

GEOGRAPHY

Time Allowed: 3 hr.

Max. Marks: 250

Instructions to Candidate

- There are EIGHT question divided in Two Sections.
- Candidate has to attempt FIVE questions in all
- Question No. 1 and 5 are compulsory and out of the remaining, three are to be attempted 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 medium other than the authorized one.
- Word limit in questions, wherever specified, should be adhered to.
- Attempts of questions shall be counted in chronological order. Unless struck off, 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.

Always write
in your own
handwriting
and
Put more
space
between
the
lines

1. Invigilator's Signature _____



2. Invigilator's Signature _____

Name RAVI KUMAR

Mobile No. _____

Date _____

Signature Ravi

REMARKS

GS SCORE

SECTION-A

Attempt all questions:

1. Answer the following questions in about 150 words each:

(10 × 5 = 50)

- (a) On the outline map of India provided to you, mark all the following locations. Write in your QCA Booklet the significance of these locations, whether physical/commercial/economic/ecological/environmental/cultural, in not more than 30 words for each entry:
- Kargil
 - Dhubri
 - Hemavati River
 - Bom di La
 - Thembang
- (b) Planning and development of nomads in India
- (c) Changing pattern of rural landscape over last 60 years.
- (d) Write a short note on Inner Line Permit.
- (e) Write a short note on GM crops.

(e) Genetically modified crops are ones

*newer
product
in which desirable genes of one organism
are introduced into crops.*

Eg. Bacterium genes in cotton produces Bt Cotton

*or
Bt. Cotton*

increased yield and productivity

Advantages

low pest vulnerability

*Eg. Bt. Brinjal is almost resistant
to all pest ✓*

low water requirement

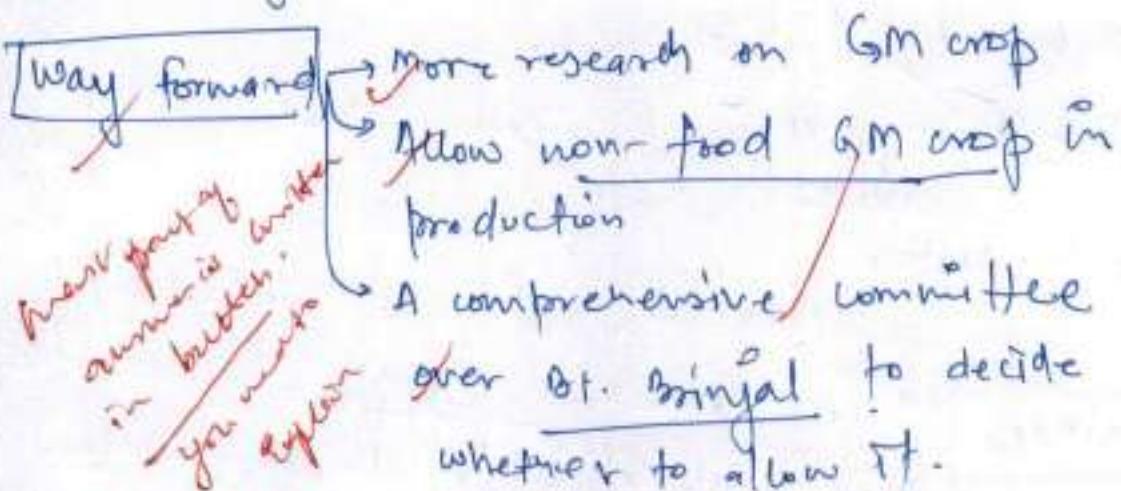
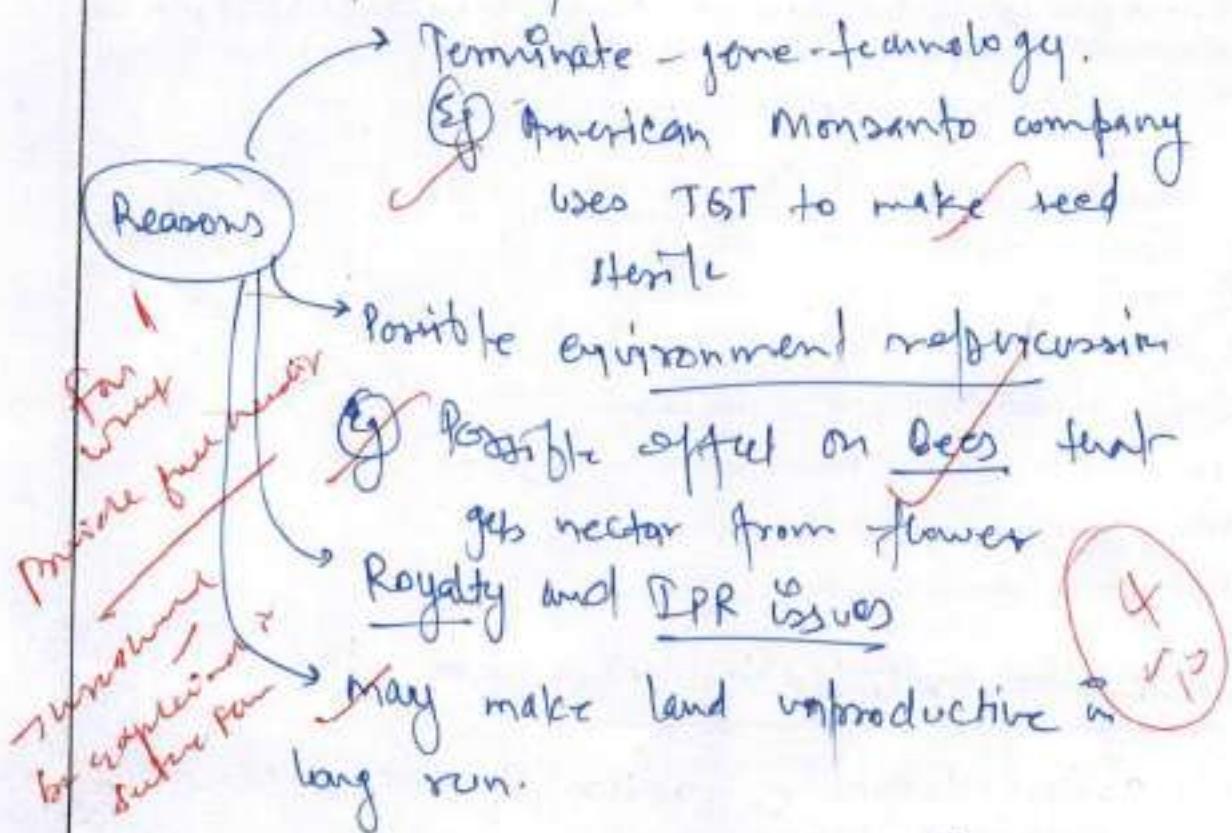
easy environment adaptability

Eg. Drought proof or GM crops.

Remarks

*Drought
resistant
crops*

However Indian government have only accepted GM-Bt. Cotton and is apprehensive about other crops.



GM crop can help in SDG goal 2 of Hunger eradication

Remarks

- (C) Rural landscape has gone through drastic transformation over past 60 years.
- 60 years ago — you must have planned for now
- (1) Large agricultural dependence with subsistence type agriculture
- (2) No planning regarding topography suitability.
- (3) largely kachha roads and houses
- (4) Social segregation in settlement driven by caste rigidity.
- (5) Low level of mechanisation and heavier agri-labour dependence
- Now — gathering — the amount of revenue is less — winter is over for
- (1) Intensive Agriculture with HYV seeds and fertilisers and pesticides. (e.g. Punjab)
- (2) More machines like tractors, hybrid seeds especially in North Western India
- (3) Large scale infrastructure like schools, hospitals.

Remarks

- ⑨ Agricultural diversification with mixed farm
 far away
 is own
 factor
 very few own
 (9) Most of North Indian farmers for
 rearing buffaloes for alternative source.
- ⑤ Social segregation has diminished.
 (4) Muslims-Hindus working in same field.
- ⑥ Scientific planning using Agri-climatic
regionalization, Soil Health and vocational
 training.
- ⑦ More adults and adolescent working in
factories reducing disguised unemployment.

Hence the Green Revolution has changed
 not just agriculture but all other sectors
 of rural landscape. / converge

- ⑧ Inner Line Permit → This is administratively
 demarcated to a line, to ^{permit} separate
 tribal regions from outside world.
 → Special permit ILP is need to cross ^{outer}
 inner line for fixed time. ^{previous} ^{new} ^{old}
apply

Remarks

why needed

- To preserve cultural identity
- To imbibe sense of security
- To avoid tribal conflict with foreigners
- Nehru's Panchsheel Yojana of respecting ethnic and cultural trait
- To avoid external exploitation

(3) 10

- ILP helped in development of tribal language, preservation of local culture and ~~is very active in~~ regional prosperity.
- ILP also saved sacred groves, and trees
- ⑤ North Eastern India have several groves that were preserved from plantation construction activity damage.
- ILP is also a bonding agent and now the tribal regions are integrating with mainland India.
- the Supreme Court has recently asserted the importance of ILP in saving Tribes and ecological system.

Remarks

(b) Nomads refers to people who makes from one pasture to other along with their cattle.

→ They are known to perform transhumance in himalayan region where they would come downslope in winters and moves upslope in summers in search of new pasture.



Planning and Development - govt help

→ The Gaddis are provided special incentives with reference to their shawl production which are highly demanded in A to USA.

Bakarwals are protected by against inter. border crossing and usually

migrate J & K, Himachal Pradesh and Uttarakhand.

Migrant children are also provided school administer admission as per Right to Education Act 2009.

Remarks

→ Incentives of sex education and reproductive hygiene are also started for adolescents.

→ Nomads produce are also promoted through

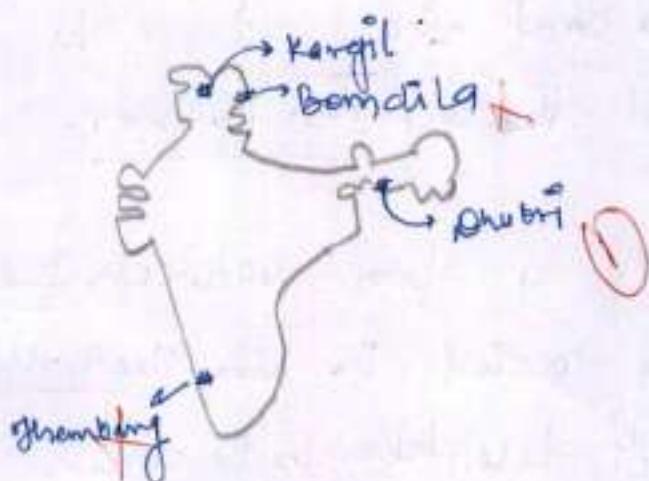
① Export to Europe - USA

② Public procurement

③ Local tourism (ecotourism)

*Journal of
Export and
Import
Trade
in
India*

Q



① Kangil → It is in Draisi sector, and is known as highest battlefield in the world.

② It has rough alpine temperature with low oxygen availability and frequent snow fall.
Poor vegetation.

② Dwarka is at India-Bangladesh border where Brahmaputra takes north-south turn and goes into Bangladesh. It is also a nodal

Remarks

Point of National Waterways-II and lies in fibration region. It is protected through BOLD-OIT safety net.

③ Ghembang is estuary / backwater in western ghat which is close to Vembanad Lake. It is rich in fisheries and organizes annual ~~for~~ boat race. It gets good rainfall - by S-W monsoon.

④ Bomdila is a pass between India - China and is located in high alpine Bimalayas. It facilitates trade which is basic source of income.

⑤ Hemavati river provides water to nearby basin and is responsible to irrigate and agri-economy of its drained area.

2. Answer the following questions:

- (a) 'Animal rearing is a key livelihood and risk mitigation strategy for tribals and small and marginal farmers, particularly across the rainfed regions of India'. Substantiate; also discuss some strategies to realize the potential of this sector? (250 Words) (20)
- (b) How paramount is India-Myanmar relationship in contemporary times and how is it important for maintaining stability and security at Indian border? Also, discuss about the Rohingya crisis which India is currently facing. (200 Words) (15)
- (c) No major country has managed to reduce poverty or sustain economic growth without a robust manufacturing sector. Analyse the statement in context of India's growth trajectory since 1990s. What are the major challenges to industrial growth in India? (200 Words) (15)

Remarks

Remarks

Remarks

GS SCORE -

Remarks

Remarks

Remarks

Remarks

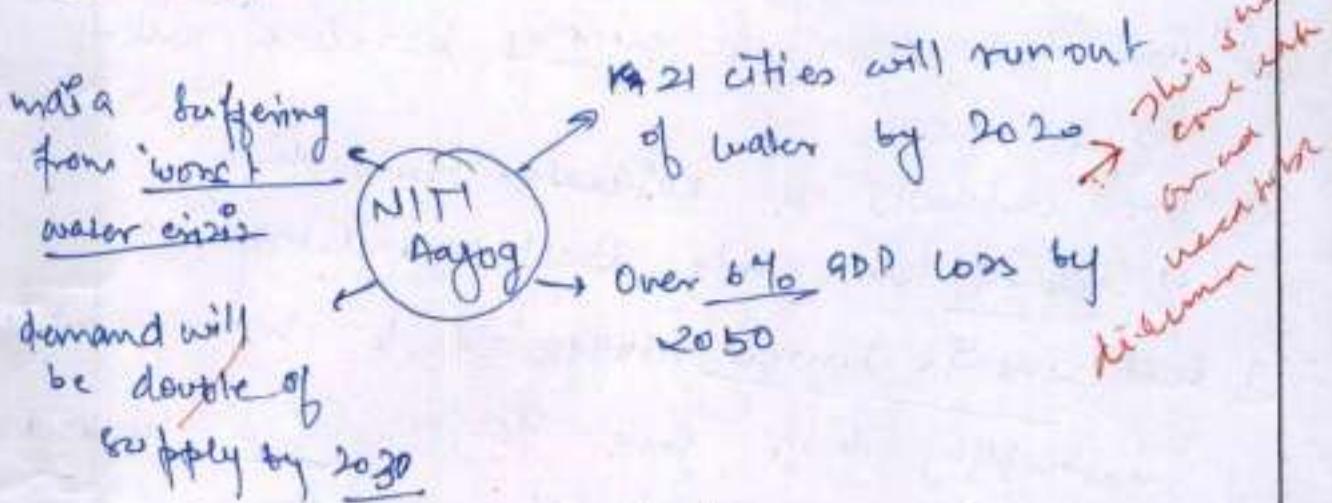
GS SCORE

Remarks

3. Answer the following questions:

- (a) The current water crisis that India is facing would need innovative policies and correct strategy along with predominant human participation. Critically analyse. (250 Words) (20)
- (b) Managing transformations in shifting cultivation areas is fundamental to agricultural development in the uplands of North-Eastern (NE) India and an important element of inclusive development of the region. Discuss. (200 Words) (15)
- (c) Discuss the origin and the physiographic features of the Himalayas. (200 Words) (15)

(a) According to World Bank, India is a "water stress" country and is facing severe water ~~crisis~~ crisis.



Innovative policies and correct strategy are required to over such crisis.

① We can collaborate with Israel over marine water desalination.

② Israel is agricultural rich in middle of desert.

Remarks

- (2) raising fund through Blue Bond for Municipal corporation works of community well.
- (3) limiting industrial demand and H₂O target
should be included along with carbon target.
- (4) Massive water conservation plan required
for local water resource.
- (5) Maintained lake was restored using corrective actions by administration
- (6) More focus on cyclic economy to reduce water requirement.
- (7) More emphasis on Rainwater Harvesting.
Eg Chennai has made RWH mandatory
- (8) Reddy economic survey suggested to bring agricultural consumption down from 90 to 68% by 2050
- (9) Increase River linking project like Ganga Kissing
as envisioned by NITI Aayog.

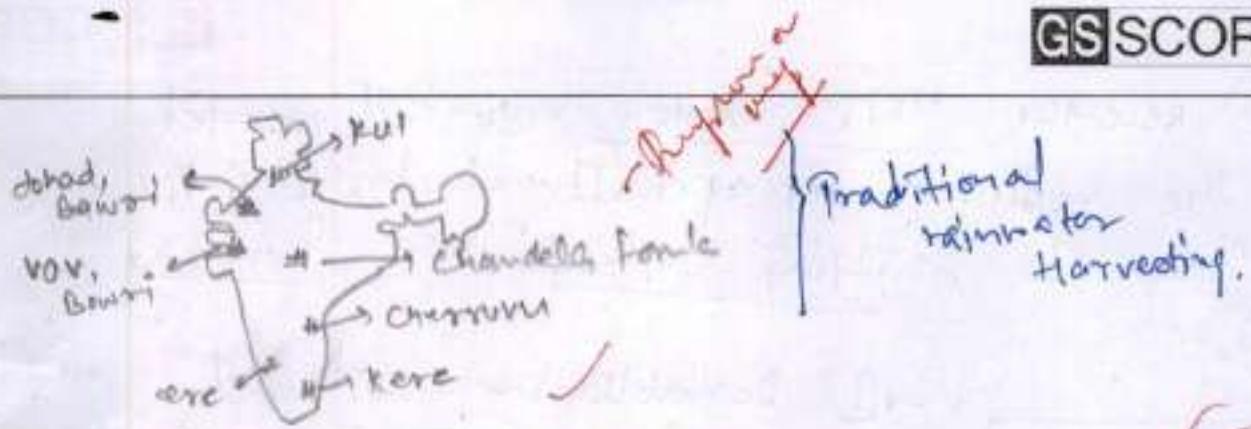
(Human Participation is Needed)

flow in
converging
water

you need four or
five wells not
just one

- (1) More emphasis on traditional conserving technology.
Eg Tankas in Barmer

Remarks



② more work by civil society.

③ Rajendra Kumar (water man) revived Bawali and 5 rivers in Ahwar region

④ Community watershed development via Paani foundation in Marathwada region in collaboration with Satyamev Jayate.

⑤ Changing agricultural practices.

⑥ Replacing sugarcane with coarse crops like Jowar, Bajre in Plateau interior and Rajasthan.

⑦ Community tanks, wells and sustainable management.

⑧ Pategam Siddhi village under Amravati became water sufficient. Water crisis with correct strategy and people's participation can change India from water-stressed to water surplus region.

Remarks

⑥ Recently NITI Aayog reported the reducing ag agricultural productivity due to shifting cultivation or jhumming -

Shifting Impact

Always new
area never
grows again
partly
poor

- ① Destabilizing soil and nutrient balance
- ② Large scale deforestation.
- ③ Eg Burn + slash agriculture
- ④ long term desertification with following
- ⑤ Social poverty and backwardness

Jhumming and
slash and burn
agriculture
No more
survival
in short
time

Managing shifting cultivation

- Prevent fallowing of land by increasing cropping intensity so that new covers do not get destroyed.
- Using fertiliser and pesticide to avoid the overuse of ash for fertility.
- Restricting movement of agriculture to develop subregional economy through proper agri-climatic regionalization.

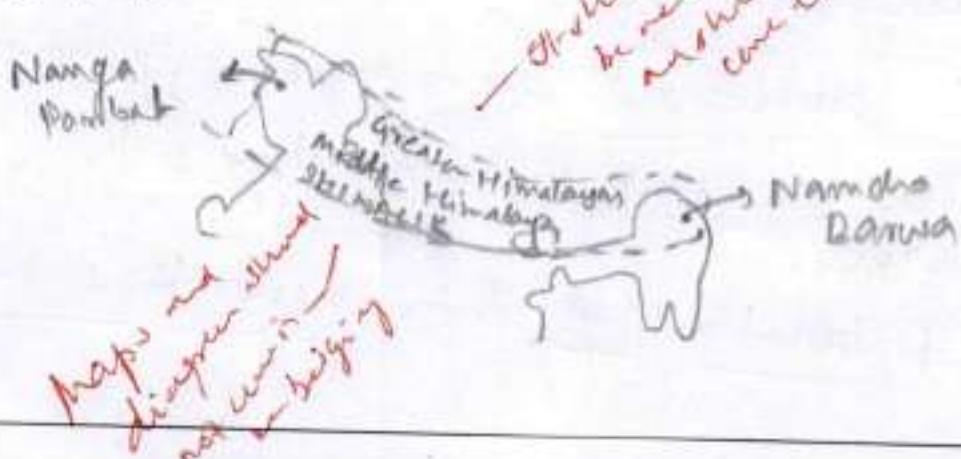
Remarks

~~With~~
Effect on Agricultural Development due to managing Thumming

- ① Organic Hub in NE India with livestock rearing.
 Eg Sikkim became 100% organic state in 2013
 - ② Promotion of regional varieties-
 - (i) Mandarin Oranges in Assam
 - (ii) Organic Honey in Arunachal Pradesh
 - ③ Increase productivity due to Crop specialization and allied activities due to setting at one place-
 - (i) Increasing food share from 8.3% to 15% as compared to mainland in India.
 - (ii) Great promises of jute cultivation in Brahmaputra valley.
- Inclusive development due to managing Thumming
- ① Raising of cottage industry along with agriculture.
 Eg Basket making from Minor forest products

Remarks

- ② Increasing Role of women
- ③ women in orchard and vines (15)
- ④ Poor gets more land share as envisaged in 2006 forest rights Act.
- ⑤ Increasing Instances of insurance penetration and banking facilities.
- ⑥ After stopping jhumming, tribes in Arunachal Pradesh are getting more credit from bank.
- Hence North East India have great potential of upsurging economy and can be vital in India's vision of \$ 5 trillion Economy.
- ⑦ The Himalayas are young folded Alpine tertiary mountain series that runs roughly for 2400 km.



Remarks

Origin

① Roughly 77 mn years ago, the Indian peninsula after detaching from Gondwanaland strikes Eurasian Plate at Lata, Pakistan

Collision \rightarrow Indian Peninsula
Eurasia

② During Eocene times, the greater himalaya were formed by the continental-continental margin.

③ Oligocene times saw strongest compression.

3.1 Middle Himalaya were formed with complex features.

3.2 Due to discontinuous compression, parallel series formed.

④ In Miocene times, final upliftment occurred in form of Shivalik which was also prevalent in Pleistocene ages.

(iii) The fluvial origin deposit of Shivalik are contrast to mamutthic deposit of Greater Himalaya

⑤ The himalayan uprising is still continued as evident by geological activity of earthquake in Kashmir, Arunachal Pradesh and Nepal.

Remarks

Physiographic Features

- ① Eastern Himalayas have steep slopes and more vegetation as compared to western slope.
- ② Different kinds of deposit are found including metamorphic, marine, glacial and volcanic.
- ③ The Central Crystalline Axis comprises largely of Granite-gneiss rock systems.
- ④ Largely devoid of soil due to slopes and river action.
- ⑤ Provides numerous flowing rivers like Indus, Brahmaputra, Ganga.
- ⑥ Syntaxis bend at either side as Namcha Barwa (East) and range Parbat (West).

Himalayas are important as they are the biggest reserves of minerals, prevent cold air from entering India and block monsoon to escape to China.

Remarks

4. Answer the following questions:

- (a) Emphasize the triumph of ISRO as a pioneer in space technology? Also, discuss the upcoming mission of ISRO such as Gaganyaan along with the milestone mission such as Chandrayaan 2. (250 Words) (20)
- (b) Discuss the importance of unorganized sector in the Indian economy. Examine the measures taken by the government to overcome the challenges faced by the unorganized sector in the country. (200 Words) (15)
- (c) What is the intensity and level of domestic tourism in rural and urban India? What are the key reasons for domestic tourism trips? What can we understand from domestic tourism patterns in India? Examine. (200 Words) (15)

Q1 Indian Space Research Organisation (ISRO) is Indian space ~~army~~ responsible for space missions for satellite or orbiter and now even rover.

ISRO commands \$7 bn space economy which is roughly 2% of world space economy.

ISRO's triumph as pioneer

① Beginning from Gauhati laboratory to now Vikram Sarabhai Space centre and Sriharikota Space centre, ISRO has done great job.

② ISRO is lauded as most efficient space organization.

③ Mangalyaan-1 was successful in a budget less than Hollywood 'Gravity' movie.

Remarks

Name of 10
countries

- (3) ISRO is bringing unprecedented achievement.
- (4) C-4B launched 104 satellites into space, the most by any.
- (5) Currently ISRO is working on Solid Ducted Fuel Project and Superjet to reduce further cost and bring efficiency.
- (6) ISRO's successful Mangalyaan placing was ISRO's ever successful endeavour in 1st trip.
- (7) ISRO also developed heavy Geosynchronous launch vehicle like PSLV mkIII at indigenous level using cryogenic technique.
- (8) GSAT-29 for JFK and NE India linking and GSAT-11 for high throughput internet services shows ISRO's feat.
- ISRO's upcoming mission
- (9) ISRO planning to have 1st manned mission Gaganyaan by 2022 as announced by PM Modi.

Remarks

Print

→ ISRO collaborating with Russia to send 3 man into space.

→ Gaganyaan will do experiment on micro-waves and some bit fauna will be put to test.

② Chandrayaan-2 → It ~~was~~ recently reached moon and placed orbiter into place.

→ However the ~~orbiter~~ rover and lander Vikram lost contact ~~at~~^{at} 1 km altitude from sun.

→ Yet NASA praised ISRO mission to reach south pole with rovers.

③ Aditya-L1 will be placed in L-1 point

and study magnetic property of photosphere.

④ ISRO is also testing reusable launch vehicle to reduce cost.

⑤ Recently ISRO-ANTRIX and ~~the~~ New Space of ANTRIX firm sold launch slot to foreign companies.

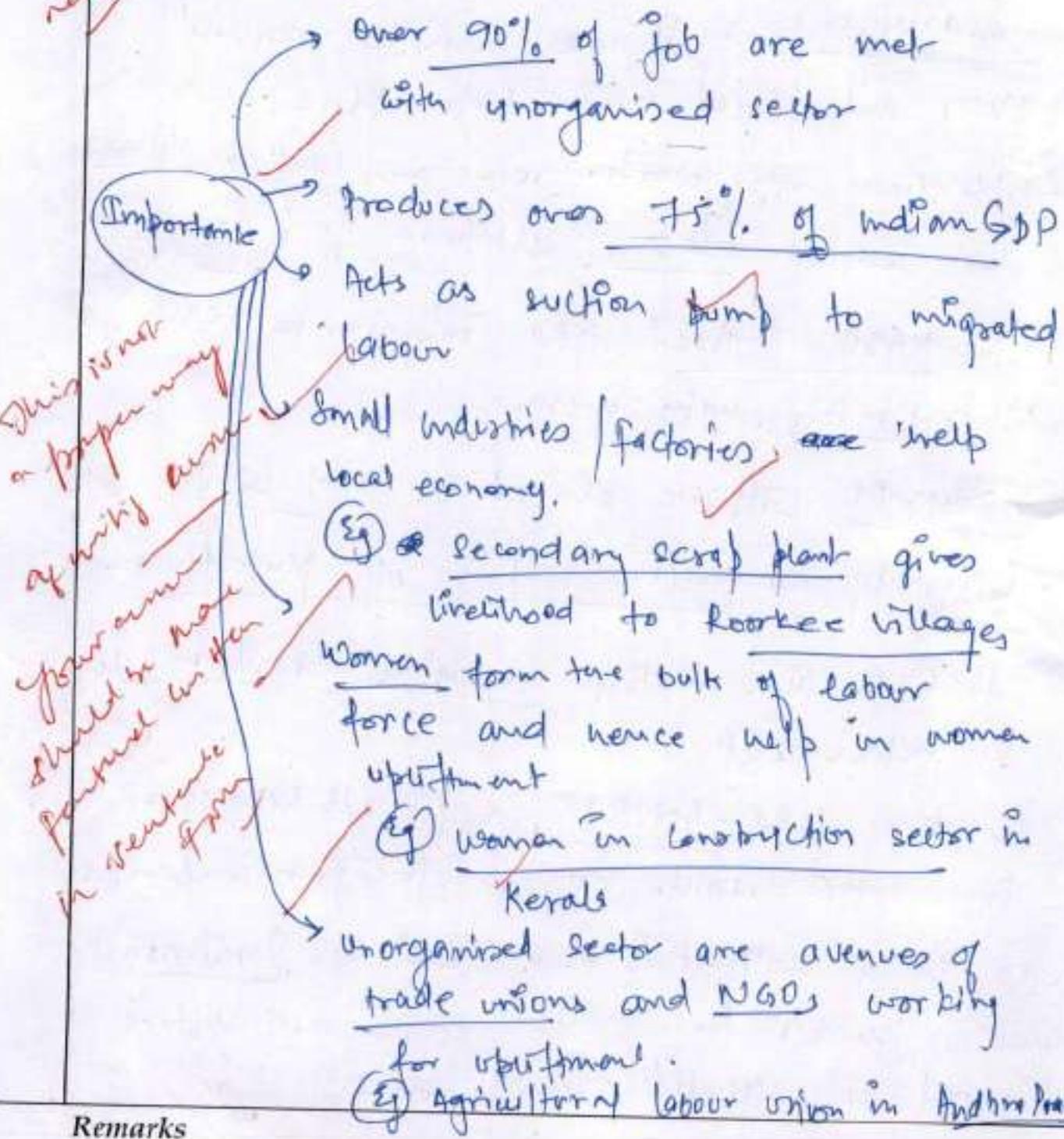
ISRO is a dedicated team lead by Srinivasan and is known for Indian ethics and culture as well as scientific temperament.

Remarks

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ISRO is a dedicated team lead by Srinivasan and is known for Indian ethics and culture as well as scientific temperament.

⑥ Unorganized sector refers to those sectors which are not covered under any Act like Companies Act 2013 or Societies Act 1860.



Remarks

Challenges

- ① Low job security due to informal employment.
- ② Poor remuneration.
 ↗ North-East employees in Bangalore get less than ₹1000 per month. *you have private work*
- ③ Highly inefficient due to lack of agglomeration.
- ④ Heavy pollution.
- ⑤ Poor compliance with CPLB rules and ~~polices~~ policies of National Action Plan. *you do*
- ⑥ Poor Human development of employees and their children. *you do*
- ⑦ Slums in Delhi is highly vulnerable to disease and is poorly educated. *you do*

Steps taken by government.

- ① Budget 2018 made short term Contract employment open to all sector for providing secure job.
- ② Maternal Benefit (Amendment) Act 2017 provide women relief during and after pregnancy.

Remarks

(B) labour reforms. to revise minimum wages Act and labour laws.

(2) Rajasthan became 1st state to consolidate various labour laws.

(3) Incentivization towards Agglomeration and collective waste treatment plant.

(4) Technological intervention.

(5) Electrostatic precipitator and incineration plant.

(6) Social development of workers of unorganized sector.

(2) RTE Act 2009 gives education right.

Indian economy should formalize and

organise unorganized sector to reach the potential of \$ 5 trillion economy and

'Sabka Saath - Sabka Vikas')

(C) Domestic tourism refers to Indian residents going to unvisited places in India for recreational purpose.

Remarks

I gave you my best

Intensity and level in Rural India

① Heritage villages are tourist hotspot.

(Ex) Sanchi and Dudhsagar villages.

govt work
& diag
not to
super
power

② GI tag owning village is also rich in tourism.

(Ex) villages of Buij and Kond tribe are known for Kadaknath cock chicken.

③ Indian mythological villages are usual magnet.

Intensity and level in Urban India

① Chandigarh is known for architect marvel and is very popular.

drive in
at night
well
super
power

② Bangalore as electric silicon valley is popular.

super
power
but
drive in
at night

③ many places have become urban due to domestic tourist visit.

super
power
but
drive in
at night

(Ex) Indians seeing J and Kashmir valley is largest revenue source of Kashmir valley.

Key Reasons for Tourism Trips

Domestic

① India's rich topographical features provides huge opportunities.

(Ex) Backwaters in Kerala, Kashmir valley,

Remarks

- ~~1~~ Rising middle class and recreational activities.
- ~~2~~ Increasing savings gives leisure.
- ~~3~~ PM Modi urging Indian to undertake atleast domestic trip by 2022.
- ~~4~~ Increasing connectivity through Bharatmala.
- ~~5~~ Improving tourist places through thematic upgradation via Swadeshi Darshan.
- ~~6~~ Rising Eco-tourism and public incentive.

Domestic tourism patterns shows—

(6) 15

- ~~1~~ Huge potential of wealth sharing between middle class and local people.
- ~~2~~ High national integrity pattern.
- ~~3~~ Large untapped potential of No fr-fuel India.
- ~~4~~ Domestic tourism is more centred towards
 - mythological connection
 - physical amusement
 - village culture.

Domestic tourism map should be at the core to making New India@2022 so that we can feel 'Ek Bharat Shrestha Bharat'

Remarks

SECTION-B

Attempt all questions:

5. Answer the following questions in about 150 words each:

(10 × 5 = 50)

- (a) On the outline map of India provided to you, mark all the following locations. Write in your QCA Booklet the significance of these locations, whether physical/commercial/economic/ecological/environmental/cultural, in not more than 30 words for each entry:
- Loktak Lake
 - Shravanabelagola
 - Manali River
 - Kishtwar
 - Dahej
- (b) Earthquakes and associated natural disasters in India
- (c) Enumerate the measures taken and challenges faced in regional planning in different parts of the country.
- (d) Elaborate on desert development planning in India
- (e) Major sources of groundwater pollution in the country.

⑥ Earthquakes refers to tremors and shaking of earth ground.

→ Indian plate subducting under Eurasian plate cause geomorphic & activity in Himalayan resulting into frequent earthquakes.

→ India is divided in 4 earthquake zones for building purpose from I, II, III, IV.

→ Recent Latur earthquake, Bengi earthquake shows India vulnerability.

Remarks

→ Earthquake associated Natural disasters are yes also grave in India as per NITI Aayog report.

Year end on narrative of disaster risk reduction, southern Himalayan report, slopes is vulnerable to landslide and avalanche due to earthquake.

→ Earthquake generated tsunami in bay caused havoc in Coromandel and Orissa Coast.

→ Huge destruction of public transport and life during Bhuj Earthquake 2001

→ sometimes forest fire due to earthquake
is also recorded as chimney of house
might ignite the woods.

Earthquake readiness should be inline with Sendai framework.

③ Measures taken for Regional planning

① Desert Development Programme to promote desert tourism and footwear industry.

Remarks

② SARDP-NE for road connectivity in NE India

③ Damodar Valley Project

④ Total integrated Tribal Area Development programme under FYP-5th

⑤ Border Area Development Plan

⑥ Integrated Island Development Program

⑦ Integrated Rural Development Programme for non agricultural development in village

Challenges → Border regions are highly unstable
e.g. terrorism, separation in J&K

Island regions are away from mainland

e.g. No local economy of Lakshadweep

Efforts → Desert region provide inhospitable environment as per Dr. Khaldun

Chattisgarh basin has Naxalite wave

North-East India has unrest groups and dense forest

low rural development due to focus on heavy industry since Mahatma Gandhi plan.

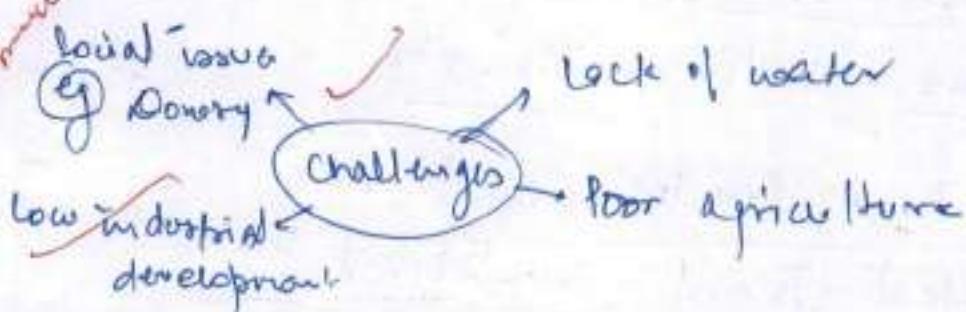
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X

Remarks

(d) Desert Development Planning

India has Thar desert at North west frontier -

~~with~~ arid or semi arid border along Aravali



Government has initiated desert development

Programs which is now merged with
~~but~~ watershed development programme

Major steps — Desert Safari

① Desert Tourism → Fair like Jaisalmer mela,
Rushkam.

② Footwear Industry → (eg) Haveli industry in
Churu (Rajasthan)

③ Desert Agriculture → Promoting Bajra and
Jowar in Semi-Arid Bamer

④ Water conservation through Tankas formation
in Bamer, Jaisalmer.

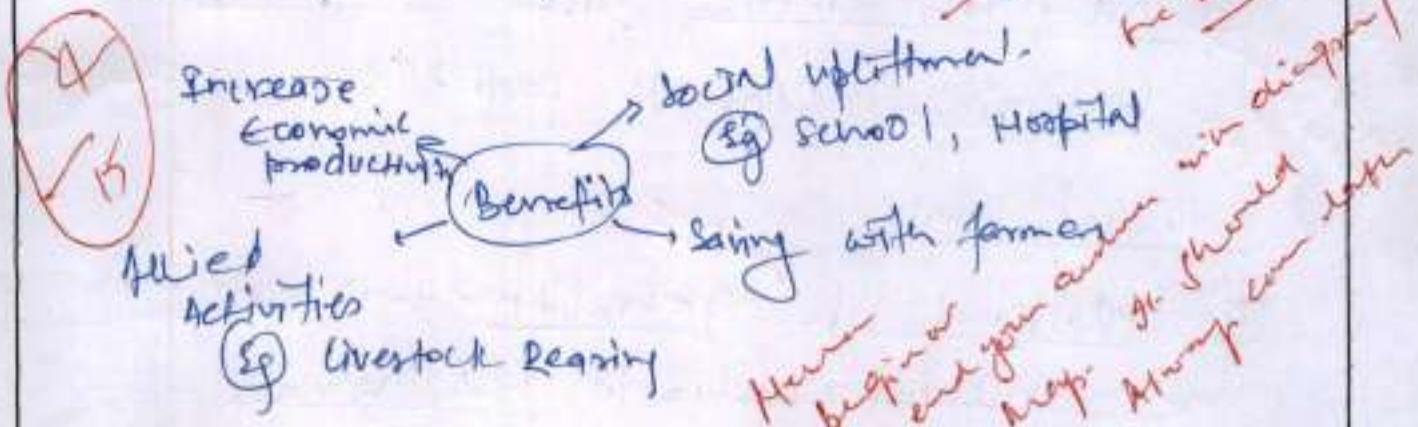
Remarks

~~But not for~~

② Eco-tourism with cottage industry

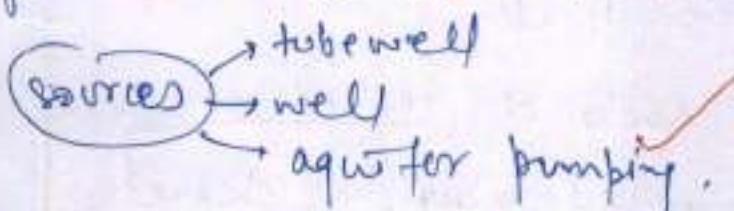
↳ Coconut juice in Jharkhand is promoted in tourist fair for tribal economy.

③ More expansion of Indira Gandhi command area for a irrigation



④ Major resource -

In India, over 450 billion metric tonnes of groundwater is utilized annually.



give top answer
to your answer

It may cause to groundwater contamination

- Uranium of over 30 mg/L in Rajasthan, Gujarat.
- DNAPL in Maharashtra groundwater

↳ new info

Sources of pollution

① Mining → Villages near damaged forest
high arsenic contamination due to mining.

② Fertilizer and resultant percolation.

Ex: Kasaragod village faced endow/farmer
contaminant due to pesticide

③ Industrial waste

Ex: Kodaikanal lake groundwater saw mercury
contamination due to HU Industry

④ Landfill and open casts garbage

cause leaching of Biophenol-A that
contaminate groundwater.

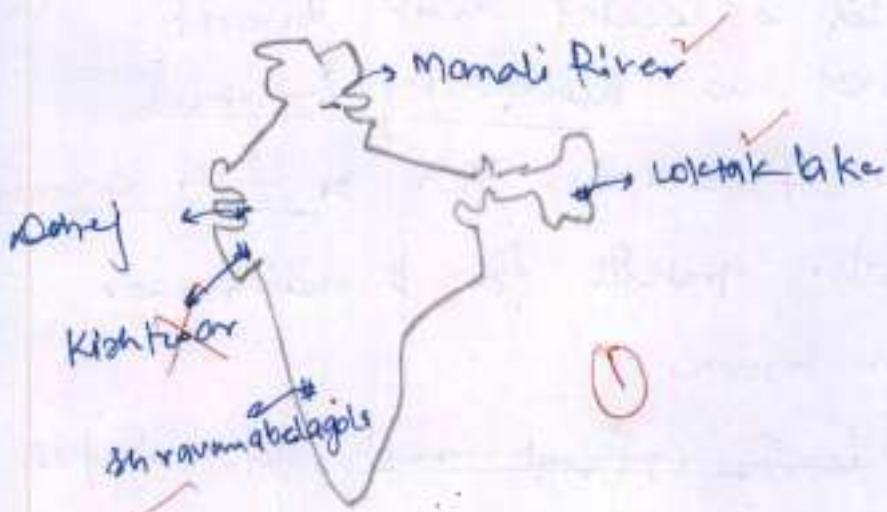
⑤ Natural source → rocks of radioactive
natural underground might degrade
groundwater.

Groundwater is important for Indian

economy and must be conserved at
all cost to maintain healthy ecosystem.

Remarks

(a)



(1)

- (a) Loktak lake is known to local beauty and is in manipur. It has floating gardens and basket like topography. It gets abundant water from S-W monsoon and is tourist and agri- cultural economy.



- (b) Shriramabagol is situated near ~~near~~^{near} Western Ghats and has very heavy peaty/laterite soil. It has good flora-fauna and receives rain through S-W monsoon.

- (c) Manali river is in Himachal Pradesh and ~~produces~~ responsible for irrigation ~~of~~ ^{of species} ^{and} ^{water} in its basin. It get water through glacier melt and also rainfall.

Remarks

- (d) Dahyari town is located near Gujarat coast and has moderating influence ~~of sea~~. It has rich fish revenue and is also strategic for ~~a marine~~ ~~sea~~ petroleum reserve.
- (e) Kutchwar is in Gujarat and gets rainfall during southwest monsoon and has good agriculture. It is increasing improving at ~~the~~ infrastructure front.

Remarks

6. Answer the following questions:

- (a) Examine the role of digital technology in transforming rural India with suitable examples. (250 Words) (20)
- (b) Elaborate on the factors that determine the settlement patterns? Also discuss the features of the various types of rural settlements in India. (200 Words) (15)
- (c) Give an analytical overview of inter-state migration in India. Critically analyze how far migration has affected the women in Indian society. (200 Words) (15)

Remarks

Remarks

GS SCORE

Remarks

Remarks

Remarks

Remarks

Remarks

Remarks

7. Answer the following questions:

- (a) The second demographic dividend will continue in most Asian countries even after the first demographic dividend has ended. In light of the above statement, discuss the potential and challenges of reaping the benefits of the second demographic dividend in India. (250 Words) (20)
- (b) Agroforestry has immense potential in contributing to sustainable development and increasing farm income. Yet, it has failed to take off in a big way in India. In this context, discuss the problems and challenges of agroforestry in India. (200 Words) (15)
- (c) The cultural theories on fertility tend to explain fertility in terms of our psychological attitude which is determined by the prevailing culture. In light of the above statement, discuss some of the important cultural theories on population. (200 Words) (15)

Remarks

Remarks

Remarks

Remarks

Remarks

Remarks

Remarks

Remarks

8. Answer the following questions:

- (a) India's 'population burden' has transformed into 'demographic dividend'. Comment. (250 Words) (20)
- (b) "Interlinking of rivers is an inescapable solution to India's flood and drought problems". Comment. (200 Words) (15)
- (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)

(a) According to World Population Prospect,
India has 1.27 billion in 2011.

→ Demographic dividend refers to potential of
a population when the working age population
exceeds non working age population.

→ According to census 2011

Age group	% of people
0-14	35%
15-65	65%
65+	5%

*You need power
Create your
future ~ your
power*

→ Population Burden

→ Indian population explosion from 1950-1982

→ Indian population caused rapid feeding mouth.

Problems faced

① Low food grain (only 50 mmt foodgrain in 1951)

② Low employment

Remarks

③ unhealthy population due to poor health intervention

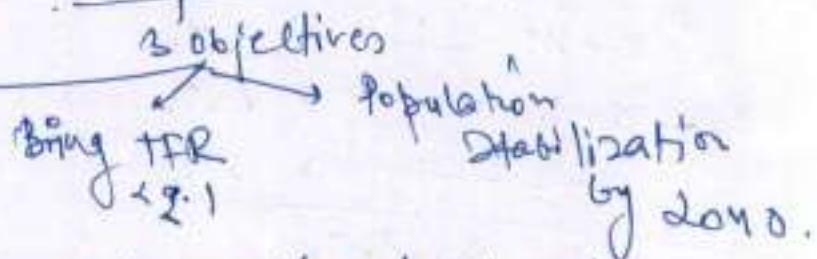
- ~~Effects~~
- ④ pressure on existing } infrastructure.
 - ⑤ reduced ranking in global indicators
 - ⑥ Hunger Index, Poverty index.

→ low Human development and low human resource coupled with lack of social capital and social well-being.

Transformation

① Family Planning programme began by 1952

~~expensive~~ and presently ~~cop~~ meet contraceptive needs



② increased skill and vocational training.

③ Skill India programme,

④ collaboration with Germany in training.

Remarks

- ③ New rise of entrepreneurship and small scale industries.
- ④ MUDRA loan, Stand up India, Startup India promoted new business class.
- ⑤ Increased food security.
- ① Net exporter in rice and wheat.
 - ② food grain production is around 250-270 mmt
- ⑥ Utilisation of Second Demographic Dividend for saving and in investment.
- ⑦ Bringing poor farmers and people into mainstream through government programmes PM-KISAN giving ₹ 6000 / annum to small marginal farmers.
- ⑧ Post 1991 - Huge investment on health to have productive and healthy demographic dividend.
- ⑨ Recently, NFHS-4 report limited TFR around 2.18 which is a positive sight as TFR lower brings population stability as seen in Kerala.

Remarks

(A) Demographic nightmare is well turned into demographic dividend by checking illegal drugs, smuggling etc.

(b) Punjab youths are more available to jobs now.

Hence a careful intervention by government has broadened the concept of New India towards demographic dividend.

(b) According to Sir Arthur Cotton, river linking project can very efficiently transfer water from water surplus region (North India) ^{Moisturizing} to water deficit region (Plateau)

Recurring floods

- ① Recently Kerala was flooded in wayand due to excessive rainfall
- ② Assam valley is flooded annually due to heavy brahma buring flow in narrow valley.
- ③ Large scale flood in Kosi basin in Bihar and Bengal.
- ④ Urban floods in Mumbai and Delhi

Remarks

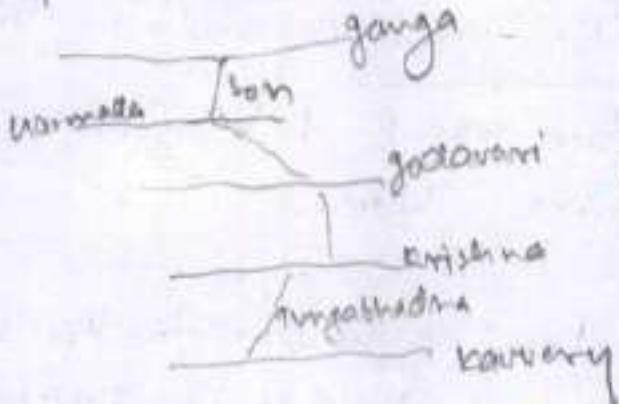
Precipitation Drought.

- ① inner plateau region of Marathwada and Vijaya wada faces annual drought.
- ② Darmer and Kadabi region have rainfall variability over 40% *not enough water input for growth*
- ③ Rainbow regions in western ghats
- ④ Recent drought in Chennai due to illegal encroachment by governments.

(4/5)

Interlinking river & solution

- ① K.L. Rao scheme of linking Ganga with Kaveri can transfer water from Ganga to Kaveri



*→ digger if enough
not receive enough
reservoir
interknots
digger*

- ② A shifting excess water from Bihar in East to Rajasthan in West

Remarks

- (2) Also Gundaknond can be saved since it location at intersection of N-S and E-W interlinking project.
- (4) flooded area → equilibrium drought prone areas can bring prosperity in both region.
- Red river to private water source*
- loss crop damage
 - low suicide
 - low poverty
- (5) Other solutions are either • economically unsustainable or ecologically costly.
- you need to think if your step*
- (9) Marine desalination for drought region will be highly costly.
 Hence, interlinking project can help in mitigating climatic menace while bringing prosperity. Therefore recent interlinking of Mahan river have begun.
- (C) recently organic farming refers to the use of organic manure and organic pest biocides in natural farming methods for agricultural purpose.

Remarks

Recently, Maharashtra government took back pilot project in organic farming due to poor yield.

Organic farming inefficient

- ① Due to growing food demand, more is needed from same land. Hence intensive agriculture is needed.
- ② Organic farming is good for subsistence type of farming where all produce is for consumption.
- ③ Reduced use of HYV
 - Reduces crop yield
 - Reduces crop shelf life
 - ④ Potato | Tomato
 - Reduces return.
- ④ More land is needed to produce same amount of output.
 - ⑤ A study proved, HYV. with 3 fertilizer can produce 2-3 times more crop of rice in optimal condition than in organic farming.
- ⑥ China and USA have also reverted back to non-organic farming after failure of crop yield.

Organic farming can solve hunger and is viable

- ① More attention to dry land areas where irrigation is not available for HYV seeds.

Remarks

- ① Region in 50-75 cm rainfall is responsible for bulk of vegat, coarse grain and pulses due to prevalent organic farming.
- ② Small farmers can not afford well / tubewell for irrigation ~~HIV~~ seeds whereas organic crops require minimum water and infrastructure
- ③ Regions like Marathwada and Fayalbaug can be largely profitably profited economically.
- ④ Bajra, Ragi, Jowar ^{can be} largely produced profitably.
- ⑤ Mixing organic farming with ~~ZBNF~~ ^{can be} ~~but not~~ ^{but} ZBNF can be hugely beneficial.
- ⑥ low training and awareness
- Problem persists
- Excessive land due to years of intensive cropping
 - low seed replacement
 - low credit availability

Assam has turned all organic in 2015 and there has been rise in agri-productivity. This model can be used in Jalgaon and Bamner as well as plateau interior.

Remarks