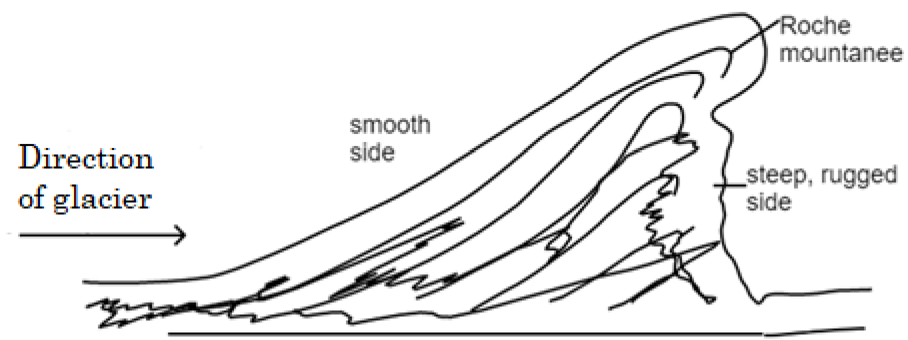
Hanging valleys: These are tributary valleys left high above the main valley.

They are formed when little glaciers occupy the tributary valleys while much glacier occupies the main valley. As a result the main valleys are eroded more than the tributary valleys. The tributary valleys are left high above the main valley hence hanging valley.

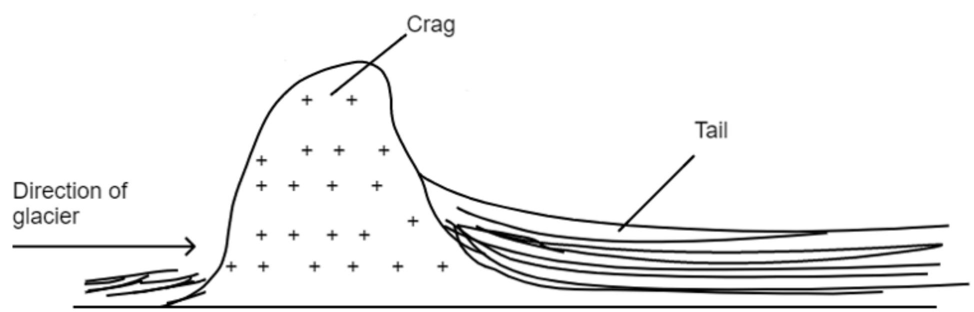


Examples of hanging valleys include Nith valley on mountain Kenya.

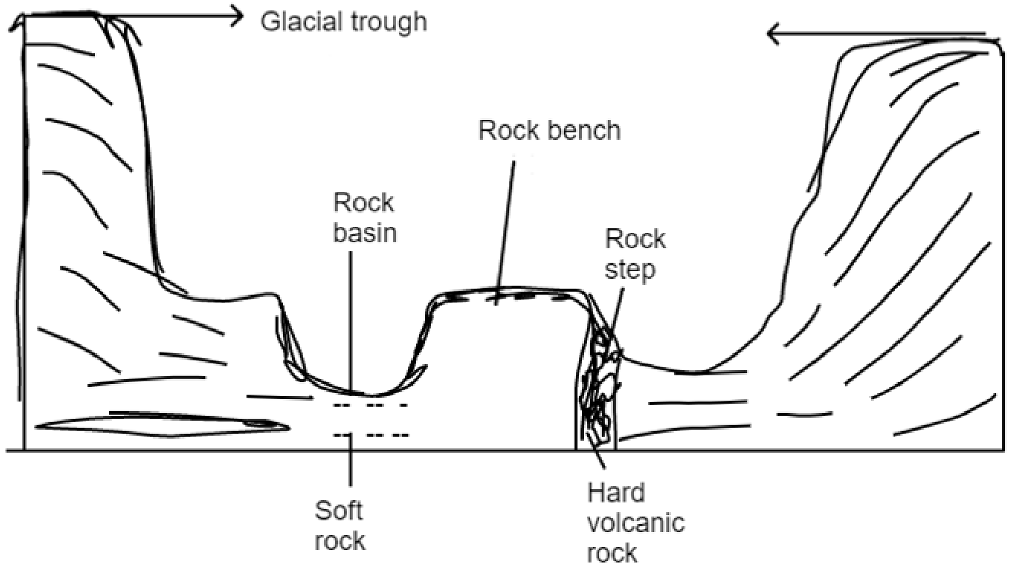
Roche moutonnee (stoss and lee). This is a resistant rock which rises above the general level of a glaciated floor. Its top is smoothened by abrasion while its end downstream is steep and rugged due to plucking. Glaciers slide over the smooth side and eventually break on reaching the top and fall down stream causing plucking.
Examples are along Mubuku Valley on mountain Rwenzori and Gorges valley on mountain Kenya.



Crag and tail: A crag is an outcrop of resistant rock obstructing the movement of glaciers and protecting the weaker rocks on the leeward slope from being eroded by glaciers.
The obstacle rocks forms the crag while the elongated protected weak rocks form the tail
Examples are commonly on mountain Kilimanjaro between Kibo and Mawezi peaks

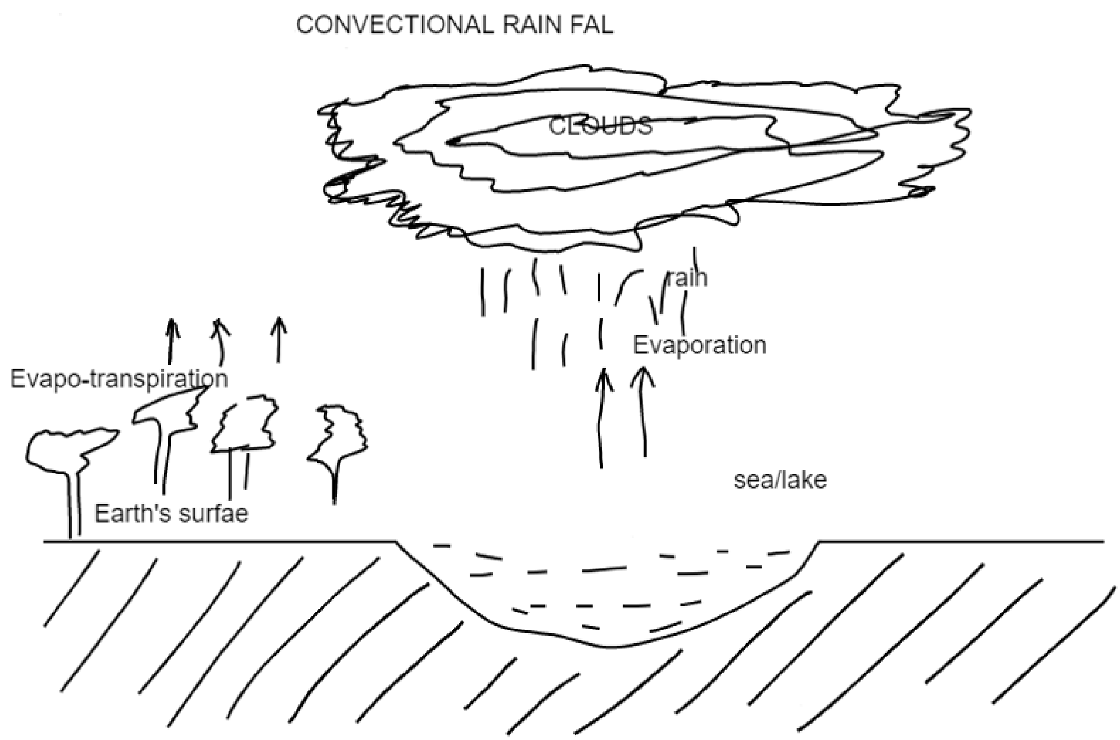


Rock steps: These steps in glacial trough commonly occurring when a tributary glacier formerly joined the main valley glacier.
When a tributary glacier joins the main glacier, the additional weight of the ice on the main glacier causes it to erode more vigorously and cut deeper at the point of convergence to form rock steps
Examples are on Gorges valley on mountain Kenya
Rock basins: A rock basin is a shallow depression on the floor of a glaciated valley (glacial trough).

	Abrasion and plucking may scour out shallow or deep depression on the valley floor depending on the difference in the rock resistance. Where rocks are soft , deeper depressions are created called rock basin e.g. on mountain Rwenzori rock basins contains lake e.g. lake Noir **Rock benches:** These are terrace like features lying above the steep walls of the glacial trough They are formed when a glacier does not occupy the entire valley. Examples are Gorges valley on mountain Kenya.  **Truncated spur:** These are former inter locking spurs whose lower ends have been cut off by freezing and thaw during the formation of glacial trough. Examples are found around Margherita and Speke peaks on mountain Rwenzori.	
5(a)	**Distinguish between emergence and submergence of coastline.** Candidate should • Define • Give causes of each **Emergence of coastline**: this refers to coastlines where land has risen relative to the sea or the sea level has fallen relative to the adjacent land. The result is that areas formerly under water become exposed (emerge) Causes include Rise in the level of adjacent land due to isotactic uplift Fall in the level of the sea due to drought, glaciation, global warming etc.	06

	While: **Submergence of coastlines:** This refers to a situation where coastlines have fallen relative to the sea or the sea has risen relative to the coast. This leads to formerly dry land being covered by water. Causes of submergence include; Fall in the level of adjacent land due to sinking Rise in the level of the sea due to pluviation (heavy rainfall), deglaciation etc.	
(b)	Candidates should; • Define Eustatic changes • Identify and explain the causes of Eustatic changes. Eustatic changes refer to rise or fall in the level of the sea relative to land at global or world-wide scale The causes of Eustatic changes include: Rainfall (precipitation). Increased rainfall (pluviation) in the upstream areas leads to a rise in sea level relative to land i.e positive Eustatic change While reduced rainfall characterized by drought (desiccation) leads to a fall in sea level (negative Eustatic change) e.g. during the 1997/98 el-nino the level of lake Victoria rose up dramatically Temperature changes. Increase in temperature causes expansion of water molecules in the water bodies leading to a rise in sea level relative to land. However, reduce temperatures (low temperatures) causes contraction of water molecules in water bodies leading to a fall in sea level relative to land. Glaciation and deglaciation. Deglaciation which involves ice melting due to increased temperatures leads to a rise in sea level relative to land as ice melts and flows into the sea. Glaciation (formation of ice) on the other hand involves freezing of water on high mountains and polar regions. This leads to a fall in sea level relative to land. Sedimentation: Deposition of sediments by rivers in the ocean basins leads to a rise in sea level relative to land as sediments displace water upwards. Rivers e.g. Tana, Rufigi, Ruvuma flow into Indian ocean with a lot of sediments. Tectonic movements. These include warping, faulting, Vulcanicity etc. Warping: Up warp of coastal areas and down warp of ocean basins leads to a fall in sea level. While down warp of the coastal areas and up warp of ocean basins leads to a rise in sea level. **Faulting:** plate divergence (tension) causes expansion of the ocean basins leading to a fall in sea level. While contraction of ocean basic (compression) due to plate convergence leads to a rise in sea level.	19

	Volcanicity: Volcanicity at constructive plate boundaries and subduction displaces water upwards hence rise in sea level relative to land. **Isostatic adjustments:** Thus involves addition of large amounts of weight (loading) or removal (unloading) of weights on a region. The addition of sediments on coastal areas increases the down ward pressure on the coastal land. This causes sinking slowly of the coastal areas leading to arise in sea level. On the other hand, the removal or wearing down of the coastal landmass by weathering and erosion reduces the pressure (weight) on the land mass. This could also be due to melting of ice. This results into isostatic uplift of land leading to a fall in sea level relative to land.	
	SECTION C	
6(a)	**Distinguish between mist and hail.** Definition Formation **Mist** This is a layer of water droplets close to the ground surface forming a low cloud. It forms due to cooling of air beyond its due point. Mist limits visibility to between 1- 2 kilometer. (03 marks) *While* **Hail** This is the type of precipitation which falls in form of small spherical pellets of ice with a diameter of approximately 5-50 millimeters. Its formation is a associated with conditions of extreme atmospheric instability. Very low temperatures cause super cooling and coalescence of water into ice/hail. It is common in unstable cumulo-nimbus clouds where vertical uplift of air is strong enough to carry condensed droplets above to great heights of freezing level where they are turned into ice crystals and fall back to earth as hail. Hail is common in Kericho areas of Kenya. (04 marks)	07 marks

(b)	**Account for the formation of convectional rainfall in East Africa.** Candidates should: • Define convectional rainfall. • Show where it occurs. • Describe formation. • Explain factors for formation. Convectional rainfall is the type of rainfall which occurs when the ground surface is heated leading to upward movement of warm moist air. The air rises and cools to form cumulo – nimbus clouds which let out water as convectional rainfall accompanied by thunder and lightning This type of rainfall occurs throughout the year and is common in the tropics e.g. in Kisumu, Kampala, Mukono etc. It occurs throughout the year at the equator and in summer in mid-latitudes.  	18

	Factors for the formation of convection rainfall in East Africa. Presence of water bodies e.g. Indian ocean, lake Tanganyika Victoria etc. these water bodies provide large amounts of moisture through evaporation which reaches the atmosphere leading to formation of convectional rainfall. Latitude: East Africa lies astride the equator. As a result it experiences intense heat and high temperature due to solar insolation. These spark off convection currents in low land areas. Air rises and cools leading to formation of nimbus clouds and consequently convectional rainfall. Meeting of trade wind in the pressure belt (ITCZ) triggers off the upward movement of convectional currents. This leads to formation of clouds through condensation and finally rainfall. Dense vegetation: e.g. forests like Budongo, Mabira in Uganda, Kakamega, Arabu – Sokoke in Kenya and swamps lead to high evaporation rates. The moisture recharges the atmosphere, rises cool to form clouds and eventually rainfall. Human activities e.g. afforestation large plantations e.g. Kericho and Kasaku tea estates lead to increase in rainfall through evapo-transpiration. Water vapour from the green belts goes to the atmosphere, cool and forms clouds leading to rainfall. Impression	
7(a)	**Describe the characteristics of papyrus vegetation.** • Candidates should • Define papyrus vegetation • Identify where it occurs • Describe characteristics **Papyrus vegetation** is a tall grass-like plant mainly found in low lying, poorly drained areas. They commonly exist along coastal areas e.g. along lake Victoria at Sango bay in Rakai district. They also occur along rivers e.g. Katonga, Kafu e.tc. **Characteristics** • Plants are ever green due to availability of abundant water supply. • Plants grow close to each other to increase stability in muddy unstable grounds. • Plants have fibrous roots which spread on top of water. • Papyrus vegetation has straight spongy system. • They develop a uniform canopy. • The plants have thread-like leaves on top. • They grow to a height of 3-4 metre tall. • The dominant plant species is papyrus reeds. • Plants have 3-sided stems.	10

(b)	**Explain the conditions that have influenced the distribution of papyrus vegetation in East Africa.** Candidates should: • Describe distribution • Explain conditions Papyrus vegetation exists. Along the east African Coast, along lake shores e.g. lake Victoria, Kyoga, along rivers e.g. Mpologoma, katonga etc. **Factors for distribution:** Climate: moderately heavy rainfall well distributed throughout the year favours growth of papyrus plants e.g. at Naigombwa wet lands in Iganga. Moderate/high humidity favours growth of papyrus plants. Hot temperatures of about 27℃ also favours the distribution of papyrus vegetation. Relief. Papyrus grows well in water logged low lands. Altitude: low altitude of about 500 meters above sea level encourages the growth of papyrus because it encourages high temperatures and water logging. Soils. Deep fertile alluvial clay soils along rivers and around lakes support growth of papyrus e.g around lake Kyoga. Favourable government policy that prohibits swamp reclamation has led to continued existence of papyrus vegetation.	15
8	**Examine the processes and effects of soil erosion in East Africa.** Candidates should • Define soil erosion & identify areas of occurance • Describe processes of soil erosion • Examine effects (both positive and negative)of soil erosion Soil erosion refers to the removal or washing away of the top thin layer of soil by agents like wind, running water, glaciers etc. the detached soil is then transported and deposited in some other place. In East Africa soil erosion occurs in high land areas like Kabale, Elgon, KeNYA highlands. Other areas include Kondoa region in Tanzania, Ankole-masaka corridor, kotido, Machakos etc. Processes of soil erosion dominant in east Africa include; splash erosion. This process of erosion is one associated the impact of rain drops. Heavy rain drops destabilize the soil as they strike the ground. The loose soil particles are scattered in various directions. The scattered soil particles are later pulled away by gravity	

and fed into running water which washes them away. This is common in arid & semi arid areas e.g Ankole, Kotido

Sheet erosion: this process involves uniform removal of a thin layer of top soil by running water, wind, glacier etc.

It involves slow movements of thin layer of soils over a wide or extensive area.

Sheet erosion mainly occurs on gently sloping land which is bare i.e occur in areas where vegetation has been removed e.g in Mbarara, Bushenyi etc.

Rill erosion: this the process of erosion in which numerous small channels are formed and these channels guide soil movement due to influence of running water on the surface of the slope.

Rill erosion mainly occurs on the gentle slopes where vegetation has been cleared.

Occurs where rate of surface run off exceeds the rate of infiltration of water, common in areas that receive frequently rainfall e.g. around the shores of lake Victoria like Mukono, wakiso etc.

Gulley erosion. This is where soil is washed away downslope through deep, wide channels or grooves.

It is common along steep or gentle slopes receiving very heavy rainfall.

Here the deep channels or gullies result into creation of wasteland.

This process is common on steep slopes where vegetation has been removed e.g. Kondwa region of Tanzania, Baringo in Kenya, kanale , Kabarole etc in Uganda

Wind/deflation erosion. This is the removal of soil particles from one area to another by wind.

It is common on generally flat dry areas with little or no vegwtation cover e,g chalbi, desert in Kenya; kotido & moroto in karamoja region etc

Here small particle are blown away by wind and later deposited to form sand dunes

NB illustrations must be considered

Effects of soil erosion in East Africa. Include

N.B effects are both positive and negative

Soil erosion leads to loss of fertile top soil leaving behind poor soils resulting into low crop yields and hence famine e.g in Kotido, moroto, Kondwa regions

Soils results into creation of bare ground with very little or vegetation cover lading to desertification e.g in kotido, moroto, Turkana etc.

It leads to siltation of wetlands, valley dams, river and lakes. This refers quality of water for domestic and industrial use and also limits fishing activities e.g. River Manafa is silted by eroded soil from elgon slopes.

It leads to flooding through siltation of rivers & wetlands e,g in Butaleja silting of river Manafa has led to frequent flooding.

Water and wind erosion causes pollution of water sources hence increasing the cost of water purification.

Soil erosion lowers the water table hence reduction of surface water leading to drying up of boreholes, wells, swamps.

	It creates gulley and wastelands which are a hindrance to communication as well as cultivation e.g in Kigezi highlands (Kabale&kisoro), mountain Elgon slopes. It results into pasture shortage in pastrol areas e.g karamoja, Turkana. This is because soil erosion removes top fertile soil and prevents growth of vegetation cover. Soil erosion causes landslides (mud flow) especially in hilly areas during periods of heavy rainfall leading to death of people and destruction of properties e.g in Bududa, Bulambuli. Soil erosion leads to displacement of people from affected areas hence affecting economic and social life e.g many people have been displaced from Bududa, Bulambuli etc to other areas. Soil erosion leads to removal of top soil thus exposing parent rock to agents of weathering leading to formation of new soils e.g on slopes of mountain Elgo, Rwenzori. It leads to deposition of fertile soils in lowlying areas facouring crop cultivation e.g rice grown in Butareja (Doho Rive scheme) Soil erosion creates beautiful features e.g gulleys, U shaped valleys on highlands etc hence promoting tourism and foreign exchange earnings Materials deposited by soil erosion e.g sand, mud can be extracted for building and construction. Soil erosion is important for research and study purpose leading to acquisition of new skills and knowledge. Soil erosion exposes minerals which are then easily mined by man e.g some of the limestone rocks in tororo are exposed by erosion near the surface.	

END

(+256780413120)