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GENERAL STUDIES (TEST CODE : 1524)

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Medium Eng./Hindi	English	Registration Number	677006
Center	O.R.N.	Date	29/12/20

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Q. No.	Maximum Marks	Marks Obtained
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Total Marks Obtained:

Remarks:

INSTRUCTIONS

- Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
- There are **TWENTY** questions printed in **ENGLISH & HINDI** इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
- All questions are compulsory.**
सभी प्रश्न अनिवार्य हैं।
- The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
- 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.
प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
- Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
- Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

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EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

1. Tenancy reforms are much needed to give a boost to the Indian agricultural sector. Comment. In this context, also discuss the significance of the Model Land Leasing Act, 2016. (150 words) 10

भारतीय कृषि क्षेत्र को बढ़ावा देने के लिए काश्तकारी सुधारों की अत्यंत आवश्यकता है। टिप्पणी कीजिए। इस संदर्भ में, मॉडल भूमि पट्टा अधिनियम, 2016 के महत्व की भी विवेचना कीजिए।

Tenancy reform refers to reforms related to giving farm land on lease, rent for a particular time period. It is a important part of India's land reforms.

Need for tenancy reform:

- ① > 30% of farmers are landless farmers who cultivate on informally leased land.
- ② With proper land leasing act, small, landless farmer can get access to formal credit.
- ③ It will lead to land consolidation.
- ④ Big farmers will be able to lease lands and engage in other activity.
- ⑤ Surety about land owning time, thus capital investment.

Significance of Model Land Tenancy act:

- ① It gives assurance about time period of land leasing and required other aspects.
- ② Assures land giver & cultivator about duration of lease.
- ③ No fear of land grabbing.
- ④ Provision of tribunal & adjudication mechanism for dispute solution.
- ⑤ It will encourage in formalization in land leasing and agriculture.

We need further reform in land leasing & tenancy based on T Hague Committee recommendation to double farmers income by 2022.

2. Identify the various challenges that have restricted the entry of Indian MSMEs into the foreign market. Also mention some government initiatives that have been taken to facilitate MSME exports. (150 words) 10

विदेशी बाजारों में भारतीय MSMEs के प्रवेश को बाधित करने वाली विभिन्न चुनौतियों की पहचान कीजिए। साथ ही, MSME के निर्यात को सुगम बनाने के लिए सरकार द्वारा की गई कुछ पहलों का भी उल्लेख कीजिए।

MSME refers to ^{micro} small medium enterprise, MSME contributes ~30% of India's GVA and ~40% of India's export. In spite of its higher capacity it has many challenges.

Challenges of MSME restricting export:

① Lack of availability of credit, deters capital investment.

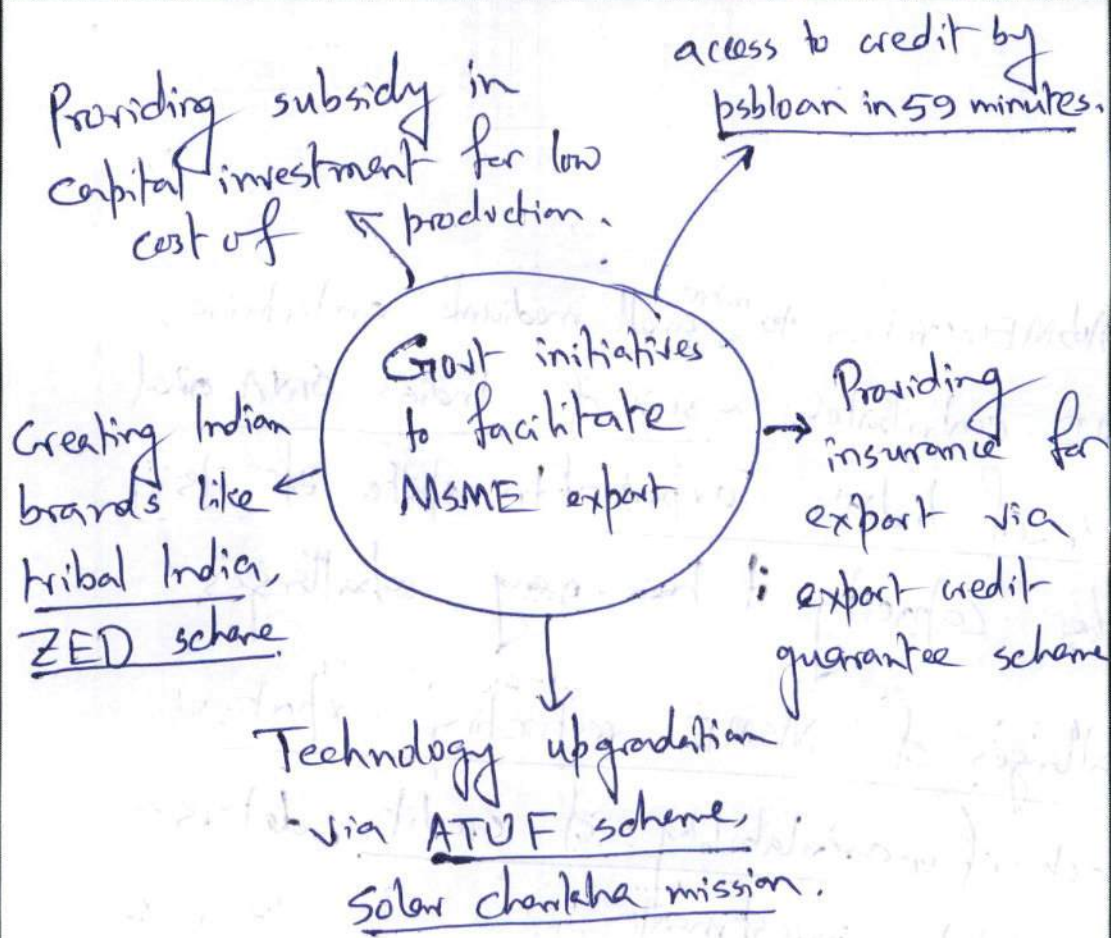
② Unavailability of strong value chain.

③ It doesn't take the benefit of economy of scale, thus uncompetitive.

④ Lack of export opportunity.

⑤ Benefits of being small, as they get different benefits (dwarfs)

⑥ Negligible R&D to create innovative products.



Through these schemes, we expect MSME sector to grow to its capacity and will help fulfilling our target of doubling India's share in export to 3%.

3. India's march towards inclusive growth and it achieving the Sustainable Development Goals are intricately linked. Discuss. (150 words) 10

समावेशी विकास की दिशा में भारत की प्रगति और संधारणीय विकास लक्ष्यों की प्राप्ति जटिल रूप से जुड़े हुए हैं। चर्चा कीजिए।

Inclusive growth refers to the kind of growth where all part of the society contributes to the growth and everyone gets the benefit of overall growth according to their contribution. India's aim of achieving SDG is related to inclusive growth.

Inclusive growth and SDG:

① SDG 1 talks about removing poverty, with more than 20% people below poverty line achieving it will surely uplift a big section.

② SDG 2 aims to remove hunger. As India has got poor rank in global hunger index removing hunger will surely create inclusive growth.

③ Access to health through public private effort will help in SDG 3.

④ As access to quality education will surely uplift lower section, it will also help achieve our SDG-4.

⑤ Other than these aspects like sustainable cities, economic growth, affordable energy (7), sanitation (6), all are integrated concepts of inclusive growth with ultimate target of reducing inequalities (5) all these are also part of our SDG goals by 2030.

Thus as we will try to achieve our SDG targets automatically inclusive growth will be the outcome of our efforts.

4. Highlight the need for evolving an appropriate system of Rules Of Origin in regional trading arrangements. What steps have been taken by India recently in this regard? (150 words) 10

क्षेत्रीय व्यापार व्यवस्थाओं में उत्पत्ति के नियमों की एक उपयुक्त प्रणाली विकसित करने की आवश्यकता पर प्रकाश डालिए। हाल ही में, भारत द्वारा इस संबंध में क्या कदम उठाए गए हैं?

Rules of origin are related to rules which mandates a country to explicitly mention rule of origin for a product before exporting to other country. In the global value chain rule of origin has gained currency in recent times

Need for evolving apt system of ROO:

- ① As some nations engage in regional trade agreement by providing easy access to domestic market, ROO is necessary to discriminate between products
- ② ROO ensures a nation will not misuse its trade agreement by importing and exporting to partner with no trade barrier.
- ③ Helps in creating a fair trade regime.

④ Helps a country to assess its actual import from a country.

• Steps taken by India:

① Recently India has made many new rules regarding mandatory disclosure of rule of origin for products coming from a country with trade agreements.
e.g: Sri Lanka.

② India has also made some rules on e-commerce platforms regarding its proper disclosure.

As the global trade is compart-
mentalized by small regional trade
deals, rules of origin will gain further
prominence to create fair trading.

5. MSP regime is a creation of an era of scarcity in the 1960s. Discuss its relevance in the current era of surplus agricultural production.

(150 words) 10

MSP व्यवस्था 1960 के दशक के अभावग्रस्तता के युग का एक आविष्कार है। अधिशेष कृषि उत्पादन के वर्तमान समय में इसकी प्रासंगिकता की विवेचना कीजिए।

India produces ~ 290 MT of food grains where India's domestic demand is ~ 250 MT. Recent farm laws has created discussion regarding usefulness of MSP regime.

Need of MSP regime in 1960s:

- ↳ India's grain production was very less
- ↳ Informal selling of farm produce
- ↳ food scarcity
- ↳ Challenges of PDS systems.

Relevance of MSP in current times:

- ① Currently India has 3 times its buffer stock norm in the storage with FCI.
- ② India is now a food grain exporting country, so there is almost no chance of food scarcity.

③ As all other "section of economy is globalized, MSP regime often disturbs market price, thus hampers export.

④ Our PDS system gives away grains to many non-poor at very low cost, which can be rectified, thus reducing state procurement. (Economic survey)

⑤ MSP creates distortions and challenges of private procurement.

~~There~~ There are also some positive side of MSP, such as income security of farmers, socialistic principles etc.

But as our agri economy is becoming globalized, there ~~is a need~~ is a need to revisit MSP regime.

6. Examine the link between the recent locust attack and climate change.
(150 words) 10

हाल ही में हुए टिड्डियों के हमले और जलवायु परिवर्तन के मध्य संबंध का परीक्षण कीजिए।

Recently in 2020 there was a crisis about locust attack in eastern Africa, Horn of Africa, Arab peninsula, Pakistan & India. There is a link between locust attack and climate change.

locust attack:

① Locusts are swarms of small grasshoppers, which grow exponentially when proper environment is available.



② They descend on trees & crops, and destroys a food of 37000 people per square km.

③ They can travel more than 50 miles a day -

Link between locust attack & climate change:

- ① Locusts are mostly solitary.
- ② They breed when there is high moisture.
- ③ Due to global warming & climate change rainfall pattern on arab peninsula changed, thus creating more rain.

- ④ It led to breeding habit of desert locusts which supported by strong westerly wind travelled to many other parts.

Thus due to extreme climate chances of further locust attack increases. There is a need to do more research to protect our food security from locust attack.

7. Highlighting the properties of Carbon Nanotubes, discuss its applications.
(150 words) 10

कार्बन नैनोट्यूब्स के गुणधर्मों पर प्रकाश डालते हुए, इसके अनुप्रयोगों की विवेचना कीजिए।

Carbon nanotubes are nano level carbon structures, which exhibit different kind of characteristics, compared to macro level carbons. Carbon nanotubes have width less than 100 nm and have many applications in diverse fields.

Properties of Carbon nanotubes:

- ① They form very strong structures, which are stronger than even steel compared to their width.
- ② Carbon nanotubes can be used for bio degradable element productions.
- ③ They are chemically less active, thus can be used to make stable items.
- ④ They can form different shapes & structures due to their cohesive property.

Applications of Carbon nanotubes:

- ① They are used to create thin strong layers to coat certain items.
- ② They can be used for drug delivery within human body.
- ③ Due to their chemical properties Carbon nanotubes can be used for water purification.
- ④ Carbon nanotube has application in biotechnology, space products etc.

Carbon nanotubes are very recent innovations. Further R&D will bring up many more applications of this new innovation.

8. India's domestic patent regime privileges public health over pharmaceutical industry's interests. Comment. (150 words) 10

भारत की घरेलू पेटेंट व्यवस्था औषध उद्योग के हितों पर सार्वजनिक स्वास्थ्य को विशेषाधिकार प्रदान करती है। टिप्पणी कीजिए।

India's domestic patent regime is decided by Patents act, 1970, for public health related products. India's domestic patent regime often prefers public health over pharma company's profit.

Privilege of public health :

- ① As patenting often makes new drugs unaffordable, due to India's poor customer base, India adopts this ideology.
- ② India voices for compulsory licensing, patent pooling, and many other ways to ensure medicines and drugs are affordable to our citizens.
- ③ India needs to ensure health of many over profit of few, based on

its socialist ideology.

Hurts economic
growth.

discourage R&D
by pharma
companies

Challenges

IPR issues in
India discourages
big pharma companies
in India.

often leads to
higher costs to
others to cross
balancing.

As in one hand India must ensure
accessibility of medicine and health to
its citizens, it should also ensure
profitability of pharma companies for
any new research and development.

9. Bring out the arguments surrounding the idea of employing the principle of 'one border - one force' on Indian borders. (150 words) 10

भारतीय सीमाओं पर 'एक सीमा-एक बल' के सिद्धांत का उपयोग करने के विचार के चतुर्दिक व्यास तर्कों को स्पष्ट कीजिए।

Recent standoff in Ladakh with Chinese troops has again created discussion about 'one-border-one force' to enhance our security structure.

Positive aspects of one border one force:

- ① More coordination to deal with a single country with a single commanding structure.
- ② As Chinese border is guarded by single PLA it has shown better coordination.
- ③ It will help better structuring of our border forces.

④ Arguments against OBOF:

- ① Our border with any country is not homogenous.
eg- with Pak it has desert, creek, plain, mountains

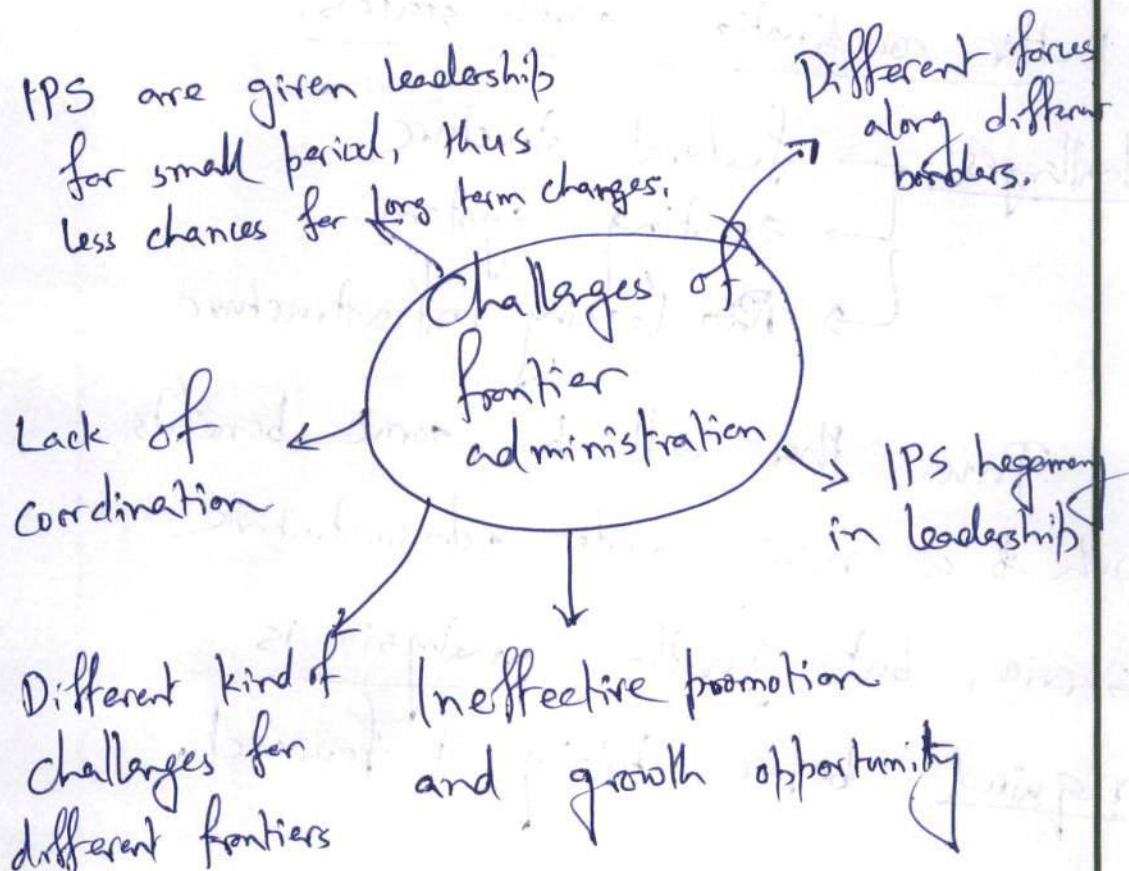
- ③ Many region has specialized needs.
e.g: N. East. India
- ③ India China border is not contiguous, it has 3 segments, thus creating disconnection.
- ④ We need specialized force for different region, single entity will not be able to have this specialization.

Recent ideas of theater command in our defence structures are worth discussing and developing. We need to think about our historical aspects too into account before a full new structure.

10. Assess the need to create a new cadre of Indian Frontier Administrative Service to undertake the vital tasks at Indian frontiers. (150 words) 10

भारतीय सीमांतों पर महत्वपूर्ण कार्यों को संपादित करने के लिए भारतीय सीमांत प्रशासनिक सेवा का एक नया संवर्ग बनाने की आवश्यकता का मूल्यांकन कीजिए।

India's frontiers are guarded by Central armed police force, which has 7 types, which are SSB, ITBP, CRPF, BSF, Assam rifles etc. There are some issues with our frontier administration.



Need to create new service:

- ① This new service may have specialization in looking into border administration and development.
- ② It will also help in better growth in border areas.
- ③ Uniform policies for border regions.
- ④ Better coordination across states.

Challenges:

- federal structure
- existing system
- ~~the~~ lacking infrastructure.

Thus there will be some benefits with a new border administrative service, but further analysis is required before taking it forward.

11. The main objective of Union Budget 2020-21 is to provide "Ease of Living" to all citizens. Analyse the framework proposed in the Budget 2020-21 to achieve this objective. (250 words) 15

केंद्रीय बजट 2020-21 का मुख्य उद्देश्य सभी नागरिकों को "ईज ऑफ लिविंग" (जीवन सुगमता) प्रदान करना है। इस उद्देश्य को प्राप्त करने के लिए बजट 2020-21 में प्रस्तावित ढांचे का विश्लेषण कीजिए।

Union budget 2020-21 aimed at creating ease of living for the citizens. As our earlier stated aspiration of providing home to every Indian by 2022, this budget focused on achieving that objective.

Ease of living aspects:

- ↳ Better living quality in cities
- ↳ Everyone should have a permanent house
- ↳ Amenities at home
- ↳ Better commutation system.

Frame work proposed to achieve it.

- ① Indian govt aims to create home for everyone through "Awas Yojana" by 2022.

② In 'Awas Yojana Urban' there are provisions of

- Credit linked subsidy
- Money for renovation
- Slum development and rehabilitation

③ In Awas yojana rural:

- 1.5 lakh ₹ for new homes
 - money for latrine constructions
- etc are being provided.

④ In urban setup better transport system via urban mass transport system, better urban mobility by public transport.

⑤ In household availability of drinking water by Aar ghar nali se jal.

⑥ Other than these physical infrastructure in social infrastructure availability

Of education centres, health centres are crucial. Ayushman Bharat is an important aspect of ease of living:

Thus as by 2030 ~ 102 lakh crore rupees of infrastructure is needed to improve ease of living of citizens, Budget 2020-21 had accounted for all these aspects.

12. Several challenges are needed to be addressed to realise the full benefits of the recent agricultural marketing reforms. Discuss. (250 words) 15

हालिया कृषि विपणन सुधारों के पूर्ण लाभों को साकार करने के लिए अनेक चुनौतियों का समाधान करने की आवश्यकता है। चर्चा कीजिए।

Recently govt has brought agricultural reforms via 3 agricultural acts on

- ① Agricultural marketing
- ② Contract farming
- ③ Essential Commodities act.

These acts are aimed at reforming decades old agricultural systems of India.

Aspects of Agri marketing reform:

- ① Through this act limitation of selling in APMC mandi of the district ends.
- ② Farmer can sell his produce in any mandi across the country.
- ③ Provision for farm gate selling to private parties

- ④ State govt can't take excessive mandi fees from farmers.
- ⑤ Provision to allow private mandis for ease of business.
- ⑥ Provisions of contract farming by connecting with corporates.
- ⑦ Protection of farmers in case of failure of crops.

Some fear removal of
MSP regime over time.

Some states fear
revenue loss

Lack of bit.
infrastructure

Challenges

Some farmer fear
low profit due to
corporate hegemony

Some farmers fear
losing land in
case of failure
of contract.

Way Forward:

- ① Govt need to ensure the farmers to alleviate the fear and clearly explain

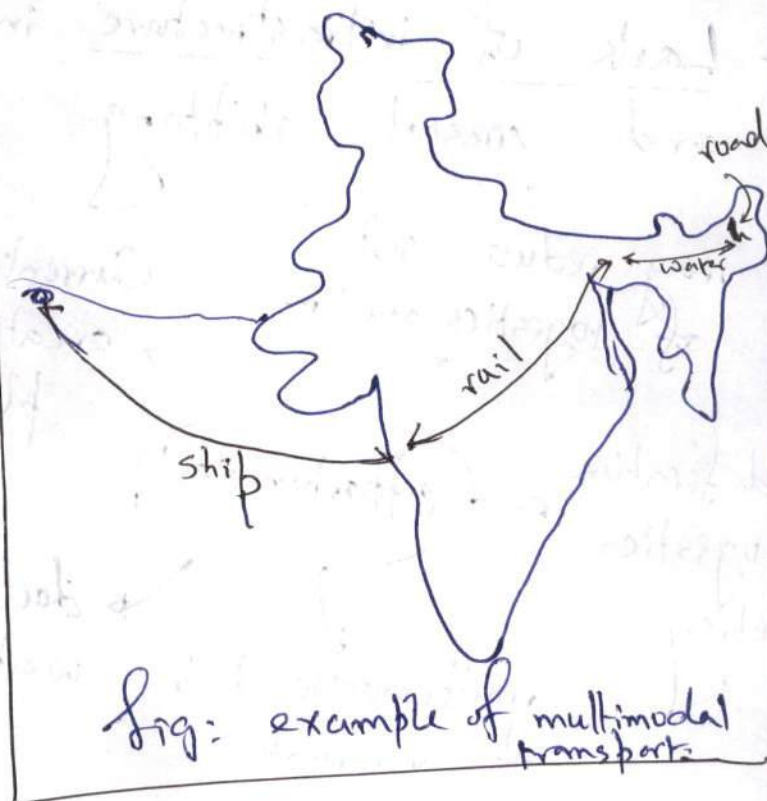
- The long term motive for the acts.
- ② Govt must encourage pri sector to invest for longer term, assuring policy certainly.
 - ③ Govt should create new avenues for farm export, to show effectiveness of the idea.

Thus as govt has taken this long needed reform in agriculture, it needs to move uniformly towards its effective implementation over time.

13. Multimodal transport requires multiple integrations across different modes of transportation. Substantiate. What are the challenges and opportunities associated with multimodal transportation for India? (250 words) 15

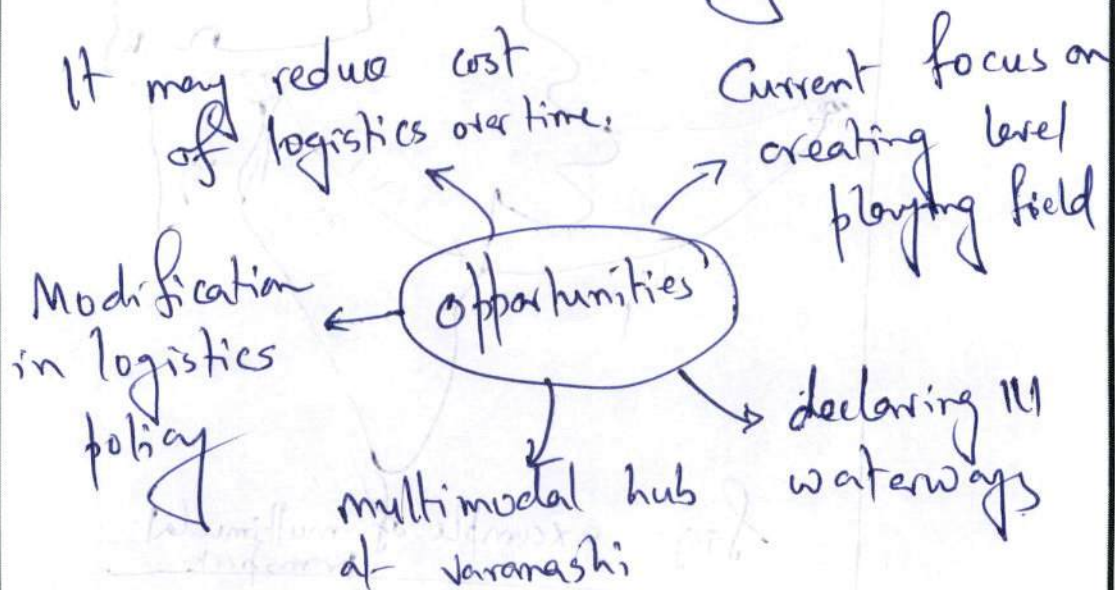
बहुविध परिवहन (मल्टीमॉडल ट्रांसपोर्ट) के लिए परिवहन के विभिन्न साधनों के मध्य विविध रूप से एकीकरण की आवश्यकता है। पुष्टि कीजिए। भारत के लिए बहुविध परिवहन से जुड़ी चुनौतियां और अवसर क्या हैं?

Multimodal transport refers to transporting of goods from a place to other via different modes, eg: railways, roadways, waterways, air etc in an integrated manner. In India multimodal transport is not very well established in logistic sector.



Challenges of multimodal transport:

- ↳ Lack of level playing field of different operators
- ↳ Lack of formalization of logistic sector
- ↳ MRO facility needed in waterways.
- ↳ Multimodal hubs are not prevalent.
- ↳ Still companies are not confident about uniform policy
- ↳ Lack of infrastructure in waterways and coastal shipping



Way Forward:

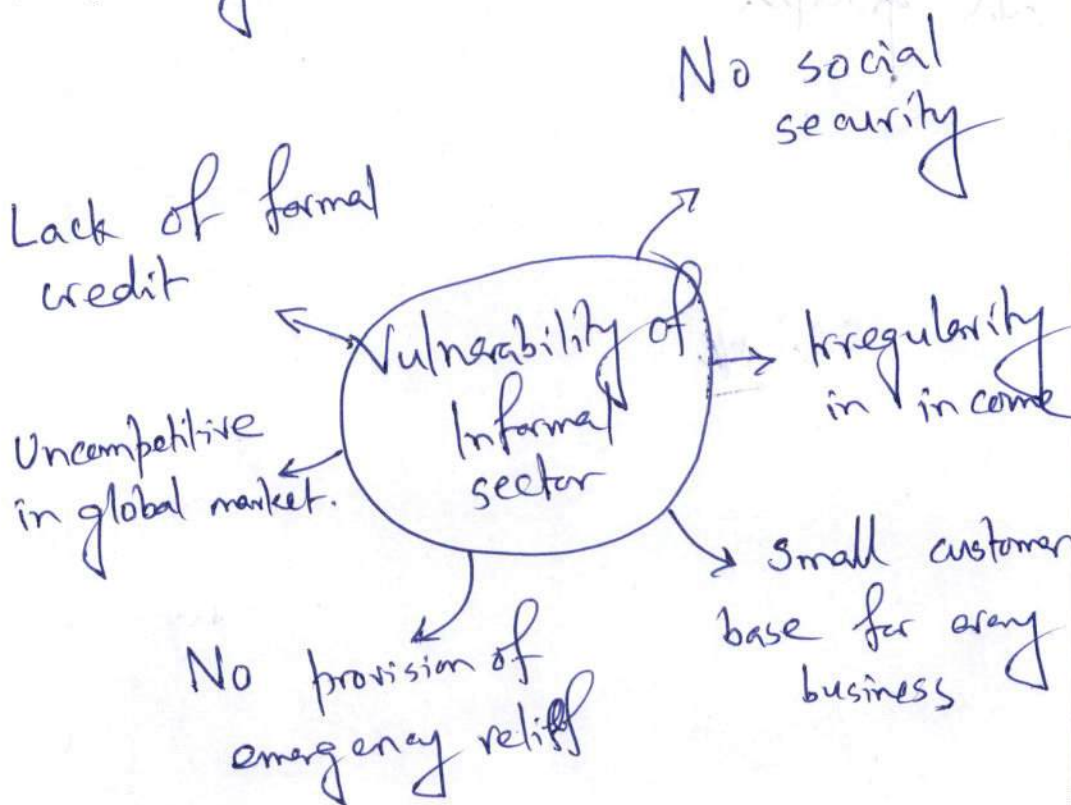
- ① As govt is emphasising on ease of doing business and aims to reduce percentage of logistics to below 10% from current 14% in economy multimodal transport is the way forward.
- ② Stable long term policy formation.
- ③ Creating level playing field, for all groups.

14. Though COVID-19 pandemic exposes the vulnerability of Informal sector and associated labor force in India, it also presents an opportunity to rebalance formal-informal economy dynamics in the country. Discuss.

(250 words) 15

हालांकि, कोविड-19 महामारी भारत में अनौपचारिक क्षेत्रक और संबद्ध श्रम बल की सुभेद्यता को उजागर करती है, लेकिन साथ ही यह देश में औपचारिक-अनौपचारिक अर्थव्यवस्था की गतिशीलता को संतुलित करने का एक अवसर भी प्रस्तुत करती है। चर्चा कीजिए।

Covid-19 pandemic and subsequent nationwide lockdown had a big impact on India's informal economy due to very less economic activity. It has brought up our existing drawbacks to lime light.



Opportunity to rebalance:

- ① As we had also seen our vulnerability towards depending too much on global value chain, we need our domestic sector to be strong.
- ② Idea of "Vocal for local" aims to strengthen local units by making them more formal.
- ③ Self sustaining economic units need small informal businesses to become formally induced in the system.
- ④ It has created opportunity to create local economic value chains for fulfilling domestic needs.

Way Forward:

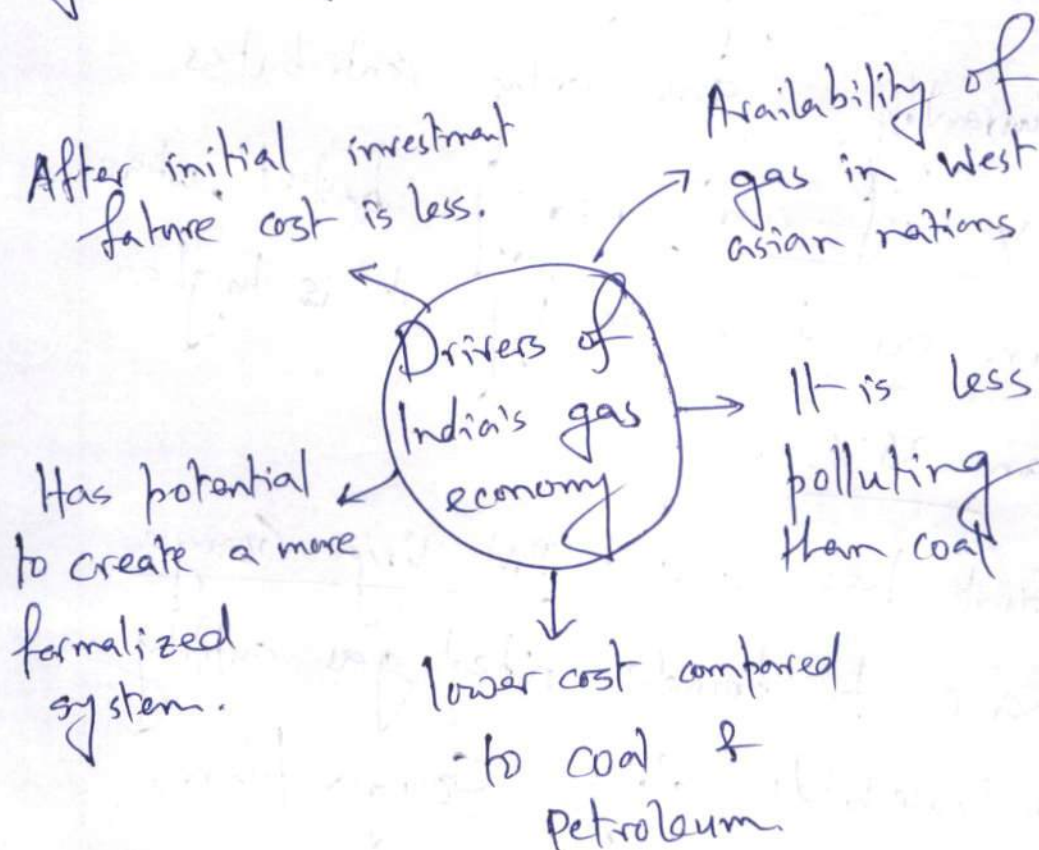
As Atmanirbhar Bharat aims to create a self sustaining economy

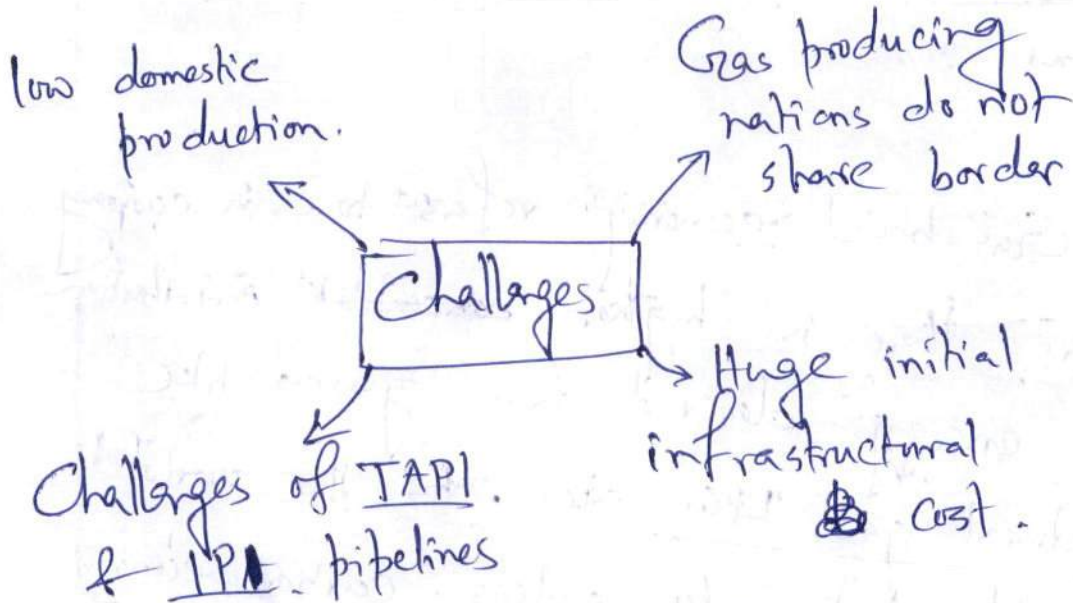
which will be also competitive in global market, our informal sector needs to be strengthened to make it protected against sudden shocks. Provisions of provident funds, pensions etc to informal workers by PM Shram yogi Mandhan yojana, PM Kisan mandhan yojana, PM KISAN etc are crucial in our future economic aspirations.

15. Highlight the drivers and challenges facing India's ambition to become a gas-based economy. Mention the steps that have been taken by the government recently in this regard. (250 words) 15

गैस आधारित अर्थव्यवस्था बनने की भारत की महत्वाकांक्षा के चालकों और सामना की जाने वाली चुनौतियों को रेखांकित कीजिए। इस संबंध में हाल ही में सरकार द्वारा उठाए गए कदमों का उल्लेख कीजिए।

Gas based economy refers to an economy where there is higher ~~contribution~~ contribution of energy derived from gases like Natural gas, LPG, etc. As the world is moving towards a less carbon economy gas economy is the future.





Steps taken by govt:

- ① Currently gas only contributes 6% of our energy basket, where in European country it is higher than 26%.
- ② Govt has started PM Ujjwala scheme to provide piped gas supply to households along Ujjwala lines.

- ③ City gas grid aims to provide CNG to house holds for domestic needs.
- ④ North east gas grid aims to supply gas from Assam gas fields to other states.
- ⑤ Development of Gas containers in ports of Dahanu, Lunj will help in import of gas.

Thus through these steps we can move forward towards a gas based economy and eventually towards a Carbon neutral economy.

16. Climate Change and the associated events endanger the marine and coastal ecosystems while increasing the vulnerability of coastal population. Examine. (250 words) 15

जलवायु परिवर्तन और संबद्ध घटनाएं तटीय जनसंख्या की सुभेद्यता को बढ़ाते हुए समुद्री एवं तटीय पारिस्थितिक तंत्रों को खतरे में डालती हैं। परीक्षण कीजिए।

According to a report by Climate Change Performance Index more than 17 crore people along Indian coast are vulnerable to climate change its related extreme events. Climate change has significant impact on marine and coastal ecosystem.

Climate change and marine system:

- ① Higher ocean temp is changing fish stock and their breeding habits.
- ② Higher temp will ruin coral ecosystem which is like tropical forest of oceans
- ③ less mixing of waters between different layers of oceans

- ④ Changes in AMOC Thermohaline circulation will impact marine climate.
- ⑤ Change in krill population in arctic and antarctica will endanger polar marine population.

Climate change and coastal ecosystem;

- ① More number of cyclones will destroy many coastal ecosystem.
- ② More cyclonic surge, ocean water intrusion.
- ③ Coastal erosion and in many low lying areas submergence of coastal regions. eg: Kiribati.

Vulnerabilities → More extreme events in coastal areas

- Less economic activity like fishing
- More internal and external displacement due to sea level rise. (1-3mm/year)

Way Forward:

① As global warming and climate change are global phenomena only global unified efforts will help.

② More coordinated effort in reducing

GHG emission:

③ As oceans are global commons a better resource extraction strategy w.r.t. oceans will help for sustainable future.

17. Using examples, highlight how natural ecosystems perform different hazard mitigation functions. (250 words) 15

उदाहरणों का उपयोग करते हुए, रेखांकित कीजिए कि प्राकृतिक पारिस्थितिक तंत्र किस प्रकार अलग-अलग संकट के शमन का कार्य करते हैं।

Hazard mitigation refers to techniques which are used to reduce impact of a hazard to prevent it from becoming a disaster. Often natural ecosystems perform hazard mitigations.

① Natural ecosystems and hazard mitigation

① Mangroves and cyclone: Mangroves along the coast perform vital task of reducing speed of wind, thus reducing its intensity and it also protects coasts from erosion and coastal surges. e.g. Sundarbans

② Wetlands and peatlands: Wetlands and peatlands acts as a water buffer, It protects a region from flooding and also against drought.

e.g. In Assam Brahmaputra valley in braided channels wetlands helps against flooding.

③ Forests: forests along rivers or waterbodies protect soil erosion, thus protects against problems of land slides along the slopes in rainy season in hilly regions.

④ Natural ecosystems like Myristica swamps in Western Ghats protects the region from heavy rainfall due to monsoon in Kerala.

⑤ A natural ecosystem consisting of enough trees, wetlands and waterbodies protects against long term droughts and desertification.

Way Forward:

As due to urbanization more natural ecosystems are being destroyed we are becoming more vulnerable towards hazards. Our economic policies should also take economic consequences of hazards into account; which will help protect the natural ecosystems of a region.

18. Explain what genome sequencing is and state the challenges in scaling up genome sequencing projects. Also, throw some light on the recently launched IndiGen Project. (250 words) 15

व्याख्या कीजिए कि जीनोम अनुक्रमण क्या है और जीनोम अनुक्रमण परियोजनाओं को बढ़ावा देने में विद्यमान चुनौतियों का वर्णन कीजिए। साथ ही, हाल ही में आरंभ की गई इंडिजेन (IndiGen) परियोजना पर कुछ प्रकाश डालिए।

Genome sequencing refers to the technique of generating data about different sequences of genomes of a population to find similarity and thus finding characteristic correlation of the genomes. In recent times many genome sequencing projects have been taken up globally.

Challenges in scaling up genome sequencing project:

- ① Genome sequencing requires huge data space to store information about genomes of a huge population.

- ② There are also privacy issues related to genome sequencing.
- ③ It may lead to dividing a population based on genome characteristics, thus creating new kind of racism.
- ④ Pharma companies may misuse these information by manipulating susceptance of a population towards a disease.

IndiGen project:

Aim: It aims to generate genome information of 10,000 Indian people from different region, age, sex, to get idea about genomic pattern of different population.

Purpose:

- ① To find susceptability of our population towards a disease.
- ② To develop precision medicine.
- ③ For future biotechnological

development specifically for our population..

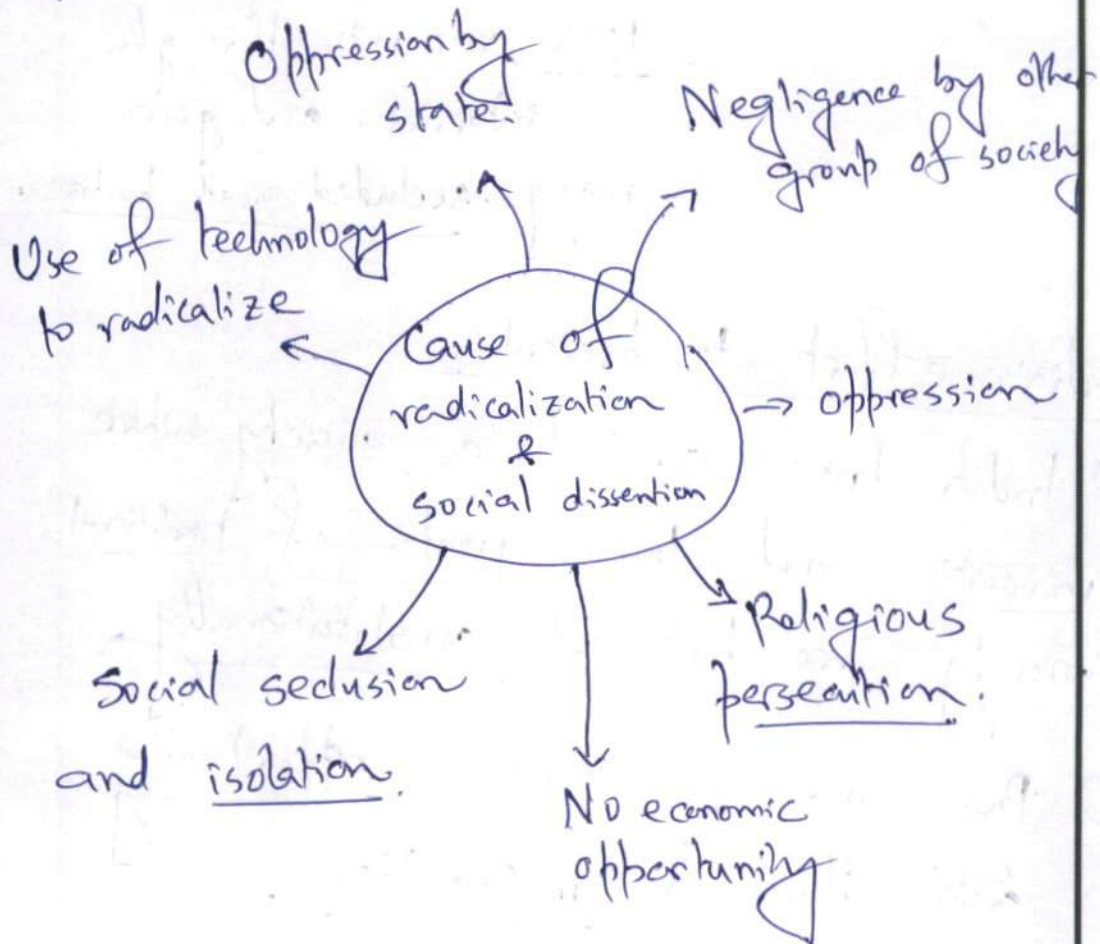
④ It will help in policy formation if any special needs is required for a particular group of people.

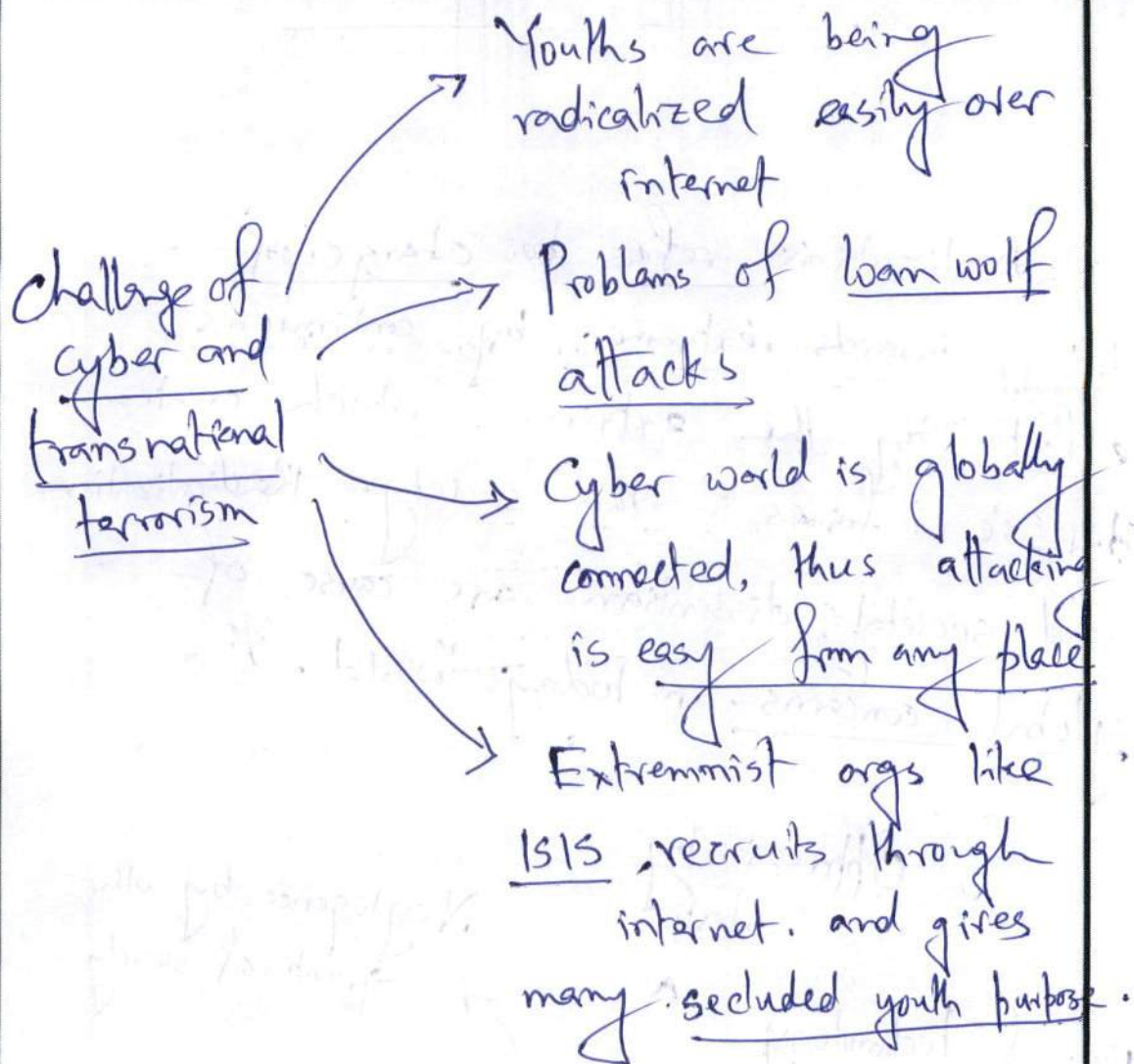
As most of the earlier genome studies, e.g. Earth bio genome project were done on caucasians population this study will help Indian population to develop specialized solution for us.

19. India needs to avert radicalisation and societal dissention, as internal faultlines are a breeding ground for cyber and transnational terrorism. Discuss. (250 words) 15

भारत को कट्टरपंथीकरण और सामाजिक मतभेदों को रोकने की आवश्यकता है, क्योंकि आंतरिक दरारें साइबर एवं पार-राष्ट्रीय आतंकवाद का जनन स्थल होती हैं। चर्चा कीजिए।

Radicalization refers to change of ideology towards extreme by continuous efforts by the extremists which creates divisive forces in the society. Radicalization and societal dissention are cause of global concerns in today's world.





India's effort to present:

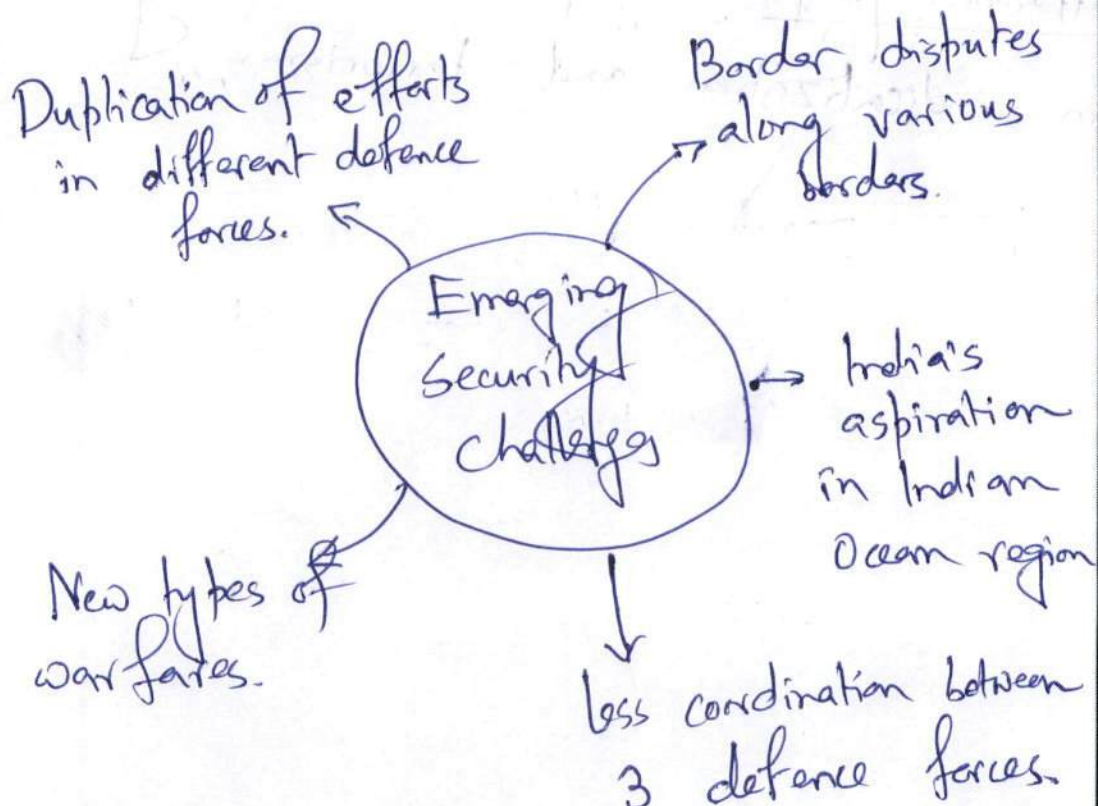
- ① India has created a society where minorities and lower groups of traditional society are protected constitutionally.
- ② By creating economic opportunity and through reservation.

- ③ Having strong surveillance networks and technological deterrence.
- ④ Various de-radicalization methods of showing empathy, cultural knowledge sharing etc.
- ⑤ Schemes like EK Bharat Shreshtha Bharat.
Being a pluralistic country we need to ensure brotherhood among different groups to protect the country from radicalization and terrorism.

20. Given the emerging security challenges, discuss why the establishment of Integrated Theatre Commands is being seen as an important defence reform. (250 words) 15

उभरती हुई सुरक्षा चुनौतियों को देखते हुए, चर्चा कीजिए कि क्यों एकीकृत थिएटर कमान की स्थापना को महत्वपूर्ण रक्षा सुधार के रूप में देखा जा रहा है।

India currently has 17 commands in Army, Airforce and navy. Integrated theater command refers to single command where all three forces will be present and will act in coordinated way.



Positive aspects of Integrated theater command

- ① It will ensure all aspects of defence w.r.t. a country is handled in a comprehensive manner.
- ② As happened during Balakot air strike lack of coordination resulted in loss of fighter aircrafts integrated command will reduce such damages.
- ③ It will be in lines with the modern western defence structure of USA, China, Russia etc.
- ④ It will reduce duplicacy in acquisition, training infrastructure



Way Forward:

→ As ~~initially~~ already we have
1 triservice command in Andaman

Nicobar Island, we can gradually
adopt this smoothly for other
Commands.

→ ~~A~~ Total of 5 integrated Theater
Command can be implemented
over a stretch of 10 years.

Required test and simulations
must be done before hand before
introducing such big reform in our
defence structure.