

WAKISSHA JOINT MOCK EXAMINATIONS
MARKING GUIDE
Uganda Advanced Certificate of Education
UACE August 2023
PHYSICAL GEOGRAPHY P250/1



Examiners are guided by the following standards.

Marking is by impression unless otherwise stated.

For purposes of impression marking please consider the following awards.

00 – completely irrelevant.

1 – 8 Rudimentary facts / scattered facts.

9 – 11 'O' level answer.

12 – 14 Basic 'A' level answer.

15 – 17 Good but not outstanding.

18 – 20 V. Good answer.

21 ++ Excellent answer.

SECTION A (MAP WORK)

1. (a) (i) GR of a foot bridge East of Bukalasi is 57₂115 (01 mark)

(ii) The manmade feature at grid reference 449290 is A Trigonometrical station others / other trigonometrical station. (01 mark)

(b) (i) The direction of flow of River Manafwa. It flows from North East to South and South west. (01 mark)

Evidence

It flows from an upland area 6300 feet in the North East to 4500 feet in South ^{allowing area of} (01 mark)

Tributaries join the main River at approximately acute angles facing South West.

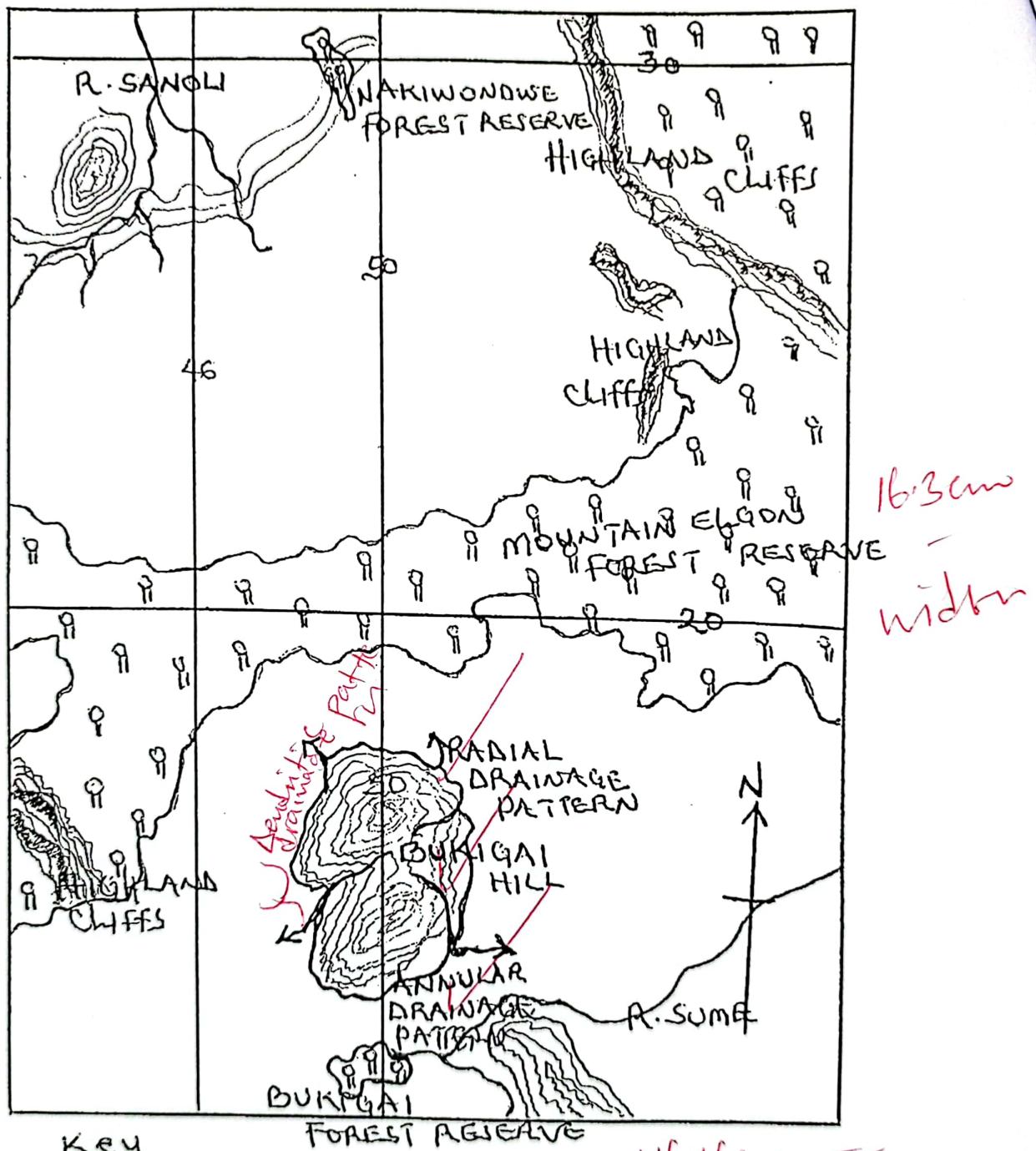
(ii) The values of Rivers (*C MUST ONLY BE POSITIVE*). *A mineral working*

- Provide water for both domestic and industrial use.
- Provide water for irrigation purposes.
- Rivers aid transport.
- Rivers are used as fishing grounds.
- Rivers are associated with fertile alluvial soils that favour crop growing.

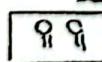
(02 marks)

Only positive values = any 2 x 1 = (02 marks)

A REDUCED SKETCH MAP OF BUDADIRI BY 2.5 TIMES SHOWING HIGHLAND CLIFFS, RIVERS SUME AND SANOLI, TWO CONSERVATION AREAS, BUKIGAI HILL AND ITS DRAINAGE PATTERNS.



Key



Conservation areas.

MJ = Title
frame

Compass direction

Key labelling

MI = 04

FEATURES 07

TT = 11 marks

length

Highland cliffs = 01

Rivers = 02

Two conserv
ation areas = 02

Bukigai = 01

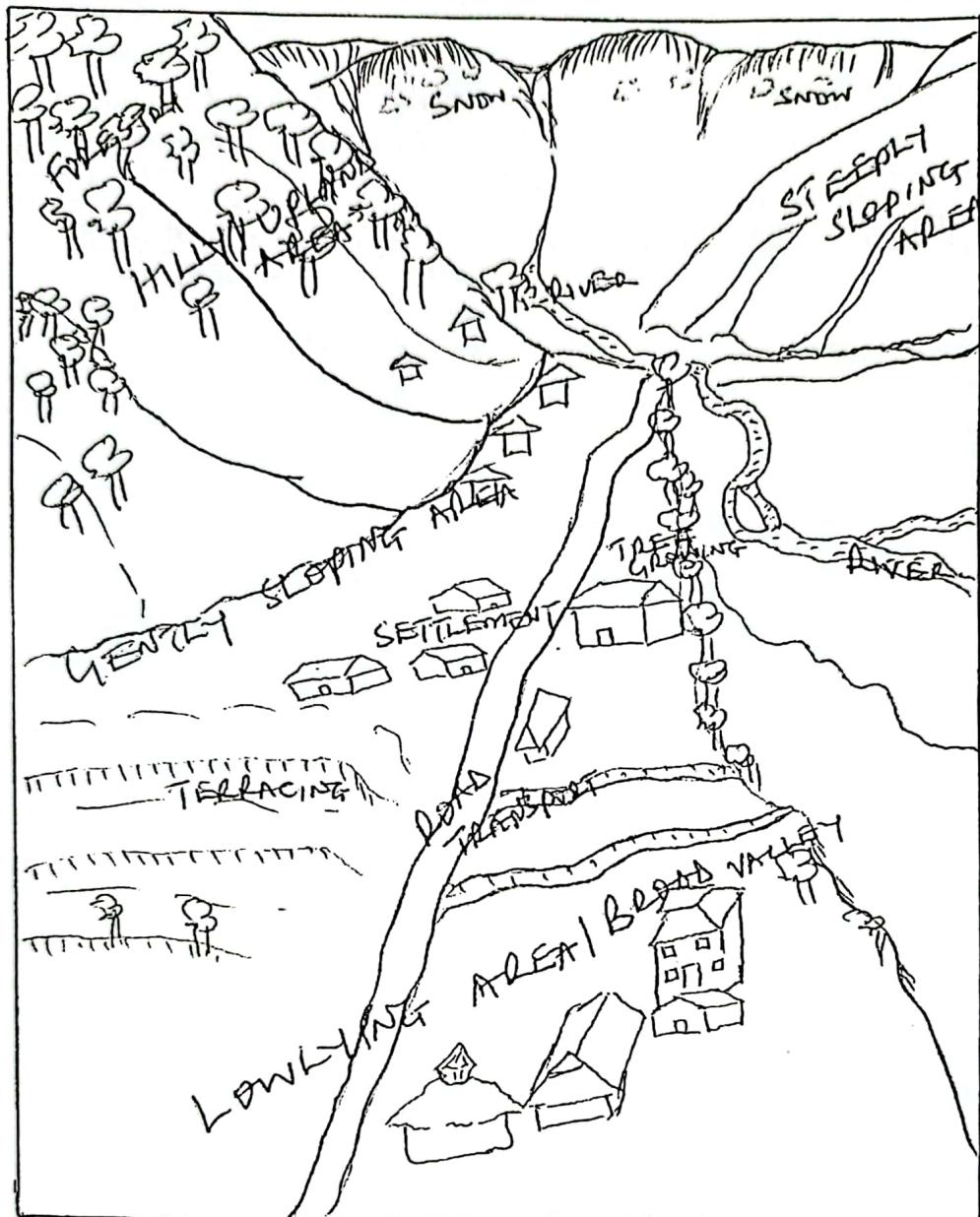
Hill
drainage pattern = 01

07m

- (i) Human activities carried out in the area shown on the map extract.
- Forestry is carried out evidenced by mount Elgon forest reserve.
 - Crop growing is carried evidenced by coffee store at Buteza.
 - Road transport is carried out evidenced by Mbale Tororo loose surface road.
 - Settlement is carried out evidenced by Budadiri trading centre in the North.
 - Trade and commerce is carried out evidenced by Budadiri Trading Centre.
 - Tourism is carried out evidenced by mount Elgon forest reserve, Bukigai forest reserve.
 - Water collection due to the presence of borehole at Budadiri.
- ~~- Wildlife conservation due to mt Elgon forest reserve~~
- ~~Any 4 x 1 = 04 marks with evidence~~
- (ii) The factors that have influenced the human activities identified.
- Gentle sloping relief has encouraged settlement at Budadiri T.C and road transport e.g Mbale - Tororo loose surface road.
 - Steep slopes in the East has encouraged forestry evidenced by Mountain Elgon forest reserve. *because of the fertile soils*.
 - Well drained areas in East, North East, West have encouraged forestry evidenced by Elgon forest reserve, settlement at Budadiri and Road transport in the North and South.
 - Fertile soils have encouraged forestry in the East, West evidenced by Elgon reserve, crop growing in the North evidenced by coffee stores.
 - Heavy reliable and well distributed rainfall encouraged forestry in the East, crop growing in the North and settlement in the North and South.
 - Well-developed transport network has encouraged settlement in the South and North, crop growing in the North. *for easy accessibility*
 - *Dense population has encouraged establishment of schools* *in the south*. *mt.*
- Each factor must be linked to human activity.* *(Any 4x1 = 04 marks)* *(25 MARKS)*

If factor given must be linked to a human activity.

A SKETCH OF THE AREA SHOWN ON THE PHOTOGRAPH SHOWING RELIEF REGIONS, LANDUSE TYPES, DRAINAGE FEATURE AND SNOW.



Drainage feature
- River

MI

Title

frame

Key/ Labelling

MI = 03 mks

FEATURES = 06 mks

09 mks

03 mks

FEATURES

RELIEF REGIONS

- Upland | hilly | steeply sloping areas

- Gently sloping area

- Low-lying area | Broadvalley.

LANDUSE

- Settlement - Forestry.
- Road transport - Terracing

~~EF~~

Shelter belts exist in flat lands

Trees must solve an environmental problem
Importance should stick to relief.

a) Why are trees planted on the slopes of the hilly areas shown on the photograph.

- Tree roots bind/hold the soil particles together to reduce soil erosion and landslides.
- Trees reduce the speed of water runoff hence soil erosion is reduced.
- Tree branches and leaves protect the ground against rain drop impact and soil splash erosion.
- Trees encourage rainfall formation through evapo-transpiration.
- Trees create a beautiful scenery and environment on hill slopes.

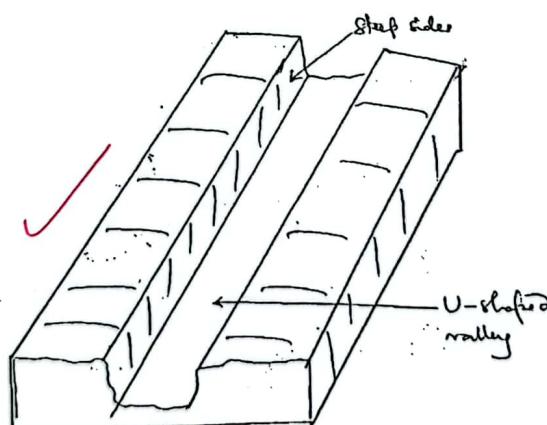
*Conservation
not factors
that have favoured
tree planting*

Any 4x1 = 4 marks

b) Account for the formation of the U-shaped valley in the foreground and middle ground of the photograph.

- It is a broad, flat bottomed steep sided U-shaped valley.
- It is formed by glacial erosion by plucking and abrasion.
- It is formed when a river is filled with the glaciers.
- Abrasion and plucking help to deepen and widen the former V-shaped valley by vertical and lateral erosion hence a U-shaped valley.

05 mks



- Definition
- Process
- Condition
- Explanation
- Illustration

(05 marks)

Relationship

c)

Examine the relationship between relief and land use shown on the photograph.

- The low lying area / broad valley in the foreground has encouraged settlement because it is easy to construct.
- The gently sloping relief in the middle ground has attracted settlements because it is easy to construct.
- The steeply sloping/hilly area/upland in the middle ground and background has attracted forestry / tree growing because of the fertile soils.
- The broad valley / low land in the foreground and middle ground has attracted road transport because it is easy to construct.
- The gently sloping areas in the middle ground and foreground have encouraged terracing to control erosion.

*Stick on what is
in the photo*

*No negative r1sh1p
is accepted*

*No part of the
photo no mark*

*No reason astt
scores*

(Rft Lft Ground)

*Ignore wrong reason because
it is not basis of awarding .*

Any 2x2 = 04 marks

- (ii) Giving reasons for your answer, suggest an area in E. Africa where this photograph could have been taken from.

Areas

Nyamwamba valley } *Buzilube*
 Mubuku valley } *Luzilube*
 Bujuku valley } *Bukalwa*
 on Mt. Rwenzori
 Karanga valley on Mt. Kilimanjaro
 Teleki and Hobley valleys on Mt. Kenya
Kamusomo

Any One area (1 mk)

(2 mks)

Reasons

- Snow in upland areas
- Presence of U shaped valleys.
- Wide river valleys.
- Upland areas with forests.
- Settlements in the valley.

Area 01 mark

Reason 02 mark

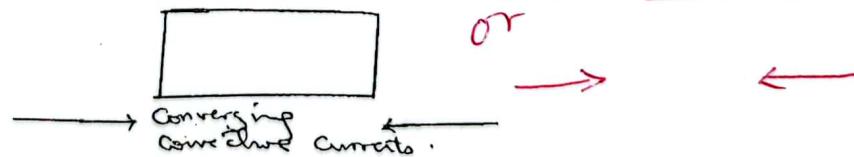
(TOTAL 25 MARKS)

3. (a) What are converging convective currents? (04 marks)
 (b) Examine the influence of converging and diverging convective currents on the formation of relief and landforms in East Africa. (21 marks)

- a) Approach - define converging convective currents

- Origin / causes
- Associated processes
- Diagram /illustration

- showing arrows facing one another*
Not compressional forces yet
- Converging convective currents refer to the currents that operate towards the same direction. *push*
 - They push crustal plates towards each other.
 - Converging convective currents are caused by radioactivity, geochemical and geophysical reactions in the earth's interior.
 - They are associated with processes such as folding and faulting.



Factual marking scheme

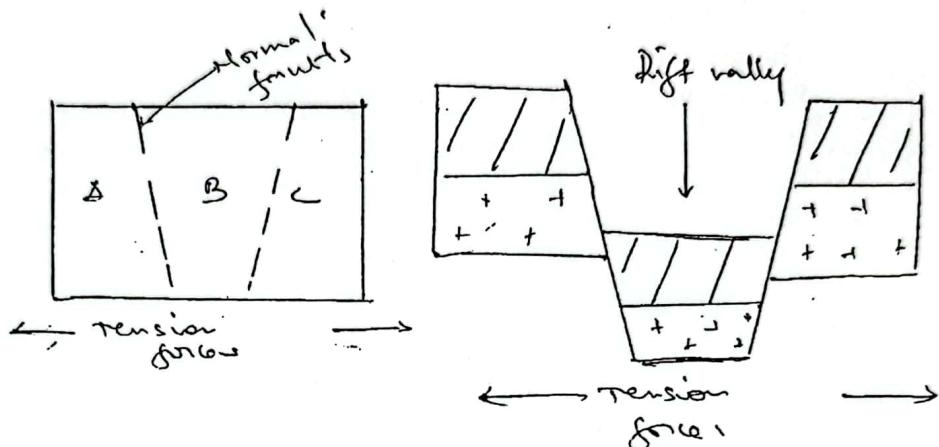
- b) Generally the converging convective currents result into compression forces.

- Converging convective currents pull the crustal plates towards each other and therefore associated with compression forces*
- The diverging convective currents pull crustal plates in opposite directions therefore associated with tension forces.
 - In East Africa compression and tension forces have led to processes such as faulting, tilting and folding of the crust.
 - The currents are caused by radioactivity, geochemical and geophysical reactions causing great heat and pressure in the earth's interior/mantle. Heat is about 4500°C which melts rocks in the earth's interior.

- Converging and diverging currents cause stress and strain in rocks leading to faulting, tilting and folding.

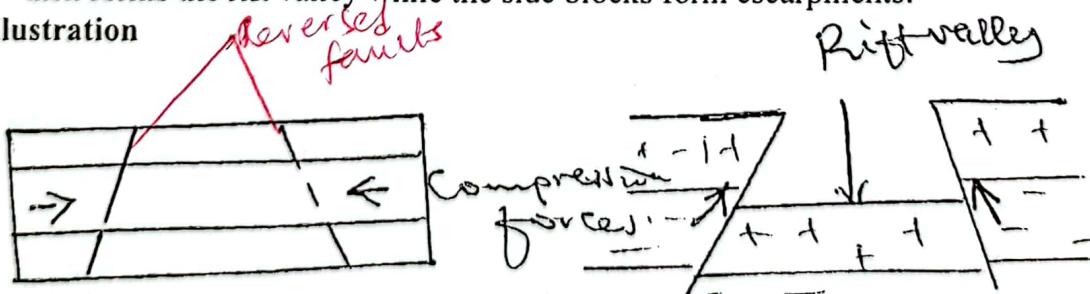
The landforms formed include;

- Rift valley.
- It is an elongated trough / depression bordered by facing scarps on either sides.
- Due to diverging convective currents operating on a crustal block by pulling it in opposite directions led to normal faulting.
- This divided the crust into three blocks. As tension forces persisted, side blocks were pulled away and this forced the central block to sink under its own weight forming a rift valley e.g. The eastern arm of the rift valley.



- Compression forces / converging convective currents push land crust in the same direction.
- They are caused by radioactivity, geochemical and geo physical reactions from the earth's mantle producing converging currents.
- When converging convective currents operated on a crustal block by pushing it in the same direction, it led to reversed faulting.
- This divided land into three blocks, when compression forces persisted, side blocks were forced to up thrust / side blocks were forced to override the central block / side blocks rose up leaving the central block in position. The central block then forms the rift valley while the side blocks form escarpments.

Illustration



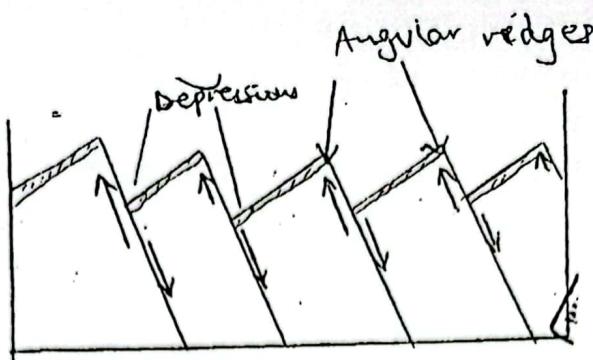
The sharp edges are acted on by denudation processes to get the present shape of the western arm of the rift valley.

Tilt block **Landscape**

These are angular ridges and depressions which are inclined on the surface. Formed when one side of the middle block is uplifted higher than the other side.

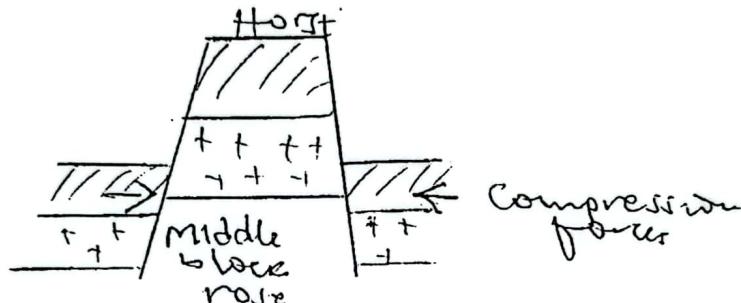
If many blocks are tilted, then a tilt block landscape is formed e.g. Aberdare ranges in Kenya, Kichwamba in Uganda.

Diagram

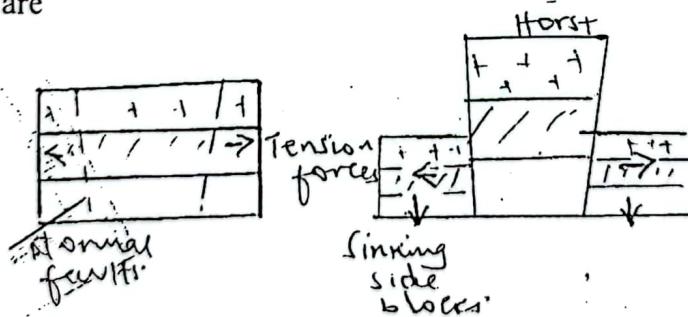


Block Mountain

- This is an upland bordered by fault scarps on either side.
- Due to converging convective currents, pushing the crustal block on either side resulted into stress hence formation of reversed fault lines.
- The reversed fault lines divided the crustal block into three parts. As compression forces continued, the middle block rises. The adjacent side blocks remain stable and the risen middle block forms a block mountain e.g Rwenzori, Usambara etc.



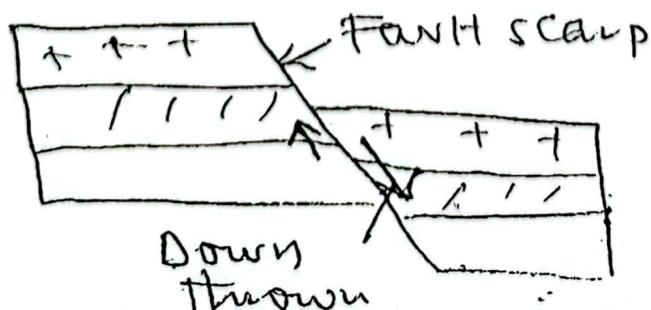
- By tensional forces; Diverging convective currents pull in opposite direction from each other leading to development of normal faults in the crust.
- The faults divide the crust into three parts. Continued action leads to subsidence of the side blocks.
- The middle block remains stable above the side blocks forming a block mountain e.g. Pare



Other examples include Iringa, Uluguru, Malenge, Ndoto, Nyiru and Mathews range.

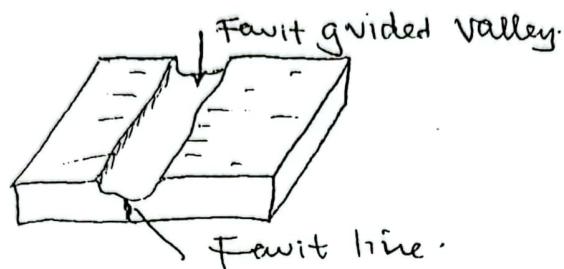
Escarpe / Fault scarp.

- This is a steep slope where land falls from a high level to a low level along a fault. Formed due to tensional forces (diverging) hence a normal fault. The rocks on one side of the fault line are displaced downwards to form the escarpment. e.g Butiaba, Mau etc



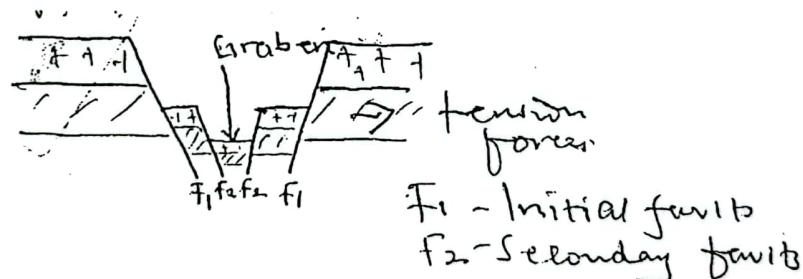
Fault guided valley

- This is a valley that develops following the pattern of a fault line. It occurs where a single fault line develops in the land as a result of tensional (diverging) or compression (converging) currents.
- The rocks along that fault line are displaced and shattered, they are easily eroded away by rivers to form a fault guided valley e.g Aswa, Kerio, Ruaha etc.
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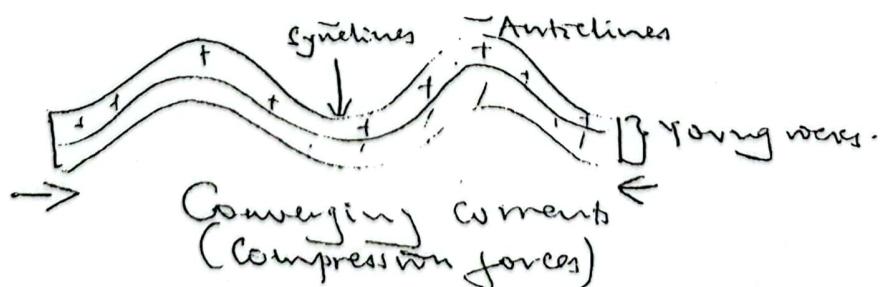


Graben

- This is a narrow depression found on the floor of a rift valley. Primary faulting leads to the formation of a rift valley through either diverging or converging currents.
- Secondary faulting takes place on the floor of the rift valley. This produces a narrow depression that is lower than the rest of the rift valley called a **graben**.
- They are usually long, deep and narrow. They are filled up with water to form Graben lakes e.g Albert, Edward, George, Tanganyika, Nakuru, Naivasha and Magadi.
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- Converging convective currents led to folding. When the earth's crust is pushed together by compression forces, it experiences a process called folding on the young rocks.
- Folding led to the formation of anticlines and synclines e.g. ~~the~~ around Nyanza-Kavirondo, Ankole-Karagwe rock system and Buganda-Tororo rock system.
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**Impressional Marking
(21 Marks)**

4. Examine the factors that influence the speed and nature of weathering in E. Africa.
Candidates are expected to;
- Define weathering
 - Identify the three forms of weathering.
 - Identify areas where they occur
 - Explain the factors for occurrence with emphasis on speed and nature.
 - Weathering refers to the decay and break down of rock strata “insitu” at or near the earth’s surface.
 - Three types of weathering exist i.e
 - Physical weathering which is the breakdown of rocks into small fragments. It is experienced in N. Eastern Uganda, Northern Kenya, Ankole – Masaka corridor, Central Tanzania etc
 - Chemical weathering is the decay/rotting of rocks insitu. Experienced along the shores of Lake Victoria, East African Coast and windward slopes of highlands in E. Africa.
 - Biological weathering due to the influence of plants and animals. Experienced on the Northern shores of L. Victoria, forests like Budongo, Bwindi etc

The factors that control the speed and nature of weathering include;

- Nature of the rock/rock structure
- **Mineral composition;**
 - Rock rich in calcium carbonate react with the carbonic acids encouraging carbonation.
 - Rocks rich in feldspars when mixed with water accelerate hydrolysis
 - Rocks like Iron and Aluminium react with Oxygen in the presence of water hence oxidation.
 - Rocks like limestone and rock salt are easily dissolved in water encouraging solution.
 - Rocks like Mica and Calcium sulphate absorb water causing a change in structure hence hydration at a fast rate.
- **Jointings of the rock.**
 - Jointed rocks increase the rate of chemical reactions as they allow water to sink and weather the rocks.
 - Joints are weak points for the breakdown of rocks physically by exfoliation.
- **Permeability of rocks.**
 - Permeable rocks allow water to sink and weather the rocks chemically by carbonation and hydrolysis.
 - Impermeable rocks slow down the rate at which rocks are weathered down.
- **Rock hardness / softness**
 - Hard and resistant rocks slow down the rate of physical and chemical weathering since they are not easily broken down / decomposed.
 - Soft and less resistant rocks are easily broken down / decomposed at a fast rate by exfoliation and carbonation respectively.
- **Rock colour;**
 - Dark coloured rocks are easily weathered physically since they absorb more heat.
 - Light coloured rocks reflect off heat hence slow down the rate of physical weathering.

- **CLIMATE;**
Equatorial climate,
 - There is limited physical weathering and chemical weathering dominates because of heavy rainfall, hot temperatures and high humidity. This encourages hydration, solution and oxidation.

Savanna climate,

- During the wet season, chemical weathering dominates at a fast rate through solution and carbonation.
- During the long dry season, physical weathering occurs at a faster rate by exfoliation.

Semi- arid climate;

- Little rainfall, very hot temperatures, low humidity, clear cloudless skies have encouraged the occurrence of physical weathering at a faster rate by exfoliation and block disintegration.

Cold climate/Montane

- These are associated with frost conditions hence alternate freezing and melting are experienced by frost shattering.

• **RELIEF**

- Chemical weathering is dominant on gentle slopes and low lands since water accumulates and sinks to weather the rocks through solution.
Chemical Weathering is limited on steep slopes since there are high rates of removal of the weathered materials by erosion.
- Steep slopes expose fresh rocks to chemical and physical weathering.

• **MAN'S INFLUENCE**

- Man encourages physical weathering at a fast rate through loosening and mixing of rocks, blasting, mining and quarrying, ploughing etc.
- Man also encourages chemical weathering through emissions of gases, dumping of domestic and industrial wastes, irrigation, road construction e.t.c
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• **VEGETATION;**

- Action of plant roots that force a part the rock joints hence break down *of the rocks* physically.
- Dense vegetation produces the humic acids when humus is mixed with water the humic acids decompose the rocks at a fast speed.
- Plant roots extract mineral substances from the rocks as they release .This encourages chemical weathering at fast rate by chelation.
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• **OTHER LIVING ORGANISMS;**

- Rodents, moles, squirrels dig holes that encourage physical break down.
- The holes dug allow water and air to sink underground increasing the rate of chemical weathering.
- Chemical weathering is encouraged at a fast rate through provision of secrete acids such as the uric acids that decompose the rocks.
-

- **DRAINAGE;**
 - Poorly drained areas like flood plains limit both physical and chemical weathering hence slower rates of their occurrence.
 - Leaching encourages oxidation and solution as rocks are dissolved and taken to the underlying rocks.
 -
 -
 -
- **TIME;**
 - The longer the time, the more the rocks are physically and chemically weathered and vice versa.

Impressional marking (25 marks)

5. Describe the influence of sea level changes on the formation of coastal land forms in East Africa (25 marks)

Approach

- Define sea level changes *resulting from*
- Describe the landforms *by* positive sea level changes.
- Describe the land forms *formed by* negative sea level changes.
 - Sea level changes refer to rise or fall in sea level relative to the adjacent coastal land.
- Sea level changes are also referred to as Eustatic changes.
- Sea level changes occur world wide and they result from large scale changes like earth movements, tectonism or massive melting of glaciers caused by climatic changes.
- The influence of sea level changes on the formation of coastal landforms, the landforms are classified into two i.e those resulting from rise in sea level and land forms resulting from a fall in sea level.
- Land forms resulting from rise in sea level or submerge or positive Eustatism or marine transgression in highland coasts include;
-
-
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Rias

- These are submerged /drowned river valleys that are funnel shaped.
- Hills and valleys meet at the coast at right angles. *being flooded*
- They are formed when sea – level rises leading to submergence of river valleys *being flooded*.
- They form a V – shaped cross profile.
- They are wider and deeper sea wards, narrower and shallower land wards.
- Eg's are found at Kilindini in Mombasa, Dar-es-salaam e.t.c.
-

Illustration

Longitudinal /Dalmatian coast/Island coasts.

- These are coasts where coastal hills /mountains that were lying parallel to the coast are submerged due to increase in sea level.
- After submergence of these mountains their tops remain visible and appear as a chain of islands lying broadly parallel to the coast.
- The islands are referred to as Dalmatian or longitudinal coasts e.g Pemba, Zanzibar, Mafia.
- The drowned valley that separate the islands are known as sounds e.g Smith sound on Southern shores of L. Victoria ^{ac} Mwanza, Bumbuli South of Bukoba on L. Victoria.

Illustration

Peninsular

- Is an elongated piece of land projecting sea wards between bays.
- Peninsulas are formed when highlands lying at right angle to the coast and their valleys get drowned.
- The highland that remain projecting sea ward is known as a peninsular e.g Entebbe peninsular on Lake Victoria, Mweya peninsular.

Illustration

Submerged features in low land coasts.

Estuary

- is a submerged river valley with a V-shaped profile pointing landwards.
- Estuaries are wider and deeper sea ward and narrow and shallow landwards.
- They are formed due to rise in sea level along the low land coast causing sea to penetrate in land along the river valleys e.g R. Rufiji, River Kibanga, Mombasa

Illustration

Creeks

These are narrow inlets formed by submergence of small streams due to rise in sea level

Examples are Mtwapa in Tanzania, Kilifi, Makupa, Chake – Chake at Mombasa along the Kenyan coast.

Illustration

Mud flats and lagoons

Mud flats are platforms of mud formed due to deposition of fine silt and alluvium from waves and rivers that accumulate in shallow waters.

Sediments are deposited in water either behind bars, spits. etc

When these deposits accumulate and enclose part of sea water, they form lagoons e.g at river Rufiji, Mombasa, Tanga, Lamu etc

Illustration

Landforms in emerged coasts

Raised beaches

These are gently sloping coastlines with accumulation of marine deposits like sand, shells, pebbles, shingles etc deposited by constructive waves.

They now appear above the current wave action zone due to a fall in sea level.
e.gs Tanga, Mombasa, Mama Ngina (Mombasa) etc

Raised cliff;

- This is a steep rock face along the coast. It is now left hanging above the present zone of wave erosion.
- Raised cliffs were formed when waves undercut coastal rocks by hydraulic action, abrasion during high tide.
- As a result of a fall sea level such cliffs are left up hanging formed ^{ing} raised cliffs
e.gs at Mombasa Malindi, Tanga, Bagamoyo etc
-
-

Raised caves/Exposed caves

- These are exposed cylindrical, tunnel like openings at the base of a raised cliff.
- They were formed by wave erosion through hydraulic action, abrasion during the period of contact with sea water.
- They now appear above the present zone of wave erosion after a fall in sea level.
egs are seen at Imperial botanical gardens.
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Raised wave cut platform / Raised terrace

- Is a gently sloping surface ~~that~~ at the base of a raised cliff that no longer in contact with water.
- ~~It~~ was formed due to wave erosion by processes of solution, abrasion at the base of a cliff ~~reducing contact the with sea water~~.
- It is now above the zone of wave action after a fall in sea level.e.gs at Kilifi, Malindi along the East African Coast.
-
-
-

Illustration

Candidates are expected to describe the land forms with relevant illustration and diagrams.
(Impressional Marking 25 marks)

6. a) Describe the characteristics of climatic type experienced in Northern Kenya.
(10marks)
- b) Account for the occurrence of the climatic type identified in (a) above
- a) Candidates are expected to describe the location of Northern Kenya.
- Identify the type of climate experienced in Northern Kenya.
 - Give the characteristics of climatic type.

* Description is short
as simple answer

* No type don't
Peninsular candidate because
it is impression
at marking

- The region of Northern Kenya comprises of several areas such as Amboseli, Masai Mara, Meru, Turkana land, Samburu, Wajir, Marsabit e.t.c.
- It experiences semi desert type of climate.
- Characterized by the following;
- Low rainfall of less than 500 mm per annum is received.
- Hot temperatures of over 30°C are experienced.
- A high diurnal range of temperature of about 10°C is experienced.
- There is little or no cloud cover.
- There is low relative humidity of less than 25%.
- There is a long dry season of over 9 months a year.
- Dry air is usually experienced i.e dry winds blow across the areas.
- High evaporation rates.
- Low soil water balance.
- The day is very hot and nights are very cold.
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-
-
-
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(Impressional marking 10 marks)

- b) Candidates are expected to explain the conditions that lead to semi desert climate and they include;
- **The effect of trade winds.**
The north East trade winds originate from Arabian desert and therefore hot and dry but recharge from the Red sea. However, they loose the moisture on the wind ward slope of the Ethiopian highland and continue to East Africa as dry winds causing low rainfall, low humidity and hot conditions in Northern Kenya.
 - **Distance from the sea/continentiality**
Northern Kenya is far away from large water bodies such as oceans and lakes leading to low rainfall, low humidity and low cloud cover contributing to the semi – desert conditions in the area.
 - **Coriolis force effect**
According to Ferrell's law, loose objects moving over the earth's surface in the Northern hemisphere ^{are} deflected to the right. The North East trade winds are diverted to the Indian Ocean and they become off shore winds leaving Northern Kenya dry and hence semi – arid climate is experienced.

- **Coastal configuration**
The East African coast is aligned parallel to the direction of movement of the North East trade winds and therefore don't carry moisture inland leading to semi-arid conditions in Northern Kenya.

- **Nature of the relief/absence of highlands**
The Northern parts of Kenya are generally flat with no mountains to block the in blowing winds. Therefore winds cross over without raising ^{to} the condensation levels leaving the area dry and hence semi desert climate occurs.
- **Perturbation**
High temperatures may be created over the Indian Ocean making the air warm and hence forming a low pressure zone.
Air blows from the land towards the ocean becoming off shores winds leading to heavy rainfall in the ocean leaving the mainland dry and hence arid conditions in Northern Kenya.
- **Presence of scanty vegetation cover.**
Northern Kenya is characterized by scanty vegetation cover leading to low rates of evapotranspiration resulting into low rainfall , low humidity and limited cloud cover thus occurrence of semi-arid conditions.

**Human activities
should not be emphasized
because they were
not asked.*

- **Human activities** such as bush burning, over grazing and drilling of boreholes has reduced the amount of rainfall received and cause a rise in temperature thus promoting the occurrence of semi-arid conditions in Northern Kenya.

(Impressional marking 15 marks)

7. (a) The vegetation type between 1000 to 2500 m above sea level is tropical rain forests / Equatorial vegetation. They cover areas around Mabira forests, Bugoma forests,Kibale in Uganda, Kiisi, Bungoma forests in Kenya etc
- Characteristics**
- They have ever green trees, shading off leaves at different intervals throughout the year due to constant rainfall hence continuous growth of trees.
 - They have tall trees that grow ^{to} a height of 60m due to competition for sunlight.
 - They have hard wood tree species e.g the Mivule, Mahogany, Rose wood, Iron wood e.t.c due to availability of enough water and nutrients.
 - They have little or no under growth due to thick canopies preventing light from reaching the ground.
 - They have broad leaved trees that allow evaporation and transpiration to occur and get rid of excess water.
 - Trees have numerous climbing plants i.e the Lianas and Epiphytes that get support from the tall and huge trees.
 - Trees grow in mixed stand have a variety of plants growing profusely due to ample water supply e.g. palms, Mivule, Mahogany etc.
 - Trees have long gestation period to mature of about 30 years and more.

*- Have 3 canopies due to difference in age & height
bottom, middle and top.*

- Trees have straight and big trunks due to the ample water supply and nutrients.
- Most trees have buttress roots that give support due to the huge and tall trees.
- Once they are cut they do not grow again(re-generate)
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-
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(Impressional marking any 10 points = 10 marks)

- (b) Tropical rainforests is a type of vegetation growing largely in tropical lands with in 1000 to 2500m above sea level receiving heavy and reliable rainfall.
- Areas in East Africa covered by tropical rainforests include; Mabira, Bugoma, Maramagambo, Budongo etc.
 - The forests on the foot hills of mountains(1000 – 2500 mm above sea level)in East Africa include Mt. Elgon forests, Rwenzori forests, Bukiga forests, Nakiwodwe forests in Mbale.

Climatic factors.

- These forests grow in areas that receive heavy rainfall all the year around having annual totals of over 1500 mm. This heavy rain fall facilitates the growth of the tall, huge and luxuriant trees.
- The well distributed rainfall throughout the year with a bi – modal pattern which allows continuous growth of the trees which are tall, huge and luxuriant like in Mabira found around L.Victoria.
- The hot temperature of between 22- 28°C which increase humidity in the atmosphere hence formation of rainfall for the tree growth. This accounts for the ever green trees that are tall, huge and luxuriant in forests like Mabira, Kibaale, Budongo e.t.c.
- The high humidity levels of about 80%that promote the growth of luxuriant that are huge,tall etc like the Musizi, Mahagony and Mivule in forest like Mabira.
- Presence of ample sunlight for the plants to manufacture their own food which promotes plant growth hence accounting for the existence of a variety of trees species that are luxuriant and tall like in Mabira, Budongo, Kakamega forests.
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Relief;

- Tropical rainforests grow on gentle slopes around the shores of L.Victoria e.g Mabira and Bunya forests. This is because such gentle slopes have well drained fertile soils for growth of huge tall luxuriant trees.
- The low lands of East and the foot hills of mountain have favored the growth of tropical rain forests especially on the wind ward slopes of mountain like Elgon with the Mt. Elgon forests , Rwenzori forests etc. This is because such foot hills have fertile soils and receive reliable rainfall for the growth of huge and luxuriant trees.

Fertile soils;

- These have favoured the growth of tropical rain forests like the Montane forests along mountain slopes of Elgon, Rwenzori and Kilimanjaro with huge trees that are luxuriant.
- Also the deep and fertile soils on gently sloping areas have led to growth of such forests with huge and tall trees like at Mabira , Bunya e.t.c.
- The fertile alluvial soils existing along the river courses and shores of lakes have favoured the growth of huge trees that are luxuriant e.g Mabira, Bunya forests around L.Victoria and the Riverine forests along river Katonga and Kafu.
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Drainage;

- They grow well in well drained areas especially along gentle slopes of mountains have tropical rain forests like Elgon slopes with Mt.Elgon forests and at the lower altitude areas around L.Victoria in Buikwe with Mabira forests, Bunya forests in Mayuge e.t.c.This is because such well drained conditions lead to growth of luxuriant trees that are tall and huge.
- The water logged areas have favoured the growth of Riverine forest that are also luxuriant and ever green like along river Katonga along river Mpologoma.
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Altitude;

- The tropical rainforests grow well in areas with an average height of between 1000 – 2000 m above sea level which have hot temperatures required for the growth of huge and tall trees e.g on the lower slopes of Mt.Elgon and Rwenzori, around the shores of Lake Victoria like Mabira , Bunya forests etc.
- The favourable / supportive government policy of conservation / gazetting of forest reserves has led to growth and continued existence of the tropical rain forests(equatorial forests)e.g Bwindi, Kibaale, Budongo e.t.c in Uganda, Kisii, Kakamega etc in Kenya.

**Impressional marking
(15 marks)**

8. a) Distinguish between sheet and gully erosion. (08 marks)
- b) With reference to specific examples where soil erosion is rampant, explain the soil conservation measures being undertaken (17 marks)
- a) **Sheet erosion**
- Involves uniform removal of a thin surface layer of the top soil.
 - It involves slow movement down slope.
 - It occurs on gentle slopes.

- It occurs over a wide area.
- It is accelerated by agents such as wind and running water.
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(Factual marking 04 marks)

While

Gully erosion

- A type of erosion where running water and soil are carried through deep, wide valleys / grooves.
- It occurs in areas that receive heavy rainfall.
- It is common in areas with steep slopes / gentle slopes.
- It involves fast movement down slope.
- Gully erosion leads to the creation of an irregular landscape difficult to work on during cultivation.
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- *Here examples are not part of the game.*
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(Factual marking 04 marks)

b) Candidate are expected to;

Identify areas where soil erosion is rampant

Give the measures.

- Soil erosion is commonly experienced in areas such as Kigezi highlands, Kenya highlands, Ntungamo, Mitooma, Bushenyi, Mt. Elgon slopes, Kapchorwa, Bundibugyo, Ankole – Masaka dry corridor etc.
- The following conservation measures are being undertaken;
- Terracing, involves building embankments across a slope at fixed intervals.
 - Involves cutting flat / nearly flat surfaces along steep slopes and grass strips may be planted along a terrace to check on run off and speed of water.
 - This reduces sheet erosion.
 - It is common in Kigezi highlands and Kenya highlands
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- Contour ploughing,
 - Cultivation is done where crops are planted in furrows that follow contours.
 - Furrows run across the slope and check on the flow of water by run off and soil loss through sheet erosion.
 - Common in Kigezi highlands and mountain Elgon slopes.
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- Strip cropping ,
 - Involves cultivation in alternation along the slope i.e if one strip is bare as a result of ploughing, the other is under grass or growing of crops.
 - The grass traps the soil and encourage infiltration of water reducing soil splash and sheet erosion.
 - This is practiced in Kigezi highlands.
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- Ridging
 - Cultivation where the top soil is in form of elongated mounds raised from other areas.
 - The soil on ridges is deep allowing growth of healthy crops whose roots bind soil particles together.
 - The eroded soil is trapped between ridges reducing sheet erosion.
 - This is common in Kenya and Kigezi highlands.
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- Mulching;
 - Covering the soil with materials like banana leaves, fibres, maize and millet stalks, coffee husks and saw dust.
 - The mulch reduces direct impact of rain drops on soil.
 - This reduces soil splash erosion and encourages water infiltration.
 - This reduces rill and sheet erosion.
 - Common in Ntungamo, Bushenyi, Mitooma e.t.c
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- Planting cover crops;
 - Crops like pumpkins, sweet potatoes, water melons and beans whose leaves spread and cover the soil.
 - Their leaves intercept the rain drops preventing direct impact on the soil thus reducing splash erosion.
 - Cover crops like beans, sweet potatoes are grown in Kigezi highlands.
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- Crop rotation;
 - Cultivation of different crops in alternation on the same plot of land season by season.
 - Maintains soil fertility, crops grown have strong roots that bind the soil particles together and their branches effectively cover the soil.
 - This reduces soil splash and sheet erosion.
 - It is practiced in the Kigezi highlands.
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Mounds
(Cebikata)

- Application of fertilizers / manure;
 - Fertilizers like superphosphate or ammonium, manure like cow dung and banana peelings are applied.
 - When applied, crops that grow are strong, their roots bind soil particles together and leaves effectively cover the soil.
 - This reduces sheet and splash erosion.
 - Fertilizers are applied in Bushenyi, Mbale and Mitoma.
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- Controlled grazing;
 - This is grazing of animals in paddocks.
 - When animals are moved from one paddock to another, it gives chance to grass to generate.
 - This reduces splash and wind erosion.
 - Practiced by the Bahima pastoralists in Ankole – Masaka dry corridor.
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- Filling rills and gullies;
 - When rills and gullies are filled with stones, grass and soil.
 - They prevent rill and gully erosion.
 - Done in Kapchorwa , Bundibugyo and Kigezi highlands.
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- Afforestation and re – afforestation;
 - Afforestation is planting of trees where they formerly never existed and re – afforestation is planting of trees where they existed and were cut.
 - Roots of trees bind soil particles together reducing sheet erosion.
 - The branches reduce direct impact of rain drops on soil hence reducing soil splash erosion.
 - Trees are from in Muko and Mafuga in Kigezi and Bugamba in Ankole.
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- Planting shelter belts;
 - This is where trees are planted in belts in low lands or flat lands.
 - Trees check on the speed of wind thus reducing wind erosion.
 - This is done on Kisoro Lava plateau.
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- Use of gabions;
 - These are structures built with wire mesh and then filled with stones.
 - They are constructed across gullies to check on gully erosion.

- Carried out in the Kigezi Highlands.
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- Mass education ;
 - Through radios, television programmes, newspapers, magazines and seminars about the dangers of soil erosion and how to conserve soil.
 - This is done by daily Monitor, UBC , NBS , NTV e.t.c.
 - This is about how to check soil Splash , rill , sheet , gulley and wind erosion.

M.B

If requires now the measures
have checked soil erosion

(Impressional marking 17 marks)

Emphasize the how on the explanations
of the measures.

END

WAKISSHA JOINT MOCK EXAMINATIONS

MARKING GUIDE

Uganda Advanced Certificate of Education

UACE August

GEOGRAPHY P250/3

STANDARDS:

Standards:

Marking should be guided by the following principles:

1. The whole paper is to be marked by impression unless otherwise stated for a particular question? Part of a question.
2. Candidate should exhibit ability to explain, discuss and illustrate the points raised.
3. A mere outline of points should not attract more than half ($\frac{1}{2}$) of the marks allocated to question / section

Awards:

An excellent answer scores	21 - 25 marks
A very good answer scores	18 - 20 marks
A good answer scores	15 - 17 marks
A fairly good answer scores	13 - 14 marks
An average answer scores	10 - 12 marks
A below average answer scores	08 - 09 marks
A fail answer scores	01 - 07 marks
An irrelevant answer scores	00 marks.

SECTION A (FIELD WORK)

1. (a) (i) Candidates are expected to state the topic of study indicating WHAT was studied and WHERE the study took place.
It should bear a relationship. **(02 marks)**
- (ii) Candidates are expected to outline the objectives of the study which should be measurable, achievable, researchable and time bound.

Accept phrases like:

- to find out...
- to identify...
- to establish
- To examine....

Etc.....

Do not accept phrases like;

- to review
- to see
- to understand
- to appreciate
- etc.

(04 marks)



- (b) Candidates are expected to describe how they used any three of the following methods during the study. i.e they should;
- Define the method (01 mark)
 - Describe how it was used and the tools used should come out. - (01 mark)
 - Mention the information obtained while using the method. - (01 mark)

For example

- (i) **Observation** is the use of eyes and other senses to get geographical information from the field.
What was seen may include; goods, crops, relief etc.
- (ii) **Recording** refers to writing / jotting information from the field on a piece of paper using a pen, pencil and paper in form of field notes, sketch maps diagrams, etc.
A candidate should show how he / she recorded information and show what was recorded.
- (iii) **Measurement** refers to the use of calibrated and non- calibrated instruments for example tape measures, rules weighing scales, paces ropes, etc to obtain information from the field.
- A candidate should describe how he / she measured and show what was measured.
- (iv) **Map, orientation** refers to rotating turning of the survey map / base map so that the features on it match with features on it match with features on it match with features on the ground.
- A candidate should describe how he / she rotated the base map and show what was collected.

Any 3 x 3 = 09 marks

- (c) Candidates are expected to mention the problems faced during the field work study such as;
- I faced a problem of language barrier.
 - I faced a problem of obsolete equipments like weighing scales, maps etc.
 - I faced a problem of inaccessibility.
 - I faced a problem of accidents.
 - I faced a problem of weather changes for example rainfall, fog, etc.
 - I faced a problem of hiding of information.
 - I faced a problem of hostile respondents. Etc.

N.B:

- The problems should be geographical in nature.
- Avoid personal problems.
- Information missed should be brought out clearly.
- No information missed = 00marks.

- (d) Candidates are expected to come up with findings which led to the understanding of the geography of the area:-

These should varied relationships i.e

- Physical to physical.
- Physical to Human
- Human to Human

.B: Relationships should be stated with proper connecting words such as favoured, promoted, encouraged, hindered, etc.

- There should be a form of accountability.
- Identification of a relationship with evidence in form of place name or direction and accountability.
- Identification of a relationship without a place name or direction.
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(01 mark)

Any 3 relationships x 2 = 06 marks

25marks

2. (i) Candidate are expected to state the topic of study on either a small Hill or River, showing clearly what was studied where the study took place and name of the small hill or river. N.B: The topic should have a geographical relationship.

Max (03 marks)

- (ii) Candidates are expected to outline the aims and objectives of the study which should be measurable, specific and achievable. The objectives should not report the topic of like,
- To find out.
 - To discover.
 - To establish.
 - To identify.
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 - Etc.

Avoid please like;

- To know
- To see
- To understand
- To appreciate
- To admire
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Etc.

Any 4 x 1 = (4 marks)

- (b) Candidates are expected to mention the pre – field activities that they carried out as;
- Pilot study.
 - Stating the topic of study.
 - Starting the aims and objective.
 - Selecting the methods of date collection.
 - Selection of equipments to be used in field work.
 - Grouping of student.

- Briefing of students.
- Seeking for permission from parents to go for field work.
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N.B: The first four must be systematic.

- There should be some form of explanation.
- It should be stated in past tense.
- Mere outline of steps / activities in order scores not more than Half the mark.
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Any 5 x 1 = (05 marks)

- (c) Candidates are expected to draw a line transect of the area of study and on it mark and name the physical features, and land use activities.

- Titles - 01
- Shading - 01
- Ending point - 01
- Labelling - 01
- Physical - 01
- Land use activities. - 02

08 mark

- (d) Candidates are expected to mention the geographical skills they gained from the study as;

- Skill of observation.
- Skill of interviewing.
- Skill of sampling.
- Skill of measurement
- Skill of map orientation.
- Skill of recording.
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Etc.

N.B The skills should be well explained and illustrated with evidence to score full mark.

- Mere outline of skills scores not more than half the marks.

Any 5x 1 = 05 marks

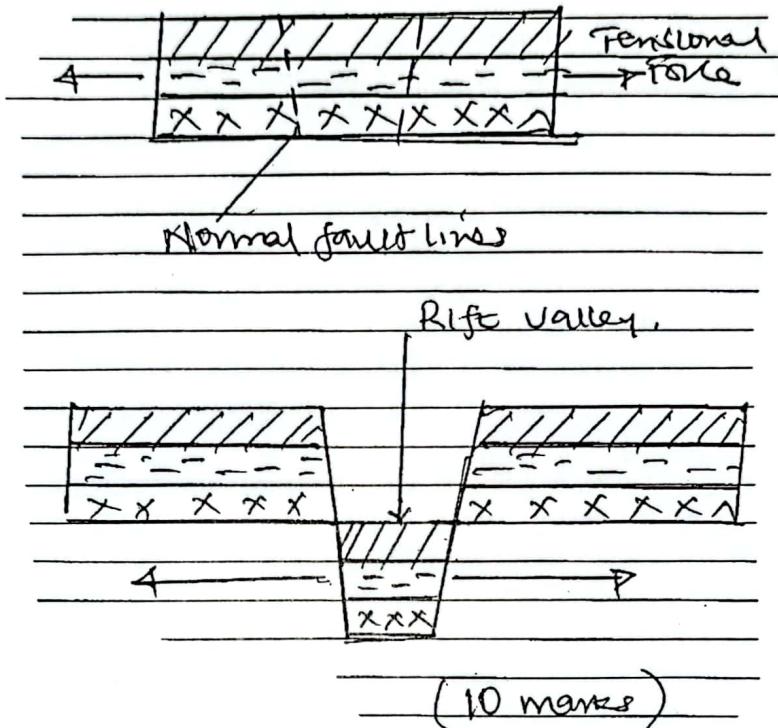
25 marks

SECTION B: UGANDA

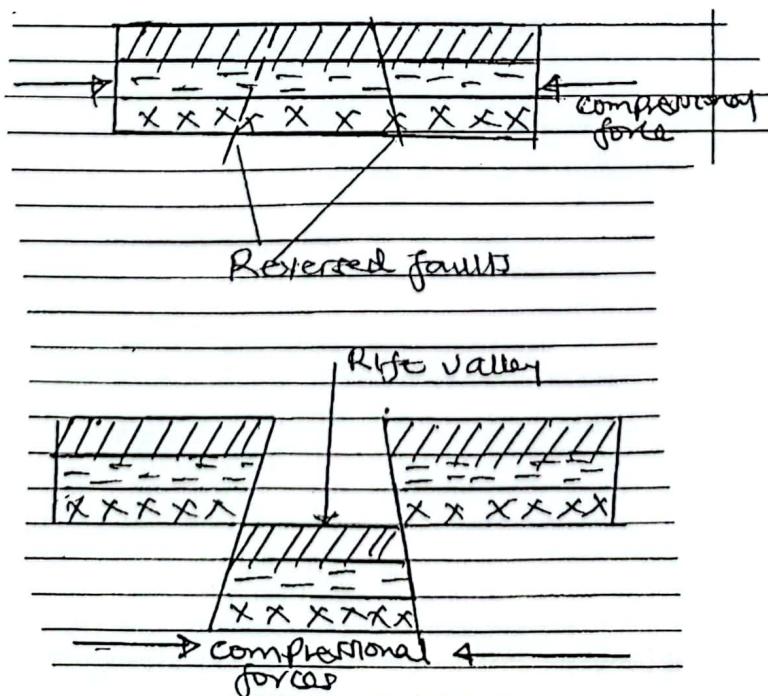
3. Candidates are expected to describe the process which led to the formation of the rift valley as;
- A rift valley was formed by faulting.
 - It's an elongated depression or trough bounded by two facing faults scarps along parallel faults.

- Faulting involves fracturing and displacement of the rock strata on either sides of the faults.
- Process of formation of the rift valley.
- The geo-chemical and radio – activity led to the production of convective currents which produced strong tensional and compressional forces.
- According to the tensional theory, the tensional forces pulled the rock strata from either sides of the fault line leading to the formation of normal faults. The continued pulling a part of the rock strata left the central block with no support thus sinking under its own weight forming the rift valley.

Illustration



According to compressional theory, the compressional forces pushed the rock strata from either sides of the fault line thus forming reversed faults. The continued pushing forced the side blocks to override the central block thus forming the rift valley.



Other theories include

- Relative sinking theory.
- Relative sinking theory.
- Basin and swell theory.

(b) Candidates are expected to come up with the effects of the rift valley on the **physical** and human environment as;

Physical

- Led to the formation of Butiaba Escarpment.
- Led to the formation of the rift valley lake e.g L. Albert, George and Edward.
- Led to the formation of range lands (Grasslands)

Human effects

- Fishing from lakes e.g lake Albert.
- Tourism for example the beautiful scenery e.g the escarpment like Butiaba escarpment.
- Wildlife conservation e.g Queen Elizabeth National park.
- Bee keeping e.g at Mohokya this promoting apiary farming.
- Livestock keeping due to ideal pastures.
- Settlement because of the relatively flat relief of the rift valley floor e.g at Mohakya.
- Mining because of the presence of minerals e.g limestone at Hima.
- Water for domestic use and industrial use e.g L. Albert.
- Development of transport because of the nature of relief e.g at Muhokya etc.
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Any 9 x 1 = 09 marks.

Negative Contributions

- Inaccessibility e.g around L. Albert because of the Butiaba escarpment.
- Rift valley lakes are narrow and too deep thus limiting fishing.
- Natural Hazards e.g Earthquakes e.g Kabarole Fort portal etc.
- Pests and diseases e.g tsetseflies.
- Soil erosion e.g on steep escarpments.
- Presence of dangerous wild animals which destroy peoples crops and lives e.g elephants from Queen Elizabeth National park.
- Flooding because of the nature of relief.
- Aridity of the areas because of being in the rain shadow caused by escarpments.
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Any 6 x 1 = 06 marks

Points should be well explained and illustrated with local examples.

25 marks

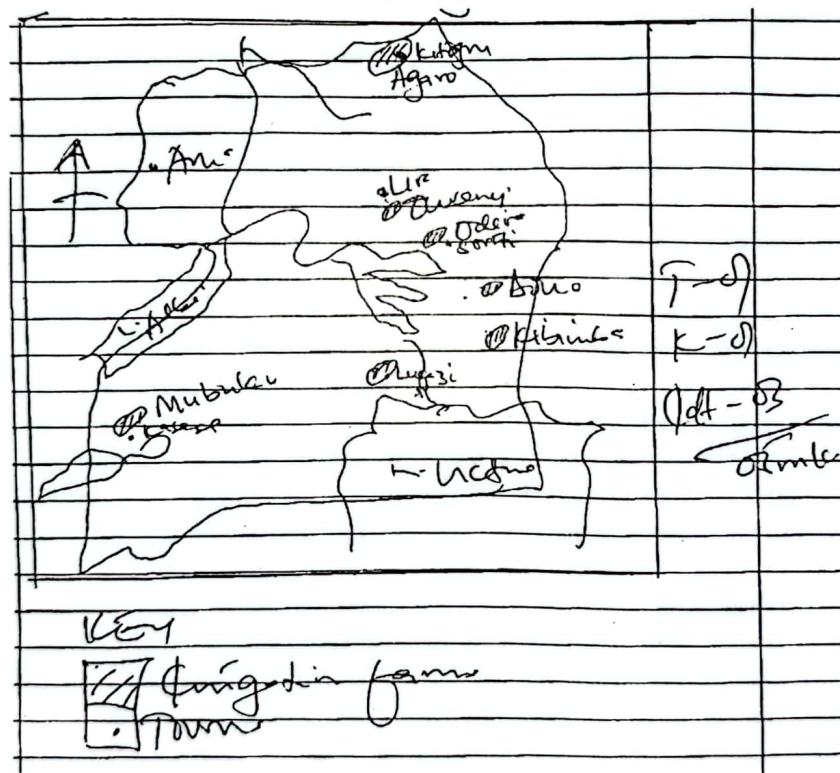
- (a) Candidates are expected to define irrigation farming as;
Irrigation farming is the artificial application of water to crops to supplement rain crops to supplement on rain water. **(02 marks)**

Candidates are expected to identify areas where irrigation farming is being carried out as;

- Kakira sugarcane estate in Jinja.
- Oliverry rice scheme in Dokolo.
- Odira in Soroti.
- Doho in Butaleja.
- Kibimba in Bugiri.
- Mubuku settlement scheme in Kasese.
- Labour in Lira.
- Lugazi sugar cane in Buikwe. Etc.

Candidates are expected to draw a sketch map of Uganda showing irrigation schemes as,

A sketch map of Uganda showing irrigation schemes.



Candidates are expected to mention the factors following irrigation farming as;

- Presence of extensive land e.g Mubuku irrigation scheme.
- Low incidence of pests and diseases on crops e.g Kibimba Rice scheme.
- Low rainfall amount received e.g Mubuku irrigation scheme.
- Presence of fertile soils e.g the sandy day loam soils of Kibimba.
- Gentle / sloping relief for easy flow of water by gravitational forces e.g Doho Rice scheme.
- Availability of adequate water for Doho rice scheme.
- The nature of vegetation made it easy to open and grow crops e.g Mubuku settlement scheme.
- Improved technology like use of over head sprinlen of Kakira sugar cane plantation farming e.g Kibimba Rice scheme.

- Intensive research carried out on crop varieties e.g volta 9 rice at kibimba which quick maturing and high yielding.
- Preserve of a large market both local and foreign e.g Rice from Kibimba to Kampala, China etc.
- Presence of skilled and semi-skilled labour e.g a Olivering rice scheme.
- Political stability in most parts of the country was favoured irrigation farming.
- Favourable government policy on agriculture e.g Doha Rice scheme.
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- Etc.

Any 11 X 1 = 11marks.

- (b) Candidates are expected to explain the problems facing irrigation farming in Uganda as;

- Soil exhaustion
- Soil erosion
- Fluctuation in water levels.
- High cost of maintenance of dredging of channels.
- Price fluctuation of the crops e.g rice.
- Salivation of soils due to high evaporation rates e.g a Mubuku.
- Unfavourable government policies.
- Political instability.
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Any 7 X 1 = 07 marks.

Point should be explained and illustrated with irrigation farm.

There outline of points scores not more than half the marks.

(25 marks)

5. Candidates are expected to mention the current status of railway transport as;

- Passage wagons here, been established.
- It's the cheapest means of transport.
- Joint formal agreement to build a new standard gauge railway has been signed among the east African countries.
- Railway infrastructure has not changed.
- There has been decline in the proportion foreign Cargo by railway transport.
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Etc.

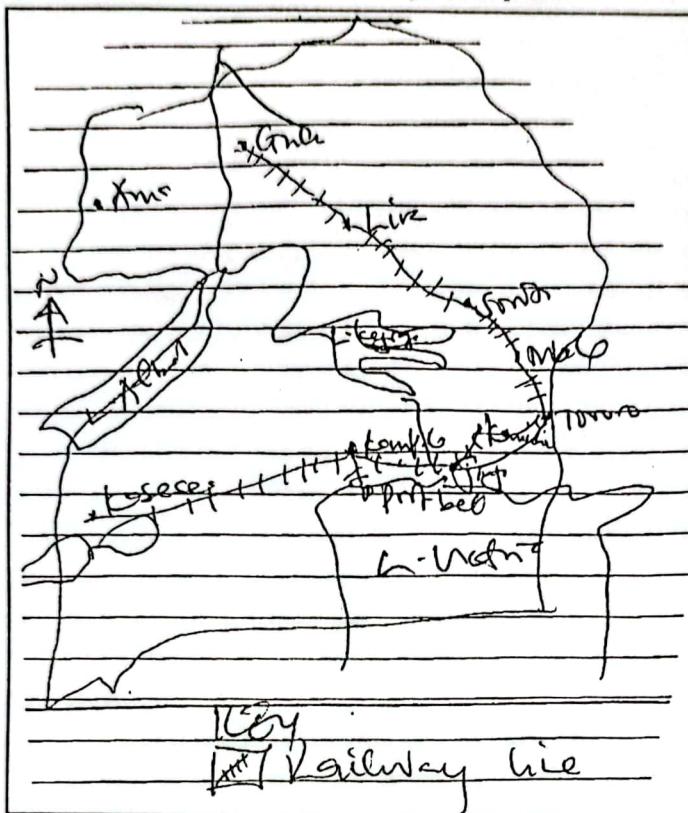
Any 2 x 1 = 2 marks

Candidates are expected to identify railway transport network as;

Kampala – Kasese

- | | |
|----------|-------------------------|
| Tororo | - Mbale – Soroti – Gulu |
| Jinja | - Mbulawuti |
| Portbell | - Kampala |
| Namanve | - Kampala |
| Etc. | |

Candidates are expected to draw a sketchmap of Uganda Showing Railway transport as;
A sketch map of Uganda showing Railway transport.



Candidates are expected to explain the factors. Limiting the development of railway transport.

- Inadequate Capital to rehabilitate the railway routes e.g Kasese line.
- Mismanagement of the Uganda railway co-operation.
- Limited supply of space parts e.g old location Nalukolongo.
- Limited supply of skilled labour to maintain the wagon.
- Vandalsation of the railway line e.g Kasese line.
- Collapse of East African community affected finding of that railway line.
- Stiff competition of more efficient and feasible mean of transport e.g Roads.
- Political instability e.g affecting the Tororo, Mbale, Gulu line Cotton.
- Decline in production.
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Etc.

Any 9 X 1 = 9marks

- (b) Candidates are expected to mention the steps being taken to revive railway transport as;

- Railway sector privatized to rift valley railways to improve efficiency.
- Security personnel have been deployed to check in vandalisation of the railway line e.g Kasese line .
- Railway transport is an important means of transporting petroleum from port bell to Kampala.
- The government of East Africa was signed a memorandum of understanding to rehabilitate the railway transport.
- Rehabilitation of sections of the railway line are being undertaken e.g from line.
- Training of manpower is being done to acquire skills e.g of Nalukolongo.
- Political insecurity is being controlled through peace talks and use of force against anti-government force e.g AAF in Kasese RA in Gulu.
- Railway transport is being used to complement other modes of transport is being used to complement other modes of transport e.g water, Road and Air.
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Any 9 X 1 = 09marks

N.B: Point should be well explained and illustrated with the relevant examples e.g Railway line.

(25 marks)

6. (a) Discuss the causes of Wetland reclamantion in Uganda (15 marks)
 (b) Describe the measures being taken and conserve wetlands in Uganda. (10 marks)

Candidates are expected to define wetland reclamation as the conversion of wetlands to other land uses such as agriculture urban development among others.

(2 marks)

Candidates should then identify the different types of wetlands which include.

Lacustrine wetlands for example Nabugabo and Buyuga in Masaka, Sango bay wetland around lake Victoria opeta wetland in Katakwi ion lake opeta.

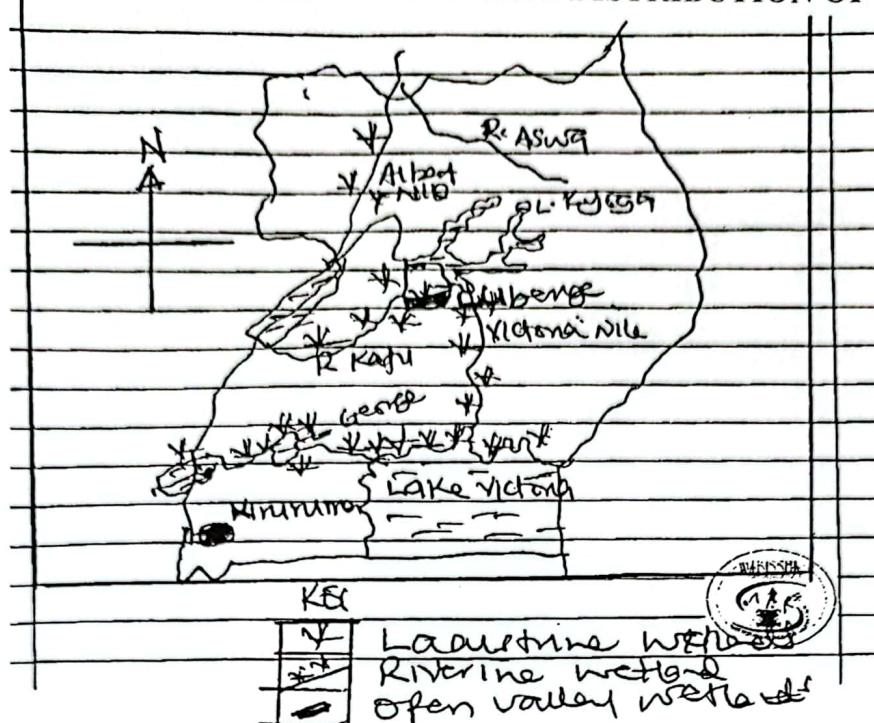
Riverine wetlands e.g Mpologoma wetland in Kibuku, Victoria Nile and Sezibwa wetlands in Kayunga, Katonga wetland in Gomba, Kauw wetland in Masindi etc.

- Open valley or Lowland wetland example;
- Lubigi wetland in Wakiso, Nsooba and Busega wetland in Kampala, Awoja wetland in Soroti etc.

N.B: - Mere identification = 03 marks

- Identification without a place name = 00 mark
- Identification with a sketch map = 05 mark

A SKETCH MAP OF UGANDA SHOWING DISTRIBUTION OF WETLANDS.



Candidates are expected to bring out the causes of wetland reclamantion which include.

- Urbanisation and settlement leading to reclamation of swamp vegetation like papyrus for example Nsooba settlement and Kalerwe settlement in Nsooba swamp in Kampala, Bwaise settlement in Bwaise swamp etc.
- Agricultural activities like rice growing have led to the clearance of Mpologoma wetland in Kibuku, Manafwa wetland in Butalejja, Mutai wetland in Jinja etc.
- Industrialization has led to swamp destruction in order to establish industries for example Centuring bottling factory at Namanve wetland Novelty leather turning factory in Nabajjuzi wetland in Masaka.
- Mining of sand and clay for example Uganda clays at Kajjansi in Kajjansi wetland in Wakiso, clay mining in seta wetland in Mukono for making bricks etc.
- Construction of transport routes especially roads such as Kampala – Masaka road led to the destruction of Busega wetland in Kampala Mukono Kayunga road led to the destruction of Sezibwa wetland.
- Wildfires which lead to the destruction of swamp vegetation e.g Katonga wetland in Masaka Sezibwa wetland in Kayunga etc.
- Climatic changes leading to reduction in water levels for example Sezibwa wetland in Kayunga, Mpologoma wetland in Kibuku etc.
- Natural calamities like landslides lead to destruction of papyrus vegetation for example Nametsi Namaaga and Bunaka sale wetlands in Bududa.
- Increased demand for art and craft for raw materials such as papyrus and palm trees in Mpologoma wetland in Kibuku Sezibwa wetland in Kayunga etc.
- Increased demand for fuel and energy resources.
- Need to get rid of disease carrying vectors such as TseTse flies, mosquitoes etc.
- Destruction of Wetlands to get rid of hiding places for wrong doers e.g Namanve wetland in Mukono.
- Corruption and embezzlement in NEMA leading to giving away of wetlands e.g Nabajjuzi wetland in Masaka.
- Construction of recreational centres e.g Kitante golf club in Kitante wetland, Nakivubo stadium in Nakivubo wetland.

- Poor garbage disposal leads to wetland destruction and death of aquatic life in wetlands e.g. Mukwano industry etc.
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Any 8 X 1 = (08 marks)

- (b) Candidates are expected to explain measures being taken to conserve wetlands as;

- Wetlands have been demarcated in order to reduce encroachment.
- Strong laws have been put in place in order to protect wetlands.
- Public is being sensitized about the importance of wetlands.
- Recycling and treatment of waste products is being done.
- Support institutions have been established.
- Encroachers are being evicted.
- Alternative sources of energy are being created.
- Alternative sources of raw materials for the art and craft and construction industry are being discovered.
- Intensive research is being carried out.
- Population control is being encouraged.
- Upland rice has been introduced.
- Zero grazing has been introduced.
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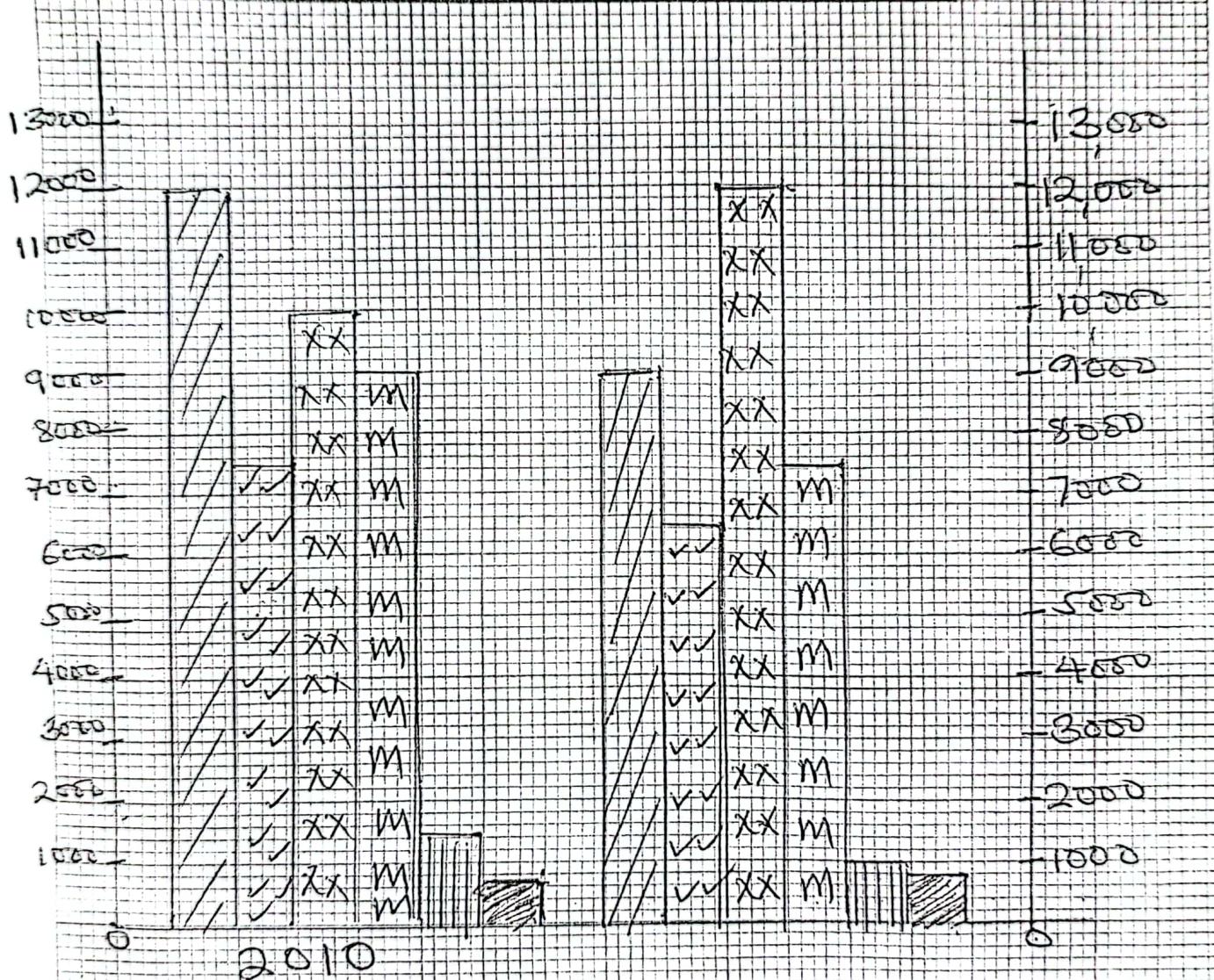
Etc

**Any 10 X 1 = 10 marks
25 marks**

a)

candidates are expected to draw a comparative graph

A comparative bar graph showing area under forestry in 000 ha/states between 2010 and 2015



Key

/// Mabira

vv Budongo

xx Mt. Elgon

m Bugoma

|| Busitema

Malabingambu

Ace = 06

T = 01

S = 01

K = 01

L = 01

10 marks

(b) Candidates are expected to mention the

(i) Merits as

- It is easy to draw
- It involves little calculations
- It gives good impression when coloured are used.
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Any 3 x 1 = 02 marks

(ii) Demerits

- Determining the scales may be difficult.
- It consumes a lot of space where items are many.
- It's difficult to compare the bars because the figures are not given.

Any 2 x 1 = 02 marks

(c) Candidates are expected to mention the factors favouring the growth of forests as;

- Presence of pests and diseases e. Budongo.
- Sparse population e.g Budongo government policy of gazetting areas as National parks and reserves e.g mt. Elgon forest.
- Presence of wild animals which scare people / settlement e.g Bwindi impenetrable forests.
- Presence of fertile soils e.g volcanic soils of Mt Elgon forests.
- Availability of adequate rainfall Mabira forests.
- Afforestation and reafforestation programs e.g planted forests. Like Agwata in DOKOLO.
- Establishment of NEMA and NFA to monitor and conserve forests e.g Mt Elgon forests. Rugged terrain e.g Mt. Rwenzori forests.
- Low altitude favouring the growth of tropical lowland forests e.g Mabira High altitude favouring the growth of tropical highland forests e.g Mt Elgon forests.
- Eviction of encroachers e.g Mt. Elgon forests.
- Education of masses about the importance of forests e.g Agwata forests in DOKOLO.
- Low levels of technology used in harvesting of forests such as use of axes pang as leading to low exploitation of forest, e.g Bugoma forests, Budongo forests etc.
- Undeveloped transport network leading to low exploitation of forests e.g Budongo forests Mt. Rwenzori forests in Kasese.
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(10 marks)

TOTAL 25 MARKS

(a) Examine the challenges facing the development of the tourism sector in Uganda. Candidates are expected to bring out the current status of the tourism sector in Uganda as;

- Various tour and travel companies have been established to ease movement of tourists to various destinations.
- The tourist industry is one of the fastest growing sectors in Uganda.
- Tourism is one of the major foreign exchange earners for Uganda.
- Tourism employs a sizeable number of Uganda's population.
- Most tourists come from Western Europe, USA, ASIA and some African countries.
- Uganda receives over one million tourists per year from various countries.
- Wildlife is a basis of the tourism sector.

Birds need a breeding site

National parks for 4-10

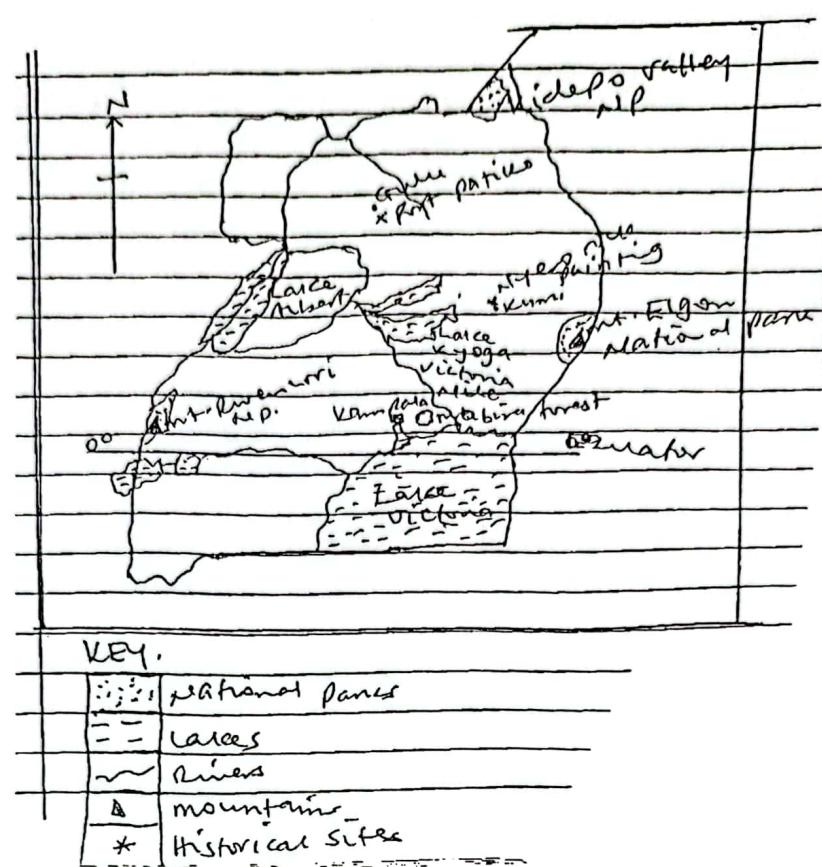
Candidates are expected to identify the tourist attractions for example;

- Wildlife in Kidepo Valley National park, Mt. Rwenzori National park. Etc.
- Drainage features such as Lake Victoria, Nile, etc.
- Varied vegetation types Mabira forest, Mt. Elgon forest, etc.
- Relief features like Mt. Elgon , Mt Moroto etc.
- The various climatic types like equatorial among the equator in Masaka, semi-desert in Moroto etc.
- Historical sites like Kasubi tombs in Kampala, Nyero rock paintings in Kumi, etc.
- Religious centres like Namirembe Cathedral for Anglicans, Namugongo martyrs shrine for all the Christians, etc
- Culture and tradition for Kanzu dressing among the Baganda of Masaka.
- The equator at Kayabwe, Kikorogo, Equator Island at Entebbe, etc.

Candidates are expected to draw a sketch map of Uganda showing areas having different tourist attractions.

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none">- Identification with a sketch map.- Mere identification of areas.- Mere identification of tourist attractions without areas | <ul style="list-style-type: none">- 05 marks- 03 marks- 00 marks |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|

A Sketch map of Uganda showing the distribution of tourist attractions.



Candidates are expected to bring out the challenges facing tourism sector as;

N.B: Points should be well explained and illustrated with tourist attraction.

Any 8 X 1 = 08 marks

(b)

What steps have been taken to promote tourism industry in Uganda. (10 marks)

Mind about the use of past tense, wrong tense 00 marks.

N.B: Points should be well explained and illustrated with tourist attractions.

Any 10 X 1 = 10marks

END



GUIDELINE FOR AWARDS

Marking is done by impression as below

Mark	Comment
0	Irrelevant answer
1-5	Rudimentary/primary answer
6-9	Outline/O' level essay (Inadequate)
10-11	Marginal/unbalanced
12-13	Basic/General answer (failure to indicate transition statements)
14-16	Average essay/answer
17-19	Good answer/essay
20-22	V. Good points, Good explanations. Examples
23-25	Excellent introduction examples balanced conclusion sketch maps.

GRADING SYSTEM

80-100.....	D ₁
75-79.....	D ₂
70-74.....	C ₃
60-69.....	C ₄
55-59.....	C ₅
50-54.....	C ₆
45-49.....	P ₇
35-44.....	P ₈
0-34.....	F ₉

1.

(a) Total

$$5,000 + 2,000,000 + 11,000,000 + 6,000,000 + 10,000,000 + 3,000,000 \\ = 37,000,000$$

Average

$$= \frac{37,000,000}{6} \\ = 6,166,666$$

City	Deviations (Total population)	Average	Deviations
Shenyang	5,000,000	6,166,666	-1,166,666
Kumming	2,000,000	6,166,666	-4,166,666
Beijing	11,000,000	6,166,666	-4,833,334
Wuhan	6,000,000	6,166,666	-166,666
Tianjin	10,000,000	6,166,666	3,833,334
Tiajuan	3,000,000	6,166,666	-3,166,666

(Calculations 3 marks)

b) Merits

- Good visual impression.
- Helps to compare.
- Represent many items. (*versatile*)
- Easy to read and interpret.
- Has simple calculations.
- Help to show deviations
- *Easy to draw*

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(3marks)

Demerits

- Has many tedious calculations.
- Represent one item.
- Time ~~by~~ *Consuming* many calculations.
- Cannot be super imposed.
- Congested with many items.
- Hard to get with big range.
- Difficult to read individual items.
- *big space*

Time consuming

Credit one side either
merits or demerits'

(2 marks)

c)

- Easy spread of diseases like air and water borne.
- Pollution of air water and land by wastes and sewage
- High crime rate and social problems.
- Rural urban migration and effects.
- Congestion of traffic and housing causing inconvenience
- Unemployment and under employment leading to low standards of living.
- Strain on social services and infrastructure.
- High costs of living causing high dependence.
- Promotion of conflicts and tensions
- Poor urban management due to limited resources.
- Over exploitation of resources causing exhaustion.
- Displacement of people and aeration
- Distinction of forests and swamps.
- Regional imbalance causing economic problems.
- Change of cultures and traditions causing social problems.
- Development of slums with poor conditions.
- High expenses diverting causing diversion of labour and capital.
- *moral decay*
- *increase govt expenditure*
- *Diversion of labour*

(5 marks)

d) Name the town / case study of the functions of cities

- Industrial centres like manufacturing.
- Trading centres i.e shops, markets
- Transport like roads and ports
- Tourism i.e historical sites, entertainment centres
- Religion i.e churches, mosques
- Residential centres i.e estates apartments
- Education centres i.e school institution.
- Administrative centres i.e offices and headquarters.
- Cultural centres i.e palaces, historical sites.
- Communication i.e telephone, internet
- Mining centres i.e quarrying
- Entertainment centre i.e Amusement parks

No town / case study no mark

- *medical / health*

(5 marks)

(Total = 25 marks)

Page 3 of 14

UGANDA NATIONAL EXAMINATIONS BOARD

(To be fastened together with other answers to paper)

UACE

Candidate's Name

Random No.

Candidate's Nature

Personal Number

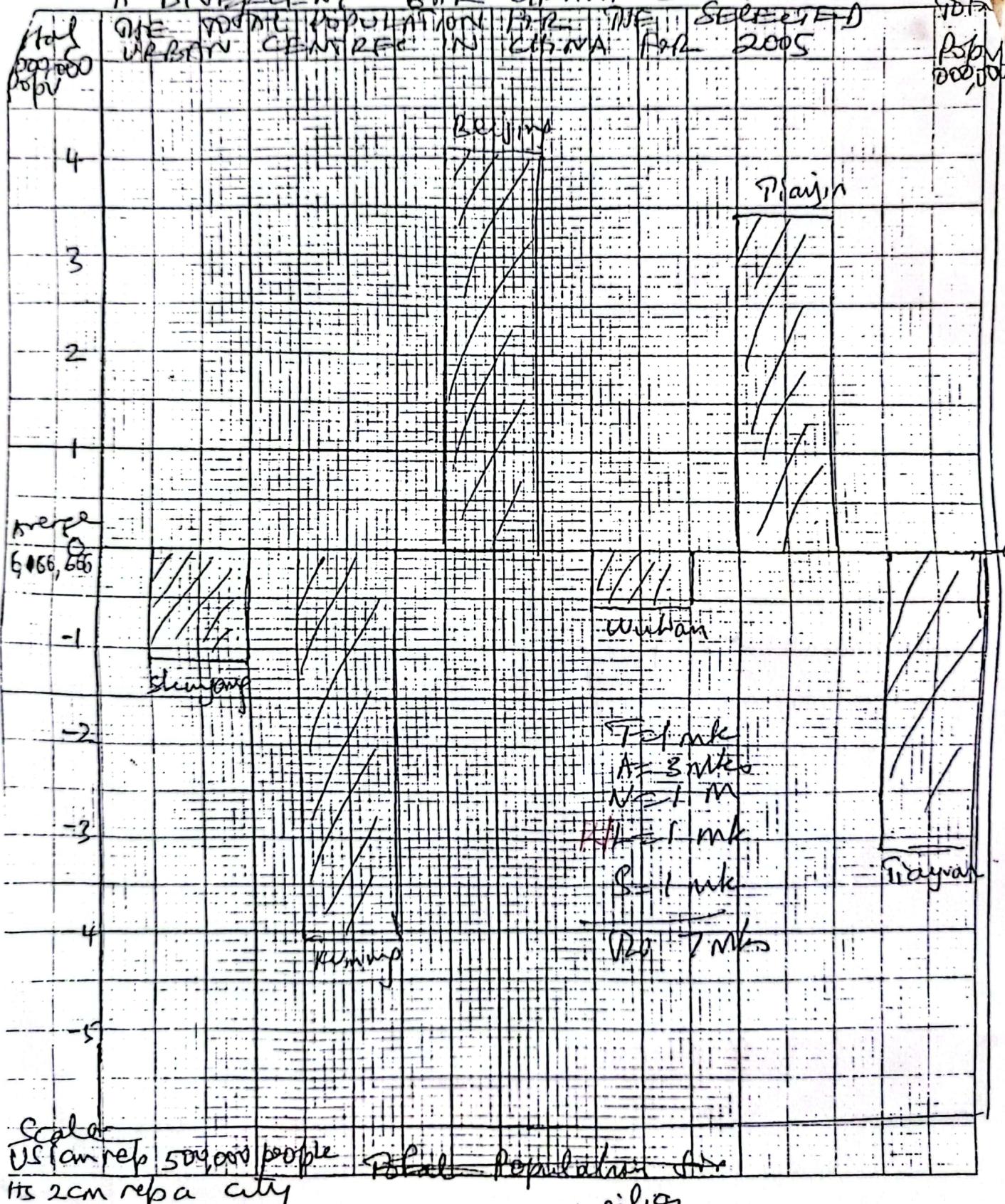
Subject Name

Paper code

DIVERSITY

C129/01

STHSW1-NL



SECTION B

a) Describe the characteristics of nomadic pastoralism.

(7 marks)

- Subsistence traditional farmers rearing animals like cattle
- Examples the Fulani Masai Turkana Somalis
- Constant movement for water and pasture.
- Building temporary settlements huts with mud.
- Found sparse population giving enough land.
- Keep large herds by prestige.
- Keep local and poor breeds.
- Found in dry areas with limited water, pasture.
- Traditional and local methods are used.
- Depend on nature like water and pasture.
- Practice cattle rustling causing conflict, tensions.
- Found in remote areas with poor social services and infrastructure.
- Specialized in animal rearing.
- Found in infertile areas with limited resources.
- They practice communal grazing due to communal land ownership.
- Keep animals for subsistence basic needs i.e food, bride price, dowery.
- Bush burning is used for clearing land.
- Family labour is used by small farms.
- Use barter system of trade .example of goods for food stuffs.
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- Definition of Nomadic pastoralism

(7 marks)

b) For either Denmark or Argentina Assess the benefits of large scale commercial livestock farming.

(13 marks)

- A candidate is expected to
 - Define large scale commercial livestock farming.
 - Choose one country. Then give both the positive and negative contribution.
 - Definition – Large scale commercial livestock farming is the rearing of animals on a large scale using a big piece of land.
 - Denmark-mainly for dairy farming milk and milk products, cattle e.g Ayrshire, Brown Swiss, Jersey, Guernsey cattle. etc in cold and low land areas.
- Argentina
 - For beef and cattle ranching with breeds Boran Angus, Charolais, Aberdeen. Areas Pampas, Blanca Paddock, Santa Fe, Buenos Aires

Contributions are moreless similar.

- Source of employment opportunities leading to high standards of living.
- Provision of revenue / income by taxation.
- Source of foreign exchange through exports.
- Leads to urbanization / development of towns. / ports
- Leads to industrialization like food processing.
- Encourages economic diversification.
- Promotes international relationships leading to trade.
- Encourages development of social services.

- Leads to development of transport and communication networks for movement of people and goods.
 - Promotes the development of tourism sector earning foreign exchange
 - Encourages and promotes research and education.
 - It's a source of food i.e rich in proteins improve diet.
 - Alternative land use due to the good nature of soils.
 - Source of capital through sales and investment by investors leading to development of other projects.
 - Source of animal products like dung which act as a source of power and energy.
 - Cow dung is a source of soil formation(humus) improving soil fertility and conserving the environment.
 - Promotes skills and technology using machines. *However*
 - Environmental degradation
 - Displacement of people
 - pollution of land, air and water from the industries
 - profit repatriation
 - diversion of labour and capital
 - Regional imbalance
 - Urban problems
 - Unemployment due to use of advanced technology
- (Impression marking 18 marks)
(Total = 25 marks)

3. The development of the fishing industry is mainly influenced by climate. "Discuss with reference to either British Columbia or Norway."

Approach

- Define fishing
- Select case study
- Name the major fishing grounds.
- Species caught methods used and major fishing activities.
- Explain influence of climate.
- Other factors
- Determine the extent as part of conclusion.

Fishing refers to the extraction of aquatic life from the water bodies e.g lakes, rivers, oceans etc on fishing grounds.

British Columbia

It's along the north east Pacific fishing grounds and the major fishing grounds i.e the Pacific ocean alongside some rivers like Skeena, Fraser and Stikine.

Species caught include Tuna, Herrings, Anchovy, Alaskan Pollack, Mackerel, Menhaden, Scallops, Harkel, Halibut etc with crustaceous like shrimps prawns, Lobsters, crysters etc using methods like trawling, purse-seining, Long lining etc with modern processing and preservation methods like freezing, canning factory, drying etc.

The major fishing ports are Vancouver, Prince Rupert, Kitimat and others.

Norway

It's along the North-East Atlantic fishing grounds like North Atlantic ocean, Norwegian sea, North sea, Barent sea and mainly marine fishing species are Tuna, Halibut, Anchovies, Mackerel, Harkel etc. The major ports and landing sites include Hammerfest, Kristiansund, Bergen, Starvanger, Trondheim, San Bresl. Fishing is influenced by climate and other factors

Role of climate

- Cool temperature climate that favours fish breeding.
- Climate influences migration patterns of fish and catch e.g Herrings at Bergen in spring and later move to Lofoten Islands in autumn (Norway)
- Cool climate favours fish preservation.
- ~~Cool temperature climate favours fish preservation .~~
- ~~Temperature~~ climate favours the growth of planktons which attract large shoals of fish.
- Unfavourable humid climate not fit for agriculture has made people turn to the sea.(fishing) *in Norway*
- In Norway modified temperature brought about by N.A.D favours fishing throughout the year.
- Cool temperature climate favours the growth of forest providing firewood, construction materials etc.

However there other factors which include;

- Extensive fishing area resulting into bigger catch.
- Wide continental shelf which is shallow allowing the penetration of sunlight for plankton growth and breeding.
- Indented /fiorded coastline favouring setting up of ports and landing sites.
- Rugged landscape /limited land available for agriculture.
- Commercially valuable species of fish highly demanded internationally.
- Many off shores islands i.e Loften,Norway,Vancouver,Queen Charlotte in British Columbia etc that increase fish breeding and establishment of ports.
- Presence of coniferous forests for ship building. (~~provide timber~~)
- Smooth ocean floors that favour methods like trawling.
- Skilled labour for various fishing operations hence efficiency and quality products.
- Capital for purchase of modern fishing gear provided by government,local and foreign in fishing co-operations.
- Large fish market i.e local and foreign.
- Well-developed transport system for efficient delivery of fish workers, fish products etc including marketing.
- Use of modern fishing methods /technology e.g Sonas and echo – sounds for large location preservation and processing.
- Continuous research on fishing i.e breeding and migration patterns.
- A long sea ~~farming~~ tradition which has taught the plenty of skills and experience.
- Favourable government policies i.e supervision of fishing grounds, acquisition of capital.
- Existence of co-operatives that offer technical support and market.etc
- Political stability that attracts investment workers and lead to better social services infrastructure.
- *Power and energy.*

Impression marks 25 marks

4. a) Account for the development of the transport sector in either South Africa or Switzerland.

Approach

- Define transport. Ispt is the physical movement of people and commodities and services from one place to another.
- Location of country
- Types of transport
- Transport areas / Routes
- Types include; Road, air, railway, water
- Railway – used in mining areas

Roads in urban areas

Candidates are expected to explain and illustrate the reasons/factors for the development of transport and these include;

- The positive and supportive government policies like roads, land research.
- The effect of research planning survey for development.
- Presence of resource for exploitation like mineral, forests, fish, wildlife .
- Availability of economic activities like industries trade tourism.
- The presence of international relations regional and internal cooperation for easy connections.
- High levels of technology leading to use of machines, excavators tractors for construction maintenance.
- Presence of different means of transport for easy connection linkages.
- Improved political stability and security attracting workers, investors like army and police
- Presence of materials used for building construction like murram, stones, pebbles, slates, gravel.
- Presence of power and energy in construction maintenance rehabilitation.
- The high population density providing labour and market passengers goods/cargo.
- Availability of extensive ^{hand} gazetted for transport development.
- The relief which is flat gentle sloping for drainage construction.
- The role of climate like Savannah with wet and dry for easy work.
- The strategic location near towns, industries, borders for easy connection.
- The availability of drainage feature water bodies for navigation.
- The cultures and traditions for easy participation.
- The historical and colonial factors affecting development.
- The growth and development of towns, ports, cities leading to easy connection.
- Adequate Capital
- Land tenure system
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(Impression marking 15 marks)

Challenges are mainly similar

Explain the challenges facing the development of transport in the country chosen .

The challenges / problems.

- The rugged and steep slopes in highlands and mountains.
- The poor drainage near water bodies like lakes, rivers, swamps.
- The thick forests, swamps making development difficult.
- The poor soils like clay and lowlands basins swamps.
- The hard rocks obstacles making construction expensive.
- Climate like heavy rainfall near the equator causing floods.

- Presence of pests and diseases, wild animals scaring working passengers
- High expenses for construction maintenance.
- Profit repatriation by foreign investor lowering government income.
- Competition ~~between~~^{among} other types reducing passengers cargo.
- Limited skilled labour like engineers and technicians.
- Mismanagement causing corruption embezzlement illegal activities divisions.
- Inadequate capital to develop and to modernize.
- Limited research planning surveying, mapping.
- Political instabilities and security causing destruction delays scare.
- Low levels of technology affecting construction maintenance upgrading.
- Poor land tenure system causing conflicts compensation encroachment.
- Rampant accidents destroying people property.
- Unfavourable government policies of high taxes
- Poor international relations affecting joint investments delays.

(Impression marking 10 marks)
Total 25 marks

5. Discuss the effects of the development of mining sector on the environment in either central Zambia or Ruhr conurbation of Germany.

Approach

- Define mining
- Types of minerals/methods of mining
- Mining centres
- Causes effects both positive and negative.
- Mining is the extraction of minerals from the earth's crust
- Zambia – copper, cobalt, lead from Nkana, Ndola, Kitwe
- Germany – coal, copper, zinc, lead from Bochum, Essen, Duisburg, Dusseldorf etc
- Methods like open cast, Deep shaft mining, Drifting etc Drilling

Positive effects

- Provision of employment leading to high standards of living.
- Source of foreign exchange used for social services infrastructure development projects.
- Provide government revenue used for economic growth and development.
- Development of social services and infrastructure leading to high standards of living.
- Growth of urban centres towns cities promoting trade.
- Promote international relations through export and import trade.
- Economic diversification by influencing other activities reducing dependence and adding government income.
- Provide market for other ~~foods~~^{sectors} like industrial products agricultural food products.
- Development of industries like processing using inputs raw materials.
- Capital accumulation by foreign investors
- Promotion of education and research
- Improvement in technology skills.
- Alternative land use with limited resources.
- Development of tourism industry.
- Development of agriculture by getting market.

However negative effects

- Destruction of landscape nature beauty by open cast methods.
 - Unemployment by mineral exhaustion and use of machines.
 - Promote accidents destroying people and property.
 - Diversion of labour affecting other sectors.
 - Destroy forests and vegetation plants and animals.
 - Cause urban problems due to population increase **Rural urban migration**
 - Profit repatriation by foreign investors causing **capital out flow lowering of income.**
 - Encourage landslides, mass wasting, and causing destruction.
 - Development of ghost towns after mineral exhaustion.
 - Provide breeding grounds for disease vectors like depression by **mining.**
 - Environmental pollution by wastes and sewage **near mineral industries.**
 - Displacement of people and activities by gazetting **mineral areas.**
 - Over exploitation causing mineral exhaustion.
 - Promoting soil erosion causing soil exhaustion.
 - High expenses causing diversion of labour and capital.
 - Destruction of forests, swamps causing climate change.

(Impression marking 25 marks)

6. To what extent has power and energy affected the development of industries in either Japan or Kenya.

either Japan APPROACH

- Case study.
 - Define power and energy / industrialization.
 - Types /examples of industries and industrial centres.
 - How power and energy affects development.
 - Other factors / problems affecting industrial development.

Power refers to energy to doing work and moving machines due to improved science and technology.

Industrialization is the transformation of raw materials into finished products using power, capital involving processing manufacturing, assembling etc

Types of power & energy sources.

- Hydro power, coal, oil, solar, Nuclear etc

JAPAN

Sri Lanka Located in South East Asia (developed country). With industries such as; textile, food processing, foot wear, electrical, automobile, vehicle assembling, pharmaceutical Industrial towns include:

Industrial towns include,
Tokyo, Nagasaki, Kyoto, Oklahoma, Hokaido, Hokkaido

KENYA

KENYA Located in EastAfrica a developing country with industries such as electrical, soft drinks, textiles, vehicle assembling etc. Industrial towns include Nairobi, Mombasa, Kisumu, Voi etc.

How power and energy affects development.

- Limited power and energy used in running of machines.
- Limited power potential used in the processing of raw materials.
- Limited energy used in packaging industrial manufactured / finished products in boxes, containers, bottles, tins etc.
- Insufficient power used in storage / preservation like refrigeration freezers, cold room for perishables.
- Limited power and energy used in the extraction and exploitation of raw materials like mineral, forests, fish.
- Shortage of power needed by workers for domestic purposes.
- Limited energy affects transportation of raw materials and finished goods.
- Load shading of power affects the security which leads to robbery and thefty in manufacturing factories.
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OTHER FACTORS

- However other factor also limit or affect the development of industries
- Limited market both internal and external affects industrial development.
- Inadequate /insufficient capital to expand, establish and financing industrial activities.
- Political instabilities / insecurity scares investors, limits development and expansion of industries, limits establishment of new industries.
- Limited skilled labour force especially in Kenya and various other employment opportunities in Japan.
- Limited exploitation of raw materials to feed the industries like forests, fish, minerals etc.
- The rugged terrain / relief in some areas limit establishment of transport routes from industrial centres to market centres for transportation of manufactured products.
- Insufficient water supply for cooling machines and acting of raw material for manufacturing of particular products.
- Limited social services and infrastructures like water, banks, power, insurance to boost industrial development.
- Limited entrepreneurs / innovators affects capital, generation to establish and run industries.
- Limited land for establishment and expansion of manufacturing industries due to the increasing population / population explosion in towns.
- Limited regional cooperation and international relations affect the market for the products.(external market)
- Unfavourable government policies like over taxation, limited protectionism, limited extension of loans to industrialists.
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(Impression marking 25 marks)

7. Analyse the significance of population pressure concept with reference to either India or Britain.

Approach

- Choose a case study
- Define population pressure.
- Identify the densely and sparsely populated areas.
- Explain with examples the positive and negative significance of population pressure.

Population pressure is a situation where the existing resource can no longer maintain the increasing population.

India

- Located in South East Asia second largest country after Russia second to China with the highest population in the world with a population in the world with a population more than 1.3 billion people. Densely populated areas include; North Western States of Punjab, Rajasthan towns like Newdelhi, Andra, Pradesh, Bombay, Madras, Calcutta etc and the sparsely populated areas are Tamil, Wodu, Kelala, Sikkim, Karnataka, Mizoram etc

Britain

- Located in the western Europe and largely populated. The densely populated area and majorly urban center of London, Liverpool, Manchester etc.

The significance are moreless similar positive significance

- Wide tax base for development.
- Provision of a large market base.
- Promotes urbanization like towns, ports, cities.
- Provision of security given nature and human phenomena.
- Development of agriculture to feed the increasing population.
- Improved research and technological advancement.
- Improved infrastructure and transport
- Exploitation of natural resources and proper utilization
- Increased investment i.e industrialization *I encourages production*
- Presence of planners, innovators. *I source of labour*
- Employment like social services trade.
- Encourage competition leading to hard work. *and innovation*
- Improvement of social services, infrastructure.
- *Source of labour*

However the negative significance / effects are discussed as follows;

- High death rates because of accidents, diseases. *easy spread of diseases*
- General reduced standards of living and poverty.
- Rural – urban influx causing over population.
- Famine due to increased food shortage.
- Inadequate social services leading to low standards of living.
- Racial discrimination leading to crimes.
- Encroachment on marginal land. e.g swamps, forests etc.
- Increased government expenditure.
- Increased dependence burden causing poverty
- Congestion i.e growth of slums, easy spread of diseases.
- Over utilization of resources causing exhaustion.

- Unemployment leading to high crime rates.
- Land fragmentation, conflicts and other related legal challenges. | *Land shortage*
- Pollution i.e air, water, land , noise etc.
- Cultural break down due to mixing of cultures.
- Increase in dependence burden as the unemployed become more than employed.
- Promotes low savings causing poverty.
- *Brain drain*
- *Encourages emigration*
- *Political unrest*
- *Growth of slums*
- *Juvenile delinquency*

(Impressional marking 25 marks)

8. a) Examine the causes of environmental degradation in Sub Saharan Africa. (15 marks)

- Sub-Saharan are South of the Sahara for instance Somalia, Sudan, Ethiopia, Senegal, Zambia, Botswana etc.
- Mostly affected by environmental degradation and destruction of resources.
- Environmental degradation is the destruction of natural resources in terms of quality and quantity like soil, forests, fish, wildlife, and minerals which are renewable and non-renewable.
- It is mostly experienced in flooded areas, deforested areas, over grazed areas, polluted areas mined/drained areas, soil exhausted, leached areas near transport routes density populated areas with backward people.
- The indicators effects include; prolonged drought, excessive flooding, subsequence melting of snow ice, low and unreliable rainfall changing seasons of rainfall, heat wave, Green house global warming effect, water shortage, storming winds, hail stones, displacement of people, reduction in plants and animals, famine, hunger malnutrition, soil erosion, landslides, conflict for resources, spread of air and water borne diseases, unemployment, poverty, rampant migration, high government expenditure.

Causes/Reasons factors are physical & human

- Climatic changes by global warming causing soil erosion, floods.
- Rugged and steep slopes in highlands & mountains.
- Pests diseases ,wild animals destroying vegetation and plants i.e elephants,locusts.
- The effect of natural calamities hazards, disasters causing distinction of landscape, plants, animals i.e. landslides massive volcanic eruption, earthquakes.
- Strong winds dust storms causing pollution erosion in deserts.
- Excessive lumbering for timber, firewood to densely populated areas.
- Mining and quarrying using open cast destroying land scale.
- Development of industries causing pollution, destruction of vegetation.
- Population increase in urban areas causing pollution like plastics.
- Drilling of bore holes lowering water table and construction of valley dams destroying landscape.
- Use of agro chemicals pesticides, insecticides, herbicides causing soil contamination.
- Irrigation farming causing flooding, submergence leading to mature soil infertile.
- Poor methods of farming like monoculture causing soil exhaustion.

- *Dry farming*
- *Deforestation*

- Over grazing caused by over stocking causing soil exhaustion and deforestation.
- Bush burning byand human factors causing deforestation and soil erosion.
- Swamp reclamation causing shortage of water and infiltration.
- Over cultivation in densely populated areas causing soil exhaustion.
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(15 marks)

b) Outline the measures being taken to address the problem of environmental degradation in Sub-Saharan Africa.

Measurements, steps solutions being taken

- Planting trees through afforestation and reforestation controlling soil erosion.
- Using modern methods of farming like paddocking, rotational mulching maintaining soil fertility ,intercropping | *Introduction of branching schemes*
- Applying fertilizers like organic and inorganic maintaining soil fertility.
- Using soil conservation measures conserving the soil like contour ploughing, terracing, strip cropping on hills.
- ~~Facilitating~~ encroachments from wetlands, natural parks. | *Regular patrols*
- Strengthening laws and regulations fine reducing on illegal activities.
- Encouraging education awareness using formal and informal education.
- Population control reducing human activities using modern methods of family planning.
- Economic diversification reducing depression on the land.
- Establishing NP GP FR wetlands by gazetting.
- Encouraging proper waste management by using recycling treatment destroying soils.
- Political stability and security reducing use of ammunition. | *peace talks*
- Promoting research leading to sustainable use of resources.
- Promoting proper land use management and planning for resources.
- Government support by giving loan exclusives to workers.
- Training skilled like environmental officers helping in educating, monitoring and supervision
- Avoid using fragile areas like highlands, mountains, steep rugged slopes,wetlands and desert areas.
- *using of alternative source of income, HEP, solar*
- *development of sewage treatment plants*
-
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(10 marks)

NB: Mind about tense used (wrong tense no marks)

(Impression marking 25 marks)

END