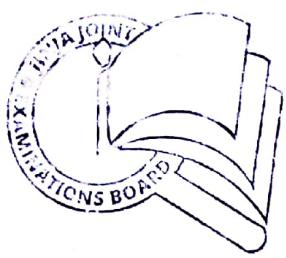


Tr. Gamaliel maso HPHS



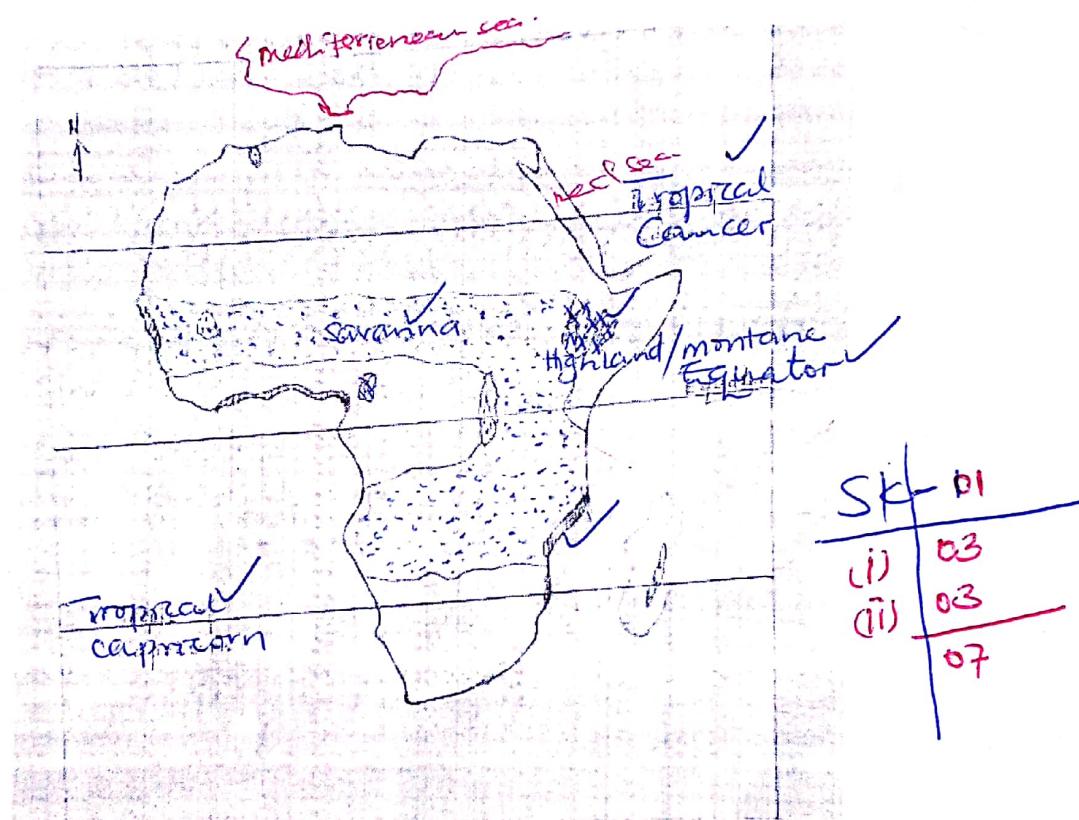
JINJA JOINT EXAMINATIONS BOARD

273/2 GEOGRAPHY

MARKING GUIDE 2022

QUESTIONS

1. (a)



- Key:
- Montane (Ethiopian highland, Kenya, Uganda, Rwanda, Burundi, Democratic Republic of Congo)
 - Savanna (Rest of Western, Eastern and Central Africa)
 - Mangrove (Coastal area of Mozambique, Tanzania, Nigeria, Ethiopia, Sudan)

Student must identify the vegetation type
(b) Description of characteristics of: **it describes Sand**
EITHER: **a mark is allocated to it.**

SAVANNAH VEGETATION: TYPE

- MV 56**
- Grasses dominate; which include spear and elephant grasses that are green during the wet season and become brownish during the dry season ✓ *at the end of every sentence*
 - Grasses mainly very tall of over two meters, close to the tropical rainforest.
 - Grasses reduce in height; towards the margins of the desert/Sahel region; shrub-like and common species are acacia.
 - Presence of scattered trees; punctuating the grass land; e.g. acacia, baobab i.e. xerophytic. ✓
 - Trees are deciduous; and therefore shed off their leaves during prolonged dry season so as to reduce on excessive transpiration. ✓
 - The structure of leaves are very small, waxy and sometimes thorny - like this also helps in reducing excessive water loss. ✓
 - Trees have long roots that extend deep into the ground; so as to tap underground water and plant nutrients. ✓
 - Trees have thick barks; so as to reduce moisture loss, protection against drought fires. ✓
 - Trees are of medium height; due to the moderate conditions of soil, climate etc.
 - Trees are thorny bushes; to scare away herbivores. ✓
 - Trees have twisted trunks/not straight; caused by exposure to vagaries like fire, drought, and inadequate soil nutrients. ✓
 - Hard wood trees; due to inadequate moisture and long gestation period. ✓
 - Mixed stand; acacia, baobab etc. ✓
 - Grasses exist in compact tufts; close to the Sahel and dense near the equatorial rain forest. ✓
 - Trees are umbrella shaped with single canopy; trap light, create shade. ✓
 - Some trees store water e.g. baobab which thrive closer to the desert. ✓

OR:

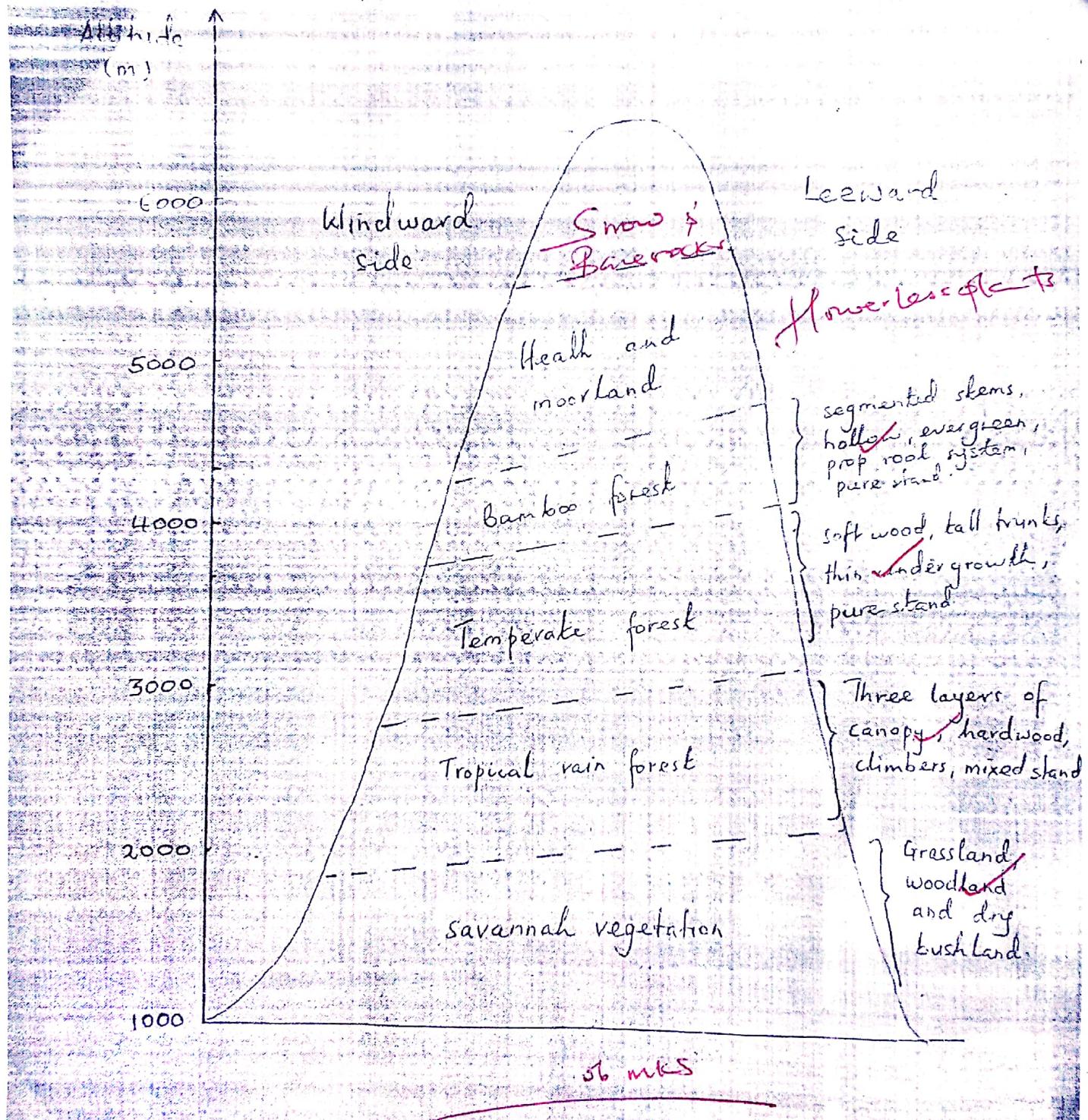
MANGROVE VEGETATION TYPE;

MV 56

- Have ability to grow on tide washed mud flats in the tropics. ✓
- They gradually extend sea ward to further mud accumulation between their roots. ✓
- Trees have short stumpy trunks supported by aerial roots or by roots which bend at right angles. ✓
- The trees have a long gestation period, resulting into formation of hard wood. ✓
- Trees are broad leaved to allow release of excess moisture and ever green because they are moisture laden. ✓
- They arrange themselves parallel to the coast enjoying the sea water nutrients. ✓

Illustration of montane vegetation zonation.

MOUNTAIN VEGETATION ZONATION



Q. (c) Explain the conditions which have led to the growth of the vegetation given in (b) above. 6

EITHER: SAVANNAH VEGETATION TYPE.

- 1d-4
Ex-4
08
- Low rainfall amounts (500 – 960mm) annually that lead to the growth of grasslands and scattered trees.
 - Prolonged dry season that hinders the growth of tall trees. Savannah trees are very short ranging between 6 – 12 meters in height.
 - Hot temperatures for most of the year of about 27°C on average that limit the growth of a luxuriant vegetation with tall trees they therefore favour short trees and short grass growth.
 - Low humidity especially during the dry season favours the growth of grassland. This leads to high rates of evapo-transpiration thus limiting the growth rates of trees.
 - Latitude between 5° – 15° North and South of the Equator favours the growth of savannah grassland.
 - Human activities like agriculture, mining, charcoal burning lead to destruction of the woodland that are eventually transformed into grasslands.
 - Presence of wild animals like elephant, giraffes graze, strip and trample upon the woodlands and turn them into savannah grassland vegetation.
 - Fairly fertile soils like latosols are conducive for the growth of woodland and savannah; stunted and fire resistant.
 - High incidence of pests like locusts that feed on the trees and grass.

OR:

MOUNTANE VEGETATION TYPE:

- 1d-4
Ex-4
08
- Altitude plays the major role in this vegetation zonation.
 - At 1000m – 1800m above sea level, savannah vegetation: grass – land and woodland, because at this altitude there is low rainfall amount of less than 750mm, low humidity, hot temperatures, fairly fertile soils, human interference like settlement.
 - This is followed by savannah woodland due to; moderate rainfall of about 1000mm, hot temperatures of 22°C – 29°C , moderate humidity, fairly fertile soils, less human interference, well-drained soil.
 - Between 2000m – 2500m above sea level rain forest exist due to heavy rainfall (1500mm – 2000mm), hot temperatures of about 27°C , deep fertile soils, less human interference well drained soils.
 - Between 2500m – 3500m above sea level, temperate forests exist; due to reducing rainfall total, cool temperature, shallow thin soils/well drained soils.
 - Between 3500m – 4500m above sea level, heath and moorland exist; due to cold/cool temperature, extremely low rain fall or no rainfall, very thin soils, water logged soils due to melting of snow.

OR:

MANGROVE: VEGETATION TYPE;

- ~~1d - c
Ex - 4
58~~
- Ability to grow on tide washed mud flats.
 - Continuous deposition of mud by rivers.
 - Less stormy ocean currents that allow steady accumulation of mud i.e. rate of deposition is more than that of removal.
 - Sheltered creek, lagoons, harbour;
 - Wide and shallow continental shelves;
 - Areas should be receiving water from an area of heavy rainfall.

*1d
presence of tide washed mud flat
allows growth of mangrove vegeta-
tion
Ex - 4
58*

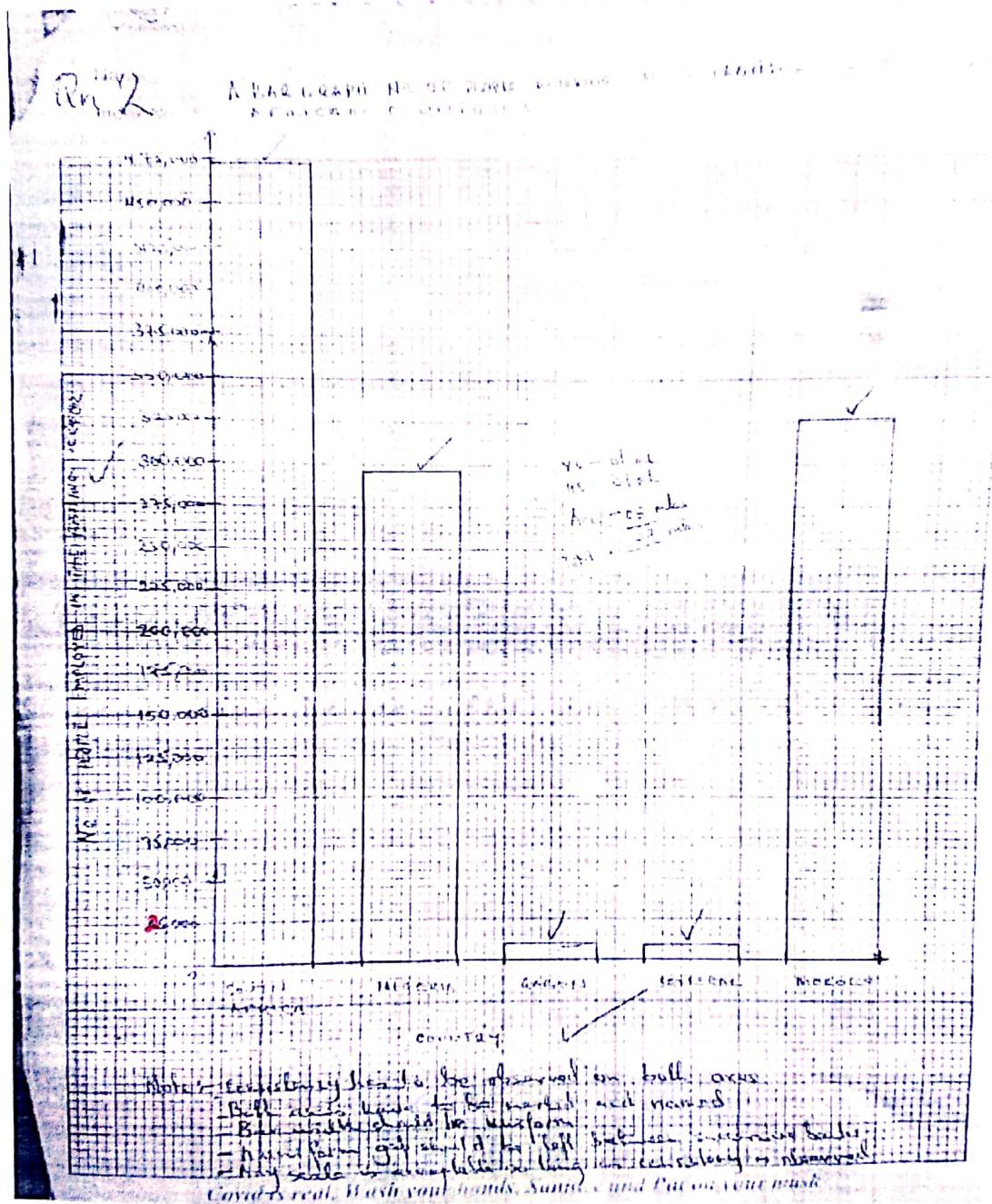
1. (d) Negative effects mainly from the destruction of natural vegetation cover in Africa.

- ~~Max - 4~~
- Disappearance of valuable tree species due to clearance for timber and agriculture.
 - Transformation of vegetation from natural to secondary species that are dangerous or inhibit movement of tourists.
 - Leads to soil erosion because of removal of cover.
 - Reduces soil fertility due to loss of water.
 - Deforestation leads to desertification i.e. increase in temperature and decrease in rain fall.
 - Leads to global warming.
 - Increases strength of winds, increases its destruction
 - Leads to prolonged drought and reduced rainfall.

25

2. (a)

A BAR GRAPH: NUMBER OF PEOPLE WORKING IN THE FISHING SECTOR FOR SELECTED AFRICAN COUNTRIES.



NOTE: Bars have to be spaced; no spacing, no mark for accuracy and horizontal scale.
Only 1 mark for vertical axis.

14.7

- ✓
2. (b) (i) Most dominant – South Africa (01 mark)
(ii) Least dominant – Senegal (01 mark)
- Identification of the Country (1 mark)*
- (c) Name of Country (01 mark)
- Presence of large quantities of fish of commercial value: Sardine, Pilchard.
 - Enhanced research ~~for~~ is carried out to improve fishing activities; harvesting, preservation, marketing ~~and~~
 - Availability of both skilled and semi-skilled labour; from home and abroad raising profits to work.
 - Availability of adequate capital from state and foreign ~~for~~ investors, to invest in fishing activities e.g. fishing, marketing. ~~from USA, Japan~~
 - Modern fishing method like use of gillnet, trawling that promote efficiency and increased fish catch.
 - Availability of large market; for fish both at home and abroad raising profits. ~~from Britain, Japan~~
 - Favorable climatic conditions of warm/moderate temperature; ideal for fish to thrive – metabolism.
 - Existence of large continental shelf with relatively deep water; for the spawning and growth of fish stock and effective fishing activity.
 - Availability of adequate food/plankton for the fish; to feed on.
 - Political stability/security in the country; promoting confidence over life and fishing gears hence increased fishing activities.
 - presence of calm / fresh water bodies
 - presence of rivers
 - ocean currents

NOTE: Place name, names of features must be captured for illustration.

S. Africa – Johannesburg, Cape Town; Bangula and Mozambique currents; railway, (Cape Town – Pretoria); Indian and Atlantic oceans.

Nigeria – Lagos, Kano; R. Niger; Over 100m pop, Guinea current; Atlantic Ocean

Gabon – Atlantic Ocean; Port Gentile; Libreville.

Senegal – Canary current; Desert, Dakar

Morocco – Long coast line; Rabat; Algeria, cool canary current.

Id - max 3

ds - max 3 max 06

(d) (i) Explanation of the contribution of the fishing sector in any one country given in the table.

1d-3
exp-3
of

- Source of food; rich in protein, i.e. body building.
- Enhances or stimulates research; in fishing related activities e.g. harvesting/catching, processing, marketing.
- Source of employment; to people raising incomes and hence standard of living.
- Diversification of the economies; reducing over-dependence on mining, forestry or other traditional sectors.
- Encouraged infrastructural development; e.g. roads, railways hence raising soil ~~standard of living~~.
- Source of income; that improve people's standard of living.
- Source of government revenue; through taxes, used to establish infrastructure, raising standard of living.
- Boosts international relationship with trade partners; promoting tourism, trade, security.
- Source of foreign exchange; through exportation of fish. used to import essentials.

1d - max 3marks

Ex - max 3marks

(d) (ii) Outline of steps being taken to promote the fishing sector in the country chosen in

Marks

(c) above.

(03 mks)

- Widening market through extensive advertisement to foreign market.
- Introducing better/modern fishing methods e.g. trawling, purse seining, etc.
- Forming local cooperatives to raise capital jointly; to use to buy fishing gears.
- Attracting skilled foreign workers; to raise the efficiency in management, of the sector. *Connecting fishing centres with processing industries*
- Developing transport routes like roads, hence promoting marketing, production.
- Establishing fish processing factories to add value; hence profits.
- Investment in the industry by government, foreigners to expand the sector.
- Reducing the level of taxes to affordable levels raising profit margin to fishermen.
- Treating industrial wastes before dumping it in water, saving fish stock etc.

(3 mks)

NOTE: - Observe the tense used in the question text ...being...

- Use of should automatically invalidate the given points

(09 marks) (major mark)

NOTE: For outline no mark(s) should be awarded to a candidate that presents sweeping statements i.e. single words, incomplete statement. (25 marks)

3. (a) (i) towns marked:

1. Cairo ✓
2. Port Sudan ✓
3. Omdurman/Khartoum Port Sudan ✓ (03 marks)

(ii) Land forms:

- A: Ethiopian Highland ✓ (02 marks)

- B: Great Rift Valley ✓ (01 mark) *any of the three.*

(iii) Irrigation scheme marked C: Gezira/manakal/ kenana

(iv) Lake marked D: Tana ✓ (01 mark)

(v) Country E: Djibouti ✓ (01 mark)

(08 MARKS)

(b) Describe (i) With specific examples, the physical factors which have favoured the establishment and development of the irrigation scheme marked in (a) (ii) above.

- The arid climate around the Gezira scheme is characterized by hot/high temperatures (over 20°C) that shortens the maturing and ripening period of crops.
- The Gezira plains are flat favouring mechanization as well as water flow in the irrigation canals enabling large scale farming.
- Presence of fertile alluvial soils in the Gezira plain deposited by the Blue and White Nile have encouraged the growth of a variety of crops.
- Abundant water from Blue and White Nile for irrigation – variety of crops.
- Cheap large tracts of land along the Gezira: Managil and Kenana extension.
- Limited vegetation due to drought in the desert promotes easy clearing and avoid water logging.
- Gezira plains have deep water table such that the water logging does not occur which favours the growth of crops like cotton, sugarcane.
- Hard basement rock for dam construction sennar Jabel Aulic dams.
- Adequate capital - Developed Technology.
➤ ready market
➤ supportive govt policies
➤ well developed infrastructure by road labour both skilled unskilled
➤ sufficient power supply.

3 (b) (ii) any one method of irrigation used on the irrigation scheme marked in (a) (ii) above.

Either: Perennial/Gravity method – Where the canals, ditches and channels are dug linking up the farm land to the water source. Irrigation is throughout the year, done at low or flat land.

OR: Archimedean screw method: - Is where a water pipe is fastened on a motor - like stand with perforated coil on the top. The spreading of water in the cultivable land is determined by the acceleration pressure of the water. Done at raised farmland.

Q1
OR: Overhead lining method: - Is where perforated pipe (s) is elected higher than the basic crop height and well distributed in the irrigation land. When the water is released, it finds its way into the farmland through the outlets on the raised pipe. The system has the distributor pipe, sprinkler supply pipe, control head (valve, filter and pressure regulator). Done at raised farmland and undulating land.

OR: Drip irrigation - this is where a variety of distribution pipe lines that are evenly spread on the ground on a farm land are attached to a main supply that drips water at a slow rate.

Any one method. (01 mark)

Processes for a given method (01 mark) max (02 marks)

Subtotal (08 Marks)

3 (c) Explain the benefits of the irrigation scheme to the people living on the irrigation scheme;

- 1tmarks
Exmarks
06
- Employment opportunities have raised people's Standards and incomes of people.
 - Development of infrastructure e.g. dams, roads, railways.
 - Research has led to high yielding variety of crops grown like cotton.
 - Crops are a raw material for agro Based industries.
 - Has led to industrial development by purchase of industrial goods e.g. chemicals.
 - Source of food e.g. rice, vegetables and cereals for growing population.
 - Tourist attraction, dams, canals earn foreign exchange for development.
 - Diversification of the agricultural products e.g. from growing crops only to rearing of livestock based on the feeds grown on the farms like lubia.
 - Increased incomes of the farmers through sale of agriculture commodities resulting in their improved Standard of living.
 - Revenue is earned by government which is used in development of infrastructure e.g. roads.
 - Dams provide water for industrial, domestic and irrigation purposes.
 - Foreign exchange earned through export of the crops especially cotton is used in economic development.
 - Urban centers like sennar, Hosa Heisa for processing farm produce with well-developed infrastructure.
 - The scheme has prompted cooperation among tenants and international trade partners.
 - Modern farming method e.g. irrigation and use of fertilizers which have contributed to increased yields.
 - Other benefit like afforestation, education for children and adult's dairy farming and development of research.

1d - 03 max

Ex - 03 max

(06 marks)

3 (d) Outline problems that resulted from the establishment of the Gezira irrigation scheme.

- Marks
- Displacement of the pastoralists leading to disruption of the social order.
 - Environment pollution due to improper disposal of wastes leading to respiratory diseases.
 - Stagnant water leading to breeding of vectors that cause disease e.g. bilharzia.

- Silting of the Blue and white Nile behind the dams leading to shallowness of reservoirs and flooding leading to high cost of dredging.
- Multiplication of weeds which choke the canals leading to high cost of dredging.
- Salination of the soil due to high evaporation rates leading to low crop productivity.
- Urban related problems; organized high crime rates leading to increased insecurity in the region.
- High cost of maintenances of the scheme due to constant dredging and spraying.
- Destruction of original vegetation leading to loss of bio diversity.
- Soil exhaustion due to over use of the land leading to low yields.

Max 0⁴f

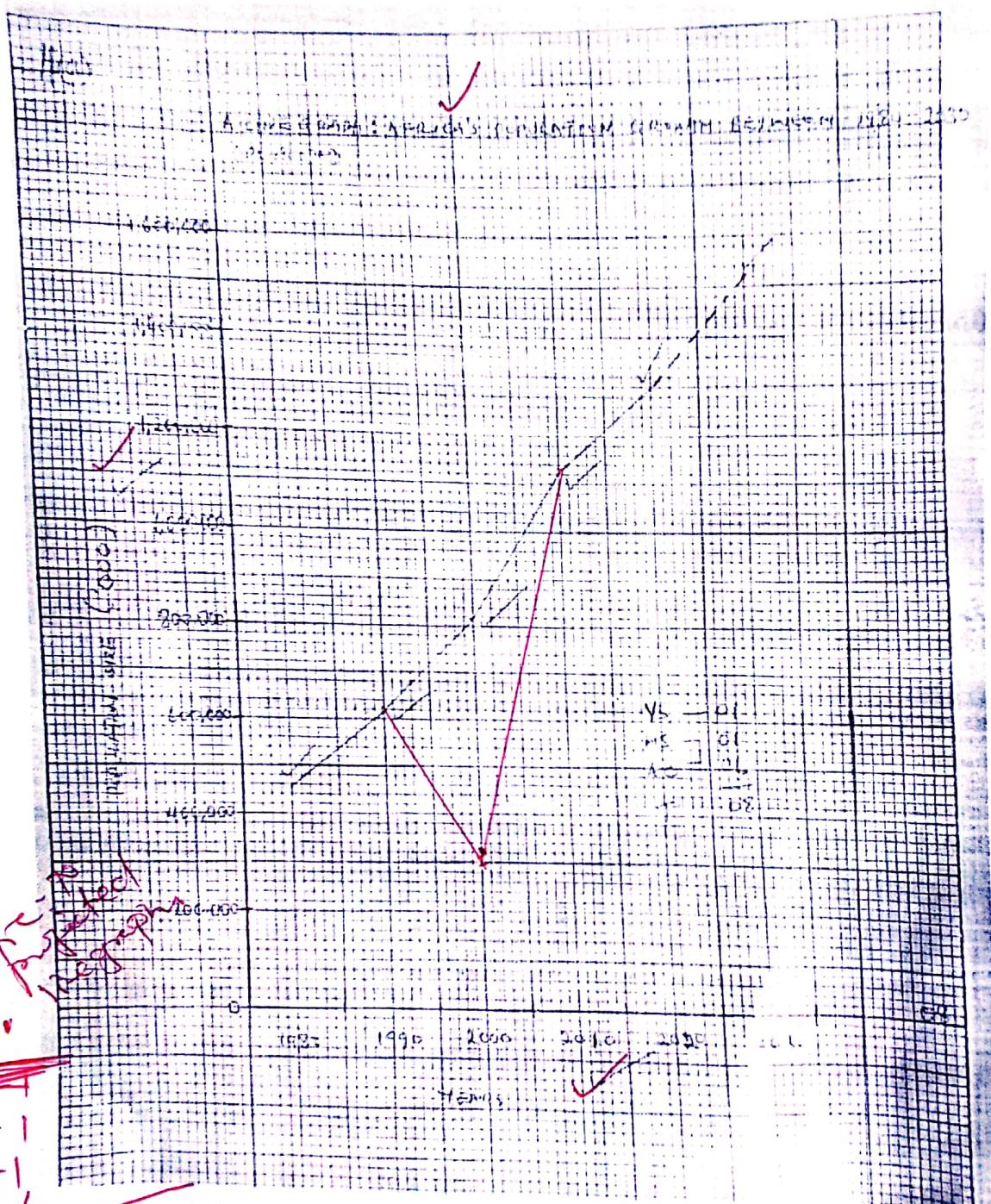
(Total = 25 Marks)

16

40
12
52
14 (8)
66 (9)
~~67~~

11

4 (a) A LINE GRAPH; AFRICA'S POPULATION GROWTH BETWEEN 1980 – 2030



✓ an increase with figures
 ✓ a decrease
 ✓ projected.

4 b (i) Describe the trend of Africa's population growth between 1980 and 2030

- > Between, 1980 – 1990 was a high steady increase. ~~by 163,021,000 people~~
- > Between, 1990 – 2000 was a low steady ~~decrease by 294,312,000 people~~
- > Between, 2000 – 2010 was an expected (projected) high steady increase. Max 2 marks

~~Between 2010 – 2030 was a sharp increase by 815,409,000 people~~
~~in population~~

4 b (ii) State the period in which Africa experienced the.

- > Highest
- > Lowest
- Percentage increase in population.

Calculation(s) of percentage increase:

Period	Percentage increase
1980 – 1990	$(616,411 - 453,390) / 453,390 \times 100 = 35.96\%$
1990 – 2000	$(818,099 - 616,411) / 616,411 \times 100\% = 32.71\%$
2000 – 2010	$(1123508 - 818,099) / 818,099 \times 100\% = 37.33\%$
2010 – 2020	$(1296777 - 1123508) / 1123,508 \times 100\% = 15.42\%$
2020 – 2030	$(1524645 - 1296777) / 1296777 \times 100\% = 17.57\%$

Therefore period with highest percentage increase: 2000 – 2010 ✓

Lowest percentage increase: 2010 – 2020 ✓ Max 4

4 (c) Explain, using specific examples, the factors which have led to a high population growth rate in Africa.

- > High birth rates in Nigeria, Egypt, South Africa, etc. i.e. the number of live birth per 1000 members of the population in a year.
- > High fertility rates of women and men. The fertility rates of women from sub Saharan Africa tend to fall in the range of 5.7 children per woman hence a high natural increase in population.
- > Declining death rates due to improved medical service e.g. in South Africa, Nigeria, etc. Vaccination campaigns have helped lower death rates among children from killer diseases like whooping cough, measles.
- > Early marriages e.g. as experienced during the pandemic of Covid 19 in most African countries like Zimbabwe, South Africa, Nigeria making young girls have a long reproductive period.
- > Polygamous practices among many Africa tribes like South Africa, Lethoso, Nigeria lead to the marrying of many wives who produce many children per family.
- > Religion practices like allowing polygamy among Muslims in Egypt, Nigeria and discouragement of artificial birth control measures by the Catholics of Ethiopia, South Sudan, South Africa, and DRC all contribute to high population growth.

- Improved nutrition level due to favourable climatic conditions of hot and wet conditions and fertile soils in Nigeria, Nile basin of Egypt which allow the growing of more food to support the increasing population.
 - African societies have traditionally seen large families as signs of wealth, prestige and therefore value the presence of children in everyday life e.g. in Nigeria, South Africa, and DRC.
 - Immigration into Africa mainly in South Africa, Ethiopia from Asia (Indian and Chinese) and Europe (Dutch, England) over the years has contributed to Africa's population growth.

(06 marks)

NOTE; for ex should only be awarded when a specific example of an Africa country is cited.

4 (d) outline the disadvantages of a large population size in Africa.

- Land shortage leading to land disputes, land fragmentation resulting in death, decreased crop yields.
 - High dependency ratio reducing savings and investments for future development.
 - Over cultivation of land resulting in loss of soil fertility hence lower crop yields.
 - Deforestation is carried out to create room for settlement and farming resulting in soil erosion, landslides and reduced rainfall.
 - Congestion leads to easy spread of diseases like cholera, typhoid, STDs and cough.
 - High rates of unemployment as the rate of population growth far exceeds the rate of job creation.
 - High crime rates like murder, robbery and prostitution due to unemployment.
 - Inadequate accommodation for the large population resulting in the development of slums and their associated evils.
 - Wide spread poverty due to too many people compared to the available resources.
 - Shortage of food resulting in hunger, starvation and famine.
 - Encroachment of marginal lands e.g. game and forest reserves, reclamation of wet lands for settlement and agriculture.
 - Pollution of the environment due to improper wastage disposal.
 - High cost of living due to increased demand for goods and services. May 04 marks

3. Max 04 m³
(25 marks)

5 (a) Name: (i) Lakes A – Superior ✓

- (i) Superior

B - ~~the~~ Huron / Erie
C - ~~Rise~~ champion

Ocean F - Atlantic

(ii) Feature at; B - Sault St. Marie or Soo canal
A - Niagara Falls/Welland canal/locks

~~Rapids~~ - St. Lawrence rapids. - Iroquois

(iii) River/Strait 4 - St. Claire Detroit. (05 mark)

(05 marks)

5 b(i) Describe the (i) aims of construction of the Great Lakes and St. Lawrence Sea way.

- (A-3) *id* To open up the interior of North America to facilitate the extraction of minerals such as iron ore and lime stone as well as agricultural resources like wheat from the prairies of Canada. *ds*
- (d-3) *id* To create deep water navigation from the productive interior of North America to the Atlantic Ocean. Bottlenecks, islands, falls, fluctuation in water level floods had to be addressed. *ds*
- To generate hydro-electric power that was expected to increase the level of industrial development in the area. *ds*
- > *to control flooding*

5 b(ii) The operation of any one navigational locks along the St. Lawrence sea way.

Locks; Welland canal and locks

61

Iroquois dam and locks

Any one 1 mark.

- Locks are very impressive *lift systems*. A lock is a stretch of water closed off by gates so that the water level can be raised or lowered to move vessels up or down. Ships measuring up to 226 meters long, carrying cargo equivalent to 25,000 metric tonnes are raised to 180 meters above sea level.
- The lock has *lock gates* and *sluice gates*. The lock gates are used for the passage of the ship into or out of the lock. The sluice gates allow water in or out.
- If the ship is to sail from a lower level of water to a higher level, the lock gates at the lower level are closed after the ship is inside the lock. The sluice gates here are opened and water flows in. Each lock can fill with about 91 million litres of water in about 10 minutes.
- The water will keep rising until it is at the same level that of the higher section. The lock gates are then opened to allow the ship to move out and continue with its journey. It takes about 45 minutes for a ship to go through a lock. Small trains called mules are used to pull the ship passed the lock section.

Max 5 marks

5 (c) Explain the contribution of the Great takes and St. Lawrence sea way project to the development of U.S.A and Canada.

- Opened up the interior of U.S.A and Canada providing cheap water transport.
- An important export route for agricultural and industrial output bringing in foreign exchange.
- Stimulated industrialization e.g. Duluth, Toronto, Port Arthur.
- Encouraged exploitation of natural resources e.g. coal from Pittsburg, iron ore from Quebec.
- Generation of HEP for industrial and domestic use.
- Generation of employment opportunities, work on ocean going vessels earning income.
- Promoted trade earning people income hence raising Standard of living.

1d - 3

Ex - 3

ob

- Generation of revenue through tariffs/tax levied on vessels for infrastructure development social welfare.
- International relationship/ togetherness through construction of the sea way hence promoting trade
- Promoted direct transportation of goods to the Great lakes without trans-shipping their goods, hence reduction in transport and trading costs.
- Flooding and its related problems have been solved by construction of dams, canals etc.

1d - 03 marks

Ex - 03 marks (06 marks)

5 (d) Outline the environment problems resulting from the establishment of St. Lawrence sea way project.

- marks 3*
- Traffic congestion at the ports causing delays.
 - Pollution of air, water, land by and oil spills that destroy the quality of water affecting aquatic, tourism and human life.
 - Water weeds block turbines and water ways.
 - Low visibility caused by smog and fog that accumulate from fumes from vessels, industries.
 - There are problems of sea pirates/terrorists.
 - Destruction of marginal lands/swamps leading to loss of natural beauty/floods.
 - Development of slums leading to poor sanitation and easy spread of diseases.

Max (03 marks)

6. a (i) Calculate the missing values to complete the table above.

$$\text{Texas: } \frac{30}{100} \times 360^\circ = 108^\circ \quad (\frac{\text{Item}}{\text{Total}} \times 360)$$

$$\text{Mississippi: } \frac{10}{100} \times 360^\circ = 36^\circ$$

$$\text{New Mexico and Arizona: } \frac{10}{100} \times 360^\circ = 36^\circ \quad (\text{max 2mks})$$

$$\text{Others: } \frac{25}{100} \times 360^\circ = 90^\circ \quad \text{max (02 marks)}$$

6. a (ii) One state with the least relative importance of cotton production in the Southern U.S.A.

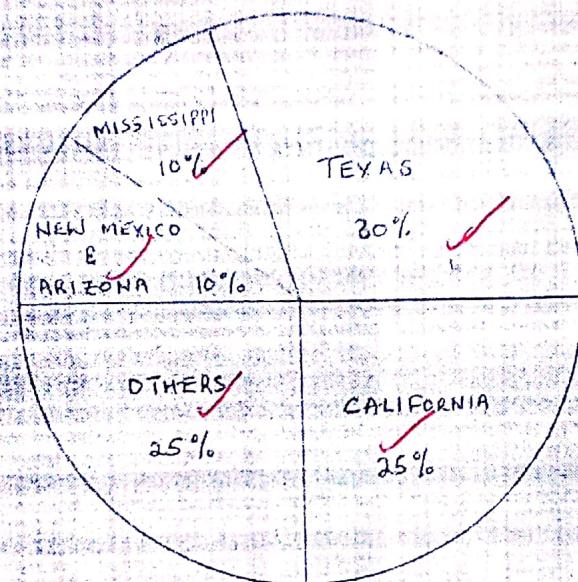
Either - New Mexico. *with 10%*

OR - Arizona *max (1mks)*

(01 mark)

Q6) A PIE CHART SHOWING THE RELATIVE IMPORTANCE OF COTTON

GROWING IN SELECTED STATES OF SOUTHERN U.S.A.



T - 01

Acc - 05

Q6 mark.

Note: Ideally sectors must show corresponding figures in percent

6. (b) A PIE CHART SHOWING THE RELATIVE IMPORTANCE OF COTTON GROWING
IN SELECTED STATES OF SOUTHERN U.S.A

PAGE 17

✓ ✓

6. (c) Explain, using specific examples, the factors which led to the decline in cotton production in the old cotton belt in Southern U.S.A (example could be states in old, New cotton belts, policies, pest, factors, etc.)

id ✓

- The growing of one crop i.e. cotton year after year/mono culture led to soil exhaustion and ultimately lower crop yields; Mississippi, New Mexico, Arizona, Oklahoma, Louisiana, Alabama, Georgia, S.Carolina. ex ✓
- Soil erosion due to inadequate soil cover provided by the cotton crop; neglect by share croppers resulted in a decline in cotton yields in Georgia ex ✓
- The cotton boll weevil infested the South areas i.e. Alabama, S.Carolina and thrived best in the warm and humid climate there. This resulted in the decline in cotton production; increased production costs.
- Frequent occurrence of strong winds/hurricanes e.g. Catherine on the eastern side - S.Carolina destroyed cotton plants.

18

1d-4
ex-4

(08)

- 1d ✓
- Shortage of labour to work on the plantations as slaves who had previously provided labour had been freed and migrated to the West - California, Arizona; Joined better paying jobs in emerging industries.
 - New crops were introduced to renew the exhausted soils e.g. beans, maize, tobacco. This reduced the acreage of land under cotton.
 - Introduction of synthetic fibres like nylon, polyester in U.S.A and the world market reduced the demand for cotton.
 - The low prices and incomes earned from the cotton discouraged the farmers and many abandoned cotton growing. *relied resort to beans, maize etc.*
 - The cotton fields in some areas like Alabama, Arizona were replaced with pasture to feed the cattle introduced on the farms reducing cotton acreage.
 - Government policy of compensating farmers for using their land previously under cotton for other purposes like planting trees and setting up ranching schemes reduced cotton acreage and output.
 - Opening up drier western areas e.g. California for cultivation of cotton through irrigation ensured production throughout the year, hence a decline in cotton production in the East that depended on nature.

1d - max 04 marks

ex - max 04

08 marks

6. (d) Outline (i) the effects of cotton growing on the environment in the Southern U.S.A.

POSITIVE EFFECTS.

Mark
2mks

- Generation of employment hence income and raising Standard of living.
- Raw material for agro based industries e.g. textiles.
- Market for industrial goods like fertilizers, machinery.
- Urbanization due to emergence of processing industries.
- Infrastructure development e.g. road, schools; dams, canals.
- Source of foreign exchange through cotton export.
- Floods have been controlled through construction of dams.
- Promotion of international relationship promoting trade, tourism.
- Diversified economy reducing over relying on sectors like film, service, manufacturing; broaden source(s) of income/revenue

NEGATIVE.

Mark
2mks

- Soil exhaustion due to over cultivation of the land.
- Pollution of soil and nearby water bodies through excessive use of fertilizers; pollution air through cotton processing industries.
- Soil erosion occurs due to the inadequate soil cover.
- Cultivation of cotton near rivers leads to siltation.
- Loss of natural vegetation cover through wide spread destruction of forests to create room for large cotton plantation.
- Landslides caused by clearing of vegetation from highlands.

Put a leave
the firms put its
for negative

Mark. (out mcs)

Any 4

(04 marks)

6. d (ii) Measures that should be taken to have the negative effects of cotton growing on the environment in the Southern U.S.A.

- Bush following should be done to enable soils regain fertility.
- Treating industrial wastes before releasing them to atmosphere, use of farm yard manure instead of industrial fertilizers, limit pollution should be done.
- Cover crops like legumes should be planted to control soil erosion.
- River banks should be protected by planting grass along them to mitigate siltation of rivers.
- Afforestation and reforestation should be done to protect land against soil erosion and landslides.

Map - 3 M

+ solution should be
attched to the problem

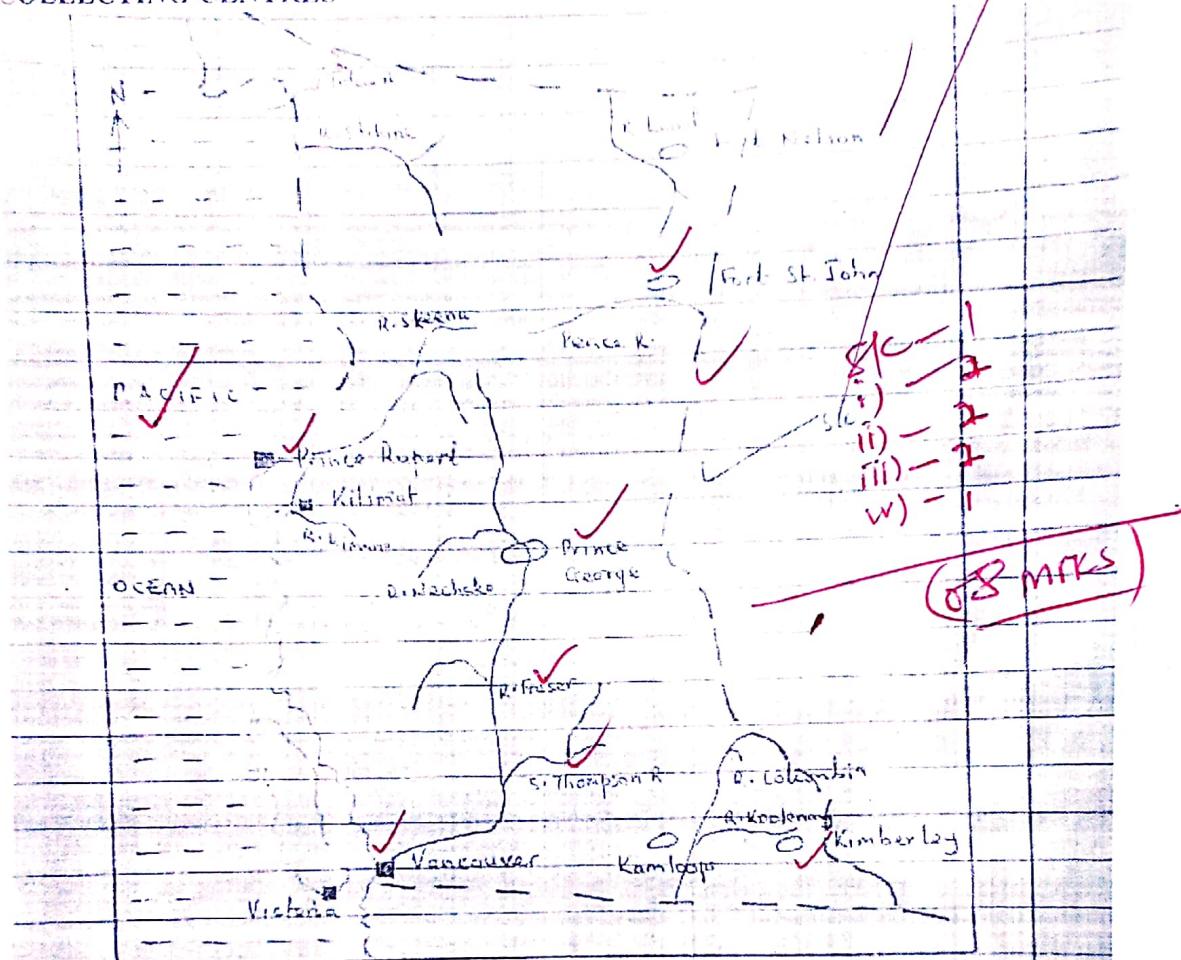
Total
Total (25 marks)
→ 25

7. (a) Draw a sketch map of British Columbia and on it, mark and name any two:

- (i) Rivers;
- (ii) Interior timber collecting centres;
- (iii) Coastal timber collecting ports;
- (iv) Pacific ocean.

20

BRITISH COLUMBIA: RIVERS, COASTAL PORTS AND INTERIOR TIMBER COLLECTING CENTRES



Key

- Rivers
 - Coastal timber exporting ports
 - Interior timber collecting centres
- Covid is real. Wash your hands, Sanitize hands or wear mask. — 2022

7. b (i) State any two tree species found in British Columbia.

- Douglas fir ✓
- Cypress ✓
- Western hemlock ✓
- Western red cedar ✓
- Spruce ✓

mark (2)

21

- > Balsam fir ✓
- > Pine ✓

Any 2 (02 marks)

7. b (ii) Describe the characteristics of forests found in British Columbia.

(Q1) Coniferous forests that cover 96% of the total forests area. (Temperate forest)

- > The trees occur in pure stands i.e. a single species of trees can occur over a very large area.
- > The trees are tall, straight and slender; because are very close together.
- > The trees have flexible trunks which bend easily with the wind which is sometimes quite strong.
- > The trees have small needle shaped leaves. This is to prevent excessive loss of water by transpiration.
- > The tree leaves have a wax - covering surface and a thick leathery structure to protect the leaves from pest attack.
- > The trees consist of mainly softwood species.
- > The trees are fast growing, maturing in ten to twenty years.
- > The trees form hard cones instead of fruits which are difficult to peel. The cones consists of scales close together and seeds which are thick - coated.
- > They are evergreen throughout the year to safe guard against pests and harsh conditions like fires, drought.
- > The trees have a conical shape with branches sloping down word. This helps to prevent excessive snow accumulation which could have caused the branches to snap or break.
- > The trees grow close to each other forming a moderate density.
- > The trees have shallow roots to survive the thin soils and frozen ground in winter.
- > They are located in high altitude.
- > Located in the high latitudes or temperate lands.
- > Limited undergrowth as there is little leaf fall to enrich the soil. The decayed needles yield acidic soil unfavorable for plant growth; also less or no sunlight penetration to allow photosynthesis of the could be under growth.
- > Trees form a single canopy.

Total of 5 marks)

Deciduous and mixed ever green forests: cover 4% of the total forest area of British Columbia.

- Located in low altitude
- Yield fruits
- Many species
- Have umbrella shaped with 3 canopies
- Have buttress roots to support their great weight
- Dominated by hard/heavy woods; tick
- Impure stand
- Have broad leaves
- Leaves shed off at different times and sprout at different times hence ever green.

NOTE: No forest type stated, no mark for the characteristics.

Forest type: 1 mark

Characteristics max 4 marks

7. (c) Explain, using specific examples, the physical factors which led to the development of the forestry industry in British Columbia.

- (d-4)
Ex-4
08
- Much of British Columbia consist of rugged mountainous land scape e.g. the Rocky mountain in the East and Coastal ranges in West discouraging agriculture and settlement hence leaving space under forests.
 - Wide variety of tree species of commercial value e.g. Douglas fir, pine, spruce that are profitable to exploit.
 - Temperate climate consisting of wet and warm summers and cold dry winter favour the growth and harvesting/transport of the tree, and logs respectively.
 - Most areas have thin infertile soils unable to support agriculture but support forests south west near Kimberley.
 - Presence of snow during winter, which helps in the transportation of logs by sliding them over snow surface.
 - Presence of rivers like Fraser, Skeena used for floating logs down to the coastal areas for processing at saw mills.
 - The coniferous forests occur in pure stands making it easy to cut the trees.
 - The logs are light in weight hence easy to transport to local and foreign markets e.g. to Germany & Canada.

NOTE: No mark (s) for human factors,

Id - 04 max

Ex - 04 max

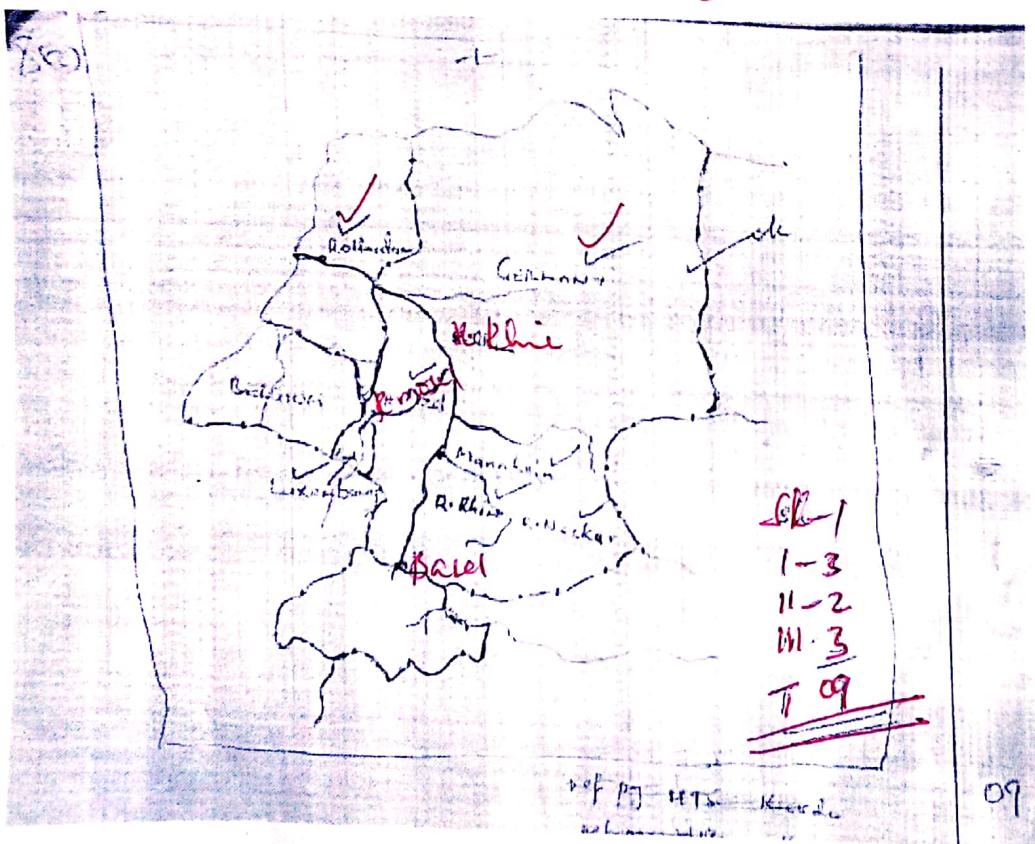
(08 marks)

Q7 Pre-glaciation

7. (d) Outline the problems facing the forestry industry in British Columbia.

- Fire outbreaks are wide spread in summer and destroy large areas of valuable forestland
- During severe winters, the whole land is covered by deep snow bringing lumbering activities to a standstill.
- Over-exploitation/depletion of easily accessible coastal and off shore island forests – Vancouver.
- The rugged terrain restricts forest accessibility and the development of transport routes e.g. the Rocky and Coastal ranges.
- Shortage of labour to fell, buck and yard logs due to the sparse population.
- Accidents occur during felling of the trees leading to the death of workers.
- High transport costs incurred in transporting timber products to far markets of Europe reducing profit.
- Large masses of ice (avalanches) move downhill and destroy large areas of forestland.
- Severe competition from New Zealand where trees grow faster than in British Columbia.
- Some trees like the Douglas fir have a long gestation period thus limiting regular supply of such logs and timber.

8. (a)



8. (b) Describe with specific examples the conditions that have favoured the development of:

PGRT ROTTERDAM

Max.

1d-3

18-3

56

- It is strategically located within close proximity of the North Sea which is one of the busiest international sea routes to USA, Canada and Africa.
 - Its strategic location on the Rhine R has made it an entire port to the countries served by the river such as Switzerland Germany and Luxembourg.
 - Presence of deep water being an estuary enabling large ships to enter and leave the port without any danger.
 - Presence of well sheltered natural harbor protecting the port from the hard hitting North Sea waves.
 - Presence of a low tidal range hence allowing large boats to anchor.
 - Presence of vast land for expansion of loading and off-loading cargo, construction of other port facilities.
 - Presence of the North Atlantic drift, a warm current which helps to keep the port ice free throughout the year.
 - The topography is relatively flat and wide for easy construction of transport systems and for expansion of port facilities.
 - The rapid growth and development of industries which requires bulky raw material and the need to export industrial products abroad e.g. ship – building, mineral oil refining.
 - Presence of highly skilled labour force to construct the port facilities and handle port business.
 - Advanced technology which has enabled the construction of a deep water channel known as the New Water way and several canal which provides access by deep ocean going vessels between the port and the North sea.
 - Availability of large sums of capital for the construction of the New Water way and port facilities.
 - Supportive government policy like developing the port to international standards.
 - Availability of adequate and varied power resources in form of petroleum, HEP, coal and natural gas for use at the port.

8 (c) Explain the contribution of port Rotterdam to the development of the Rhine basin.

- (c) Explain how The port has stimulated agricultural and industrial development in the region by availing cheap transport for bulky as well as finished goods.

The port has boasted import and export trade through the provision of cheap transport and handling facilities for minerals, industrial and agricultural goods.

It has provided employment opportunities to various people in construction and maintenance of port facilities, handling cargo, ship building and establishment of industries.

Income earned from the various port facilities have helped to improve the people's Standard of living.

The port has promoted international cooperation between the Netherlands and other countries like Switzerland, Germany that use the port.

countries like Switzerland, Germany that use the port.
→ provides a large market for goods and services produced
in the market. 25

max

1d - 3
Ex - 3

8b

- The port has generated revenue for Netherlands used for economic development *1p*
- Contributed to growth of inland ports e.g. Mannheim, Koblenz, Basel and Dusseldorf. *1p*
- The port provides a large market for goods and services produced in the ~~region~~ *1p*
- Has encouraged development of infrastructure like roads, railway, canals and power generating facilities. *1p*

1d - 03 max

Ex - 03 max

(06 marks)

8. (d) Outline the problems resulting from the development of Rotterdam port.

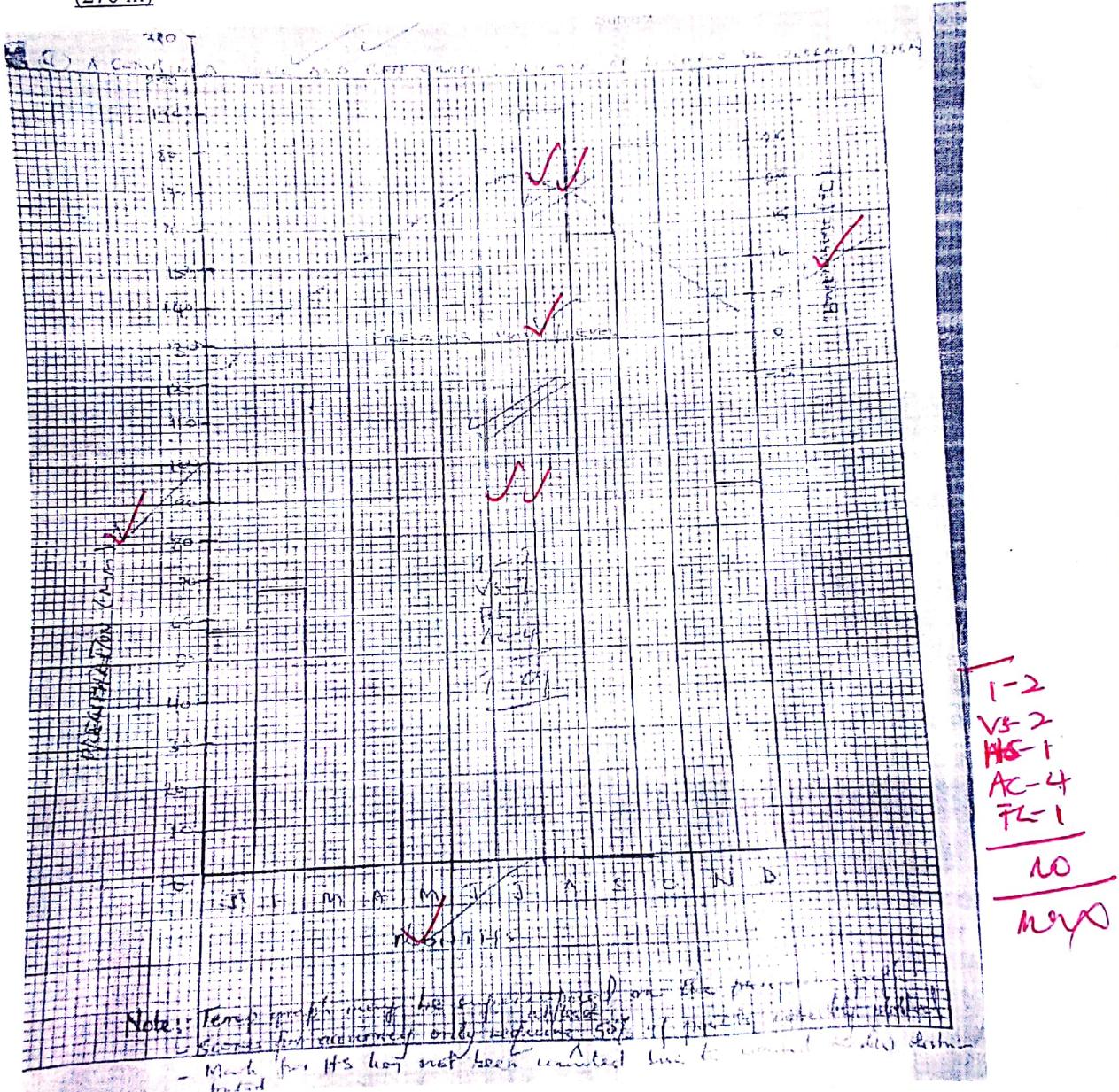
Max
04

- Pollution of the environment through oil spills from ships, industries as well as noise pollution.
- Limited land for expansion of the port facilities.
- Traffic congestion causing delays since it's the busiest port.
- Fog and smog reduced visibility leading to accidents.
- Overcrowding due to too many people causing easy spread of diseases like T.B, COVID 19.
- The area is prone to floods since it is located in a low lying sea much of it found below sea level.
- There is silting of river channels especially R.Maas and the New Waterway.
- Development of an urban centre with its associated problems of shortage of housing, unemployment and high crime rates.
- High cost of maintenance of port facilities.
- ~~development of slums due to shortage of housing facilities.~~ *25 marks*

28 Blat.

9. (a) A COMBINED LINE AND BAR GRAPH: CLIMATE OF LUGANO SWITZERLAND.

(276 m)



NOTE: Temperature graph may be super-imposed on the precipitation graph.

- Scores for accuracy only require at least 50% of points correctly plotted.
- Mark for HS has not been counted due to limited marks to be distributed.

9. (b) Describe the characteristics of the climate of the station.

- ~~Max
66
Mines~~
- Mean annual temperature is $137^{\circ}\text{C}/12 = 11.4^{\circ}\text{C}$; which is warm.
 - Mean annual rainfall is 1725mm; which is very heavy.
 - The monthly rainfall is at least wet throughout the year; wet and very wet.
 - The annual temperature range is $=23.6^{\circ}\text{C}$; very large.
 - The month with the lowest temperature is January; -2.3°C which is cold.
 - The month with highest temperature is July (21.3°C) which is hot.
 - The warm months are April, May, June, September and October ($10^{\circ}\text{C} < 20^{\circ}\text{C}$)
 - The hot months are July and August ($\geq 20^{\circ}\text{C}$).
 - The cool months are February, March, November and December ($0 < 10^{\circ}\text{C}$).
 - The month with the highest monthly rainfall amount is March (203mm which is very wet).
 - Presence of thick cloud cover throughout the year at least wet throughout the year.
 - Relative humidity high July and August (hot temperature) enhance high evaporation and transpiration.
 - Relative humidity moderate – April, May, June, September, and December (warm temperature) enhance moderate evo-transpiration.
 - Relative humidity is low – November, December, January, February and March (temperatures are cool) enhance low evo-transpiration.
 - Low atmospheric pressure most of the year i.e. from April – December that draws in rain-bearing heavy wind causing at least wet conditions.
 - Station experience a single rain fall maxima/mono – modal pattern of relief distribution.

NOTE: Sweeping statements attract no scores or marks

Stated characteristic (s) should carry an appropriate adjective describing it. Max 5 marks

9. c (i) Explain the influence of climate on the economic activities in c (i) above.

- ~~Max.
id-3
ex-3
06~~
- Due to heavy rainfall received montane/coniferous forests have grown thereby promoting lumbering. *ex*
 - The south-facing area of Lugano receive adequate sunshine attracting arable farming mainly the growth of orchards and vines. *ex*
 - The heavy mean rainfall received favours the growth of fodder crops that are used for animal feeding. *ex*
 - The high altitude areas that have low temperature of below freezing point lead to permanent snow cover hence attracting tourism e.g. ice skating. *ex*
 - The heavy rainfall received causing permanent source of water transport on L.Lugano. *ex*
 - Heavy rainfall promote forest growth that attract wild animal's hence game hunting. *ex*
 - The modified Mediterranean has mild climate due to influence of the high pressure conditions attract a range of activities; animal rearing. *ex*
 - The climate that promote arable farming result into agro-based processing industries e.g. dairy processing factories, maize and wheat factory etc. *ex*

1d – 3 max

Ex - 3 max

(06 marks)

9. (d) Outline the problems faced by the people carrying out the economic activities in c (i) above.

- May. (3)*
- Soil erosion as a result of very heavy rainfall and steep slopes; loss of fertility.
 - Soil leaching due to heavy rainfall leading to loss of soil fertility.
 - Flooding during wet and very wet seasons; affecting crop, pasture, transport negatively.
 - Pests; destroy orchards and vine yards.
 - Diseases; COVID 19; foot and mouth diseases to livestock.

Max 03 marks

25 total.

Note: problems must clearly be attached to the given economic activity.

10. (a) Name the;

(i) Physiographic regions marked:

W - Uplands

(02 marks)

X - Lowland

4 - Alzette River

(02 marks)

2 - Moselle River

(01 mark)

1 - Differdange (dudelange)

(01 mark)

2 - Luxembourg city

(01 mark)

3 - France

(01 mark)

(iv) Country marked

07

10. b (i) State any one type of industries found in each industrial town named in (a) (i) above.

Town	Type of industries	
Alzette Luxembourg	Iron and steel Food processing	(01 mark) Chemical construction and metal fabrication
Differdange	Iron and steel Food processing, chemical and metal fabrication	(01 mark)

02

10. b (ii) Describe with specific examples the factors which have led to the development of industries in Luxembourg.

- May. (4-3)
ds-3
ob*
- Presence of adequate raw materials like iron ore from the South western corner of the country at the border with France and agricultural raw materials.
 - Well developed transport and communication routes by road, railway and air water in R. Moselle to link industries to source of raw materials.
 - Highly skilled labour force to work in industries.
 - Larger market for the industrial goods in the neighboring rich European countries. *like Germany*

- France*
- Large sums of Capital to invest in the industrial sector such as purchase of industrial machinery.
 - Large and reliable supply of water power in Cestip & machine ex.

- Favourable government policy such as attracted the investors.
 - Admiring landscape i.e. in the south for easy establishment of industries.
 - Attraction of rich foreign visitors e.g. the General motors to invest in manufacturing industries.
 - Advanced technology used involving automation of industries creates efficiency and results in economies of large scale production
 - Presence of a ready supply of power especially HEP to run the industries.
 - stable political climate that is conducive for industrial growth & development.
- Fd - 03 max
ds - 03 max (08 marks)

10 (c) Explain the importance of the industrial sector to the development of Luxembourg.

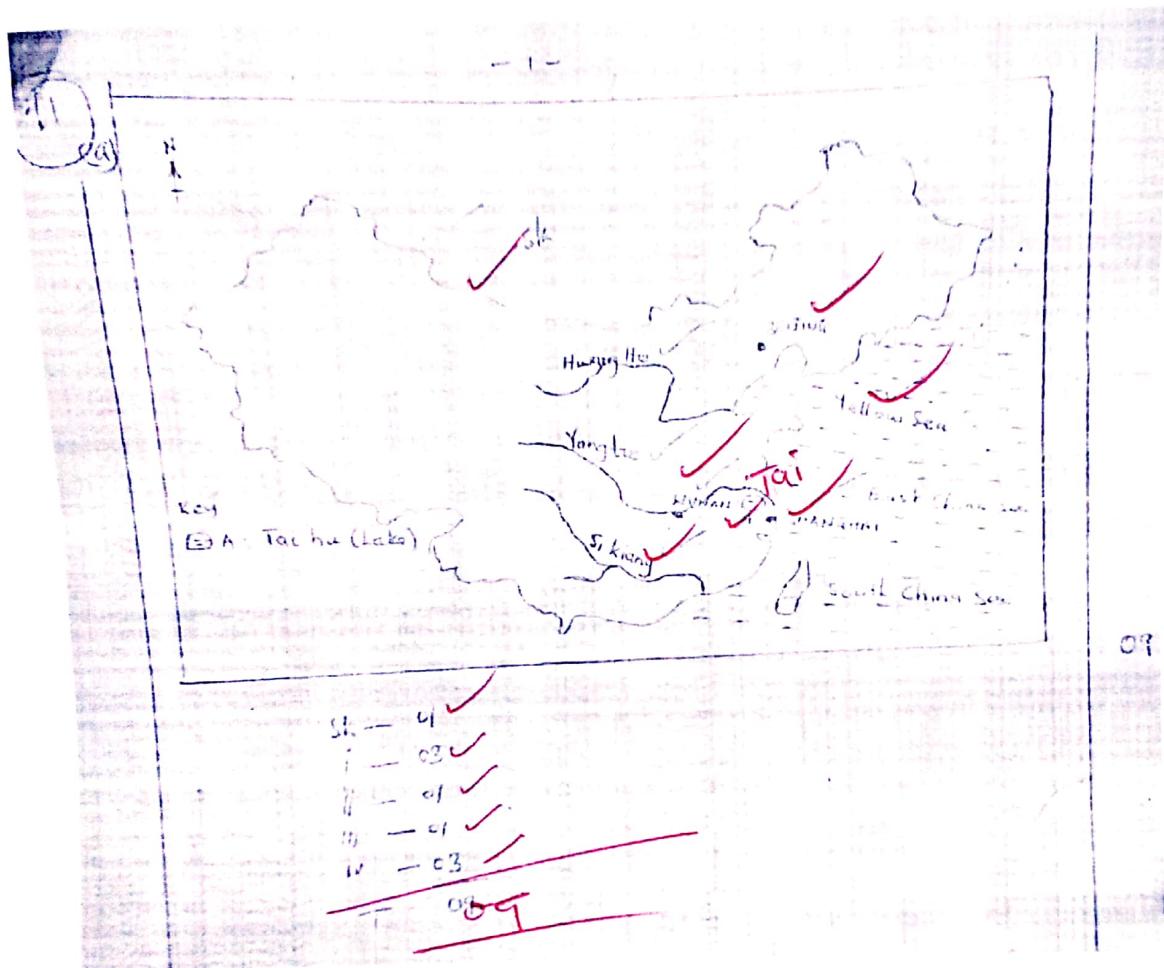
- Provided employment opportunities to citizens earning their income and to raise their standards of living.
 - Encouraged development of infrastructure like roads, canals, railway lines which facilitate movement of people and commodities.
 - Income earned is used to raise people's standard of living.
 - Government source of revenue through taxing industrial products, incomes of industrial workers which is used for infrastructure development.
 - Industrial products are exported to EU earning the country foreign exchange for development of infrastructure or importing what is not produced in Luxembourg.
 - Promotion of international relationship hence promoting trade and political togetherness and stability leading to increased production.
 - Provide inputs for agriculture sector e.g. tractors, fertilizers, hence enhancing agricultural productivity.
 - Industries have resulted into urbanization and associated advantages such as development of social-economic infrastructure.
- Ex - max 03

10. (d) Outline the effects of the industrial sector on the environment.

- Pollution of air, water, land through untreated industrial waste into atmosphere from the industries causing respiratory diseases like asthma.
- Exhaustion/depletion of minerals that are used in industries like coal left ghost factories.
- Industrialisation has encouraged conurbation with evils like prostitution, slum development.
- Competition for land between agriculture, industries result into displacement of people.
- Traffic congestion leading to delays in the transportation of goods and services.
- Accidents in industries leading to loss of lives.
- Destroying the landscape and encroachment on marginal swampland, for establishment of industries affecting bio-diversity.
- Global warming due to the release of greenhouse gases into the atmosphere. Max 04 marks

Total = 25 marks

11. (a) SKETCH MAP OF CHINA SHOWING WATER BODIES AND TOWNS.



11. (b) Describe the steps being taken in china to develop the Si – kiang River basin:

- Construction of stone/Concrete barriers along river banks to control floods and their destructive effects.
- Construction of canals and channels to divert excess river water into farmland and resources for use at later time.
- Planting cover crops near the river to control siltation caused by erosion from the nearby land.
- Maximum exploitation of available land e.g. the narrow dykes that divide the rice paddies are planted with sugarcane and mulberry trees.
- Use of organic manure and fertilizers to enhance soil fertility for better crop yields.
- Practicing land consolidation to enhance extensive farming and ensure large scale crop production.
- Carrying out intensive research for high yielding crop varieties and better animal breeds.
- Spraying of affected crops with pesticides to limit spread of pests and diseases in the farms to ensure quality produce.

- 1d-3*
- ds-3*
- 06*
- Swamp reclamation to increase equitable land distribution.
 - Green houses – regulate extreme weather condition of winter.
 - Irrigation – Summer, expansion of produce.
 - Encouraging co-operation amongst agro – commune workers which can be reflected in their commitment to work and high crop yields.
 - Use of fresh water from rivers and harvested rain water to de – saline/ dissolve the saline soil and make it suitable for crop growth.
 - Promotion of fishing in marine and fresh water.
 - Promotion of road, railway, inland and sea transport; canals e.g peh – kiauksu.
 - Promotion of industries.
 - Weather forecast and working e.g. typhoons, hurricanes.
 - Promotion of tungsten mining near, Houg key, tin and copper(kumming)

1d - max 03

ds - Max 03

11. (c) Explain the contribution of the Si – Kiang River basin to the development of China.

- mhp*
- 1d-3*
- 06*
- Urbanization and related advantages along the river valley/basin and market centers like Nanning, Hanio, Canton. Standards of living.
 - Industrialization – agro-processing for both local and foreign markets Hong Kong.
 - Government revenue through taxes and licenses levied on the forests and agricultural industries, infrastructural development.
 - Encouraged economic diversification through crop farming, mining, industrialization, fishing hence broadening the sources of income and revenue collection; over dependence on a few sectors.
 - Creation of many employment opportunities to the farmers, transporter earning them income hence improving their standard of living (Living a meaningful life).
 - Increased food supply to the community e.g. wheat, rice and potatoes which improves on people nutrition and food security.
 - Earning of income to farmers through sale of produce thus improving their S.O.L by accessing basic needs of life.
 - Earning of foreign exchanges through export of agro – products to the world market thus boosting the economy.
 - Infrastructural development e.g. railway like Canton – peking – Kweilin that enhances economic development.

1d – max 03 marks

Ex – max 03 marks

(06 marks)

11. (d) Outline the negative effects of agriculture on the environment in the Si - kiang River basin.

- Destruction of vegetation cover to create land for cultivation and grazing.
- Compaction of soil due to use of heavy machinery making the ground hard to plough and cultivate, and limits water percolation into the soil.
- Soil erosion leading to gullies caused by clearing of vegetation which in turn wastes away soil nutrients.
- Pollution of the soil due to excessive use of chemicals and fertilizers that changes the soil ph making it acidic thus limits crop growth.
- Salination due to continuous irrigation along the coastline and delta exposing salt components in the cultivable land.
- Siltation of the rivers due to cultivation along the river banks that exposes soil to erosion hence deposition of alluvium and other sediments into the river.

Max - 04

(25 marks)

12. (a) Name the

(i) Rivers marked A: Yalu River
 B: Yellow River/ Hwang – ho

(ii) Gulf marked X: Bo hai

(iii) Towns marked 1: Nanjing
 2: Baoji

(iv) Railway lines marked C: Beijing – Shanghai railway
 D: Beijing – Shenyanga railway

(07 marks)

12. (b) Describe the conditions which led to the growth of Beijing as an urban Centre.

- Its strategic location on the banks of River Yalu/Liao – he which links it to rich the hinterland.
- Presence of deep and well drained alluvial fertile soils for crop cultivation and animal husbandry on the North China plain.
- The historical factor of being protected from invaders by the Great wall that attracted many inhabitants to the area.
- The existing ice free conditions due to the warm air masses from the desert lands of the west that enabled the practice of a variety of economic activities.
- Presence of advanced/appropriate technology used in the setting up basic infrastructure and related facilities that enhance the access to basic needs of life.
- The city was situated at the center of early Chinese civilization near the Yellow River where man settled and developed great trade links and infrastructure.

- Max 10**
- Existence of relatively flat land (North China plain) suitable for human settlement and infrastructure development in the area.
 - Supportive government policy of setting up a capital city for administrative functions that could be used as a base for effective governance of the country.
 - Political stability that attracted both domestic and foreign traders and dwellers into the city.
 - Efficient transport and communication networks linking the city to other parts of China and the world at large hence making it accessible.

1d – max 03 marks

D2 – max 03 marks

(06 marks)

12. (c) State the functions of Beijing City;

- Max 10**
- A trade and business center with major shopping malls, etc.
 - A cultural center with palaces, temple, galleries, the great wall, forbidden city, temple of heaven, etc.
 - An industrial center and with a number of manufacturing and processing industries.
 - A transport and communication center with subways, railways, canals, air ports, roads etc.
 - A tourist center with Chinese architecture and other natural features.
 - An administrative center acting as the national capital.
 - A residential center with banks, insurance companies, clearing and forwarding etc.
 - A leisure and entertainment center with opera houses, theatres.

12. (d) (i) Explain the problems faced by Beijing City.

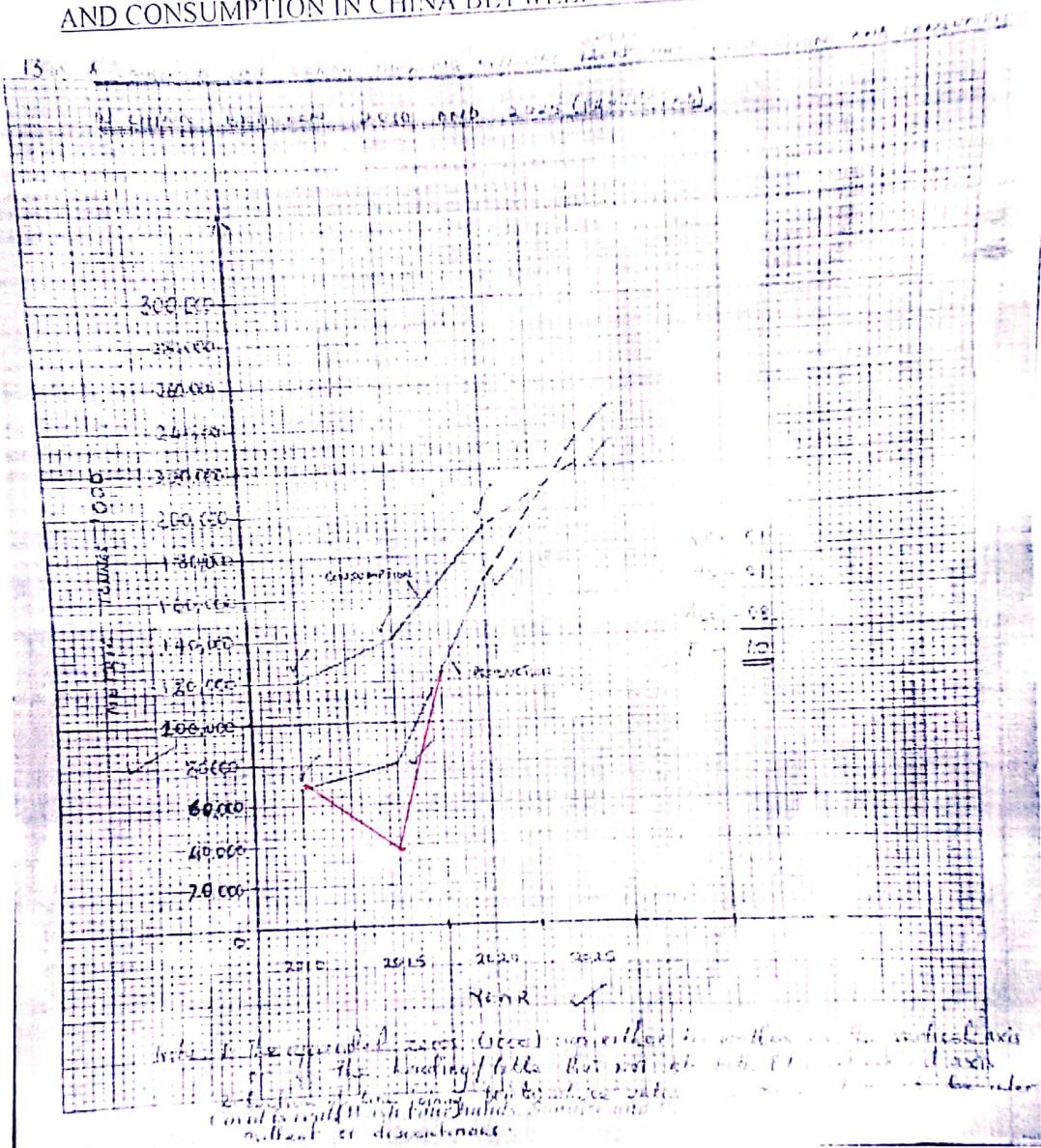
- Max 10**
- Pollution of air, land and water by the existing industries and human waste that is not properly disposed off.
 - Low level of having affordability among the populace due to low disposable income and limited living facilities due to the dense population.
 - High crime rate e.g. robbery due to limited job opportunities.
 - Reduction in green space/zones due to increasing need for land to set up infrastructure to cater for increasing population.
 - Occurrence of floods due to being situated in diverse drainage area and also earth quakes due to being near the Pacific Ocean ridge susceptible to continental drifting.
 - Difficulty in securing adequate and reliable water due to increasing population and industries.
 - Health risks arising from pollution/smog that cause inhalation diseases and cancer related ailments.
 - Occurrence of traffic congestion causing delays in departure and delivery of goods, services and passengers.
 - High energy demands due to dense population that uses the energy for domestic needs, industrial and transportation.
 - Land shortage for expansion of public infrastructure and private activities.

1d – max 02

12. (d) (ii) Outline the steps being taken to solve the problems in d (i) above.

- map
of*
- Building of sky scrapers to increase the housing capacity of the city.
 - Strict legislation on migration to the area to enhance planning and proper usage of infrastructure.
 - Time – tabling travel or following exiting schedules to regulate congestion and effective transfer of goods and passengers.
 - Treatment of wastes/recycling them so as to control pollution.
 - Construct underground tunnel, bridges, fly overs that help to ease ocean to the island.
 - Tapping other energy sources like solar, nuclear.
 - Construction of dykes to safe guard against floods.
 - Construction of buildings with shock – absorber technology to reduce impart caused by earthquakes.
 - Tightening security, eliminating drug addicts, criminals; police.
- to control delays and congest-*
- vital 25 Mks*

13. (a) A COMBINED LINE GRAPH SHOWING ANNUAL COPPER ORE PRODUCTION
AND CONSUMPTION IN CHINA BETWEEN 2010 AND 2025 (PROJECTED)



NOTE: 1. the appended zeros (000) can only be written on the vertical axis.

2. Section of line joining points whose values are projected must be intermittent or discontinuous.

13. (b) Describe the

(i) Trend of production.

- Between 2010 and 2015 there was a slight increase in copper ore production in China.
- Between 2015 and 2020 there was a sharp increase in copper ore production in China.
- Between 2020 and 2025 there is an expected (projected) sharp increase in copper ore production in China.

decrease by 30,063 metric tonnes

by 129,924
by 66727

Max 02 marks

(ii) Trend of consumption.

- Between 2010 and 2015 there was a slight increase in the consumption of copper ore in China. by 2019960 metric tonnes.
- Between 2015 and 2020 there was a sharp increase in copper ore consumption in China.
- Between 2020 and 2025 there is an expected (projected) slight increase in copper ore consumption in China.

By 53117
By 129800

Max 02 marks

(iii) Relationship between production and consumption of iron ore in China between 2010 and 2025.

- Between 2010 and 2015 consumption was much more than production of copper ore in China.
- Between 2015 and 2020 the gap between consumption and production of copper ore progressively become smaller in China.
- Between 2020 and 2025 production is expected (projected) to outstrip/surpass/more than consumption of copper ore.

Max 02 marks

86

NOTE: Period, magnitude of change should all be reflected in the given answer.

13. (c). For any one area where copper ore is mined in China explain the factors which have favoured its production.

Areas:

- Lanzhou, Hwetsech, Kweicpon
- Changsha, Weining, Szechwan ✓
- Kunming, Tiepaoshan, Yonki, Kirin
- Yunnan, Lanchaw, Shanxi, Yulong, Beiya etc.

max 01 mark

61

Presence of:

- Rich copper ore reserves that facilitated copper exploration and exploitation. ↗ ex
- Adequate capital provided by the government and foreign investors that enabled copper survey, exploitation and processing ↗ ex
- Modern technology like open cast and shaft mining methods that was used to extract copper from underground. ↗ ex
- Continuous research to enhance exploitation and processing of copper to meet the increasing needs of the people and industries ↗ ex.

37

- Increased demand for copper by domestic industries to make bronze, coins to enhance economic development.
 - Fairly developed access routes like railway, water way that enable the transfer of heavy ore and workers from the miles respectably.
 - Regional policy of ensuring self-sufficiency in the respective regions of China and reduce dependence on the central government.
 - Large semi-skilled and skilled labour force that earlier settled in the Manchuria and Inner Mongolia plains coupled with immigrants from Russia that work in the copper.
 - Integration of mining copper and industrial sector by government to enhance inter-sectoral development and maximize output from the available resources.
 - Abundant energy supply from HEP, Coal, nuclear used for copper smelting in the area.
 - Positive government policy for mining copper that aided at using underground resources for the well-being of the people.

Id = 0.2 max

$E_x = 0.2 \text{ max}$

(05 marks)

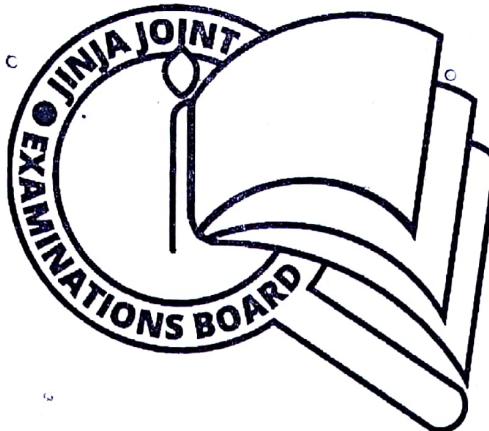
13 (d) Outline the contribution of copper ore mining to the development of China.

- Abundant and cheap supply of copper used as a raw material for copper based industries.
 - Employment opportunities to the people earning them income thus improving their well-being.
 - Utilization of waste land/desert land that would have been idle yet rich with copper resources.
 - Infrastructure development like roads, railways in remote areas that had copper potential yet with less development.
 - Promotion of international relationship and trade relating to copper ore and copper related products.
 - Earning of foreign exchange by the government through export of copper to other countries which in turn is used to develop other sectors.
 - Source of government revenue through taxation of the copper ore mining and used in social development etc.

25 marzo
1961

END

273/2
GEOGRAPHY
PAPER 2
AUGUST, 2022
 $2\frac{1}{2}$ hours



JINJA JOINT EXAMINATIONS BOARD

Uganda Certificate of Education

MOCK EXAMINATIONS – AUGUST, 2022

GEOGRAPHY

Paper 2

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

Answer four questions in all.

Choose two questions from part I and two from part II.

In part II, only one question should be chosen from any one region

Additional question(s) answered will not be marked.

PART I: THE REST OF AFRICA

Answer two questions in this part.

1 (a) Draw a sketch map of Africa and on it, mark and label:

(i) Latitudes: Capricorn, Equator and Cancer,

(ii) Natural vegetation type: Montane, Mangrove and Savanna.

(07 marks).

(b) Describe the characteristics of any one of the natural vegetation types given in (a)(ii) above.

(06 marks)

c) Explain the conditions which have led to the growth of the vegetation type chosen in (b) above.

(08 marks)

(d) Outline the effects resulting from the destruction of natural vegetation cover in Africa.

(04 marks)

2. Study table I below showing the number of people employed in the fishing sector for the selected countries in Africa (2017) and answer the questions that follow:

Table I: Number of people working in the fishing sector (2017)

Country	No. of people employed in the fishing sector
South Africa	1,472,621
Nigeria	1,296,170
Gabon	610,072
Senegal	99,558
Morocco	325,886

a) Draw a bar graph to represent the information contained in the table I above. (07 marks)

b) Identify the country which employed the:

(i) most dominant

(ii) least dominant,

number of people in the fishing sector

(02 marks)

(c) ~~Describe~~ giving specific examples, the ~~conditions~~ which have favoured the development of the fishing sector in any one country given in the table I above.

(06 marks)

(d) (i) Explain the contribution ~~ex~~ of the fishing sector to the development of the country chosen in (a) above.

(06 marks)

(ii) Outline the steps being taken to promote the fishing sector in African countries. (04 marks)



9



- (iii) industrial towns marked 1 and 2;
(iv) country marked 3

(07 marks)

- (b)(i) State any one type of industry found in each industrial town named in (a) (iii).
ii) Describe with specific examples, the factors which have led to the development of industries in Luxembourg.

(08 marks)

- (c) Explain the importance of the industrial sector to the development of Luxembourg.
(06 marks).
- (d) Outline the effects of the industrial sector on the environment in Luxembourg. (04 marks)

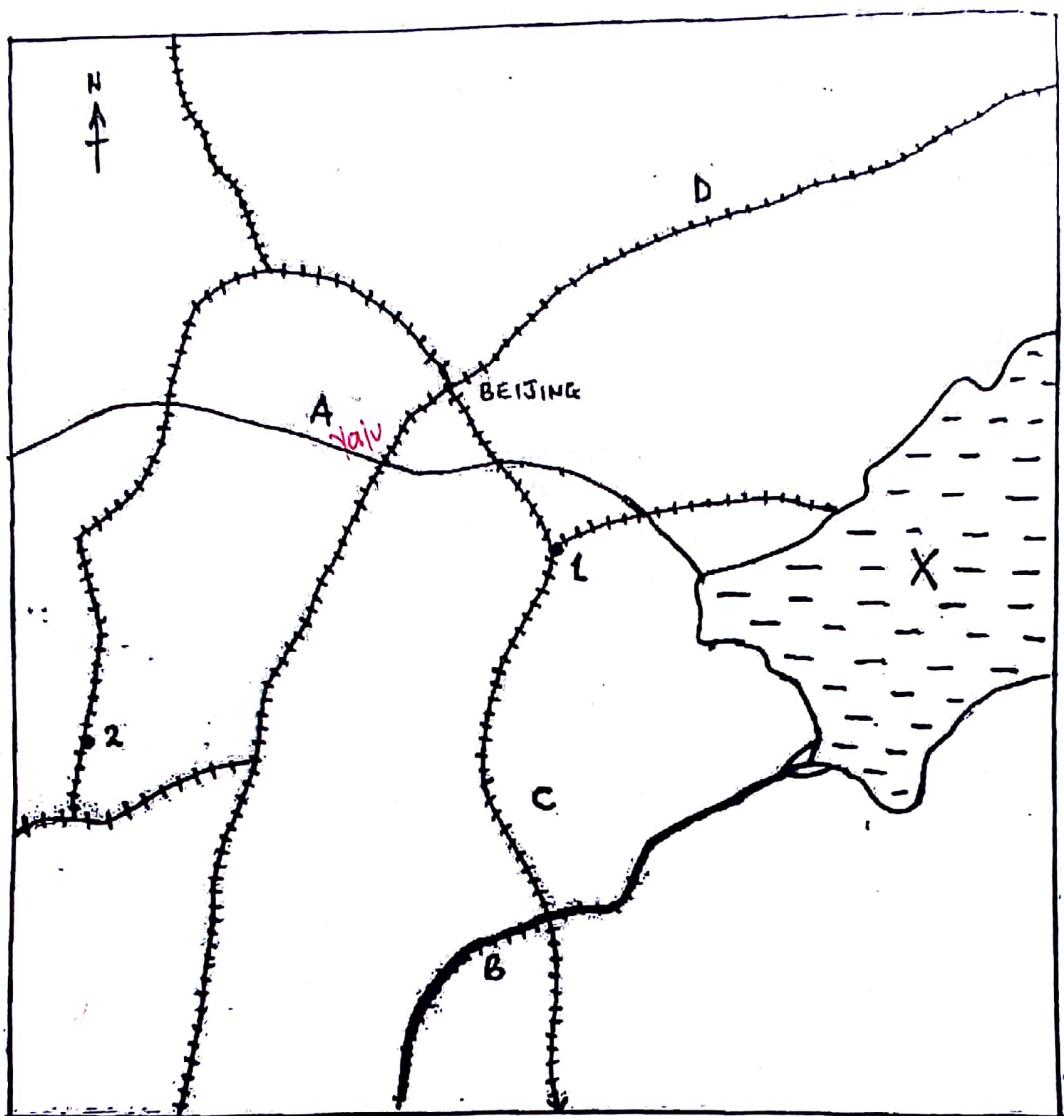
REGION III: CHINA

11. (a) Draw a sketch map of China and on it, mark and name the:

- (i) rivers; Si-Kiang, Yangtze and Hwang-Ho,
(ii) Yellow sea
(iii) Tai
(iv) Towns: Beijing (Peking), Wunan and Shanghai (09 marks)
- (b) Describe the steps being taken to develop the Si-Kiang River basin. (06 marks)
- (c) Explain the contribution of the Si-kiang River basin to the development of China. (06 marks)
- (d) Outline the effects of agriculture on the environment of in the Si-kiang River basin. (04 marks)



12. Study figure IV: Map showing the location of Peking (Beijing) provided below and answer the questions that follow:



- (a) Name the:
- rivers marked A and B,
 - gulf marked X,
 - towns marked 1 and 2,
 - railway lines marked C and D.
- (07 marks)
- (b) Describe the conditions which led to the growth of Beijing as an urban Centre.
1d
- (06 marks).
- (c) State the functions of Beijing city.
- (04 marks)

Name the:

- (i) Towns marked 1,2 and 3
 - (ii) Land forms A and B
 - (iii) Irrigation scheme marked C.
 - (iv) Lake marked D.
- (07 marks)

(b) Describe:

- (i) with specific examples, the factors which have favoured the development of the irrigation scheme named in (a) (iii) above. (06 marks)
- (ii) Any one method of irrigation used on the irrigation scheme named in (a)(iii) above. (02 marks)

c) Explain the benefits of the irrigation scheme to the people living on the irrigation scheme named at (a) (iii) above. (06 marks)

(d) Outline the problems resulting from the establishment of the irrigation schemes in Africa. (04 marks).

4. study table II below showing Africa's population growth between 1980 and 2030 (projected) and answer the questions that follow:

Table II: Africa's population growth (1980-2030 projected)

Year	Population size ('000)
1980	453,390
1990	616,411
2000	318,099
2010	1,133,508
2020	1,296,777
2030	1,524,645 (projected)

(a) Draw a line graph to show the information contained in the table above. (08 marks).

(b) (i) Describe the trend of Africa's population growth between 1980 and 2030 (projected). (3mks)

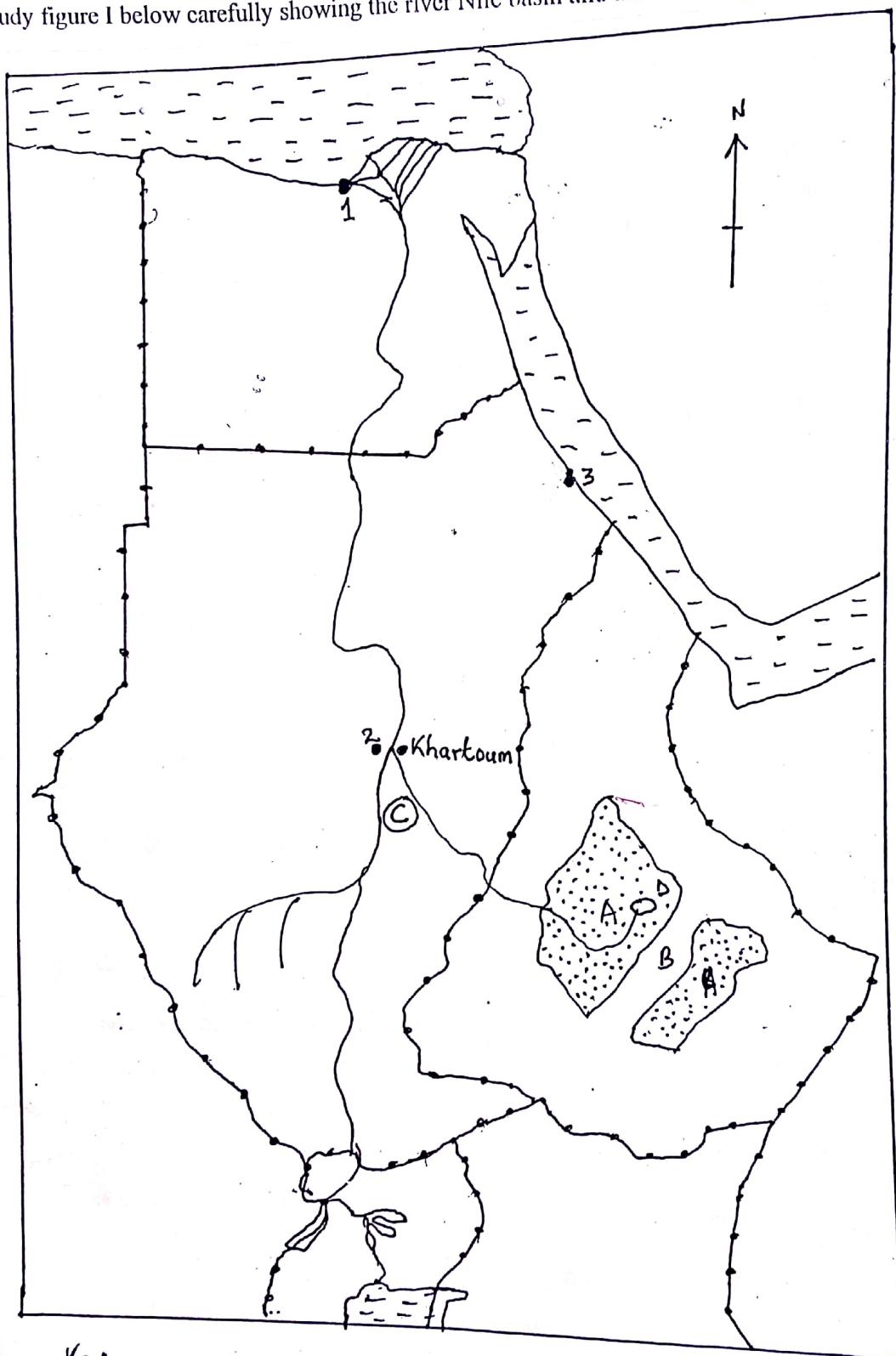
(ii) State the period in which Africa experienced the:

- highest,
- lowest

Percentage increase in population. (08 marks)

(c) Explain with specific examples the factors which have led to the high population growth rate in Africa. (06 marks)

3. (a) Study figure I below carefully showing the river Nile basin and answer the questions that follow:



Key

— International boundary

✓
✓
✓
✓

- d (i) Explain the problems faced by Beijing city.
(ii) Outline the steps being taken to solve the problems in (d)(i) above. (08 marks)

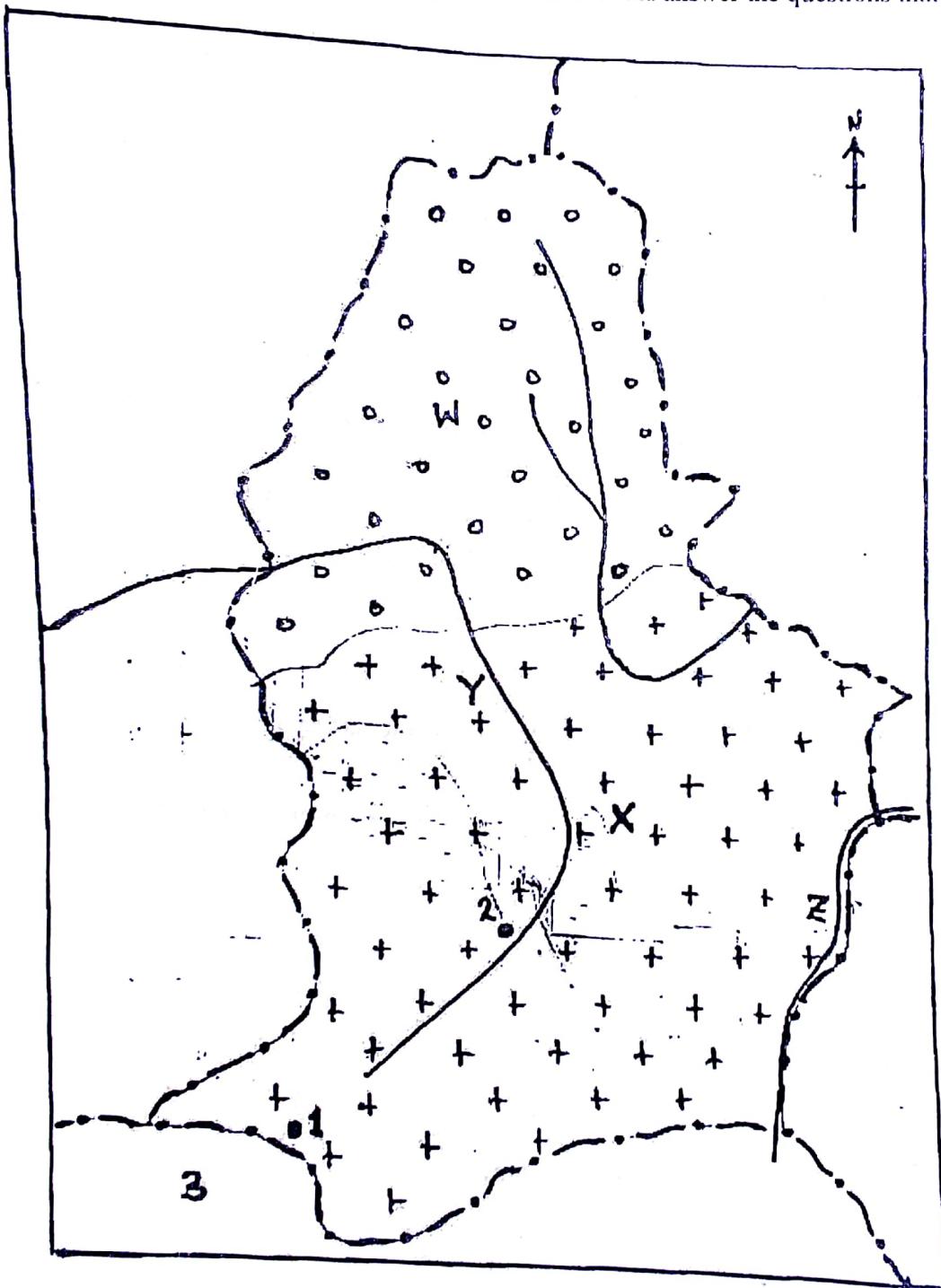
13. Study table V below showing annual copper production and consumption in China (2010- 2025) and answer the questions that follow:

Table V China: Annual copper production and consumption ('000 metric tonnes)

Year	Copper ore production	Copper consumption
2010	68,072	120,394
2015	38,009	140,354
2020	167,933	193,471
2025	234,660 (projected)	222,771 (projected)

- (a) Draw a combined line graph to show annual copper production and consumption in China between 2010 and 2025 (projected) (10 marks)
- (b) Describe the:
(i) trend of production.
(ii) trend of consumption,
(iii) relationship between production and consumption of copper ore in China between 2010 and 2025 (06 marks)
- (c) For any one area where copper ore is mined in China explain the factors which favoured its production. (05 marks)
- (d) Outline the contribution of copper ore mining to the development of China. (04 marks)

10. Study figure III: Map of Luxemburg provided below and answer the questions that follow:



(a) Name the:

- (i) physiographic regions marked W and X;
- (ii) rivers marked Y and Z;

REGION II: THE RHINELANDS

8. Draw a sketch map of the Rhine Basin and on it mark and name:

a)(i) rivers: Rhine, Neckar and Mosel,

(ii) countries Luxembourg and Germany.

(iii) Ports: Rotterdam, Mannheim and Basel,

b) Describe with specific examples the conditions which favoured the development of Rotterdam (06 marks).

c) Explain the contribution of port Rotterdam to the development of the Rhine basin. (06 marks)

d) Outline the problems resulting from the establishment of port Rotterdam. (04 marks)

9. Study Table IV : climate statistics of Lugano (Switzerland) and answer the questions that follow:

Table IV : Climate statistics of Lugano, Switzerland at altitude(276m)

Month	J	F	M	A	M	J	J	A	S	O	N	D
Temp($^{\circ}$ C)	-2.3	3.6	2.3	11.3	15.5	19.4	21.3	20.8	17.5	12.3	7.1	3.2
Precipitation(mm)	57	67	118	159	203	186	181	191	158	181	133	91

a) Draw a suitable graph to show the climate of the station. (10 marks)

b) Describe the characteristics of the climate of the station. (06 marks)

c) Explain the influence of climate on the economic activities taking place in the area where the station is located. (06 marks)

d) Outline the challenges faced by the people carrying out the economic activities in the area where the station is located. (03 marks)

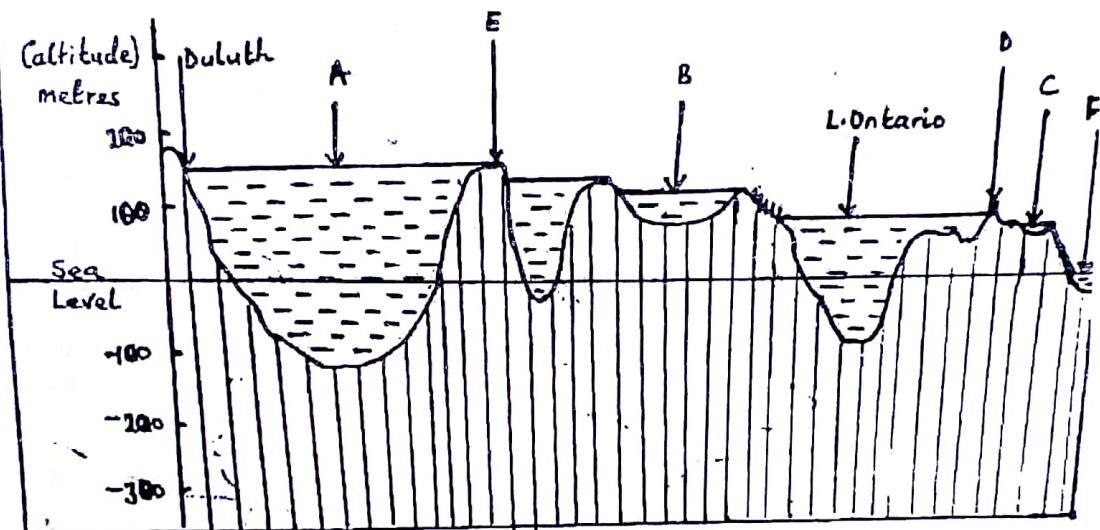
1c

PART II: STUDIES IN DEVELOPMENT

Answer two questions from this part.

REGION I: NORTH AMERICA

5. Study figure 2 below showing the cross section of the Great lakes and St. Lawrence Sea way, showing depth:



- a)
- (i) Lakes A, B and C
 - (ii) Features D and E
 - (iii) Ocean F
- (06 marks).
- b) Describe:
- (i) the aims of the construction of the Great lakes and the St. Lawrence Sea way.
 - (ii) the operation of any one of the navigational locks along the St. Lawrence Sea way.
- (10 marks).
- c) Explain the contribution of the St. Lawrence Sea way project to the development of USA and Canada.
- (06 marks)
- d) Outline the environmental problems resulting from the establishment of the St. Lawrence Sea way project.
- (03 marks).

22
11
37



6. Study the table III below showing cotton growing in selected states of southern USA and answer the questions that follow:

Table III: selected states of USA: cotton growing in selected states

States	Production (%)	Cotton Belt	Degrees
California	25		-
Texas	30	New cotton belt	108
Mississippi	10		-
New Mexico and Arizona	10	Old cotton belt	-
Others	25		-

- (a) (i) Calculate the missing values to complete the table above.
(ii) Name any one state with the least relative importance of cotton production in the old cotton Belt in Southern USA. (03 marks)
- (b) Draw a pie chart to show the relative importance of cotton growing in selected states of Southern USA. (06 marks)
- (c) Explain using specific examples, the factors which led to the decline in the Old cotton Belt in Southern USA. (08 marks)
- (d) Outline:
(i) the effects of cotton growing on the environment in the Southern USA.
(ii) Measures that should be taken to solve the negative effects of cotton growing on the environment. (08 marks)

7. (a) Draw a sketch map of British Columbia and on it mark and name any two:

- (i) rivers
(ii) interior timber collecting centres
(iii) coastal timber exporting ports
(iv) Pacific Ocean. (07 marks)
- (b) (i) State any two tree species found in British Columbia.
(ii) Describe the characteristics of the forests found in British Columbia. (06 marks)
- (c) Explain, using specific examples the physical factors that have led to the development of forestry industry in British Columbia. (08 marks)
- (d) Outline the problems facing the forestry industry in British Columbia. (04 marks)

- (i) Explain the problems faced by Beijing city. (08 marks)
 (ii) Outline the steps being taken to solve the problems in (d)(i) above.

13. Study table V below showing annual copper production and consumption in China (2010- 2025) and answer the questions that follow:

Table V China: Annual copper production and consumption ('000 metric tonnes)

Year	Copper ore production	Copper consumption
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 (iii) relationship between production and consumption of copper ore in China between 2010 and 2025 (06 marks)
- (c) For any one area where copper ore is mined in China explain the factors which favoured its production. (05 marks)
- (d) Outline the contribution of copper ore mining to the development of China. (04 marks)