


APSC Mains 2023 TS - 13 (GS Paper 3)
Duration – 3 Hrs

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(Please fill your details correctly)

Medium:

 English ☒

 Assamese ☐

INDEX NUMBER			INSTRUCTIONS
Q.NO.	Maximum Marks	Marks Obtained.	Please read each of the following instruction carefully before attempting the questions: • There are TWENTY questions printed in ENGLISH. • All questions are compulsory. • The number of marks carried by a question/part is indicated against it. • The answers must not exceed 150 words for 10 marks and 250 words for 20 marks. • Content is more important than the number of words. • Answers must be written in the medium authorised 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 authorised one. • Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off
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TOTAL:	250		Remarks: Signature of the Student:



Brief report of Performance Evaluation of student in the paper

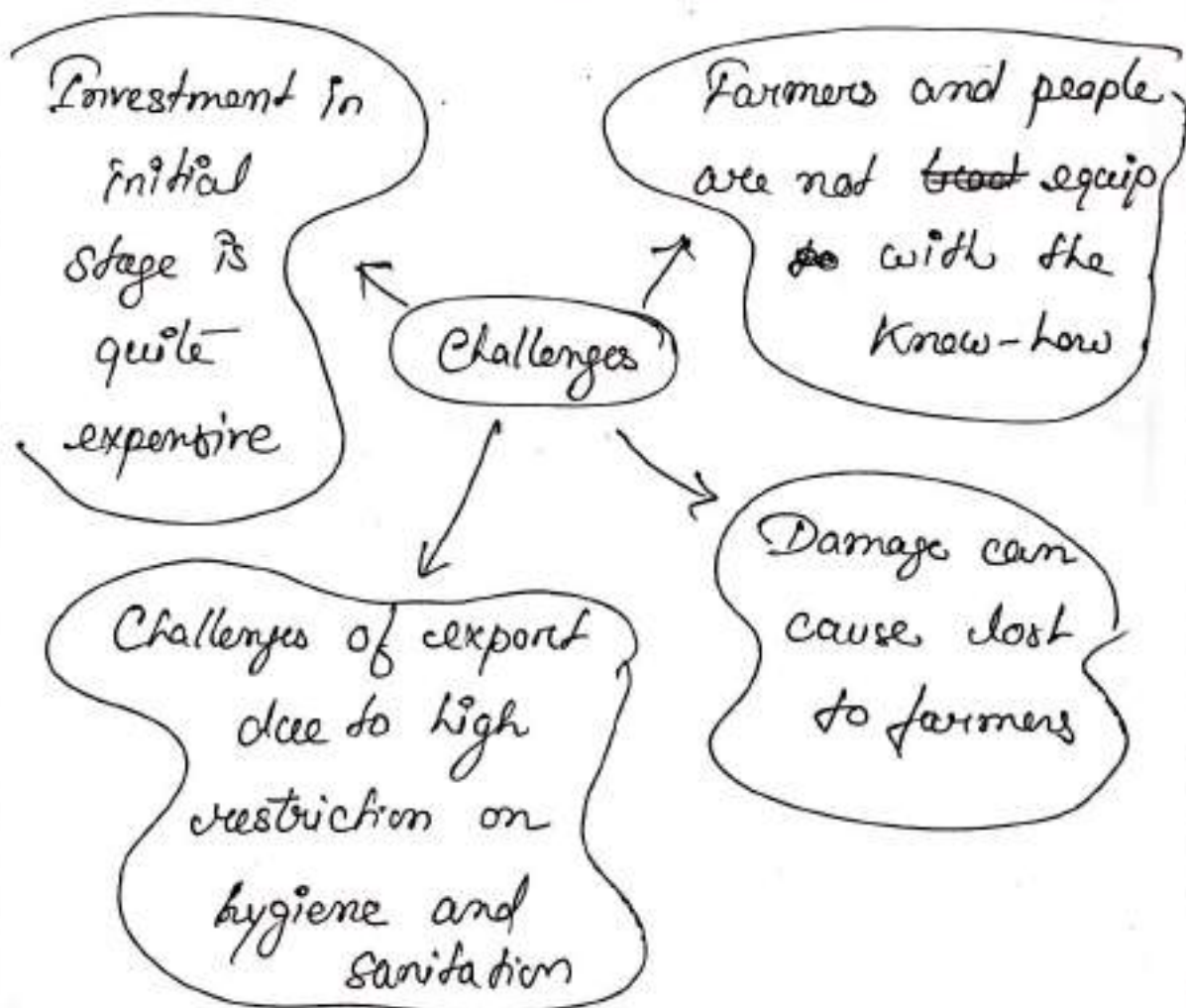
	Poor	Average	Good	Very good	Excellent
Understanding the context and demand of the questions					
Relevancy of the content					
Structure and flow of the answer					
(a) Introduction					
(b) Body					
(c) Conclusion					
Subject knowledge					
Language of the answer					
Presentation					
(a) Underline to the keywords					
(b) Use of flowcharts or diagrams					
(c) Paragraph limits and overall					
Understanding of directives					
Factual correctness					
Overall performance					

Detail Feedback

Q1. The Horticulture sector, though has potential to transform agriculture landscape of country, is beset with several challenges. Examine. (10 marks/150 words)

Horticulture sector has potential to transform agriculture landscape of country, with North eastern states having a huge potential. Horticulture mainly includes product like flowers, honey etc.

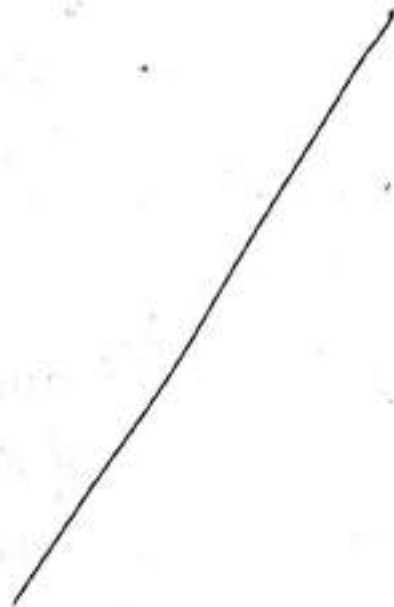
The several challenges of horticulture are:-



Steps needed

- Encouragement to farmers through financial incentives.
- Interest Subvention scheme for loans

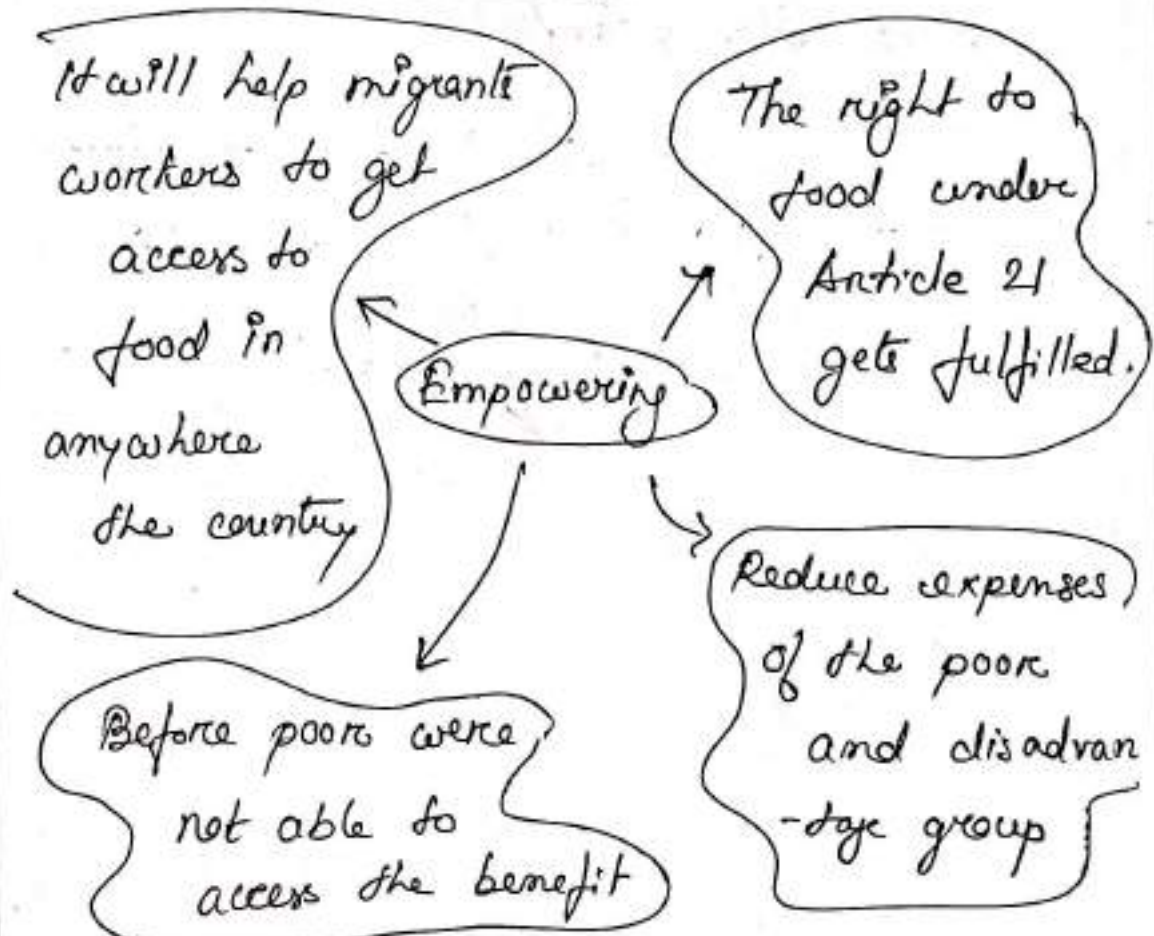
Thus, huge potential exist for horti-
culture however, effective method and
awareness to farmers is required to
achieve the potential.



Q2. The 'One Nation, One Ration Card' (ONORC) scheme is a huge step forward in empowering the poor and disadvantaged, yet it faces obstacles in terms of design and implementation. Discuss. (10 marks/150 words)

One Nation, One Ration Card (ONORC) scheme is based on the concept of availing availing food grains anywhere across the country.

The step is empowering the poor and disadvantaged because :-



The obstacles in term of design and implementation are :-

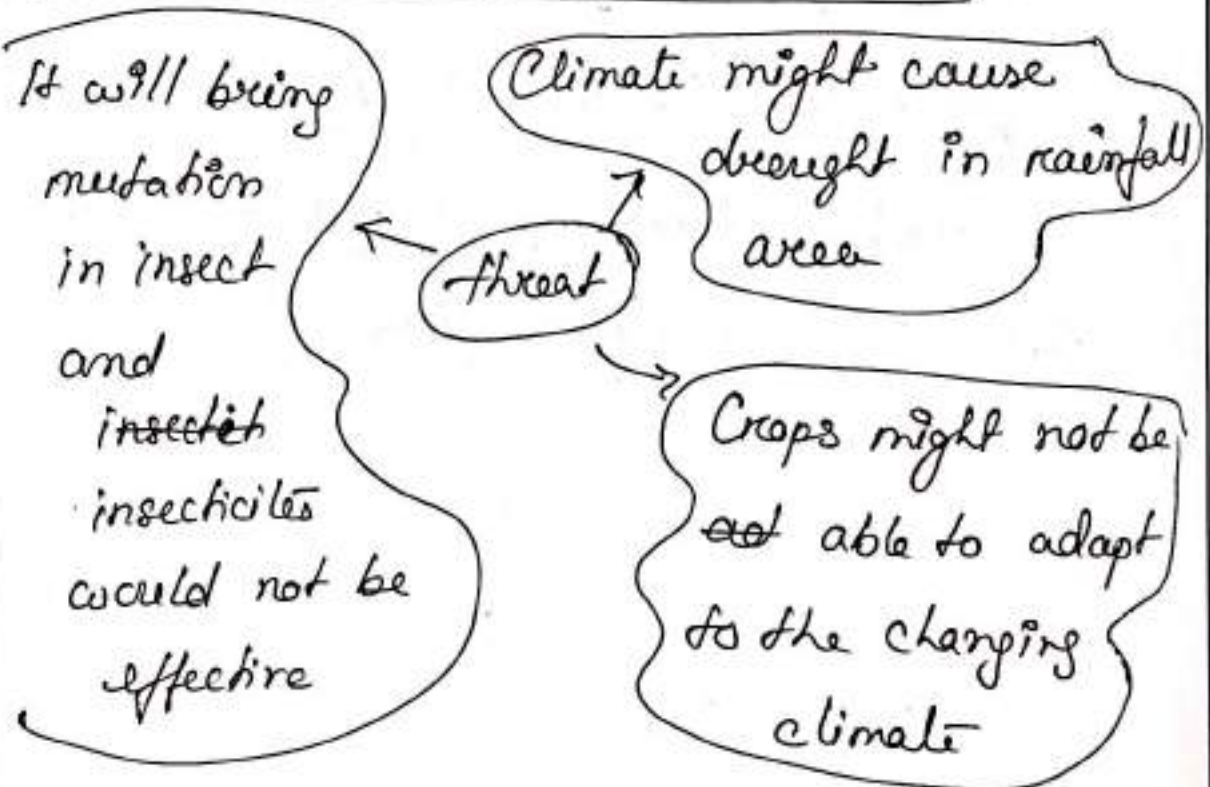
- The duplication of beneficiaries is cause of concerns.
- The access is available to aadhar card holders.
- Implementation issues as to who will be responsible state or center

Thus, these loopholes needs to be corrected to fully utilized the ONRC which can help address food issues and hunger in many region.

Q3. Climate change is a threat to food and nutrition security of the world. Examine the impact of climate change on agriculture. Suggest ways to make agriculture sustainable and climate resilient. (10 marks/150 words)

Climate change is causing change in the temperature as well as also effecting the rainfall variation. Some places are grr getting excess rainfall some are turning dry.

Climate Change is a threat to food and nutrition security of the world :-



The ways to make climate resilient and sustainable agriculture are :-

- Reduction in the emission of Greenhouse Gases through crops production (CH_4 reduction).
- The modification of crops through Genetic change to adapt to climate vagaries
- Millets are tolerant crops which could be used to cater to needs.

Thus, agriculture needs to become resilient or crops and human would perish along with climate change.

Q4. The food processing industry has emerged as a high-growth and high-profit sector due to its immense potential for value addition. In this context, discuss 'Production Linked Incentive Scheme for Food Processing Industry. (PLISFPI)'. (150 words/10 marks)

Food Processing Industry emerged as high-growth and high-profit sector because of increase in it's demand as India's economy is making progress. India is gaining market of Food Processing Industry.

Production linked Incentive Scheme for Food Processing Industry

- There is sales incentive where additional sales would be given incentives
- PLISFPI is encourage to create job in this sector

- Farmers can now sell their product as there would be additional demand.
- Private players would invest in such sectors

Concerns

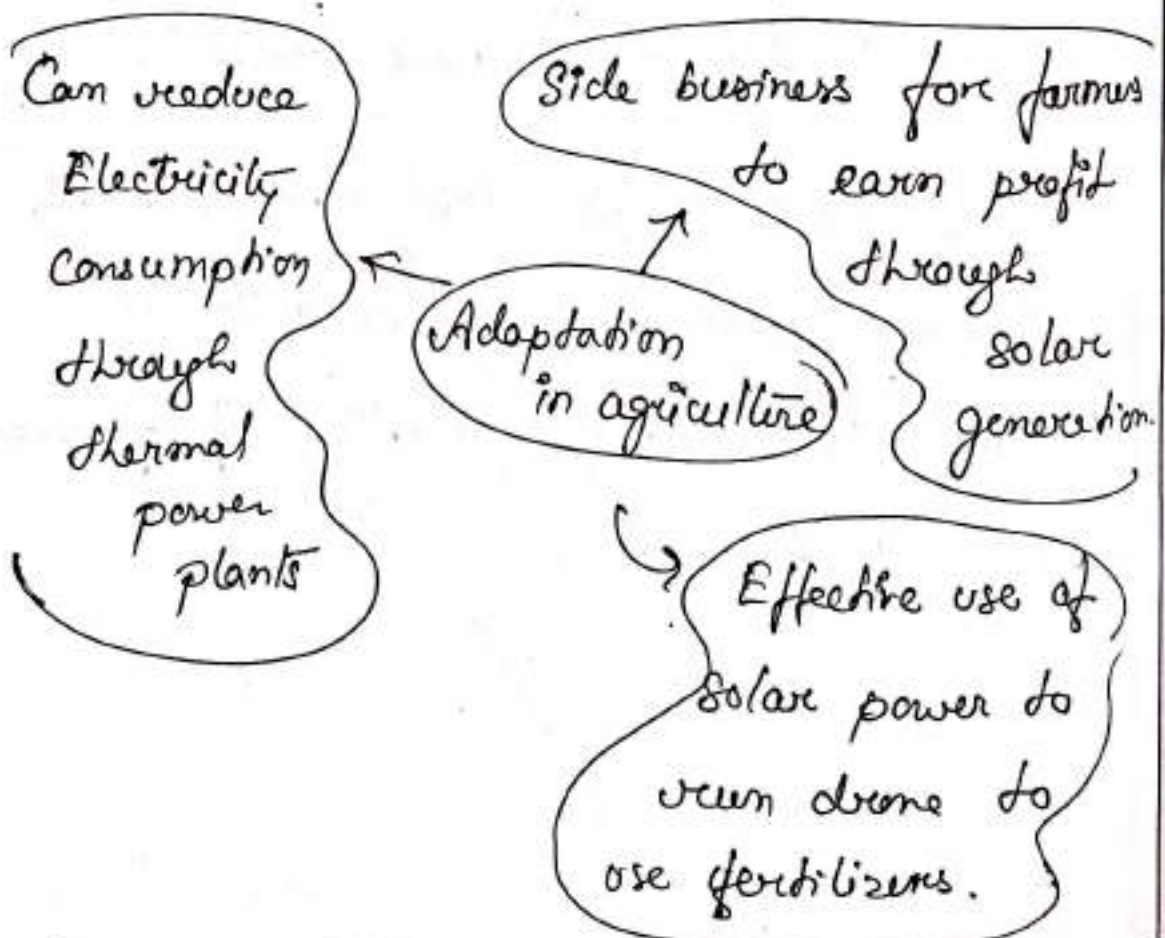
- Export orientation is still need encouragement.
- There should be well provision for sell/buy of farmers product.

Thus, PLISFPI is right approach to increase productivity and sells of good however consideration of farmers need to be place.

Q5. Solar power sector is not only leading the mitigation efforts against climate change, but the innovations in solar power can also accelerate adaptation of agriculture to a new reality of changed climate. Discuss. (10 marks/150 words)

Solar power sector is not only leading the mitigation efforts but it's innovation is creating jobs as well helping India reach it's 2070 carbon neutral target

Adaptation of agriculture to a new reality of changed climate with solar power :-



Steps taken by Government

- PM KUSUM scheme where farmers can sell solar power to discoms.
- They can also use power to run machinery

Thus, solar power sector can help address few of the issue of agricultural sector and help farmer gain profit.

Q6. Biotechnology is often seen as a revolutionary intervention, but the applications of biotechnology have had mixed socio-economic implications. Examine. (10 marks 150 words)

Biotechnology is used of Biological know-how with technology. Biotechnology is seen as revolutionary because of its wide application in all the fields.

Biotechnology uses :-

- Use to detect various diseases in human as well as plants, crops.
- It can be used to develop drugs.
- Biotechnology is used for development of fuel cells.

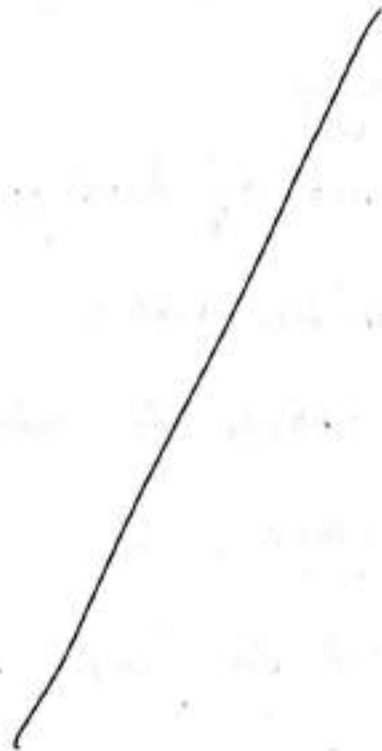
Socio-economic implications are :-

- Problem of access to Bio-data of people without consent.

→ The divide between rich and poor would further increase.

→ Ethical concerns of mutation of genetic materials

Thus, Biotechnology has it's uses however, there are also few concerns which need to be address.



Q7. Green hydrogen can be the engine of a sustainable economy, but it would require crossing financial and technological barriers. Discuss the reasons for increasing interest in green hydrogen and challenges in its adoption as the fuel of the future. (150 words/10 marks)

Green hydrogen is formation of energy through electrolysis of water where pure hydrogen is formed without any polluting gas.

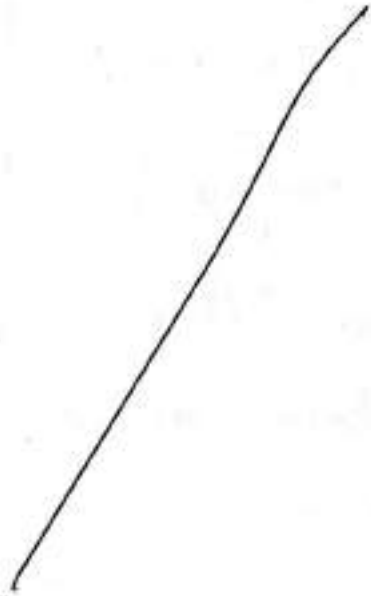
Hydrogen (Green) can be engine of sustainable economy because —

- Clean energy
- Abundance of hydrogen.
- More calorific value.
- It would have to address the climate change.
- Can be used to form hydrogen cells.

Challenges in the adoption of hydrogen fuel.

- Expensive compared to other fuel.
- Green hydrogen is formed only through electrolysis rest Grey, Brown etc produces few GHGs.
- The technology is at nascent age.

Thus, Green hydrogen will revolutionized energy dynamics however to potentially use hydrogen, it would required huge investment.

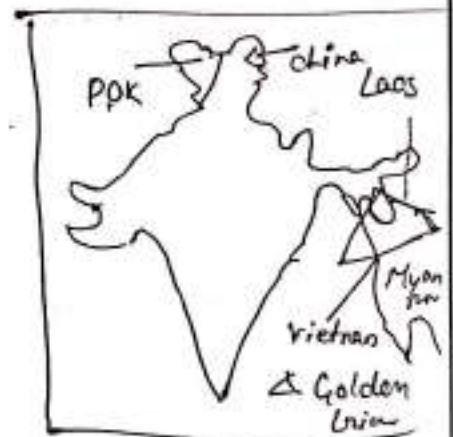


Q8. Persistence of various cross-border threats and absence of robust intra-regional trade with neighbouring countries have forced India to employ a unilateral approach to border management. Highlight various cross-border threats faced by the country and explain how they can be managed in an effective manner. (10 Marks/150 words)

Cross-border Threats and absence of robust intra-regional trade with neighbouring countries have forced India to approach border management (unilateral)

The various cross-border threats are :-

- The immigration from Bangladesh have caused population problem.
- Drug trade in north eastern part (Golden Triangle)
- Threat from China and Pakistan due to aggression and insurgency



The ways to managed in an effective manner are :-

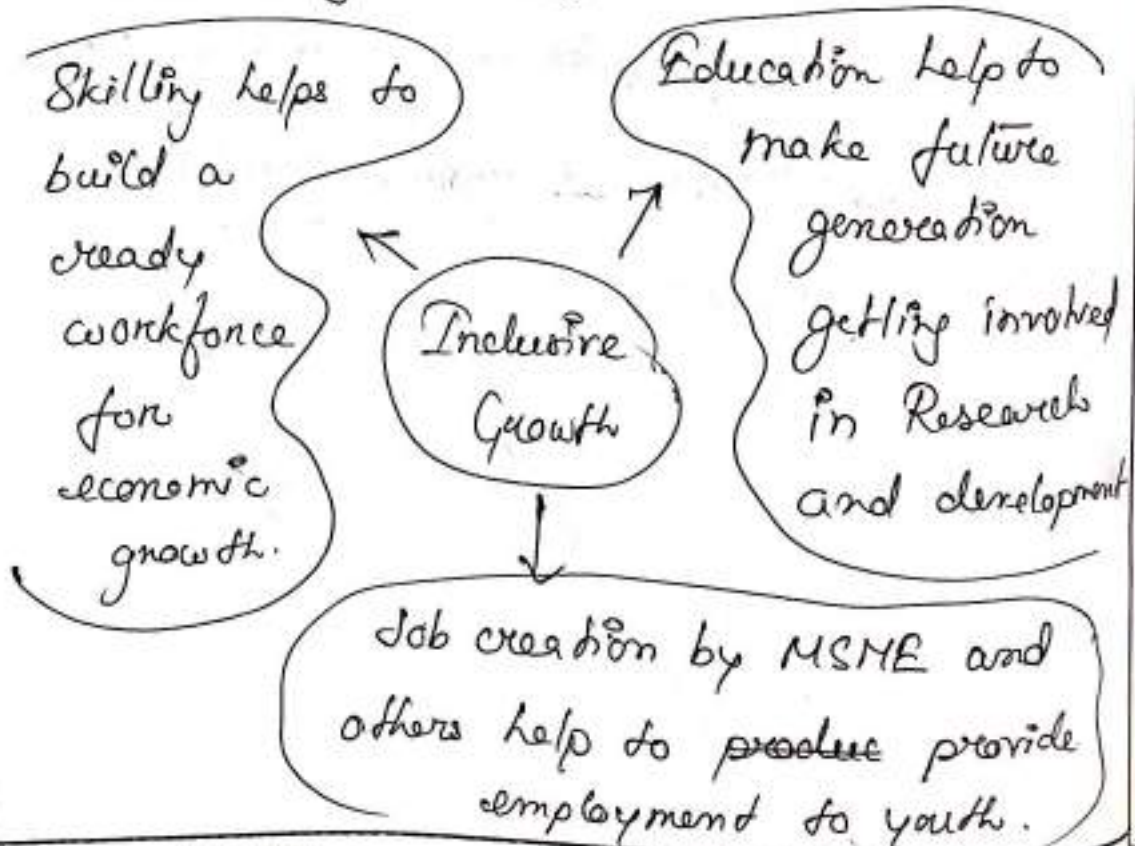
- Border security needs to well trained with advance equipments
- Technology used to detect illegal immigrants (drones)
- Satellite image to watch aggression of China and Pakistan

Thus, cross-border treats needs to be solve with diplomatic dialogue and trade relation between countries need to be resume.

Q9. When inclusive growth is the goal, the approach cannot be anything other than education, skilling and job creation. Critically examine the success of various post-liberalization policies of the government in this regard. (10 marks/150 words)

Inclusive growth means taking everyone in the growth cycle. Inclusive helps to build a better human capital for growth of the country which will eventually contribute to GDP.

The inclusive growth through education and skilling and job creation :-



The success of various post-liberalization policies of government are :-

- PM Kaushal Vikas Yojana for skilling.
- National Skilling Accreditation through
Wadon Employment Center.
- MSME incentives to boost job creation.

Thus, inclusive growth will help to achieve the desire goal of inclusive
India where the demographic dividend
of India can be utilized.



Q10. Female workforce participation rate (FWPR) remains low in India despite economic development and rising education levels of women and girls. Discuss the reasons behind low Female workforce participation rate in India. Suggest measures for improvement. (10 marks/150 marks)

Female workforce Participation rate have increased however there still remains a lag in comparison to the male counterparts

The reasons behind low female work-force participation are :-



Measures to improve female participation are :-

- Financial incentives for women aspiring to go for Research and in STEM (Science, Technology Engineering Mathematics) field.
- Empowerment to build new startup.
- Awareness and better use of Beti Bachao and Beti Padhao.

Thus, female participation needs to be increased to utilized the half work-force of the country.



Q11. Fiscal policy of India always has two objectives, namely improving the growth performance of the economy and ensuring social justice to the people. Elaborate. (15 marks/250 words)

Fiscal policy of India is decided by the Government of India ~~the~~ taking into consideration the factors needing growth and welfare.

Fiscal Policy of India has two objectives, namely improving the growth performance and social justice.

Improving Growth performance

- The main objective of Government is to increase the capital expenditure to make progressive growth.
- Infrastructural development like roads, bridges, hospital all falls under capex.
- This incentive encourages the private player to increase investment in the economy.

- Fiscal policy of Government decides the functioning of the economy through incentives for new production.

Social Justice

- Government of India also needs to take of a dependent population as India have poor population of around 23 crores.
- Farmers also needs subsidies due to high price of fertilizers, electricity etc
- The unemployment rate of India is high so funds are allotted to scheme like MNREGA.
- Government also spend in education and health care.

Concerns associated with India's fiscal policy

- Growth performance
 - Increase in capex might led

to ~~see~~ crowding out effect.

→ Incentives to private players might reduce competition.

→ Fiscal deficit will build up which will led to inflation and monetisation of fiscal deficit.

Social Justice

→ Scheme support provide support but ~~exp~~ excessive support make people dependent

→ MNREGA is not creating efficient infrastructure

Thus, fiscal policy needs a different approach with formation of fiscal policy Council to better decide the relation of funds and allocation

Q12. In light of various issues being faced, discuss the need for a revamped and need-based PDS in India. (15 marks/250 words)

Public Distribution System cater to the need of $\frac{2}{3}$ rd of the population. This is required as majority of population are poor in India.

National food security Act 2013 was enacted to better delivery the food to people, which led to separation of beneficiaries into priority household and Anyodaya household.

Various issues faced by PDS system in India are :-

- Beneficiaries are left out due to not accessible documents.
- There is leakage in the system giving rise to corruption and hoardings

- State government are given responsibility to identify beneficiaries. However, there is lack of proper coordination.
- Poor people are left out due to not aware of such scheme.

The need for revamped and need-based PDS-system in India :-

Revamped

- The system should be totally digitized for better reducing leaks.
- People should be allowed to have more than one source of verification if one is shown as not valid.
- Proper Coordination is required between States and Center to streamlined the process.

Needs

- People should get food, if they

are poor, duplication and well-off people need to be removed.

→ There should be a limited storage as many of grains are wasted.

Way forward

Therefore, PDS system needs to be redesigned to meet the need of the poor and leakages need to be reduce for which well formulated policy is required

Q13. Food subsidy bill is becoming an "unmanageably large" expenditure for the government. In this context, analyse the need for revisiting the National Food Security Act (NFSA), 2013. (15 marks/250 words)

Food Subsidy bill is increasing day after day due to increased in popul population and also collection of food grain under Minimum Support Price (MSP)

Food subsidy is taking a huge toll on Government because :-

MSP collection which is increasing and only one two major crop Rice and wheat

The storage of food grain which is excess in godowns.

The population increased and pandemic led poverty

~~Transfers~~
Transports charge is compensated by Government

Food Subsidy

The need for revisiting the National Food Security Act (2013) :-

- Government should encourage the private players to engage more in procurement.
- NAM should be encouraged to reduce the pressure on government to purchase on MSP.
- Farmers should be given incentives to diversify crops.
- The food collection by Food Corporation of India should only collect with required limit.
- Excess wastage needs to be reduce.

Concerns associated with such move :-

- Players (Private) might exploit the farmers.

- Food security is necessary and limited collection might trigger inflation.
- e-NAM might help but farmers are mostly afraid and unaware.

Therefore, affirmative action to encourage farmers to adopt e-NAM and also reduce dependence on MSP would help to reduce the expenditure of Government however due consideration is required

Q14. An effective approach to green budgeting is underpinned by strong strategic framework, tools for evidence generation and an enabling budgetary governance framework. Discuss. (15 marks/250 words)

Green budgeting means including the green approach in budgeting to address various issues such as climate change and emission through polluting bodies.

Green Budgeting is underpinned by strong strategic framework, tools for evidence generation and enabling budgetary governance framework :-

Strong Strategic framework :-

- Strong Strategic because green budgeting would help to address the future problem.
- It would place India in the positive phase of encouraging reduction of pollution.

- Geopolitical advantage to leverage financial grants.
- Place India to put the needs of third world countries in global forum.

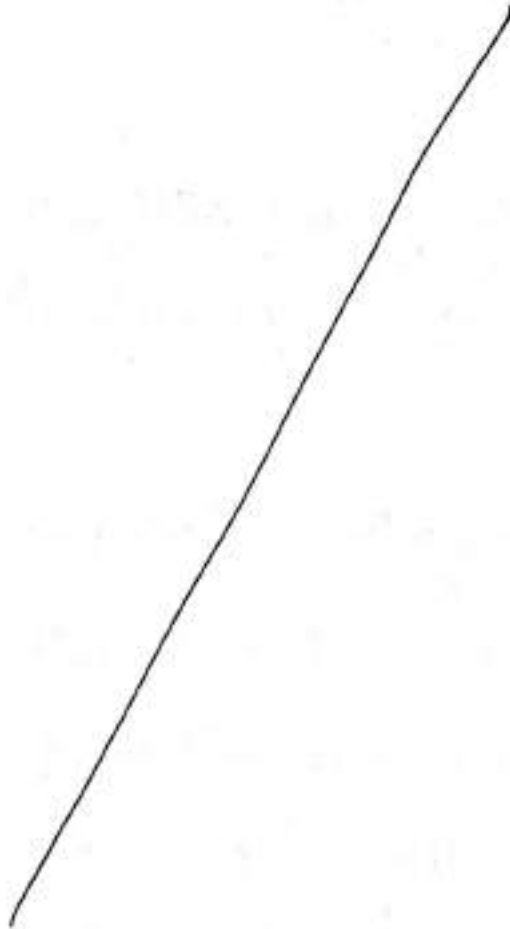
Tools for evidence generation

- Green Budgeting is a new concept, so doing / going along with it will provide insights to better in future endeavour.
- Framework formed will get insights if the current approach is right or wrong.

Enabling budgetary Governance

- The above evidences will help to reduce the expenditure in future policies, thus helping reduce to effective utilization of resources.

Thus, Green Budgeting have wide potential which needs to harness for being better ready for future endeavours. It will help to achieve the Paris Climate Agreement along with well devised plan for thermal coal reduction.



Q15. State finances in India present a worrying picture, with debt sustainability being a major concern. Discuss in context of the recent RBI report on state finances. (15 marks/250 words)

State finances in India have huge debt and their fiscal power to generate revenue is reducing. The main cause of such debt problem due to engaging in freebies.

State finances in India present worrying picture with debt sustainability being major concern because :-

- The fiscal power of state have reduce after the GST (Good and Service Tax) implementation.
- The center and state tension in some states in not allowing flow of enough revenues.
- The COVID-19 pandemic increased the

debt of state because of fiscal stimulus which states provided to the manufacturing and services sectors

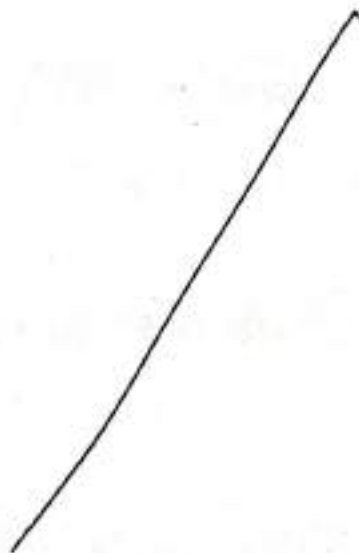
RBI report on state finances is :-

- Expenditure of state is more than its revenue collection.
- States have huge debt with center as well.
- The Debt to GDP (GSDP) is around 90%.
- The states are involved in giving freebies which taking toll on the state finances.
- Waring of loan is also a major concern.

Steps needed to bring back the finance in balance state are :-

- Reduction in freebies
- Waiver of loan to only needy and reasonable people.
- Center should not allow loan to state who are not maintaining the FRBM rules.

Thus, state finances can improve with more on capex and not allowing revenue be wasted on unnecessary expenditure



Q16. Discuss the role of geospatial technologies in developing effective approaches for disaster risk reduction and disaster management. (15 marks/250 words)

Geospatial Technologies is generally the usage of spatial (space) technology to map the geography of an area to better use it for planning. For example cropping, disaster reduction etc

Role of Geospatial Technologies in developing effective approaches for disaster risk reduction and disaster management are :-

Disaster Risk Reduction

- Disaster like flood can be reduced by effective utilization of Geospatial data to map the flood plains
- Landslides can be reduce with well analyses of the land/soil

in ~~one~~ an area along with slope prone zone.

- Geospatial technology provide well structure wise layer which could be used for better detect detection of disaster prone area.
- Coastal Mapping to reduce flood in the area.

Disaster Management

- Mapping will help to manage the forces and resources to be utilized in a time bound manner.
- Management becomes easy if zoning is done and hence reduce the post expenditure.

[Steps taken by Government] :-

- The Flood Plain Zonal mapping is

encourage by Government.

→ The Coastal Regulation Zone to well demarcate the eco-sensitive zone.

→ The Indian National Ocean Service System to ~~between~~ warned the people beforehand.

Thus, Geospatial technology have immences utilized to help reduce disaster and lost of life and property.



Q17. What are the challenges of infrastructure financing in India? Do you think the current investment models are effective in addressing those? Critically comment. (15 marks/250 words)

Infrastructure are building blocks of an economy. India is increasing its expenditure on infrastructure to bring about an accelerated growth.

The challenges of infrastructure financing in India are :-



Current Investments models are effective in addressing these problems :-

- The finances problem have been reduce by implement various model like Build and transfer, Build, Operate and transfer model with private players.
- EIA is being carried out to reduce the impact on environment and lost of economic potential of nature
- New models are based on synergy and synchronization of departments to reduce cost and efficient used of resources.

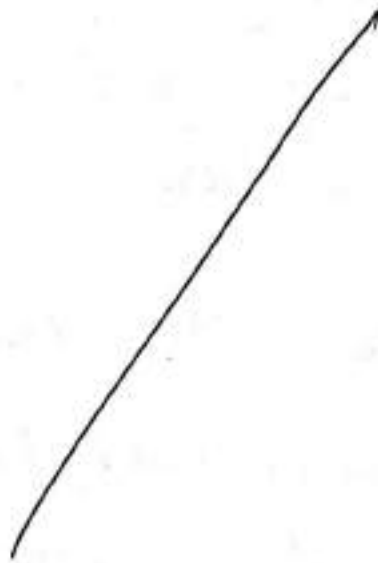
Concerns associated with above model. :-

- EIA 2020 amendment have diluted the provision of few restriction which might impact environment.

→ The Land Acquisition and Rehabilitation Act is still not being implemented adequately

→ The nexus between Private and Government official is leading to corruption.

Thus, financing of infrastructure should be carried out in a holistic manner taking care of possible hurdles that might get in the way.



Q18. The impact of floods on life and property can be most effectively reduced by hazard mapping. Comment. (15 marks/250 words)

Hazard Mapping means to effectively map the area which might be prone to natural calamities like flood, land slides as well as man-made.

The impact of floods on life and property can be most effectively reduced by hazard mapping :-

Impact of flood (Hazard Mapping)

→ Flood plain can be mapped according to prone area and thus resources can be utilized in effective manner.

→ The structure to reduce impact can be built with the help of mapping.

→ Property loss is causing huge damage to states finances which can be reduce.

Concerns associated with it

→ If mapping is not executive effectively it might cause more damage.

→ Different data between ministries can lead to confusion about which to carry out.

→ Governments (Center and State) might not agreed to carry out plan in a single direction

Way forward

→ There needs to be a dedicated cell to only developed data on the hazard mapping.

→ The disaster Executive Committee should be executing agency.

Thus, hazard mapping can reduce loss of life and property however bottom up approach is more desirable to can on the hazard mapping in right direction



Q19. Identify and discuss various pollution control and mitigation technologies.
(15 marks/250 words)

Pollution can be of various forms like Air, water, soil, Noise, e-waste etc. The intensity of pollution have increased due to explosion of pop population and carelessness of human.

The various pollution control and mitigation Technologies are :-

→ Air pollution

- (i) Air pollution control is carried out through National Ambience plan of Action (Air Quality)
- (ii) Stubble burning is causing problem and so new method of coal cell formation is being encourage.

→ Water pollution

(i) Industrial bodies are not allowed to release effluents without proper treatment.

(ii) Sewage water treatment action plan to treat water.

→ Noise pollution

(i) New machine to detect the noise in an area with no demar-
cation according to loudness.

(ii) Restriction of use of loud speaker in residential area.

→ Soil Pollution

(i) No release of extra fertilisers with new technology at develop
age Nano fertilizers.

(ii) Run off to water is being reduced.

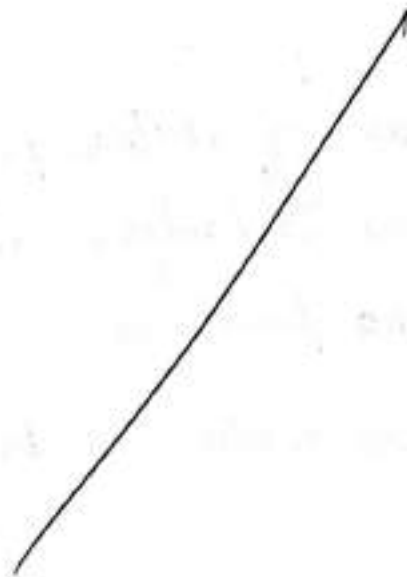
→ E-waste

→ Well disposal of e-waste generated

from computers, electronics.

→ Dedicated plant for collection and separation of parts.

Thus, pollution is caused for concerns and active steps are being taken by Central Pollution Control Board along with State to reduce the hazardous impact of pollution.

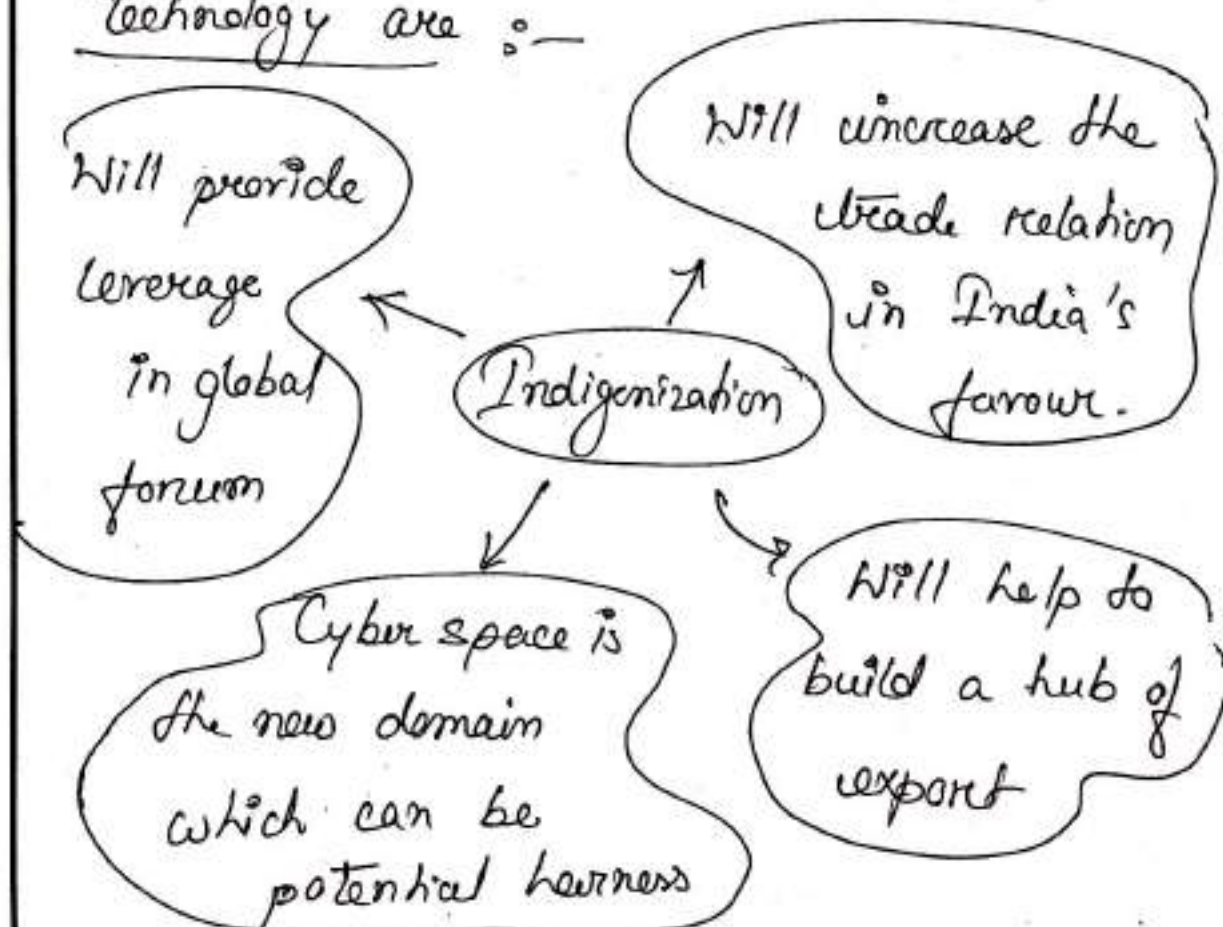


Q20. The evolving dynamic of geopolitics necessitates the indigenization of technology. Comment. Also, examine the recent developments in the field of indigenous defense technologies in India

(15 marks/250 words)

World is moving in the 4th Industrial Revolution and Technological development is one of the major factors which will determine who will have an edge in geopolitics.

The necessitating of Indigenization of Technology are :-



The recent developments in the field of indigenous defence technologies in India are:-

- ↪ Quantum key Distribution which help to create a secure message/communication system
- ↪ The development of Hypersonic cruise missile putting India with the likes of USA and China.
- ↪ The Air Independent Propulsion System developed with France. (Project 75)
- ↪ The Unmanned Vehicle Machine to operate stealth operation.

Concerns

- ↪ The development are taking too long thus, increasing expenditure.

→ The Technologies still are not competent with the like of China and USA

Thus, Indigenization is important to have a dominant position in the ever evolving geopolitics. India can do so with encouragement of FDI in defense sector

