GSSCORE

An Institute for Civil Services

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RUPAL SRIVASTAVA

AIR - 113

(CSE 2022)

GEOGRAPHY OPTIONAL

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GS SCORE

Geography

Mock - 2 Paper - II

GEOGRAPHY

Time Allowed: 3 Hrs. *Max. Marks: 250*

Instructions to Candidate

139 1/2

- Please read each of the following instructions carefully before attempting questions.
- There are EIGHT questions divided into TWO SECTIONS and printed in ENGLISH.
- The candidate has to attempt FIVE questions in all.
- Question Nos. 1 and 5 are compulsory and out of the remaining, THREE are to be attempted by choosing at least ONE question from each Section.
- The number of marks carried by a question/part is indicated against it.
- Answers must be written in the medium authorized in the Admission Certificate which must be stated clearly on the cover of this Question-cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in a medium other than the authorized one.
- Word limit in questions, wherever specified, should be adhered to.
- Illustrate your answers with suitable sketches/maps and diagrams, wherever considered necessary. These shall be drawn in the space provided for answering the question itself.
- Attempts of questions shall be counted in sequential order. Unless struck off, the attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

⇒ Continue to follow the same approach

→ All the Best!

1. *Invigilator's Signature* _____

2. *Invigilator's Signature* _____

Name RUPAL SRIVASTAVA

Mobile No. _____

Date _____

Signature Rupal.

Time (S) = 9PM.

REMARKS

5 Roll No. 34377

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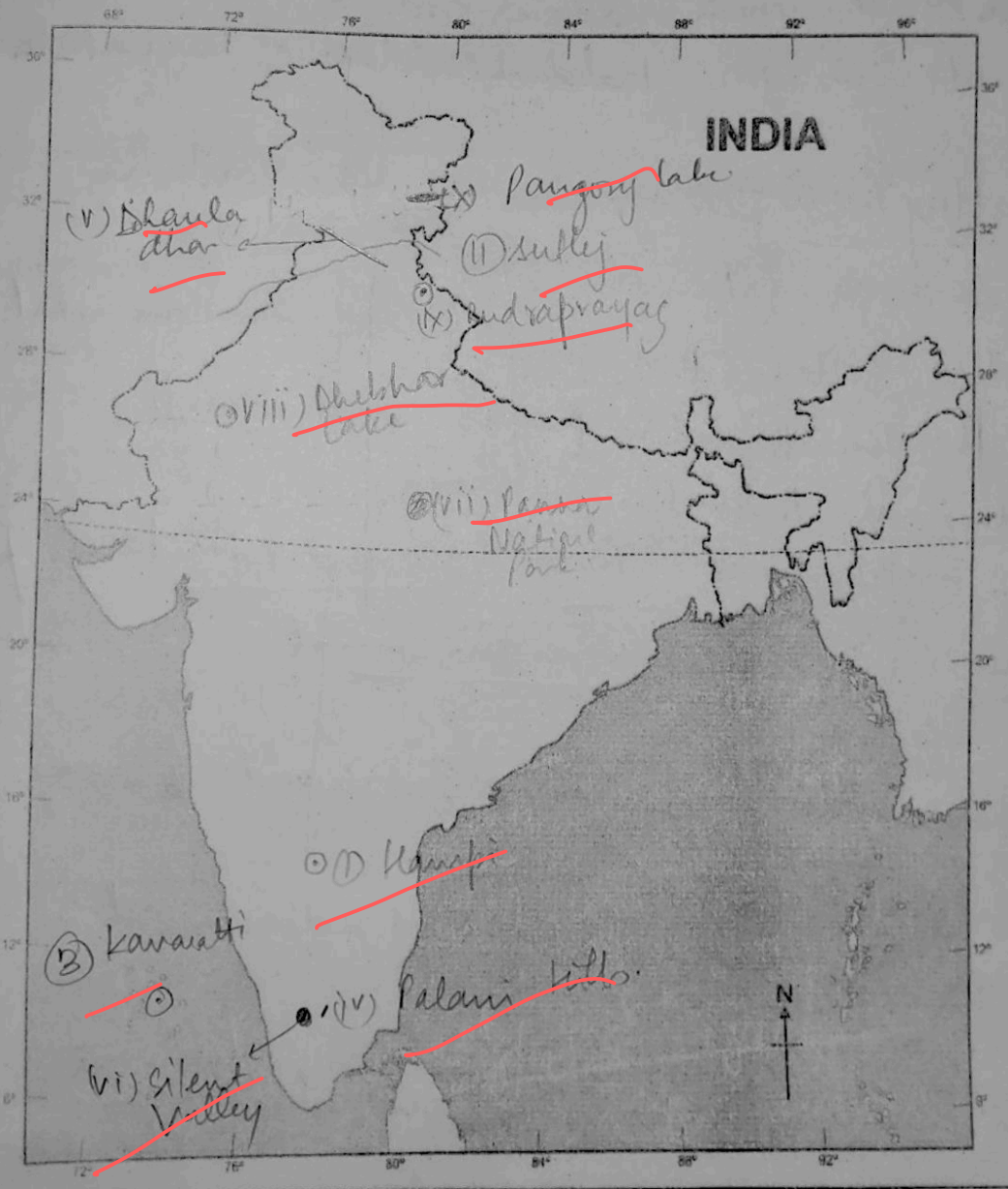
Section - A

1. (a) Locate these map entries on the map and write about 30 words: (20 Marks)

(i) Hampi
(ii) Satluj river
(iii) Kavaratti
(iv) Palani Hills
(v) Dhaula Dhar
(vi) Silent valley
(vii) Panna National Park
(viii) Dhebar Lake
(ix) Rudra Prayag
(x) Pangong Lake



Remarks

(1) Hampi - ancient historical capital of the Vijaynagar empire.
- situated on the South bank of the Tungabhadra (a tributary of Krishna)
- Unesco World Heritage site
- lies on the rain shadow side of western ghats - in the ~~Malabar~~ 'Maidan' of Karnataka

(2) Satluj River - originates in the kailash Mansarovar lake in Tibet.
- enters India by shipki La in Himachal and flows through Punjab and meets Indus in Pakistan
- An antecedant river, longest tributary of Indus with Indira Gandhi Canal

(3) Kavaratti - capital of Lakshwadeep, in the Arabian sea.
- coral islands with 30% of India's coral diversity
- 100% literacy rate and important organic farming centre for coconut.

Remarks

(iv) Palani Hills - Located in Tamil Nadu, near Kodaikanal.
- part of the southern hill complex
- Tropical evergreen rainforest and shola forests found

(v) Dhauladhar - located in the Middle Himalaya in the Himachal of
- discontinous range from the Pir Panjal, Nag Tibba
- features of Recumbent, nappe fault found here.
- Seismic zone IV under GSI map

(vi) Silent Valley
(1) located in Kerala, an important National Park and World Heritage Site of UNESCO
(2) Tropical evergreen forests like Mahogany Ebony etc found
(3) Endemic fauna - lion tailed Macaque

(vii) Panna NP
- located in MP, the 13th Biosphere Reserve in Unesco MAB Programme.

Remarks

- important tiger reserve, Ken River passes
- under threat due to latest Ken Betwa link project.

(viii) Dhebar Lake
- second largest artificial lake of India,
- situated in Udaipur — city of Lakes
- part of the desert tourism of Rajasthan
- receives 50-60 cm annual rainfall

(ix) Rudraprayag - part of the 'Panch Prayag' in Uttarakhand
- River Mandakini joins Alaknanda here.
- located in seismic zone V

(x) Pangong lake
- a saline lake in Ladakh -
- shared between India - China
- an important Ramsar Wetland
- has 'finger like spurs' of the Ladakh Range.

17

Remarks

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1. (b) Give an account of different views associated with formation of Shiwalik. (150 Words) (10)

The Shiwaliks are the youngest folded mountain of the 3 ranges of the Himalayas formed 40-45 million years ago in the Pleistocene time. (5 to Southern most part of Himalay

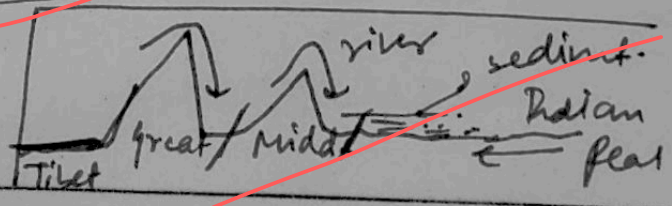
Different Views on the formation of Shiwaliks

① Earlier believed to formed in the same way as Great and Middle Himalayas formed due to uplift of Tethyian sediments

Challenged - by Medlicott and Tiwary who studied the nature of Shiwaliks sediments and found them to be fluvial unlike marine of Great and Middle Himalayas

② PT Theory for shiwalik formation

① After formation of Great and Middle Himalayas, Himalayan drainage set in. This brought the fluvial sediments.



Remarks

(2) Also less intense compressive forces than that of great himalayas, thus giving a hogback structure.

(3) Evidences supporting fluvial origin can be seen in the swampy fossils found in Shiwalik (in Uttarakhand

(4) Also fused shiwaliks and absence of shiwaliks in WestBengal at 'doars' due to fluvial erosion proves this

Shiwaliks, however have the major tourist destination of himalayas like the Nainital etc.

middle himala

Hw shiwalik & Middle, Dun fromation can be elaborate shiwalik named diff in different state Jammu hills, Dafla, Miri, Abor Mishmi

Remarks

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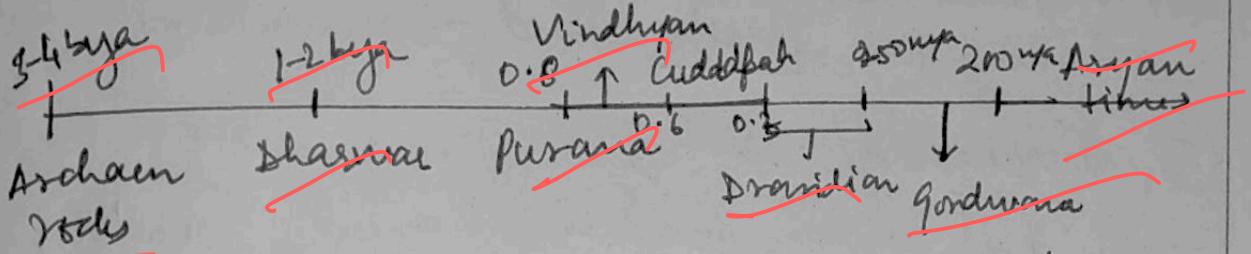
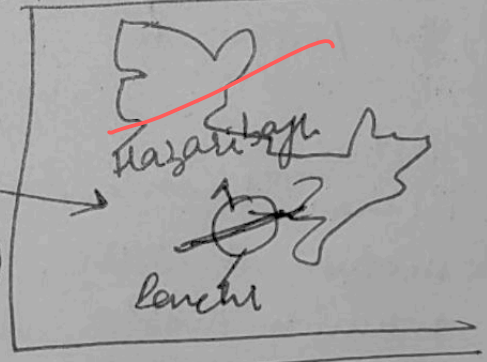
1. (c) Write a short note on geological history of India. (150 Words) (10)

The geological history of India can be understood from the various rock structures formed during the entire evolutionary history.

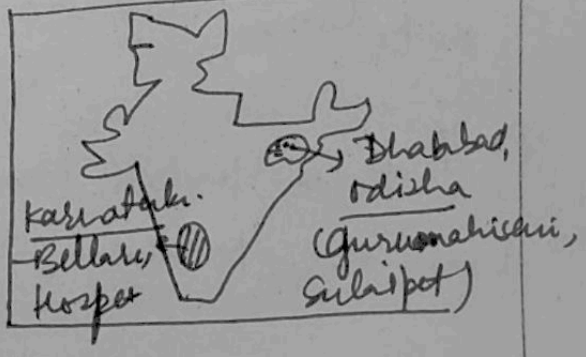
Geological time scale of India



① Ancient cratonic shields - dating back to the Archaen (pre cambrian) time, composed of granitic and gneissic rocks. Eg: chotanagpur plateau

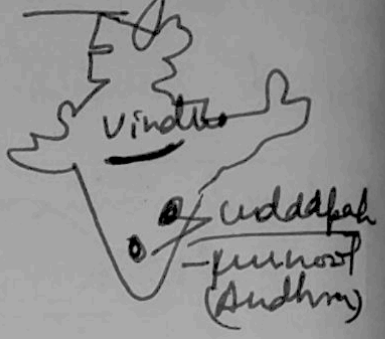


② Dharwad - meta morphosed sedimentary rocks,
- some of the richest mineral belt of India - Fe ores, manganese, copper



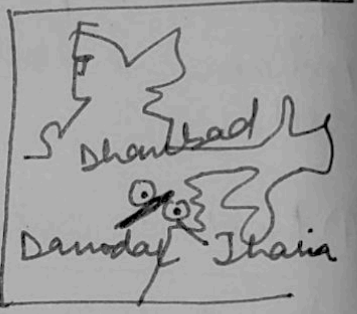
Remarks

③ The geosynclinal basin of the Vindhyan and cuddapah sedimentaries - Rich limestone, marble mines Es: Bhedaghat, Jantaghat



④ The Dravidian Rocks mainly containing the fossils - found in Himalayas

⑤ Gondwana age which the rich coal seams found in Damodar rift valley (Barakar Formation)



⑥ The Aryan Age

Cretaceous
Deccan basalt due to movement over Reunion Hotspot
Es: Malwa, Vidarbha etc

Tertiary
- Areas of marine transgression
Es: Basmer, Dibrugarh etc
- Himalayan uplift

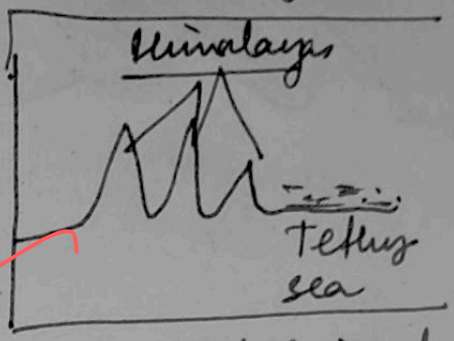
⑦ Of these youngest have been the Northern Plains.

1. (d) Write a short note on **Evolution of northern plains.** (150 Words) (10)

The Northern Plains are the youngest geological feature of India found 3-4 million years ago.

Evolution

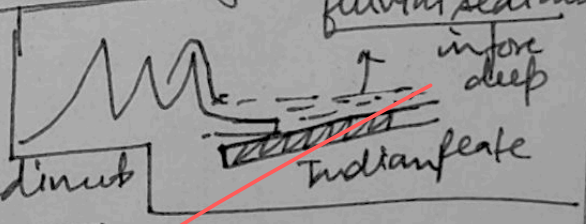
① According to Blanford and Blanchard, they are formed due to the tethys sea sediments



As: salt deposits in Rajasthan and Gujarat have been found

② However, this theory has been discarded due to the inaccurate nature of sediments

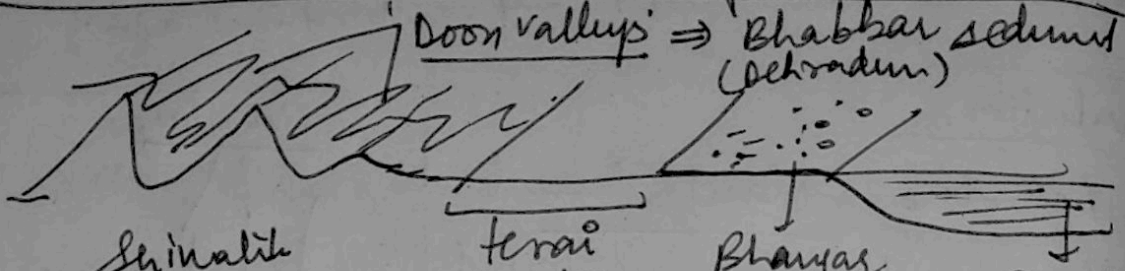
② The 'Foredeep' theory of Edward Suess
- After the formation of Shivaliks, the Indian plate was under-riding the Eurasian Plate
- This led to gradual filling up of fluvial sediments in the deep forming Northern Plates.



This theory has also been verified by RL Singh using Plate Tectonics

Remarks

Sediment based evolution of Northern Plains



Northern Plains thus mainly consist of Alluvial sediments thus forming the granary of India.

Remarks

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2. (a) Discuss the Orogenesis of Himalayan Mountain ranges on the basis of plate tectonics. Elaborate with geographical evidence supporting collision of different types and nature of tectonic plates during process of orogeny. (250 Words) (20)

Himalayan Orogeny began from the oligocene times. continued in the Miocene and was completed by the Pleistocene time. However, latest evidences show that the process is still continuing.

According to Dehdiralla and Tiwary, plate tectonic theory can explain the Himalayan orogeny through different stages.

Stage I: Movement begins

① Indian plate moves towards Eurasian plate 65-70 mya

② Indian plate denser and thus underrides

③ Crustal shortening followed by opening of Indian ocean ridge

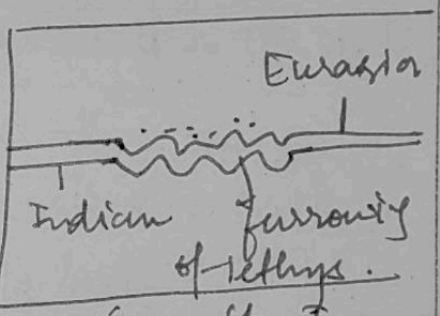


Fig: Stage I

Stage II | Greater Himalayan (65-60 mya)

① collision of Indian plate at the Ridge (near Leh in Kashmir

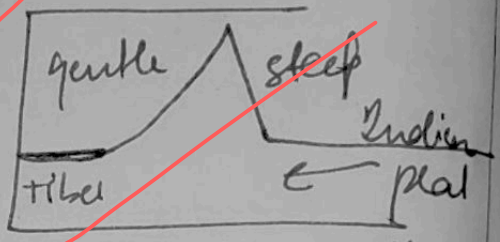
Remarks

(2) Fault line between Tibet and Great Himalaya = Main Central Fault

Evidences

(1) Nature of sediments = marine origin and nummulithic sediments

(2) Structure - orthoclinal due to unequal plate types



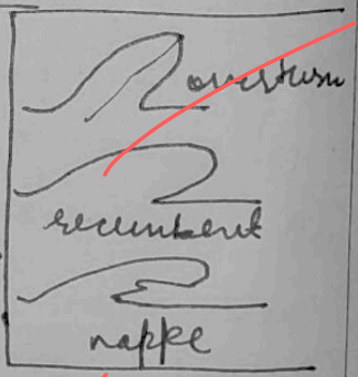
(3) Evidence of remnant volcanism - Lipa valley in Kashmir and fossils in the Dravidian rocks.

Stage III - Middle Himalayan (55-50 mya)

(1) Second and more intensen collision between the Indian plate and Eurasian plate (C-C type).

Evidences

(2) complex fold structure as shown →



(3) Discrete Ranges - like the Dhauladhar, Nag Tibba, Pir Panjal showing evidences of upliftment being steep

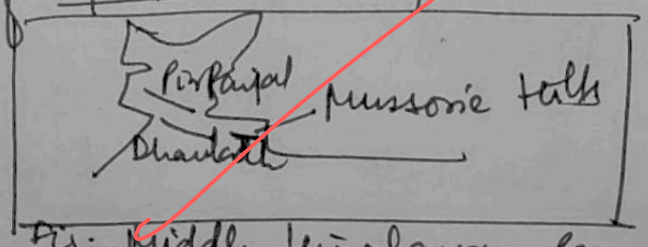
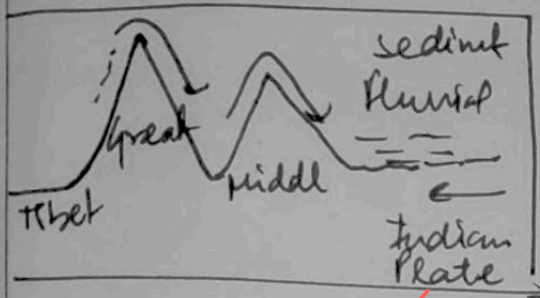


Fig: Middle Himalayan range

Remarks

Stage - IV | Shiwalik upliftment

① contrary to the marine sediments of Great and Middle Himalayas, the shiwaliks are made up of ~~[illegible]~~ fluvial sediment



② the hogback structure of shiwaliks due to low intensity collision

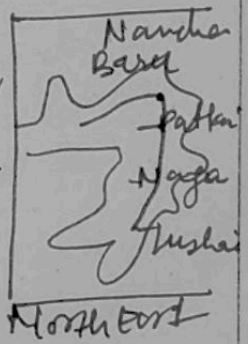
Evidences: ① fluvial argillaceous rocks in Shiwaliks.

② Erosion of shiwaliks by the streams in Doors (West Bengal)

③ Pleistocene swampy fossils Eg: Nahan (Himachal)

Stage IV' | Syntaxial bending

① Collision on the eastern margin at Namcha Barwa → extension of Arakan Yoma and syntaxial bends



② Evidences: North South running ranges (Patkai, Naga, Lushai) with gorges and ravines.

Himalayan orogeny, or PT basis explains the reason for present seismic activity in Himalayas

Remarks

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the GSI has mapped it in zone V and zone IV. thus careful infrastructure planning is needed.

12

Remarks

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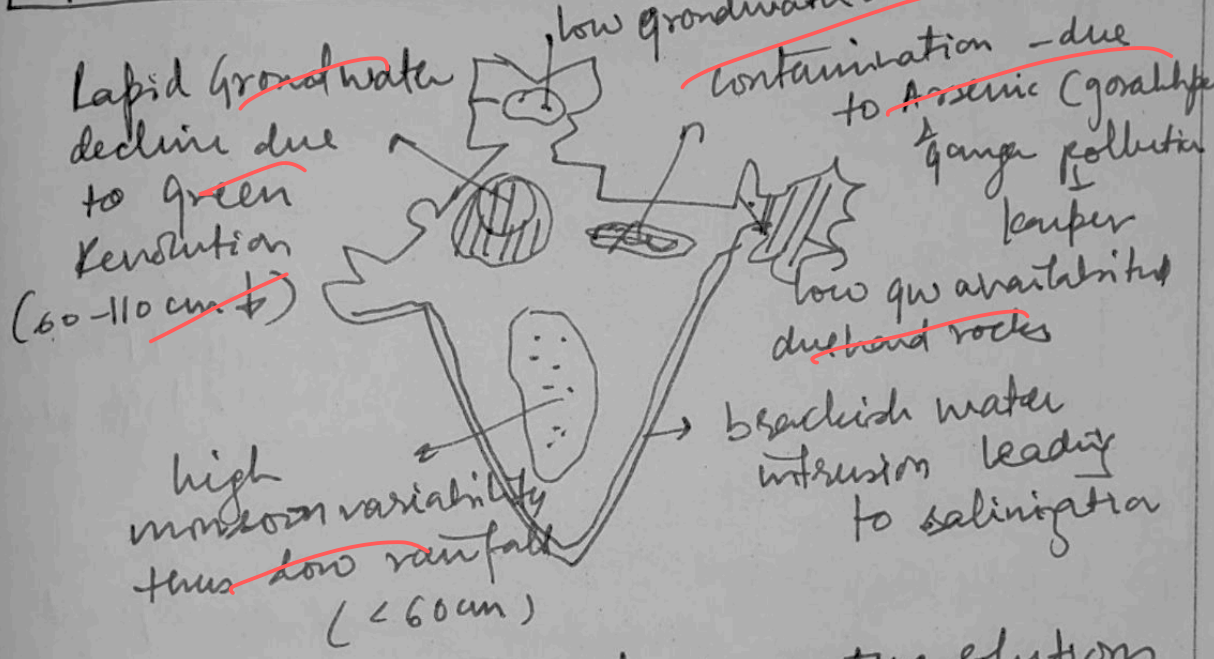
2. (b) The current water crisis that India is facing would needed local innovative solutions along with multidimensional Govt polies. Critically analyse. (200 Words) (15)

With 18% of global population and only 4% of freshwater resources, the per capita availability of 1400 m^3/person puts India under a water stressed country.

Reasons for current water crisis in different parts



To address these local innovative solutions would be needed.

① localised Rain water harvesting models by revival of traditional water harvesting structures

Remarks

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Case | Bundelkhand ← 60 cm rain
Kuan Talab Jiya Abhiyan + Nadic river project

② Innovative river pollution management

River training
by Sridhar kumar for Yamuna to increase the flow for pollutant removal

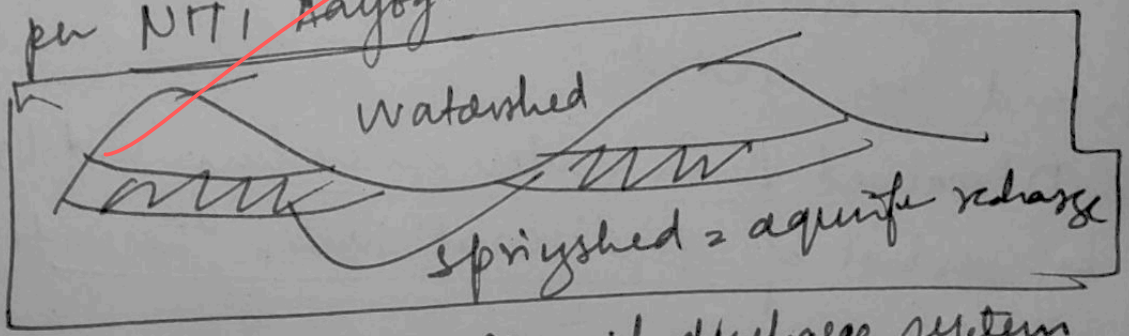
Bio remediation
by agents like Nitrosomonas, Azotobacter
Ex: Ganga cleaning in Varanasi

(B) local traditional knowledge for cultivation of climate smart crops.

Case: Rajasthan
- Familial Forestry
- Khejri tree cultivation

Government Policies

(A) Supply side intervention
(1) Promoting Springshed based development as per NITI Aayog.



(2) Promoting zero liquid discharge system in Industry for circular economy

Remarks

Case | South Korea – 60% of water recycling setup

(A) Sponge City concept based on China for conserved urban water demand

- Blue Green Infrastructure - geotextile based.

(B) Demand side

(1) climate smart Agriculture
Eg: shift of rice, sugarcane to Rabi belt

(2) Water metering on lines of Japan for 'Payment for ecosystem services'

(3) Improving sewage treatment water reuse in industries from current 35% to 55%.

Water conservation has to be made a 'Jan Bhagidari' campaign under the Jal Shakti Abhiyaan

Remarks

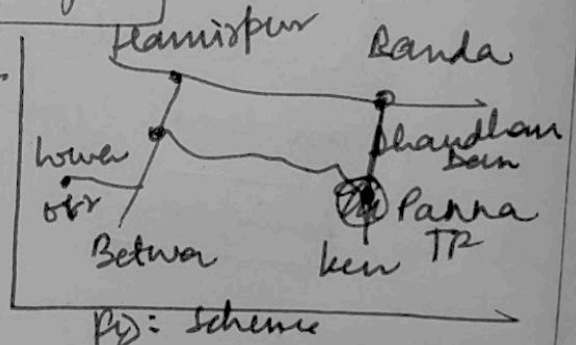
GS SCORE

2. (c) What do you understand by River Interlinking projects? Explain the major challenges that the Ken-Betwa River linking project is facing? Also suggest measures which can be taken to make the project a succe (200 Words) (15)

The idea of River Interlinking as given by KL Rao aimed at connecting the river basin for transfer of waters from surplus to deficit basin thereby meeting the water needs of both source and destination.

this idea was also promoted by Deenshaw dastur in his 'garland Scheme'

Ken Betwa Interlink Challenges



① Surplus deficit missmatch - Ken Betwa both fall under seasonal streams and in the same dryland area of Bundelkhand with sync in the flood and drought cycle

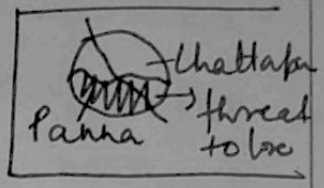
② Topographical constraint - flow through cratonic bundelkhand shield - thus

Remarks

difficult to construct lift project as Betwa flows 60-70 ft below ken.

(3) low irrigation efficiency of the already built large dams on Betwa - Matatila, Pareecha Dam etc.

(4) large scale submergence of the Panna Tiger Reserve (40% area)



(5) Displacement of local tribal population of the region Eg: Gonds, Mundas etc

(6) High economic cost of the project - 35000 cr as expected in the Budget 2021-22.

(7) the South Asian Dam committee says that it can further affect the local hydrology & the area.

To make this project a success

(1) Shifting the origin away from the Panna reserve to a place of lesser ecological damage.

(2) Localised mini dams instead of one large dams to prevent hyher reservoir induced strain

Remarks

(3) Proper rehabilitation and resettlement measures of the population and involving them in construction for livelihood support

Before going for a full scale interlink, localised option of rainwater harvesting through Ponds, Tanks can be explored along with climate smart millet in Bundelkhand.

Remarks

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3. (a) Food processing industries can act as growth pole centre around which development of Indian agriculture sector can be envisioned. Comment. (250 Words) (20)

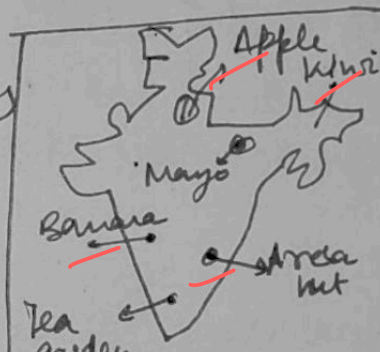
Food processing sector currently contributes to 8.9% of manufacturing GVA and 10.7% of agriculture GVA. Given its coverage at 10-12% only, there is a vast potential to develop it into growth pole centres.

briefly explain what is PI?

Potential for Food Processing Sector As Growth Pole

① According to RP Mishra, it can help in diversifying beyond the industrial growth poles of the ferroux.

② Diverse Agro-climatic zone (12) thus opportunity for production



Eg some zones

③ Increasing demand for the processed products and organics due to changes in standard of living. (Sir Angus Deaton say x2-3 times urban demand by 2030)

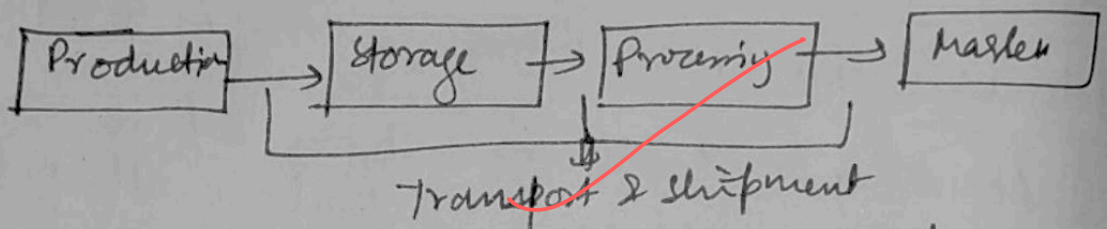
④ High export preference of Indian horticulture sector. Currently covers only 13%, thus scope of expansion towards high value segment

(15)

Remarks

(5) Propensity to absorb the surplus labour in the form disguised farm employment at present (potential for 11 crore people)

(6) Improve the growth linkages in agriculture value chain



(7) Lead of establishment of micro industrial clusters leading to mini clusters.
- Eg: Mega Food Park Scheme - cluster based approach under ODOP.

However, there are certain challenges in developing food processing sector as the growth pole.

(1) low levels of transport and logistical connectivity with currently 12-14% food being damaged due to lack of warehousing (Ashok Dalwai Report)

(2) Initial cost of infrastructure for the processing sector. (On average ~ 35-50% can be the cost)

(3) Issue in the sanitary and phyto sanitary

Remarks

requirements at the WTO

Case] Recently, the Shimla Apples were rejected from UK due to residual pesticide levels.

④ Remuneration for the producers to diversify towards other crops is low. Hence suffers from production issue.

⑤ Vulnerability to the climate shocks is higher
Eg: fluctuation seen in the Yield of Tomato - Onion - Potato (Economic survey).

To realize this as the new growth pole following steps can be taken

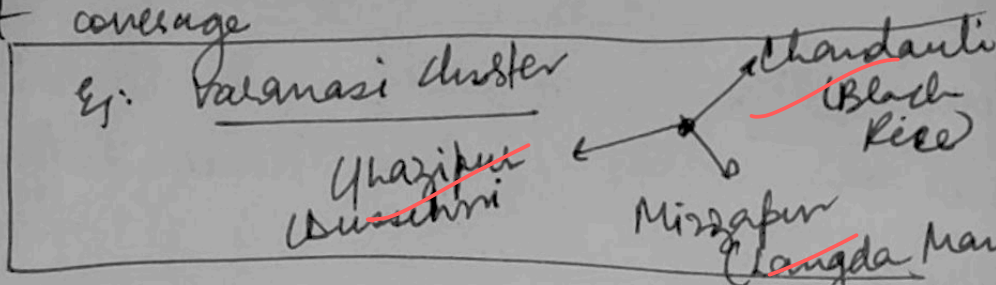
① Infrastructural connectivity, as per Shantakumar committee, alongwith decentralised warehousing, refer vans
Eg:- Lack of Kisan Rail, Kisan Air to connect North East Region

② for regional development - locally relevant crop choices under Sampada and ODOP can be opted
Eg: Aroma Mission in - Lavender
Doda, Udhampur cultivation
- Reduce the youth disenchantment

Remarks

(3) Cluster based idea to improve the market coverage

Eg: Varanasi cluster



(4) Attracting private sector investment in PPP mode under Mega Food Park and setting up dedicated fund like Agriculture Infrastructure.

Food Processing can emerge as new growth pole and help in Doubling farmer income. by 2030

10

Remarks

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3. (b) Different physiographic divisions of India are complementary to each other and lead to socio-economic development of the nation. Explain. (200 Words) (15)

India is classified into 5 major conplentary physiographic division- the himalayas, the Northern plains, the peninsular plateau, the coastal Areas and the Islands.

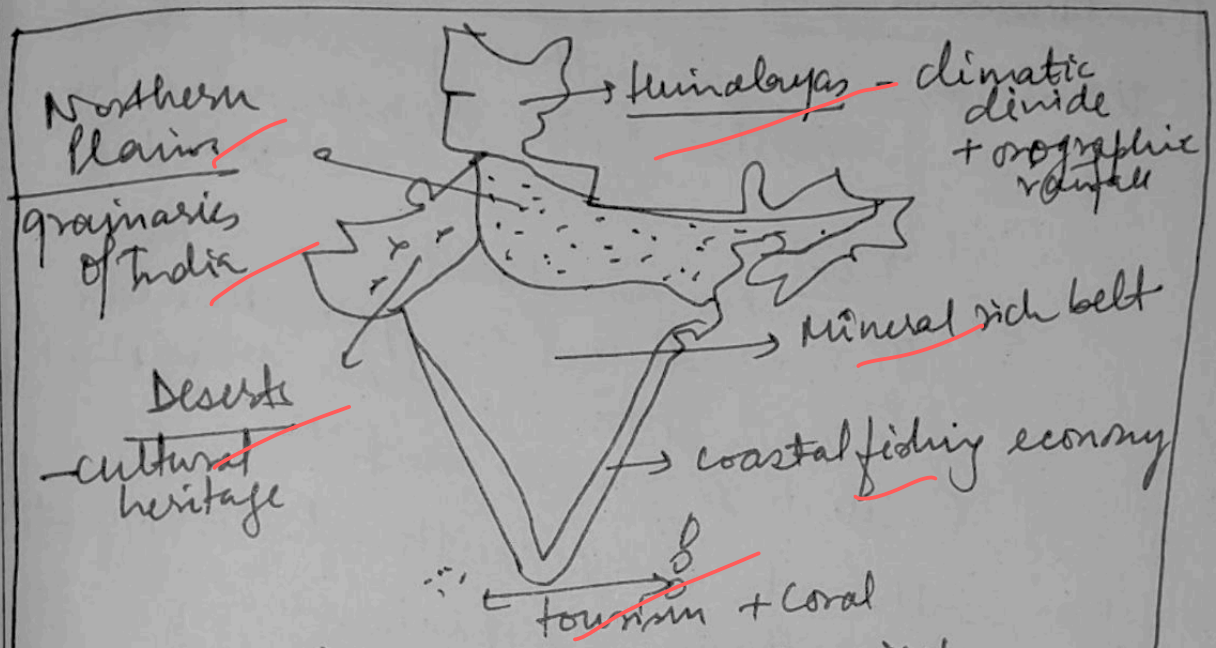

Fig: different socio-economic significan

Complementarity of North Plain Vs. Plateau

- low natural resource due to youngest image
- fertile alluvium
- young demographic population (TFR > 2)

- high resource base (E: chotanagpur, karnataka etc
- low agriculture productivity
- declining young age (TFR < 1.9)

Remarks

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food, labour

Northern Plain ⟵ remittances of labour + diffusion of industries. ⟶ Plateau

Complementarity of Himalayas to Others

Himalayas – low agriculture potential for cereals + high disaster vulnerability (Zone IV and V)

↳ Merits

① ↳ diverse agro climatic zones for horticulture (Eg: Apple – Shimla, Keenu – Himachal)

② Tourism sector

③ Source for major rainfall

→ Perennial
→ Catchment

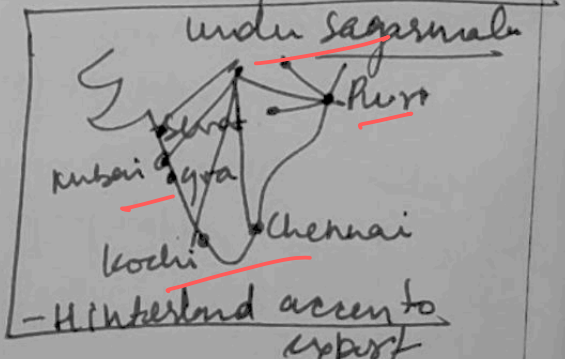
– Can complement in Agricultural diversification of the northern Plains and plateau.

The Coasts and Island Vs. Hinterlands

① 70% export by value and 90% by volume via the coasts

② Tremendous scope for fishery export

③ Construction of export cluster with complementary road – rail under Sagarmala.



– Hinterland access to export

Remarks

the connect of far North East as heritage of 'Eco tourism' with the Western part of Gujarat, Rajasthan as 'cultural centres' can also help to complement development.

To achieve overall socio economic development, it is essential to have strong connectivity between places through Bharatmala, Sagarmala, Inland Waterways etc.

=) Tourism plan

Remarks

3. (c) Critics argue that organic farming is inefficient and requires more land than conventional agriculture to yield the same amount of food. Do you agree? Critically analyse the potential of organic farming in solving the hunger problem and its economic viability for farmers. (200 Words) (15)

India currently has only 2.4% of the Net Sown Area under organic farming. However, in view of recent agricultural disruptions and climate change, it is being emphasized to shift to alternative modes like Natural farming.

Issue of Yield

① Preliminary Analysis shows that yield patterns vary. The Centre for Science and Environment studied 504 crops and found –

yield for rice, wheat, maize, sugarcane = slightly lower	yield for fruits, vegetables, spices, oilseeds = comparable and higher

② Resource use efficiency – higher in organic farming due to locally sourced inputs – eg: biofertilizers – cowdung, slurry etc.

Remarks

But there has been issue with micro-nutrient availability- Zn, Fe etc.

thus organic farming cannot be called completely inefficient.

Potential for hunger eradication

① Cultivation of locally relevant food crops can address issues of hunger on a decentralised basis.

Bundelkhand
- organic farming of millets- kodo, kutki

② Help to diversify the food production as current food system expected to face 12-14% productivity decline and push 35mn people to hunger by 2100 (FAO Report on food security)

③ Vegetables, fruits etc. can help in micro-nutrient deficiency case (hidden hunger) in urban area

Eg: Urban market gardening by organic methods.

Potential for income diversification

① Reduce the cost of production due to

Remarks

locally sourced inputs

(d) High value urban demand for the organic product as per (Engel Deaton theory can help increase income.

However, care needs to taken to have detailed assessment of productivity seeing the problem in Sikkim (decline productivity in organic farm) and addres hidden costs of family labour.

Also remunerative incentive under Paramparagat Krishi Vikas Yojana should be planned.

8

Remarks

GS SCORE

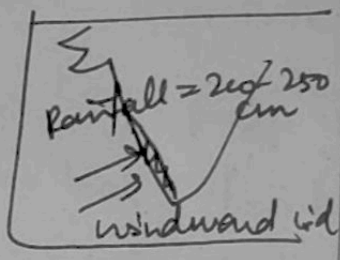
Section - B

5. (a) What makes Kerala more susceptible to diseases outbreak in India?
(150 Words) (10)

Kerala has frequently suffered from outbreak of Zika, Nipah, Monkeypox virus than other parts of India.

Reasons for susceptibility

(1) Climatic factors - tropical evergreen type of climate and vegetation favours growth of microbes. Eg: Hot and humid conditions unlike extreme cold in Ladakh



(2) High population density with more than 500 person/km² thus facilitating faster spread

(3) High ratio of migrant population especially to Gulf countries - susceptability of infection Eg: cases of Monkeypox with travel history

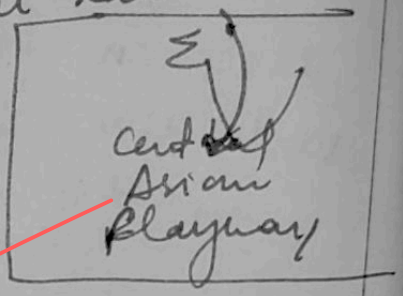
(4) Being a shipping zone, frequent ship traffic brings in the ballast water, which

Remarks

can introduce invasive species
Ex: Water hyacinth damage.

⑤ Presence of neglected tropical diseases like dyme, filariasis etc which can acts favourable hosts

⑥ Important centre in the migratory flyway due to wetlands like Ashtamudi lake etc leading to bird borne H1N1 ~~of~~ flus.



Kerala however has shown an effective example of disease containment by decentralised and strengthened Panchayati Raj System.

Good

6

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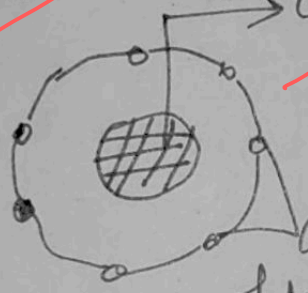
5. (b) Write a short note on morphological typology of Indian cities. (150 Words) (10)

According to Ashok Das, the morphological typology of Indian cities can be understood based on the socio-economic pattern in the city.

what is morphology

① Typology based on CBD nature

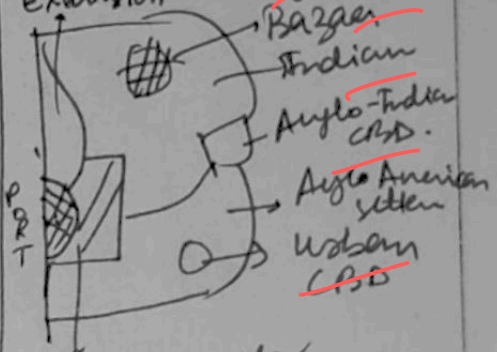
'Bazar' model cities by Metcalfe



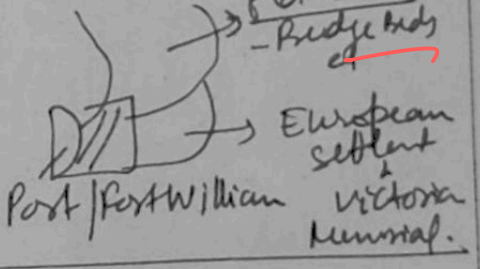
Gentrification of housing based on ethnicity

- Eg: ① Chandni Chowk – CBD Lane
- 'Kothis' and 'Kajwada'
- Ethnic groups – Punjabi, Bengali, Gujarati

'Port' type cities



Eg: Kolkata



② Morphology based on economy

① cultural centres – Eg: Agra

Taj Trapezium complex

Remarks

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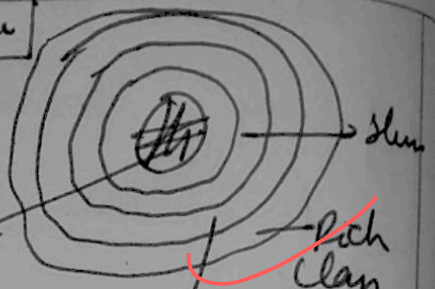
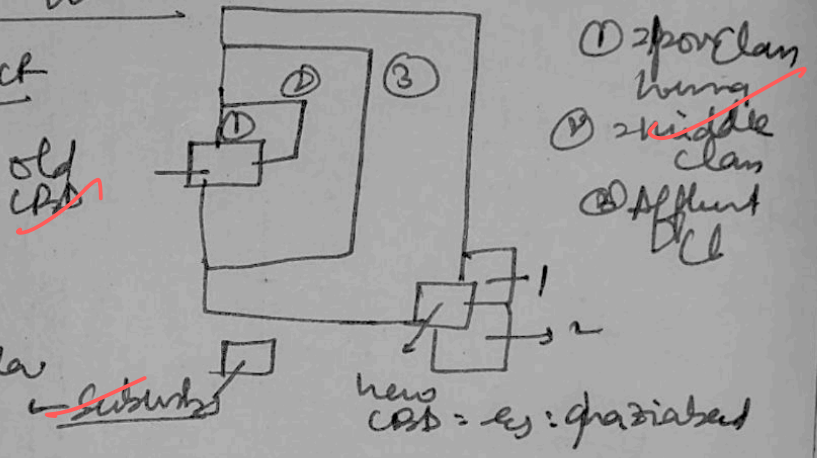
(2) Industrial centres during the 2nd FYP – Eg: Bhillai

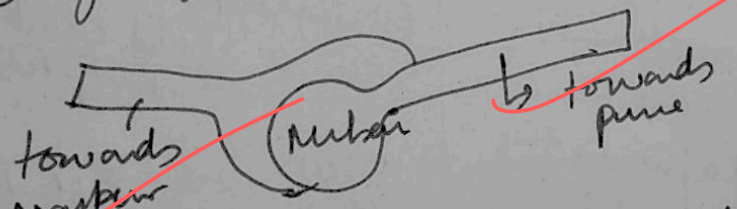


(3) Multiple CBD models due to migration as per Harris and Ullman

Eg: Delhi NCR



(4) Typology due to transport routes – (Hoyt's model)



City morphology, according to J.C Doornkamp can be used to plan the settlement in sync with environmental aspects.

Remarks

GS SCORE

5. (c) Explain the drainage characteristics of peninsular India. (150 Words) (10)

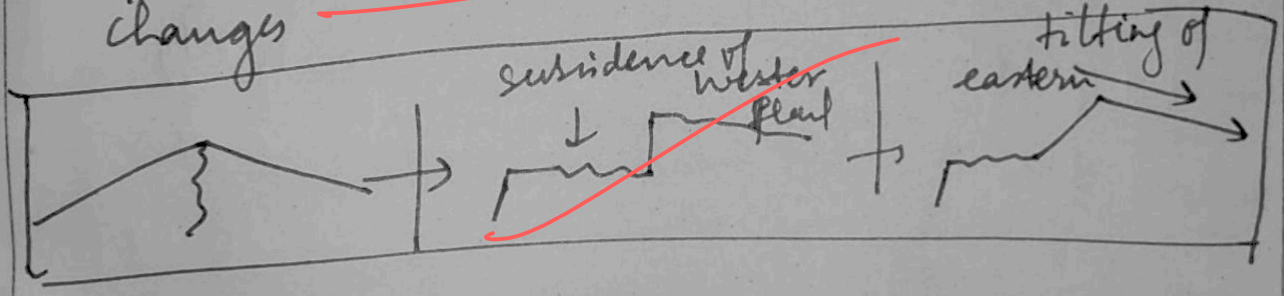
The peninsular drainage began during the late cretaceous - tertiary times and is slightly older than the Himalayan Drainage

- East flowing
- West Flowing

① Origin

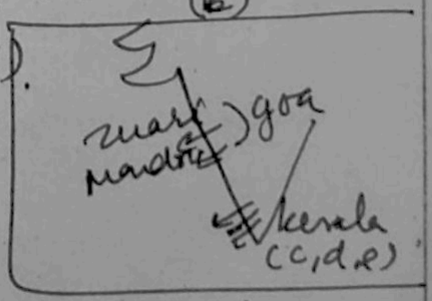
(a) opening of the N-S-G (Narmada-Son-Godavari lineament) due to collision of Indian plate at Potwal ridge → developing Narmada, Tapi rivers

(b) gradual evolution of topography led to changes



characteristics

(a) Numerous short swift west flowing rivers like Zuari, Mandovi, Bharatpuzha (b) Ponnai, Periyar (form estuary) (c) (d)



(e) Falls in goa (Dudhsagar)

② These form - trellis pattern and are superimposed on the basaltic deccan plateau

Remarks

(15) East flowing rivers

(1) Large and sluggish and happen to get more sediment than west flowing

(2) Dendritic drainage with alluvial flood plains Eg: Cauvery Basin in Tamil Nadu for Rice Cultivation

write briefly
Mostly Weightage

the Peninsular rivers, however, unlike the Himalayan perennial system, are the seasonal rivers. Also they have fluctuating river regime due to high monsoon variability.

4½

Remarks

5. (d) Write a short note on **Multi-national Companies.** (150 Words) (10)

Multi national companies are those which cross border economic activities. Post the 1991 globalization, these MNCs have taken the economic growth of India in service sector to somewhat ~58% of the GDP.

Features of MNC

(1) They are the Stage V and VI of the Rostov growth model and thus provide for skilled labour employment

(2) they help in diversification of the growth poles of Perroux beyond the heavy industries Eg: Bangalore IT Park - new regional growth pole

(3) Link to global value chains through import of raw material, labour etc. Eg: Samsung - Japan, China, India, Korea.

(4) Often have a feature of 'outsourcing' of

Remarks

tasks from the developing economies to utilize the comparitive advantage.

(5) Source of FDI in the developing economy

Est 2022 - 80% of service FDI in the software - hardware MNC

However, there is a need to address issues like

- Base Erosion and Profit shifting
- Predatory Pricing
- Data Monopoly Eg: Facebook, google etc

MNCs need to be more decentralized and fairly regulated. EU's GDPR Act can provide a way

Remarks

5. (e) Biotic Resources in India

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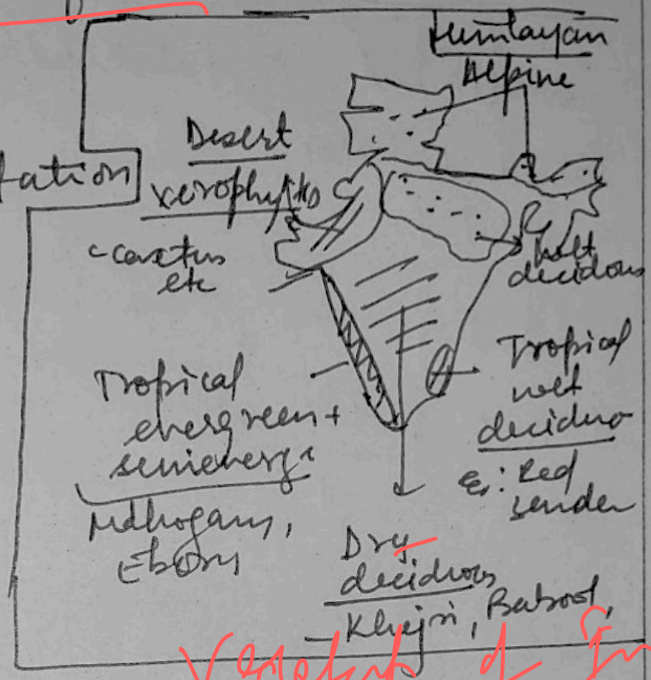
(150 Words) (10)

India is one of the 16 megadiverse countries of the world. Thus very rich in the biotic flora and fauna.

① flora of India

b① several vegetation biomes



② have endemic flora like the Sundarbans (mangrove trees), the shola forest of Nilgiris

② fauna of India closely linked to the fauna of African (Ethiopian) realm due to connectivity via land

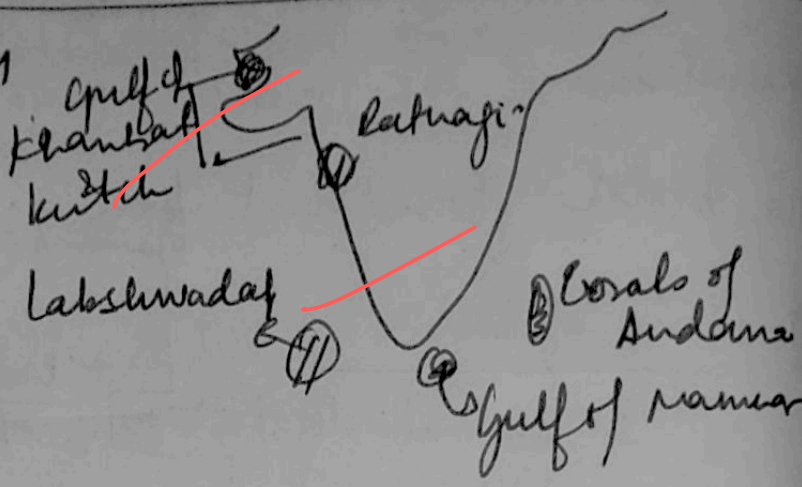
① large carnivores → Gir Lion (Gujarat), Asiatic Royal Bengal Tiger

② herbivores like Asiatic Elephant

③ Endemics like → Gangetic Dolphin
→ Lion tailed Macaque - Western ghats
→ Swamp deer - MP

Remarks

(B) Coral diversity
+
rich fishery
↓
World's 2nd largest fishery market



India has thus been bestowed with diverse biotic species.

4:2

Remarks

GS SCORE

8. (a) 'Agriculture Infrastructure Fund (AIF) is need of the hour to provide the solution for Agricultural crisis'. Critically analyse. (250 Words) (20)

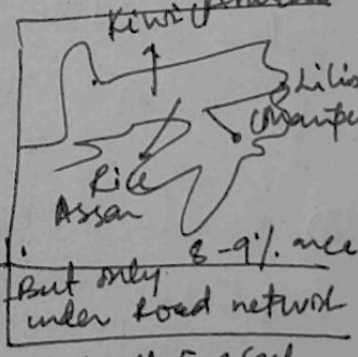
The setting up of Agriculture Infrastructure fund as a central sector scheme in the 2021-22 Budget can play a game changing role in solving the Agriculture Crisis

Reasons for the Agriculture Crises

① Weak network of warehousing, limited spread, low storage
Shanta kumar committee → 80% warehousing of Potatoes in West UP. – Meerut Firozabad, Agra.

② Low coverage of food processing sector, presently as only 10-11% crop production is covered under it (Min of Agriculture)

③ Logistical and transport costs being higher (12-14% of Agriculture GDP (Data: Min of Roadways)



④ Low efficiency of the present irrigation infrastructure @ ~ 35-38% only.

⑤ Almost 80% expenditure in agriculture is towards subsidies with no infrastructure creation.

= faulty Agri-P
more focus on food crops
- less focus on cash crops / oilseeds pulses

Remarks

Agriculture Infrastructure fund can thus prove beneficial in the following way

① Development of post harvest processing centres as Agro-economic zones catered for export (Currently 2.5% of agri export market = India)
Ex: Product like Meat, Basmati Rice

Case: MP-Dewas, Avanti
Mega Food Park scheme
12U2-UAE, US collab. Bilateral

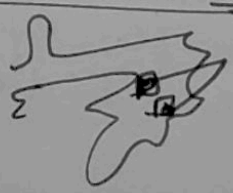
② Improve resource use efficiency for on-farm inputs
Ex: 5000 cr Corpus of NABARD for micro irrigation infrastructure

③ Improvement of mandi infrastructure for value addition as they have been allowed for funding under AIF

④ Enable loan availability to the farmers through negotiable warehousing receipts under the AIF created warehouses.

⑤ Development of last mile transport infrastructure in complementary mode

Ex: Saffron Bowl Project, Meghalaya, Manipur



Kisan Rail

Remarks

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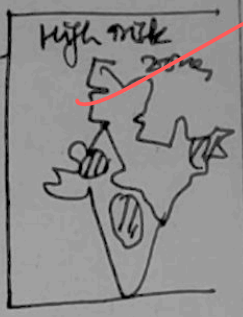
(1) Capacity of infrastructure development to create a multiplier effect in the resolution of Agriculture crises

(2) Reduce the impact of climate change on agriculture as currently 63% of agriculture under threat



(as per NATCOM Report)

Therefore care must be taken that the infrastructure creation from the fund is uniformly distributed.

It should not be concentrated in the limited green revolution belt only but to the far flung and untouched areas.

Also it can be clubbed with non-seasonal employment under MGNREGA to create durable infrastructure assets for resolving the Agriculture crises in India.

At the same time, merely creating fund is not going to resolve issue. There is a

Remarks

need to shift towards climate smart agriculture and sector like dairy, fishery etc for improved outcomes.

12

Remarks

GS SCORE

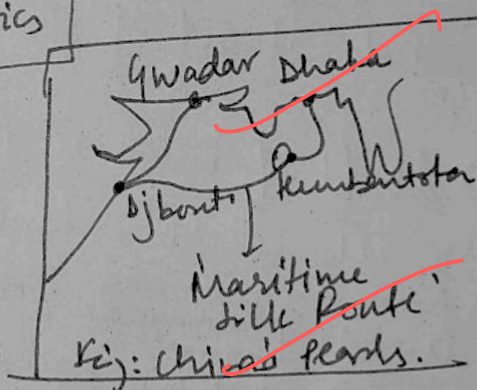
8. (b) Write an explanatory note on the Geopolitics of Indian Ocean. (200 Words) (15)

Indian ocean being the 3rd largest ocean of the world and a region of rising economies like India and China has aquired significance in the geopolitics.

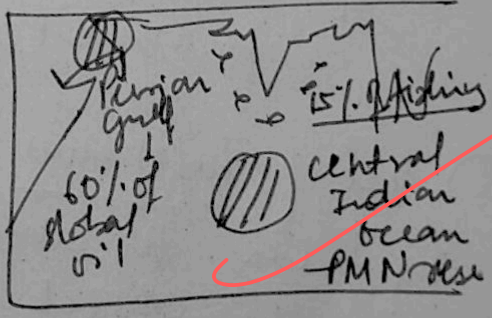
According to the Spykman's theory, Indian ocean falls in the Rimland region, thereby being the centre of geopolitics in the recent time.

Reasons for rising geopolitics

① Regional Power balance to curb the rise of hegemonic china in its 'Policy of Encirclement'



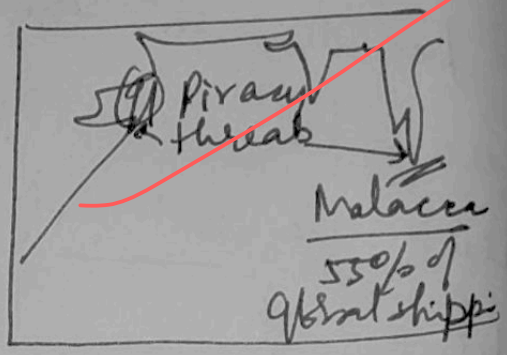
② Economic significance in terms of resources → (a) giving 'comparitive advantage' to oil and semiconductor



Remarks

(b) Reducing dependence on China on the supply chain. Hence Supply chain resilience initiative by Japan-Australia-India

(3) Military significance/Strategic factor due to persistent piracy threats in the critical 'chokepoints' like Malacca Straight, and 'strait of Hormuz'



(4) Shift of balance of power from 'North' to 'South' due to young demographics in the Indian Ocean
Ex: India, Bangladesh, China make up for youngest population

(5) Use of 'Soft power' connect by India to link the culturally related countries

Ex: Project Mausam' to link Monsoon impacted countries in Region

Also in the wake of recent climatic disasters in the region as 15% of global

Remarks

tropical cyclones hit here, Indian Ocean has aquired more importance at forums like COP of UNFCCC, Initiatives like CDRI (Coalition for disaster resilient Initiative) by India have helped

8

Remarks

8. (c) Analyse the potential for development of Hilly Areas in India. Suggest suitable planning measures to develop these areas (200 Words) (15)

The hilly regions of India along the Himalayas, Purvanchal Hills and hills of Western ghats offer tremendous potential for development.

Regional Development

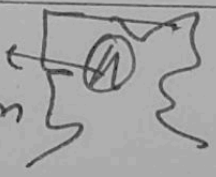
Potential for development

① Most of these regions face the issue of connectivity to the mainland.

Case: North East – only 8–9% of total road network in the region

② Can act as centres for ecotourism due to rich heritage – natural and also cultural

Eg: Kashmir tourism industry – carpets, pashmina, saffron tourism.



③ Potential to develop agricultural diversification in labour intensive sectors.

Eg: tea gardens of Nilgiris – can employ tribes like Todas, Paliniis etc.

Remarks

GS SCORE

④ Low levels of HDI (human development indicator) in terms of health, percapita income have scope to be improved.

Eg: High incidence of AIDS in the North East - Manipur

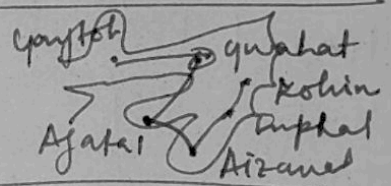
⑤ Need to conserve the critical ecology & the hotspots

Eg: CEEW Report = 12-15% vegetation lost in Western ghats in Kerala in 3 decades

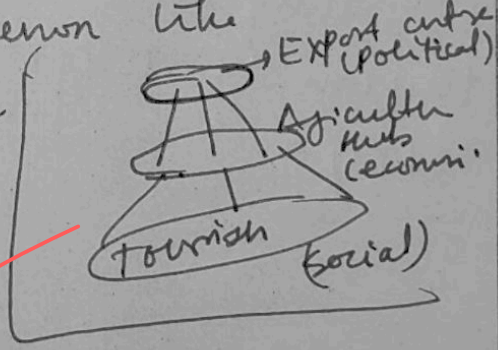
Suitable Strategies

① Horizontal unity by complementary road-rail network

Eg: Link capitals under NE-SARDP of Bharatmala



② Vertical unity of phenomenon like integration of economic factor



③ Balance between social desirability and economic viability by participatory

Remarks

development of tourism, agro-tourism, horticulture.

Es: Aroma Mission
Boda, Kodampur
- Youth employment in farmers expos

(4) Environmentally sustainable development by watershed based plans in the catchment areas

(5) Decentralized plans through Tribes autonous council, special category states etc.

(6) Hazard Vulnerability Assessment by Remote sensing before development.

Hilly areas are the Paradise unexplored! they can be integrated into India's growth story.