GEOGRAPHY 273/2

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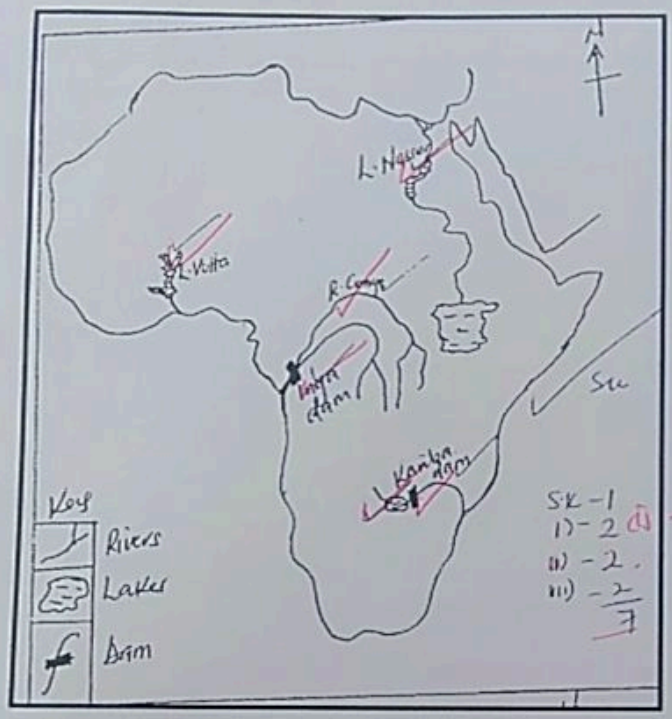
MARKING GUIDE

1. a) Sketch map of Africa showing Rivers, Lakes and Dams



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-02.

07

b) Conditions which favoured the establishment of river Volta Project.

- Presence of high/ powerful water falls for turning the turbines fast in production of power.
- The presence of a fast-flowing river which makes the turbines to turn faster in generation of electricity.
- Presence of hard basement rocks which are able to support the dam facilities.
- Presence of a narrow gorge which provided a suitable site for dam construction.
- Presence of variety of building materials like water, stones and sand for dam construction.
- Presence of a permanent river Volta that provided continuous flow of water of the dam.
- Presence of an extensive land for the establishment and expansion of the dam.

presence of gentle slopes easing construction of dam max 1d-04 ds-04

c) Benefits of the Volta River project to the people in the area.

- Creation of employment opportunity opportunities for the people who work in the project as engineers.
- Has led to HEP production used in industries and home for lighting and cooking.
- It has controlled flooding on R. Volta enabling settlement and farming in the area.

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- Stimulated growth of industries that provide employment opportunities to workers.
- Source of revenue imposed on to companies and workers that pay taxes used to develop other sectors.
- It promoted fishing activities on lake volta that improves people's diet from fish proteins.
- Created a beautiful scenery of lake Volta and the dam promoting tourism and foreign exchange in the country.
- Improved on navigation on Lake Volta making transport cheap and connecting to different towns.

d) Effects of the establishment of the project on the environment

- Displacement of people with little compensation given leading to loss of property.
- Seasonal flooding within the dam areas that destroys the infrastructures and properties.
- Siltation of the area behind the dam which requires constant dredging.
- Loss of bio – diversity/ vegetation destruction during the dam construction.
- Pollution from industries around the dam project that degrades the environment in air land and water.
- Spread of water borne diseases like bilharzia, malaria from vectors within the stagnant water around the dam.
- High costs of maintenance of the dam project and its expansion like constant dredging.
- Disruption of fishing activities through dam construction.

Qn. 2 a) (i) A – Mediterranean Sea

B – Atlantic Ocean.

(ii) 1 – Canary cold ocean current

(iii) 2 – Algeria

(iv) 3 – Rabat Fishing Town

4 – Agadir Fishing Town.

(v) C – River Ournerbia

b) Factors that have favoured Marine fishing in Morocco, include;

- The presence of a long-indented coastline that allows establishment of many fishing ports/ it offers shelter to fish preceding grounds.
- The extensive fishing ground for Morocco both in the Atlantic Ocean and Mediterranean Sea.
- The influence of canary cool currents that enable the growth of plankton that feeds fish. The existence of a number of / numerous fish species such as Tuna, pilchards etc. of a high commercial value.

- Presence of a relatively smooth sea floor in the Atlantic Ocean that allow use of deep sea fishing methods like Trawlers t catch fish.
- The existence of desert Mediterranean forests that provide timber for boat construction and fish net floaters.
- The limited agricultural activities in Morocco due to being a dry country forcing people to take on fishing.
- The several preservation centres for fish like processing plants and refrigerators along the coast.
- The use of modern/ efficient fishing method like drifting, Longlining, trawling in the large oceans have enabled development of fishing in Morocco.
- The large sums of capital invested in the fishing sector to buy fishing gear like Boats, Nets and others.
- The developed transport network such as roads, air and railways that link ports like Agadir, Safi to market centres.
- The large/ ride / ready market for fish both at home and abroad in countries like Italy, Spain, USA, China and others.
- The relative political stability in Morocco that has attracted foreign investors from Spain, Italy etc.
- The use of skilled labour to work in industries as transporters, processing, marketing etc.
- The supportive government policies in form of tax holidays to foreign investors that attract many.
- Use of modern/ high level of technology that involves use of modern fishing vessels, under water cameras, baits etc, that make fishing easy.
- The abundant fish plankton to feed fish.

leisure
~~Extensive~~ research -

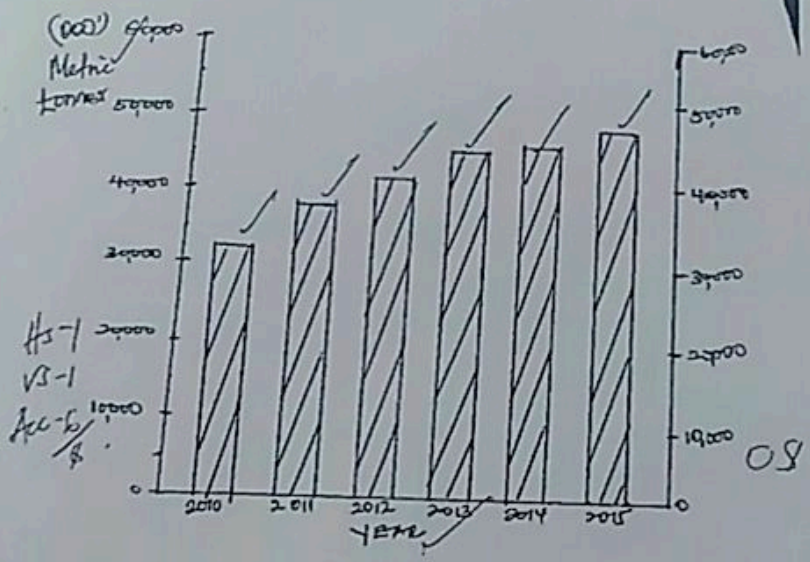
2 c) Problems faced by fishing industries in Morocco are: -

- Over fishing which has led to great fish reduction of fish stocks
- Pollution of water bodies by dumping of industrial wastes and oil spills from vessels to kill a lot of fish.
- Use of indiscriminate fishing methods like spears, undersized nets, basket trapping, handlines, beach seining results in reduction in fish stocks.
- Poor preservation methods are used like sun drying and smoking don't make fish last long.
- Inadequate/ limited capital to buy modern fish gears leads to low fish catch.
- Competition from the fishing countries like Spain, Japan, Namibia, limits fish markets.
- Shortage of skilled labour for carrying fishing activities leads to low fish catch.
- Strong winds and sea waves that lead to capsizing of boats resulting into loss of lives.
- Under developed transport networks that links the landing sites to markets hindering fish sales.
- International restrictions over fishing water bodies not to go beyond 200miles from the coast limits fishing.

- Limited market for fish due to culture in some regions like pastoralists regard fish as taboo, thus leads to low fish sales.
- The low levels of technology limit the number of fish catch.

d) Steps being taken to improve the fishing sector in Morocco.

- Use of strict laws/ heavy fines to control against over fishing.
- Sensitizing fishermen for better methods and preservation of fish.
- Encourage more foreign investors to bring/ invest more money in the sector.
- Intensive research carried for more fish market/ fish exports abroad.
- Use of modern technology to trap more fish.
- Treatment and recycling of industrial wastes before releasing in water.
- Regular patrols to avoid encroachment
- Restocking to introduce new commercial fish species.
- Formation cooperatives to access loans for more investment in the sector.
- Starting fish processing industries to improve on quality of fish exported.
- Practicing fish farming to supplement on the fish in water bodies.



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b) Percentage change in;

$$\text{Change} = \frac{\text{New value} - \text{Old value}}{\text{Old value}} \times 100$$

$$= \frac{16,000,000 - 16,130,000}{16,130,000} \times 100$$

$$= -0.8\%$$

02

- Sugar cane = $\frac{49,730,000 - 46,330,000}{46,330,000} \times 100$ 02

= 7.3% 02

3c) Factor which have favored sugarcane growing in Republic of South Africa.

- Presence of heavy rainfall, which is well distributed supports quickly growth of the sugarcane over 1500mm.
- The hot temperatures that facilitate the ripening of the sugar cane of over 21^{0}C.
- The Fertile sold deposited by various rivers like Umkusi, Umgein etc that provide water during dry season.
- The gentle slope/ relief in the country that encourages of Mechanization for irrigation.
- The existence of an extensive land for the cultivation of sugar cane in Rep of south Africa.
- High humidity throughout the year that enables quick growth of sugarcane.
- The large sums of Capital invested in the establishment and expansion of sugarcane plantations.
- The use of modern/ advanced/ appropriate technology like tractors, loaders that make activities easy.
- The availability of skilled and semi-skilled to work on sugarcane plantation in weeding, planting, harvesting of the crops
- The availability of well-developed transport network that link the sugar growing areas to markets.
- The large/ ready market for sugar provided buy the large population of south Africa and extend market like Lesotho Zimbabwe and others.
- Supportive government policy that has encourages large scale investment/ tax holidays given in sugar growing sector.

3d) i) Two uses of sugar cane are:

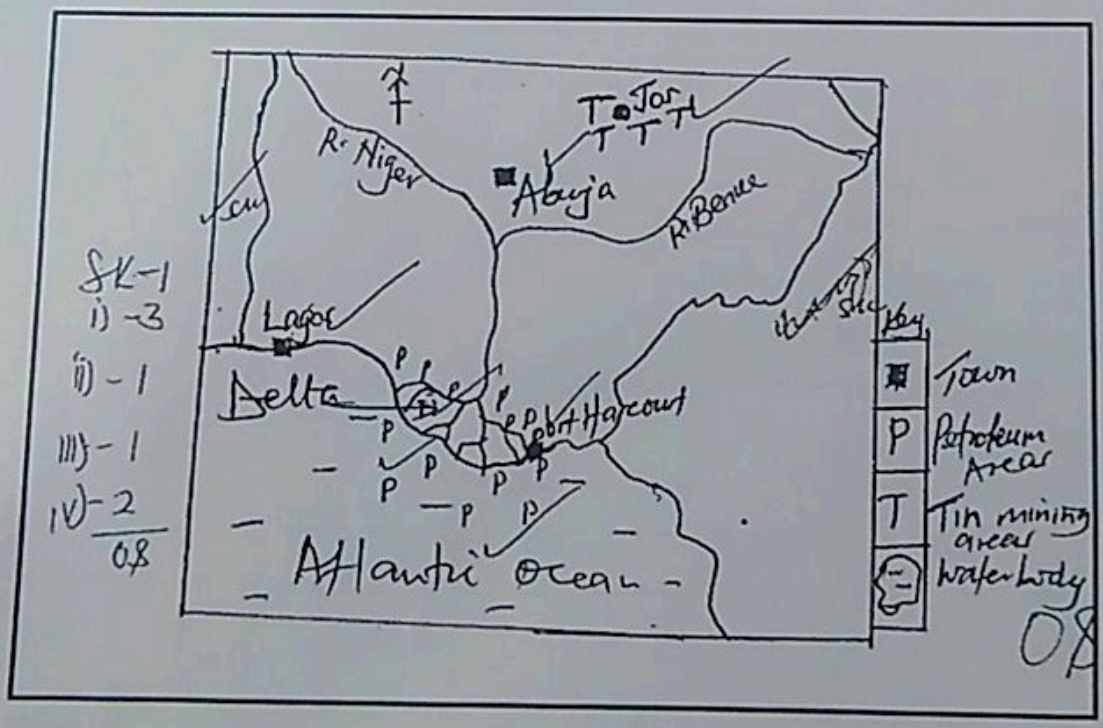
- Provision of sugar
- Making of sweets
- Makes sweeteners on drugs/ medicine through coating

- It used in cooking and baking.

(ii) measures taken to improve sugarcane production

- Spraying with pesticides to control pests and diseases.
- Application of fertilizers to restore soil fertility
- Regularly patrols to check on fire outbreaks
- Mechanization of agriculture to increase on production of sugar cane.
- Carrying out more market research to ease marketing of sugar cane.
- Use of irrigation farming for continuous sugar cane production
- Intensive research in more high yielding sugarcane varieties.

4a) A sketch map of Nigeria showing town Niger delta, Atlantic Ocean tin and petroleum areas.



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08

b) Factors favouring oil and petroleum mining in Nigeria

- Presence of a lot of petroleum reserves in the Niger delta which is economy reliable.
- Availability of a large market for petroleum both locally/ home/ domestic and foreign/ external/ market for petroleum products.

- The use of modern technology like the Derrick/ oil used in extraction of petroleum making mining easy.
- Large sums of capital invested the petroleum mining sector to purchase mining sector to purchase mining equipment, payment of labour and others.
- The positive/ supportive government policy of promoting oil mining, through signing contracts and provision of licences for miners.
- Political stability that has provided a conducive environment for minors.
- The well-developed transport network informs of railways, roads and water transport for easy access to mining areas.

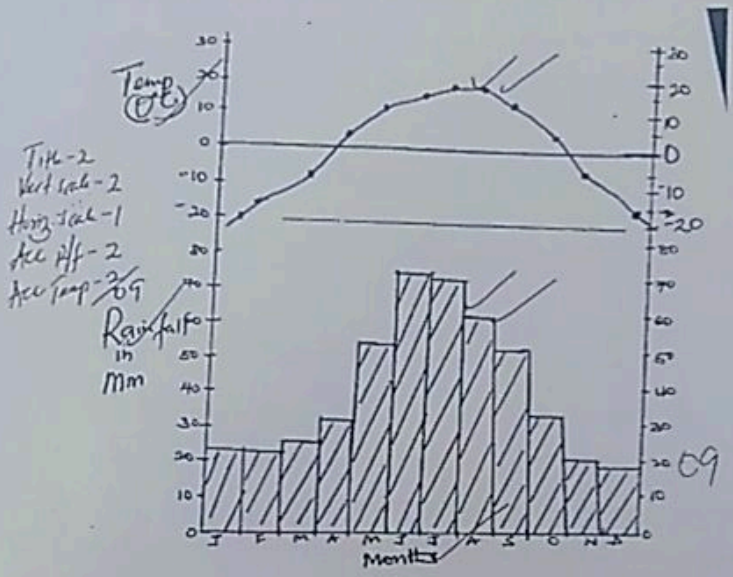
4c) Contribution of oil and petroleum mining in Nigeria

- Source of government revenue through taxation of mining companies used in developing other sectors.
- Generation of foreign exchange from oil exports used to develop other sectors in the country.
- Led to growth of towns such port Harout, warri, which provide better social services.
- Created employment opportunities to people working in the oil fields such as transporters, surveyors, engineers who earn income to improve their welfare.
- Promoted development of infrastructure such as roads, schools, hospitals that provide services to people.
- Has promoted international cooperation between Nigeria and USA, Japan through carrying out international trade.
- Stimulated industrial development through provision of minerals like oil for the petro-chemical products.
- Source of income to workers thus improving new standards of living.
- Acquisition of skills through training of workers which has helped them to start their own business.

d) Uses of oil and Petroleum

- Provision of fuel like petrol, paraffin, diesel
- Used for making lubricants like grease, Engine oil and others.
- Making of tar used as road surfacing.
- Making of dyes and drugs

- Making of plastics and synthetics
- Making detergents
- Making of perfumes.



b) (i) - Winter season starts from November to March.

- Wet season, starts from May to September

(ii) annual Temp range = Highest – Lowest temp

$= 19 - {}^{-}20^{0}C$

$= 19 + 20^{0}C$

$= 39^{0}C$

Mean Annual Rainfall $= \frac{Total\ Rainfall}{One\ year}$

$= \frac{23+23+28+34+56+79+77+64+56+39+26+23}{1}$

$= \frac{528}{1}$

$= 528mm$

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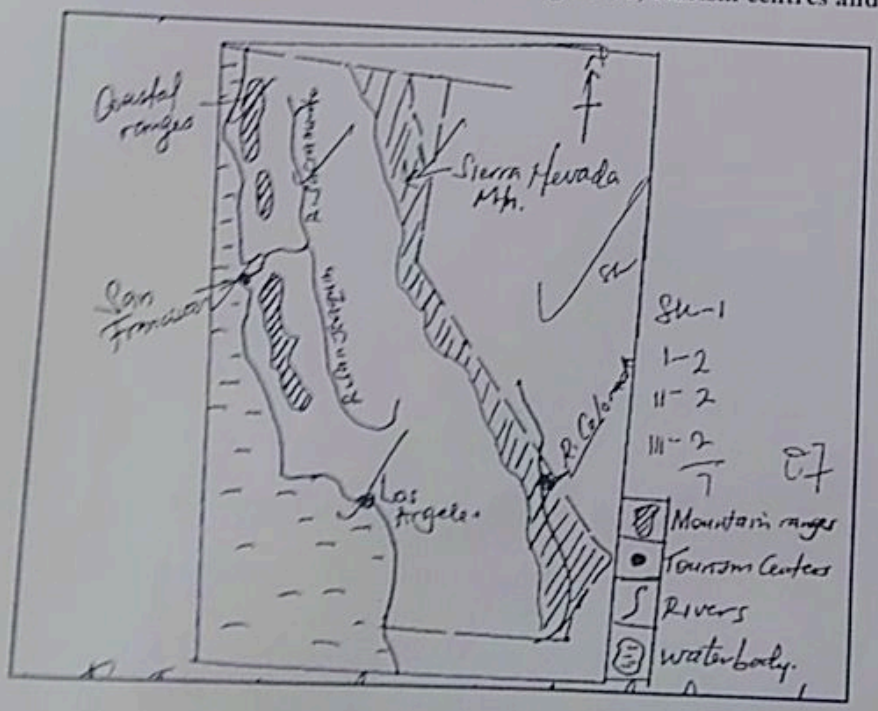
c) Climate related problems by farmers on the Canadian prairies

- Extreme cold condition during winter from November to march limit the growing season and types of crops grown.
- The Frozen ground/ water bodies in Winter restrict movement of farmers and limit supply of agricultural products.
- Winter freezing limits out door grazing
- Winter frost destroys crops
- The weather vagaries like winter Blizzards, Hailstorms that destroy crops.
- Drought on the high plains of Alberta leads to expensive/ irrigation farming
- Flooding during the rainy seasons that destroy the grown grains.
- Wind erosion that leads to unproductive soil which affects crop yields.

d) Solutions to the problem above.

- Irrigation is carried out to supplement rain fed agricultural activities.
- Intensive scientific research has led to quick maturing crop varieties.
- Use of stall feeding/ in door grazing of live stock during severe winters.
- Use of green house technology
- Early weather forecasting by use of satellites to speed up harvests.
- Diversification of crop varieties to include new crops such as peas.
- Growth of quick maturing crops like winter wheat.
- Insurance against crop loss incase of destructive weather conditions.

Qn. 6. A Sketch map of California showing rivers, tourism centres and mountains.



b) Factors which have to the development of tourism in California

- Presence of a conducive Mediterranean climate with sunny summers and wet winters that facilitate summer activities like filming and skating in Winter.
- Presence of a beautiful scenery characterized by desert Landscape, gorges, snow capped mountains that attract tourists.
- The abundant wildlife informs of plants and animals in various national parks e.g. Desert foxes, snakes, coniferous forests etc.
- The skilled labour force to work in related tourist activities
- Large capital base from the government invested in the tourist sector.
- The efficient transport network by air, road, railways to allow access to various tourism centres.
- The stable HEP that provides electricity to the transport sector, to facilitate movement
- The modern accommodation facilities for tourists like Hotels, Lodges
- The favourable government policies that support capital to the tourism sector.
- The use of advanced technology like cable cars, to ease movement, the E- banking, online bookings easing tourists stay.
- The use of diversity of international languages like English, German, Spanish etc. to ease communication.
- The wide spread advertisement both in print and electronic media that exposes California's tourist Potential
- The relative political stability which has attracted visitors from different parts of the world
- The warm hospitality that attracts many tourists from all over the world.
- The well-organized tour packages that ease bookings
- The wide market provided by tourists from various parts of the world.

c) The Importance of tourism Industry in the development of California.

- Provision of employment opportunities to the people like drivers, tour guides that leads to better welfare.
- Generation of foreign exchange from the tourists as an invisible export.
- Increased local income from selling of local crafts that better their standards of living.

- Source of government revenue from taxes imposed on the tourist related services which is used to develop the sectors.
- Development of urban centres/ towns like Los Angels, San Franscisco, San Diego with better social services.
- Development of infrastructures like roads , railways, schools, hospitals and others.
- Diversification of the economy of California thereby reducing over dependence on the sector.
- Promotion of international relations leading to more opportunities for trade.
- Promotion of wildlife conservation in the environment like flora and fauna in game parks.

06 marks

d) suggesting measures that should be taken to promote tourism industry in California.

- Improvement of accommodation facilities to meet international standards.
- Maintenance of peace and security for the life and property of tourists.
- Improvement of accessibility through constructing more roads, railways, cables network in steep terrain
- Continuous advertisements to alert the world about the tourism sector.
- Conservation of tourist sites like the Historical sites, game parks and reserves.
- Pollution control on land, water and air in tourist resorts.
- Use of joint ventures in tourist related areas with neighbouring countries like Canada to extend roads railways systems across difficult terrain like sierra Merada ranges.

7. a) **i) River A - R. Nechako**

River B - R. Fraser

ii) Town C - Price

D - Victoria

iii) Mountain 1 - Rocky Mountains

iv) Island 2 - Vancouver

v) Ocean currents - North Pacific Drift+

b) i) Two Minerals from British Colombia than Phosphates

- Oil and petroleum
- natural gas
- coal
- gold
- copper silver
- Aluminum
- Sulphur
- Potash

ii) conditions which have led to exploitation of minerals in British Colombia

- Presence of a variety of minerals like oil, Natural gas, copper and others of great economic value.
- Presence of high-quality minerals like oil, silver, copper which have a high demand on the world market.
- The nearness of some minerals near the surface like copper making extraction easy and cheaper.
- The wide and ready market for British Columbia's minerals such as coal is highly demanded in USA.
- The skilled and semi-skilled labour to extract, process, survey and transport minerals.
- The large sums of capital to invest in the mining sector through purchasing mining tools.
- The relative political stability that has provided a secure and peaceful environment for mining.
- The improved transport network in form of roads and railways that link major mining centres to processing centres.
- The adequate energy provided to the mining centres inform of HEP, thermal, and coal to run machines.
- Increased research through mineral exploitation by use of aerial survey, geo mapping and other technologies to exploit the minerals.

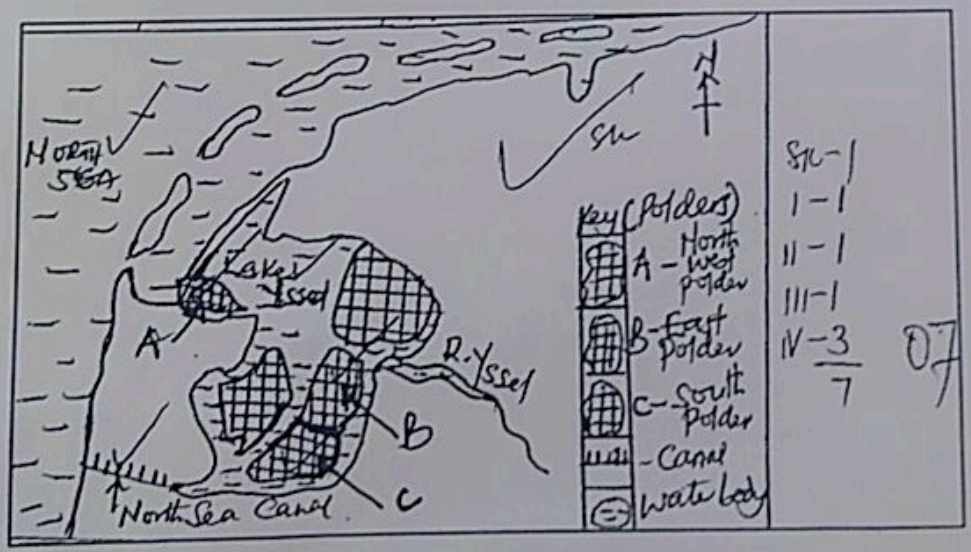
c) Effects of the mining activities on the physical environment in British Colombia

- They had led to creation of pits and heaps which destroys the original beauty of the land.
- They have led to deforestation/ destruction of vegetation which leads to loss of Bio-diversity
- They have led to air, land and water pollution from the industries around that release toxic substance in water.
- They have led to destruction of agriculture land leading to limited food production.
- Have led to loss of wild life through destruction of their habitats.
- The urine pits become breeding grounds for diseases vectors like snails that cause Bilharzia.
- Exposes land to soil erosion and landslides due to absence of vegetation.

7d) Measures taken to solve the negative effects in c) above.

- Refilling and levelling the mine pits with waste soil.
- Spraying the mine pits/ oiling the stagnant water in mine pits to control their effects
- Reafforestation/ planting trees around to reduce land exposure.
- Treating of industrial wastes before releasing them to the environment
- Sensitizing people about importance of environmental/ conservation.

8a) A sketch showing the Zinder Zee polders, the North Sea, North Sea canal, Lake Yssel



b) Factors that have favored the establishment of the Zinder Zee polders.

- The use of high level/ modern technology like use water pumps that were used to pump out water from the flooded area.
- Availability of a highly skilled labour that help to pump out water and construct dykes and embarkments.
- Availability of large sums of capital to pay workers and purchase draining machines.
- The rich experience of the Dutch people of the se, that enables them drive out the water.
- The invention of modern windmills used to pump out water from the polders.
- The relative political stability that allowed concentration of on land reclamation
- Supportive government policy which has encouraged establishment of the Zinder Zee Polders.
- Presence of various numerous raw materials like day, sand basalt rocks which are used to stabiles dykes and polders.

8c) Environmental Problems which resulted from land reclamation in the Netherlands.

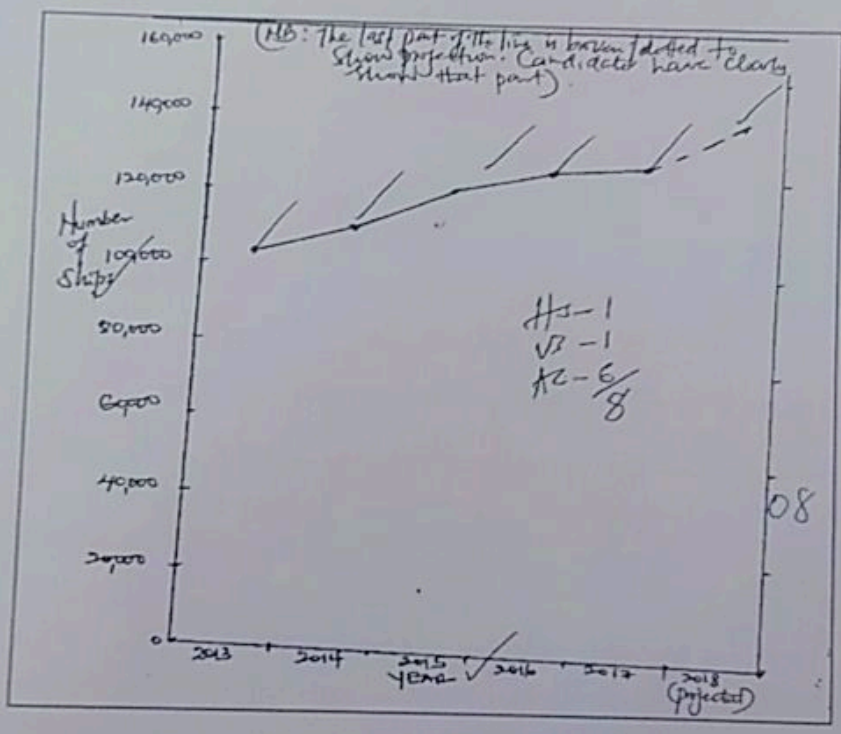
- Salination of the soils due to underground seeping water, this reduces the productivity of crop plants.
- Flooding resulting from the breaking/ damage of dykes
- Presence of sandy or infertile soils that limit agricultural activities.
- High costs of maintenance of the polders due to regular dredging.
- Shortage of fresh water for human consumption limit settlement and industrialization.
- High costs of accommodation and land which lead to landlessness.
- The effect of sand dunes blown inwards from the sea coast limits settlements.
- Excessive water logging due flat relief limits growth of some crops like wheat
- Siltation of the canals that called for expensive dredging.
- Pollution due to many industries in reclaimed areas
- Over population on the polders leading to land shortage.
- Growth of water weeds that chocked canals

d) Outline the measures that were taken to combat the problems in 8 (c) above.

- Construction of river dam projects tom control flooding
- Application of fertilizes to improve soil fertility and increase crop yields

- Use of diesel pumps to drain away excess water.
- Construction of reservoirs to store fresh water like lake Yssel
- Use of biological and mechanical ways to control water weeds such as the hyacinth
- Application of fresh water in the fields and draining it away into the sea to reduce salinity.
- Growing of high value crops like flowers to reduce the costs of maintaining polders

9 a) A line graph showing the movement od ships on the Rhine water way between Basel and Rotterdam



9 b) Factors that have led the development of the Rhine Waterway;

- Presence o a deep channel which accommodates large ocean-going vessel.
- The high level of technology/ modern technology at the ports for easy shipment, loading and offloading for easy of cargo/ goods
- The large sums of capital invested to purchase large vessels as construction of modern port fertilities.

- The presence of a rich hinterland through countries Germany, Switzerland and others that provide both mineral and agricultural raw materials.
- The presence of melting glaciers in the swiss Alps that constantly increase the water volume of Rive Rhine; making it usable for navigation.
- Presence of a large network of tributaries such as R. Main, R. Mosel, R. Neckar which increase the volume of water in the Rhine River.
- Presence of ice-free conditions of the Rhine all the year round, making it usable for navigation.
- Presence of a permanent river Rhine, that flows all years round through the Rhineland's for movement of cargo, up and down stream.
- The highly skilled and experienced labour that operation large vessels, loading and offloading of cargo in time.
- The developed transport network like roads and railways that link the main land to the ports and river Rhine for easy movement of cargo.

9 c) Problems faced by countries using the Rhine waterway,

- High costs of maintenance of the river through regular dredging to remove silt.
- Congestion due to heavy traffic along the waterway this causing delays of cargo.
- Pollution of River Rhine due to oil spills that come from water vessels, killings aquatic animals
- It has led to ever exploitation of minerals resources and forests due to high demand.
- Fluctuation of the water levels limiting the use of large vessels in some seasons especially during the summer.
- Floding of the R. Rhine that destroys the nearby farmlands and port facilities
- Poor visibility due smog and fogy conditions which cause accidents leading to loss of lives and property.
- The sea pirates that attack and steal some cargo leading to loss of lives and property.
- Continuous silting of the water way that limits movement of big vessels.
- Delays caused by single locks along the water way limits movement of big vessels.
- Delays caused by single locks along the water way shown down vessels.

9 d) Measures being taken to solve the problems above

- Time tabling/ scheduling of the ships/ vessels to reduce on congestions, delays and accounts.
- Containerization to help in loading and offloading at the ports.
- Use of radar/ Use of flood lights/ strong lights on oceans going vessels to control problems o fog that affects navigation.
- Constant dredging to over come siltation on the Rhine water way.
- Use of strict laws against pollution of the water way.
- Construction of canals to avoid waterfalls along the Rhine water way.

10 a) i) Industrial Town A - **Basel**

B - Geneva

C - Bern.

ii) River 1 - R. Rhone

2 - R. Ticino

iii) Lake 3 - L. Constance

4 - L. Neuchâtel

iv) Country D - Austria

10. b) Factors hat led to the development of Basel as an urban center.

- The geographical location of Basel at the head by River Rhine making it an important gate way into Switzerland.
- The fresh water supply for both domestic and industrial use.
- The large piece/ extensive/ vast land for the establishment and expansion of Basel Town
- The large population of Basel town that has been engaged in construction of infrastructures like Tall building, roads and others.
- The presence of a rich agricultural hinterland in the Swiss plateau that supplies food stuffs for the town.
- The large sums of capital from the rich investors and tourism that are used in the town development.
- The stable power supply to Basel town for both domestic and industrial use.

- The well-developed transport net work in form of roads, electrified trains and River Rhine water waste for easy movement of people and Cargo.
- Political stability/ Neutrality that has attracted several foreign investors to develop industries in the town.
- The presence of various tourist attractions like the Rhine River, industries, and others that attract tourists during summer to the town.
- The heath relief that makes construction of tall buildings easy.
- The high level of technology used to establish tall buildings and other urban infrastructure like cranes, make work easy.
- The skilled labour force that constructed various urban infrastructures.

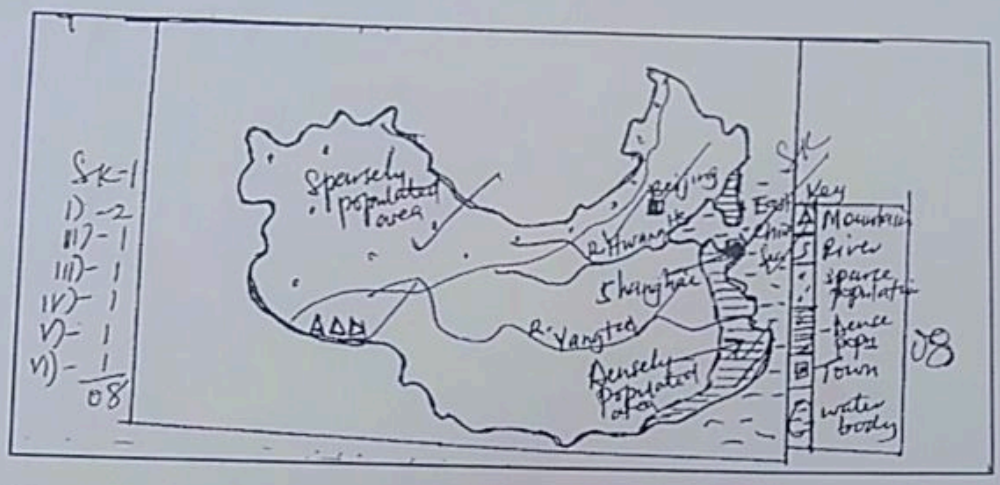
10 c) Functions of Basel Town

- It is an industrial centre with various industries like watch making, textiles etc.
- A transport centre with several means of transport; like for air, water, road.
- A commercial centre with many trade centres, shopping malls etc.
- An education centre with various institutions of learning from Kindergarten to University.
- A residential centre housing low – medium and high-income housing estates.
- A cultural centre with many churches for worshiping
- A financial centre with number of banks and insurance companies.
- A medical/ Health centre or treating people.

d) Problems facing Basel as an urban centre.

- Slum growth and their associated problems like poor sanitation, congestion and others
- A strain on social services/ facilities like roads, hospitals leading to provision of substandard services.
- Increase in unemployment rates that leads to poverty and low standards of living.
- Rural – urban irrigation that leads to over population that lowers the standards of living.
- High population rates in form of air, land and water due to many vehicles and industries causes health hazards.
- High crimes rates like theft, prostitution, drug abuse which lead to insecurity in the area
- Limited land for expansion which has led to congestion and slum development.
- The congestion that causes delays in roads thus lowing down trade and commerce.
- Over crowding due to large urban population.

11 a) Sketch map of China showing rivers, mountains, population distribution, sea and towns.



11 b) Factors responsible for a high population concentration in region shown above.

- Presence of warm ice-free conditions at the coast because of the Kuro – Siwo currents that attract settlement and farming.
- Presence of fertile loss soils on the North China plains that support agriculture so have attracted dense settlement.
- Presence of various mineral resources that attract people to work in the mines.
- The efficient transport and communication system by water, air and land increases accessibility leading to dense population.
- The high rates urbanization growth of towns on the Eastern side attracts many people for social amenities provided.
- The high level of industrialization attracted people for available employment opportunities leading to a dense settlement.
- The presence of heavy rainfall in the region that has attracted dense settlement and agriculture.
- Presence of gentle slopes/ flat plains and river valleys that attract a dense population where agriculture and settlement are possible.
- Presence of well drained areas especially the river basin of sangtze, sikiang are densely populated because water for irrigation is readily available.

c) Problems faced by large population densely in China

- It has led to high dependency burden of the young and elderly who not productive thus limiting the savings and investments.
- Too much pressure on social facilities like school, hospitals leading to sub-standard services.
- Led to high cost of living in terms of accommodation, education leading to low standards of living.
- Resulted in poor sanitation due congestion in cities especially Beijengi Shanghai.
- High increase in crime rates such as dry abuse, theft, human trafficking etc. leading to insecurity.
- Led to widespread unemployment due to many people with very few jobs, leading to low standards of living.
- Has resulted into famine/ food scarcity, leading to malnutrition and death.
- Led to slum development at the outskirts of big cities with their associated evils like congestion.
- Has led t land shortage in mainly urban centres, leading to land fragmentation.
- Has led to increased government expenditure on buying drugs, maintaining schools, hospitals etc. for people.
- Overcrowding in public places, parks leading to encroachment on marginal lands in China.
- Easy spread of dressed of disease like flue, covid , cough etc.
- Traffic congestion leading to delayed movement on roads.

d) Measures taken to address the problems identified

- Adopting of two children policy per family in China
- Reclamation of land to increase food production
- Modernizing agriculture to increase food production
- Importation of food to supplement on domestic food.
- Establishment of more health centres to treat diseases.
- Construction of vertical buildings or sky scrappers
- Encouraging of out-ward – migration of people to reduce congestion.
- Exportation of labour to other countries

Q.12a) Calculations for a pie chart:-

Shandong = $\frac{34207}{75000} \times 360 = 164.2 \simeq 164^\circ$

Dantong = $\frac{16252}{75000} \times 360 = 78.2 \simeq 78^\circ$

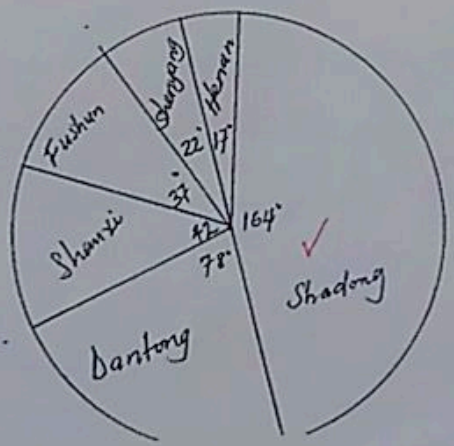
Shanxi = $\frac{8700}{75000} \times 360 = 42.0 = 42^\circ$

Fushun = $\frac{7702}{75000} \times 360^\circ = 36.9^\circ \times 37^\circ$

Shenyang = $\frac{4600}{75000} \times 360 = 22.1 \simeq 22^\circ$

Henan = $\frac{3459}{75000} \times 360^\circ = 16.6 \simeq 17^\circ$

A Piechart Showing the production of Bauxite in china



12 b) Condition that have favoured Bauxite mining in China

- Presence of large Bauxite reserves / deposits in various places of China that make mining profitable/ economical.
- the large market for Bauxite to make various products of Aluminium in both local and international markets.
- The use of improved technology while carrying out mining like use of grades, dumpers and other machines, that make mining easy.
- The intensive research used in exploitation of more Bauxite ores, by use of Geo- mapping and surveys.
- The developed means of transport in Bauxite mining areas in form of roads, railways, water to link to market centres.
- Abundant energy supply in form of HEP used in smelting Bauxite.
- The favorable government policy that encourages Bauxite through province of tax holidays to investors of the mining company.
- The large sums of capital invested in the sector to purchase Bauxite mining tools.
- The large supply of skilled and semi- skilled labour force to work in Bauxite mines.
- Abundant water supply used in cleaning of Bauxite as well as colling of machines.
- Presence of high-quality Bauxite ores that are highly marketable from China.

c) Effects of mining of minerals on the Physical Environment in China.

- Heavy pollution of the air, land and water, especially too much dust that leads to health hazards.
- Destruction of the soil structure leaving the soil structure, leaving the solid in fertile and un fit for agriculture.
- Destruction of vegetation cover that leads to loss of Bio – diversity in mining Centre.
- Land degradation through creation pits and heaps on the surface, destroying its original beauty.
- Displacement of people from Bauxite mines with little compensation i.e. loss of property.
- Loss of lives through accidents, affecting the production in the sector.
- Flooding in the mines that leads to heavy loss and damage of pits

5marks

d(i) two other minerals in China;

- Iron ore
- coal
- China
- Lead
- copper
- Oil
- Gold

Any two

ii) the relative importance of Bauxite production at Shanxi area

ative importance $= \frac{Production\ in\ tons}{Total\ population} \times 100$

$= \frac{8750}{7500} \times 100$

$= 11.66\%$

The relative importance of Bauxite production at Shanxi area is 11.66% / ≈ 11.7%

Q.13 a) (i) Rivers 1 – R. Hwang He / yellow River

2 – R. Yangtze / R. chang Jiang

(ii) 3 – Grand Canal

(iii) Towns A – Shanghai Town

B – Nanjing

(iv) Railway C – Yangtze River Delta Railway line

v) Plantation Crop growth D – Wheat

b) Factors which have favoured agriculture in the Yangtze delta region.

- Existence of fertile alluvial soils that support growth of crops like rice, wheat etc.
- Presence of adequate fresh water for irrigation farming within the region from river Yangtze
- Present of hot summer temps that lead to quick growth of crops.
- Availability of a wide/ ready market for the crops produced, provided by the large population of China.
- The generally low land/ flat relief that enable crop cultivation in the river basin.
- The large supply of labour both skilled and unskilled to work on farms.
- The efficient transport routes like railways and roads that facilitate marketing agricultural commodities.
- The supportive government policy which has encouraged farming through formation of committees.
- The extensive land that has enabled establishment and expansion of farms.
- Use modern technology like tractors, irrigation machines to increase on food production.
- Large sums of capital provided by the Chinese government to development of infrastructure.

c) Contribution of agriculture to the development of the Yangtze delta region.

- Stimulated growth of agro-based industries, that buy raw materials from the agricultural sector e.g. textile
- Provision of food stuffs like rice, wheat that improve people's diet.
- Provision of employment opportunities, like transporters, marketing agents, and others who earn some income.
- Source of foreign exchange from exporting surplus foods.
- They provide a source of income that improves on standard of living of farmers
- Source of government revenue from taxing the farmers.
- Promoted diversification of the economy thereby reducing reliance or other sectors.
- Development of infrastructure like roads, school, hospitals that provides social services.
- Led to growth urban centres/ towns with in the area like Toichow, soochows which provide urban centres.
- Strengthened national unity amongst the people through communal farming in the valley/ basin.

d) Problems faced by farmers in the Yangtze delta region.

- Flooding of river Yangtze that destroy crops grown
- Pests and disease destroy the crops
- Soil exhaustion due to over population leading to law monoculture.
- Limited land due to over population leading to law frag notation
- Limited cooperation between farmers in communities leading to low crop yields.
- Competition for market by other crop growing regions.
- Competition for market by other crop growing regions.
- Price fluctuation of crops on the world market.
- Silting of river canals that cause flooding destroying and farm hands.

END