

GRADED ASSESSMENT TEST 2025

(To be filled by candidate)

TEST CODE : M25GAT05

TEST NO. : 05

Name of Candidate: ANANYA RANA

Roll No.: CAVA25.ECL.1569 Start Time 2:35 pm End Time 4:05 pm

Date of Examination: 20th JULY 2025 Mobile N

Q. No.	Maximum Marks	Marks Obtained	Q. No.	Maximum Marks	Marks Obtained
1	10		6	15	
2	10		7	15	
3	10		8	15	
4	10		9	15	
5	10		10	15	
Total Marks : 50			Total Marks : 75		

GRAND TOTAL - / 125

EVAL CODE: GRADED DATE:

GENERAL INSTRUCTIONS

1. Immediately on receipt of the QCA booklet, please check that this QCA booklet does not have any misprint or torn or missing pages or items, etc. If so, get it replaced by a fresh QCA booklet.
2. Candidates must mention all relevant details like Name, Email, Roll No, Mobile, etc. in the space allocated.
3. Candidate is expected to attempt all 10 questions within the given timeline.
4. Answers must be written in the medium authorized at the time of admission.
5. Candidates must write answers for the specific question under the respective question itself. Any answer written outside the space allotted may not be given credit.
6. Please write neatly. Avoid illegible writing.
7. Do not write/mark irrelevant matters in the QCAB.
8. Only those copies that are submitted on the date of exam till 5 pm will be graded.

REMARKS:

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MARKING SCHEME *			
Marks Per Ques	Below Average	Average	Above Average
10 Marks	Below 2.50	3.00 - 3.50	4.00 and above
15 Marks	Below 4.00	4.00 - 5.50	6.00 and above

* Subject to change without prior notice.

MACRO COMMENTS

The Purpose of evaluation@nextias.com is to provide constructive suggestions on 'How to improve Answer Writing and thereby score better marks.'

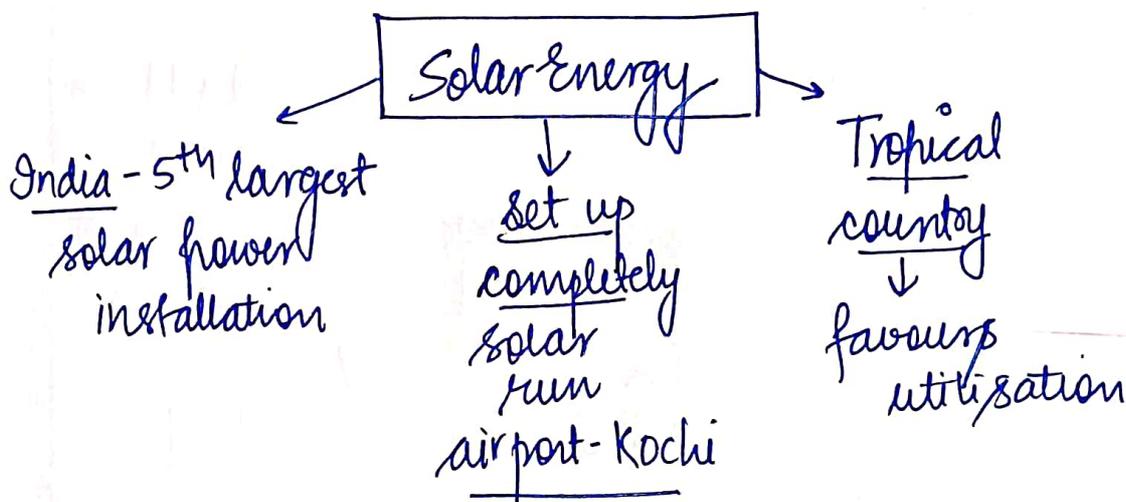
STRENGTHS OF THE CANDIDATE

AREAS OF IMPROVEMENT

IMPROVEMENT SUGGESTIONS

- Q1. India aims to achieve 570 GW of solar capacity by 2030, surpassing its global commitments. However, to realise its full potential, India must accelerate solar expansion by addressing the major challenges faced by the solar sector. Discuss. (Answer in 150 words) 10 marks

India has recently achieved target of 50% of its energy mix supported by non-fossil fuel energy 5 years ahead of 2030 deadline. Solar energy contributes a major portion of this.



Major challenges faced by solar sector

- (1) Land requirements for setting up solar parks - hindered by environmental clearance delays, public protests etc.
- (2) Intermittancy in supply due to non-availability of solar energy 24x7
- (3) Lack of adequate storage capacity
 - eg Battery energy storage systems, pumped storage system etc

(4) Management of e-waste generated causing threat to sustainable development

(5) Weaponisation of natural resources

(eg) export restrictions of rare earth metals required for chip manufacturing by China

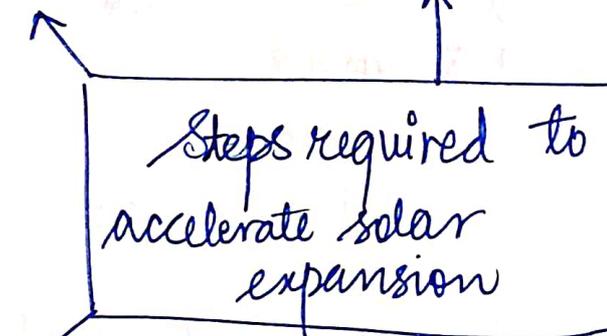
(1) Push to development of storage mechanisms

(eg) BESS, PSS etc

(2) Focus on value addition under PLI Scheme

(3) Addressing land requirement challenges via

floating solar power plants



(5) Formalization of e-waste management chains.

(4) Diversifying sources of rare earth elements

(eg) Argentina Australia etc.

India's initiatives like ISA offer tremendous opportunity to have international collaboration and achieve India's goal of 'Solar Power'

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Q2. Discuss the role of technological innovations in addressing the challenges faced by Indian agriculture.
(Answer in 150 words) 10 marks

Rise of Industry 4.0 with technologies that can act as breakthrough - AI, ML - holds immense potential to transform Indian agriculture.

Challenges faced by Indian agriculture

(1) Low productivity in almost all crops.
eg) Palm oil, cotton - 460 kg/ha
↓
China - 1764 kg/ha etc.
net importer (98% imported)

(2) Technology fatigue - India has not introduced any major technology in agriculture since 2002 Bt-cotton.

(3) Climate change induced disruptions - vagaries of monsoon, existence of floods and droughts together. eg) Vidarbha region

(4) Decline in technological achievements.
eg) pink bollworm is said to have acquired resistance against Bt-cotton.

(5) Global disruptions - Trade wars, denial of agricultural exports on SPS basis (by EU) etc.

(6) Lack of market intelligence among farmers.

⊙ Technological access barriers to information

→ ① Firewall against weather disruptions

⊙ Early warnings from IMD

→ ② Increase productivity significantly

⊙ Precision farming, climate smart farming using AI, IoT etc

Role of technological innovations

→ ③ Removing information asymmetry

⊙ Cott-Ally app by Cotton Corporation of India

→ ④ GM crop introduction to improve yield ⊙ DMH Mustard Dharu

→ ⑤ New market access ⊙ ONDC, NEM, GeM etc.

India introduced National Agriculture Digital Mission to leverage use of technology for saving its 'Annadata'.

Q3. Examine the current status of inland waterways in India and their advantages. What are the key challenges hindering the development of inland waterways in India?
(Answer in 150 words) 10 marks

India has officially sanctioned 111 national waterways to promote inland waterways in India.

Current status of inland waterways in India

Status	Challenges
<p>① Implementation started for development</p> <p>eg) <u>Ganga-Stretch</u> <u>Brahmaputra stretch</u></p> <p>② Some success achieved</p> <p>eg) <u>cruise on Ganga</u> - longest in world completed its journey.</p>	<p>① Need to <u>start other inland waterways at war footing</u></p> <p>② <u>Inter-state river water disputes</u> hinder the implementation.</p>

Advantages of inland waterways

- ① Tourism potential: improve revenue
- ② Decongesting roads
- ③ Improving goods competitiveness

eg India's cost of logistics is 13-14% of its GDP while China - 8-9% of its GDP.

→ ① Lack of interoperability between different ministries

Key Challenges hindering development

eg Ministry of Jal Shakti, Ministry of Ports, Shipping & Waterways etc

→ ② Lacklustre approach of states fearing centralization

→ ③ Environmental concerns leading to appeals in courts

→ ④ Inadequate PPP models for investment.

① Give autonomy to Inlands Waterways Authority of India

② Collaborative approach between Centre and states



④ Create PM Gati Shakti like dashboard for real time monitoring.

③ Innovative models to fund - 'waterway bonds'

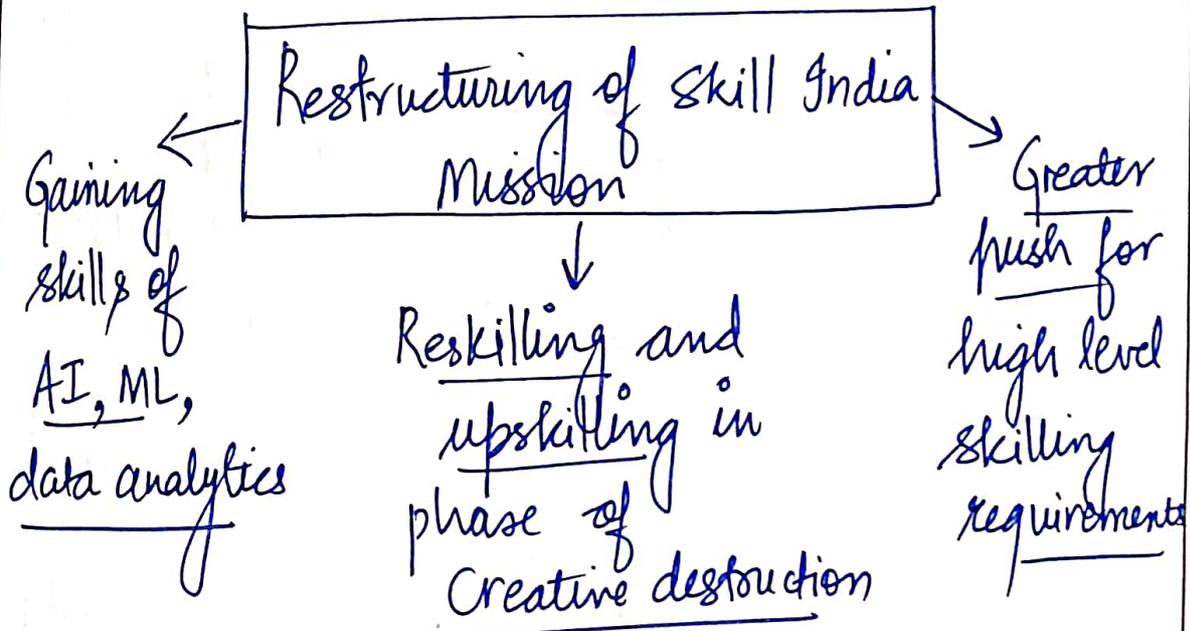
Inland waterways will help achieve the goal of 'Blue economy' in a sustainable manner

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Q4. The Skill India Mission has recently been restructured and extended with the aim of equipping the youth with "future-ready skills." In this context, examine the achievements and challenges of the Skill India Mission in the Indian economy.
(Answer in 150 words) 10 marks

Skill India Mission is a dedicated government initiative to empower workforce with skills required in era of Industry 4.0.



Achievements and challenges of Skill India Mission

Achievements

① Many skills of traditional setup recognised under

Challenges

① Need for greater push for continuation of programme

'Prior Learning Skills' component

② Increased employability of youth.

① Skills India Report (2025)
- 51% of graduates are employable

③ Promotion of industry-academia linkage via NET, 2020

④ On job training initiative + PM Internship Scheme

① Many youth leave to get employed mid-way

② Still less % of population is formally skilled → 4.4% in India
96% in S. Korea

③ Disruption caused by technology development at fast pace may render skills unusable.

④ Less applications for PM Internship Scheme

→ ① Extensive workshops at school and college level to attract students

Measures needed → ② Incentives for industry
① tax benefits

→ ③ International collaborations ① Setting up Foreign Universities in India.

'skilling' is the new fail safe option to survive in today's AI driven world.

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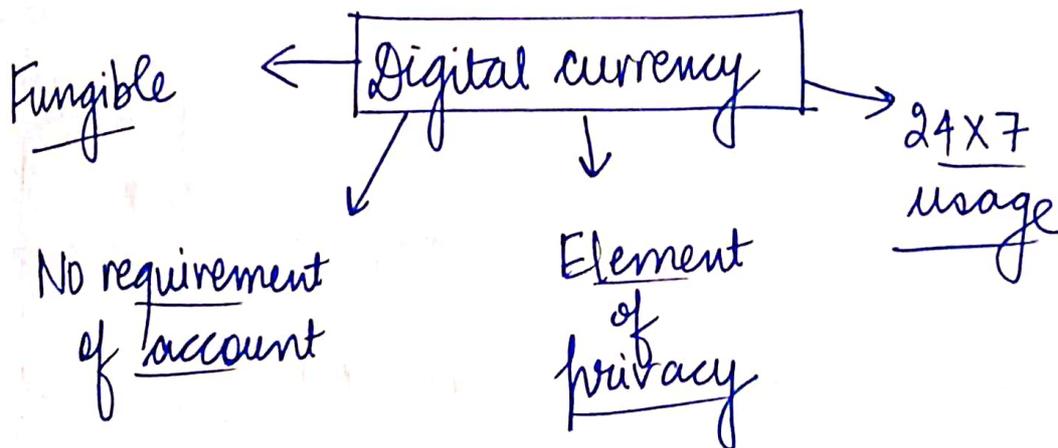
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Q5. What is digital currency? Discuss the potential benefits of digital currency in financial transformation and the challenges associated with it. (Answer in 150 words) 10 marks

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Digital currency is the virtual form of a country's national currency which is backed by its Central Bank and acts as a digital legal tender.

eg) India's ~~Rupee~~ e-₹ (Central Bank Digital Rupee)



Potential benefits of digital currency in financial transformation

① Move towards cashless economy

- decreasing cost to RBI
- less need to safeguard cash against robbery.

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- ② Rooting out black money via digital footprint of transactions.
- ③ Environmental goal of financial system to achieve green target by 2030.
- ④ Faster payment deals to boost economic growth.
- ⑤ Utilization of India's prowess in DPI
 - eg) UPI, NeFT, RTGS etc

① 'Not so green'
as electricity required to run is from coal energy

② Rising threat of cyber crimes

Challenges associated

③ more vulnerable
↳ elderly

④ Digital literacy
⊕ need to include vernacular languages to bring inclusivity.

⑤ Lack of 100% internet penetrability
↳ disadvantage to remote regions

India's CBDC holds a shining example of innovation and foresightedness. Missions like Bharatnet, cyber crime vigilance and renewable energy adoption will help overcome challenges

- Q6. For India to raise the manufacturing sector's contribution to GDP from 15% to 25%, strategic reforms and the creation of a robust ecosystem for industrial growth are essential. Comment. (Answer in 250 words) 15 marks

India's manufacturing sector has seen stagnating contribution of 17% to its overall GDP since decades.

Challenges faced by manufacturing sector

① Lack of adequate investment by both government as well as private sector.

② Threat of automation of jobs leading to 'jobless growth'

③ Logistical challenges decreasing overall competitiveness of goods

eg) Logistical costs - 13 to 14% of GDP
USA - 8% of GDP

④ Inadequate push for innovation and high end manufacturing.

eg) India still imports API, from china

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⑤ Regulatory cholesterol (Economic Survey 2025) — Excessive regulation leading to decline in ease of doing business.

Measures required to overcome these challenges

① Strategic reforms

(1) Induction into Global value chains

⊗ China+1 strategy, channelizing tariff differentials

(2) Capital investment in industries

⊗ Handholding for MSMEs, tax benefits for larger corporations.

(3) Value addition push in PLI scheme.

⊗ semiconductor sector.

④ Investment in human capital formation ⊗ PM Internship Scheme

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⑤ Basic infrastructure improvement

- road quality, 24x7 power etc.

(II) Robust ecosystem

① Clearing regulatory cholesterol - Be
a facilitator rather than regulator.

② Faster clearances - land, environmental

③ Competitive federalism by states.

(eg) Gujarat Investment Summit.

④ Development of industrial corridors
for regional equity.

⑤ Better logistics - PM Gati Shakti,
Multi-modal transportation, inland
waterways.

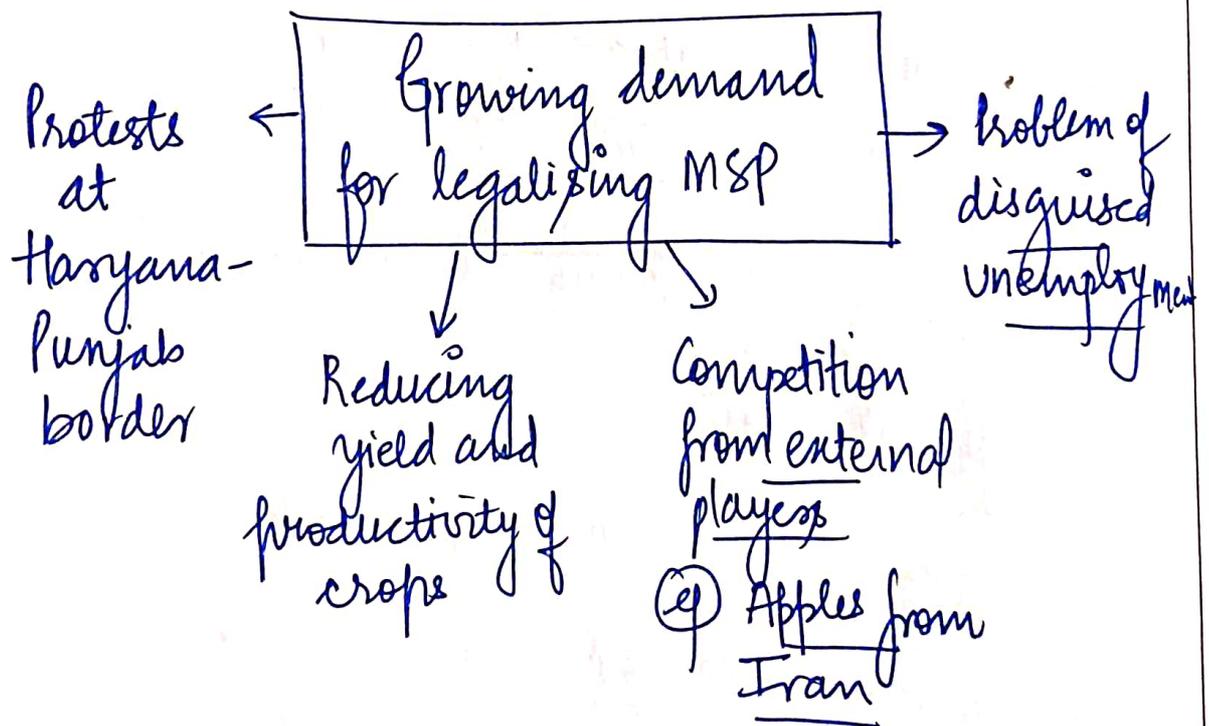
'getting out of the way' and
adaptive efficiency holds great relevance
to improve contribution of manufacturing
sector and become a manufacturing hub by
2047.

Q7.

With the growing demand from farmers for a legal guarantee for Minimum Support Prices (MSPs), critically examine the advantages and challenges of legalising MSP. Also, suggest measures to strengthen price support mechanisms for farmers in India.

(Answer in 250 words) 15 marks

Minimum Support Prices (MSPs)
announced for 22 crops under Price Control Orders every year before sowing are a type of social cushion for the Annadaata.



Advantages of legalising MSP

- ① Protect farmers from exploitation of middlemen.
- ② Farmers receive only 30-33% return of consumer price for TOP crops

2) Ensure food security of nation especially during geopolitical crises.

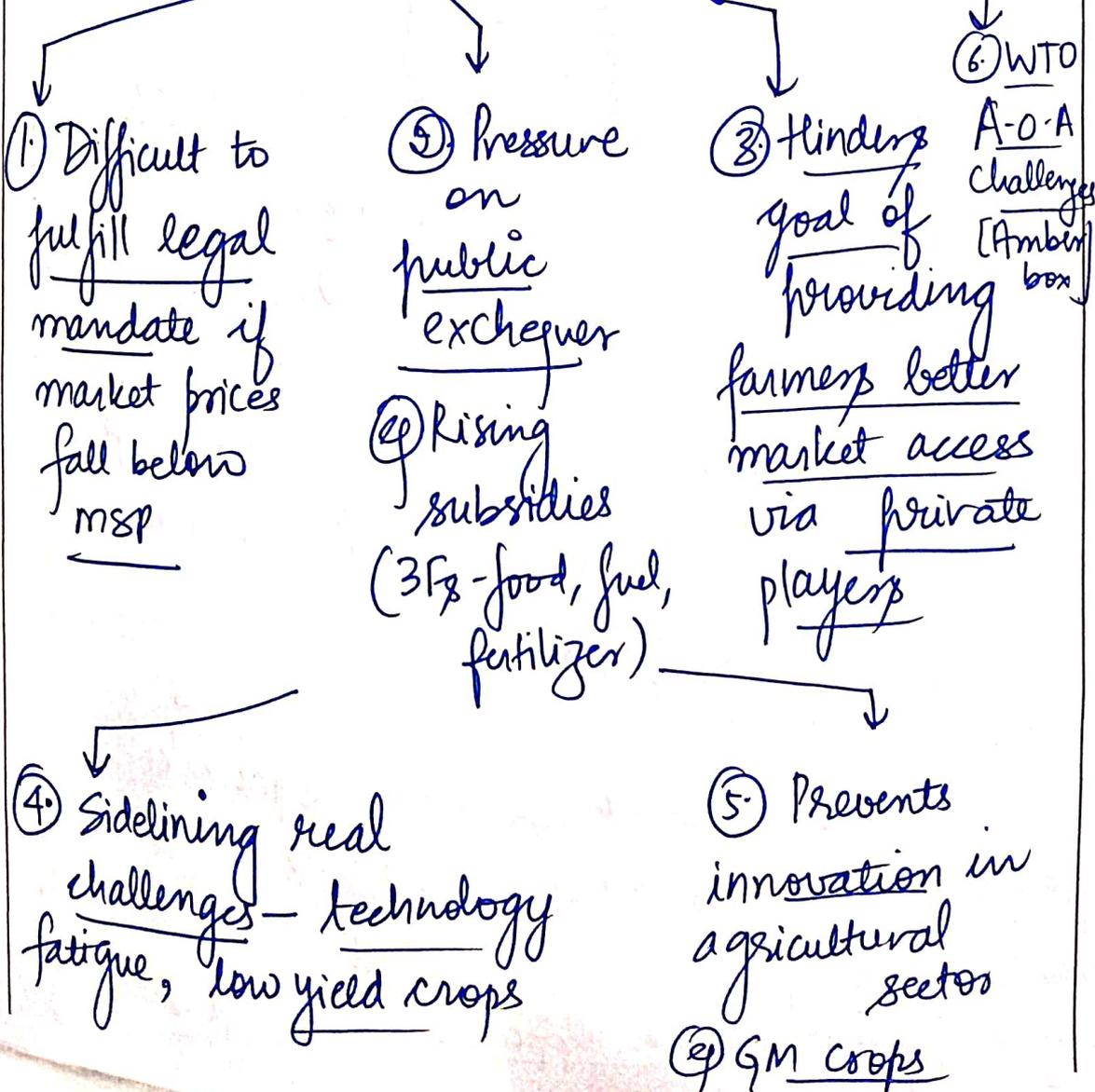
eg) Ukraine - largest exporter of wheat.

3) Fulfill goal of increasing farmers' income

4) Prevent socio-cultural crises

eg) Farmers' suicides during crop failure.

Disadvantages of legalising MSP



① Digital trail keeping of payment mechanisms @ use of e-pos in fertilizer shops.

② Price Deficiency schemes like PM-AASHA must be encouraged

③ 'Token system' to help farmers claim loss during crop failure

Measures to strengthen price support mechanisms

④ Push for greater insurance penetration for farmers
 @ PM Fasal Bima Yojana

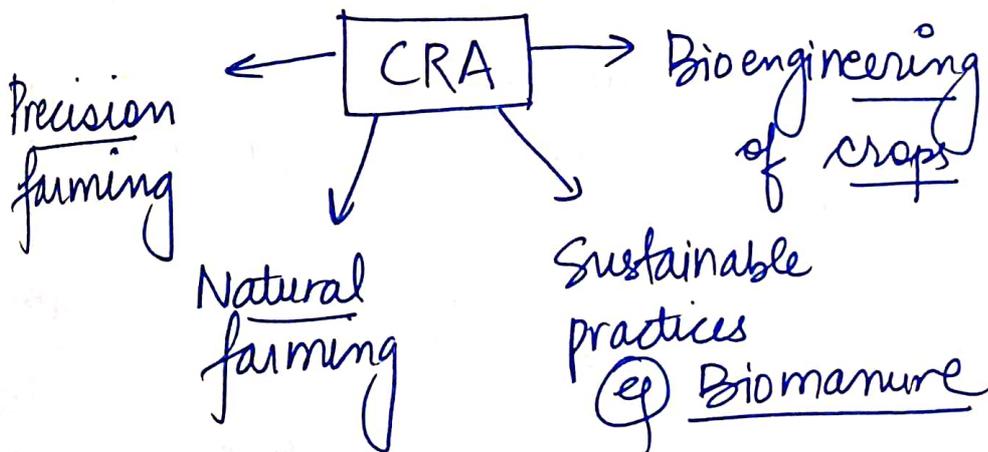
⑤ e-warehousing slips to help in gaining credit facilities + reducing post harvest losses.

Investing in technologies like precision farming, support to FPOs and market intelligence improvement hold the key to provide income opportunities to farmers

Q8. What is Climate Resilient Agriculture (CRA)? Discuss the steps taken by the government to promote CRA and examine the key challenges faced in making Indian agriculture climate-resilient.
(Answer in 250 words) 15 marks

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Climate Resilient Agriculture refers to fool-proofing agricultural practices and processes against the climate induced disruptions to ensure steady supply of agricultural products.



Steps taken by government to promote CRA

(1) National Mission on Sustainable Agriculture
↳ to promote foresightedness in adoption of agricultural practices.

- (2.) Investment in Early Warning Systems
 (eg) 'Mausam' project of IMD
- (3.) Encouragement for technology adoption
 (eg) Dronedidi programme
- (4.) Adoption of microirrigation
 (eg) Drip irrigation, sprinkler systems
- (5.) Extension services to farmers via Agricultural Universities
 (eg) Krishi Darshan programme
- (6.) Investment in Research & Development
 (eg) New varieties of crops under evaluation → Mustard Dhara-11
Ht-cotton

Challenges faced in CRA

- (1.) Large proportion of small and marginal farmers [86%] - low capacity for investment in technology.

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② Lack of 100% internet penetrability especially in tribal and remote areas.

③ Cereal centric model presents challenge to undertake diversification (eg) imposter of pulses

④ Technology fatigue

↳ No introduction of GM crops since 2002 (Bt-cotton)

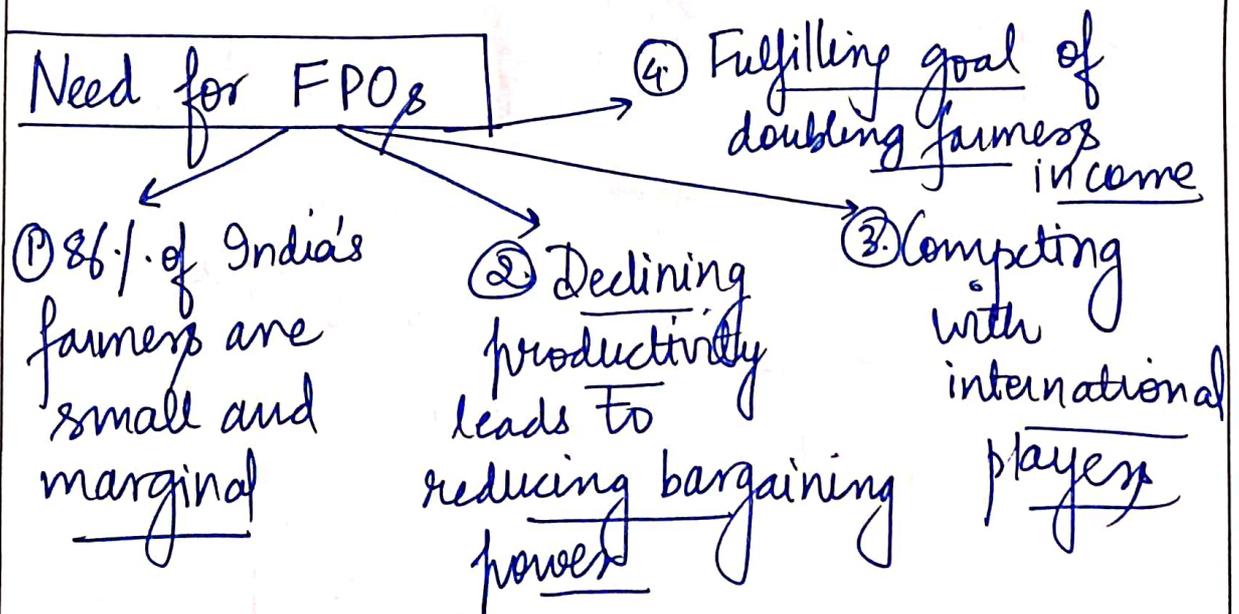
⑤ Land fragmentation prevents producing 'economies of scale' @ Bihar, Odisha etc

⑥ Degradation of soil quality due to excessive fertilizer use. Ratio of N:P:K is 8:4:1 instead of 4:2:1 in Haryana

CRA adoption require land reforms 2.0 facilitated by programmes like Sramitva, DLRMP initiatives. Additionally, international collaboration with ~~the~~ countries like Israel can go a long way to secure India's nutritional requirements

- Q9. Discuss the need for Farmer Producer Organisations (FPOs) and their potential to transform Indian agriculture. Highlight the challenges faced by FPOs and the initiatives undertaken by the government to promote them. (Answer in 250 words) 15 marks

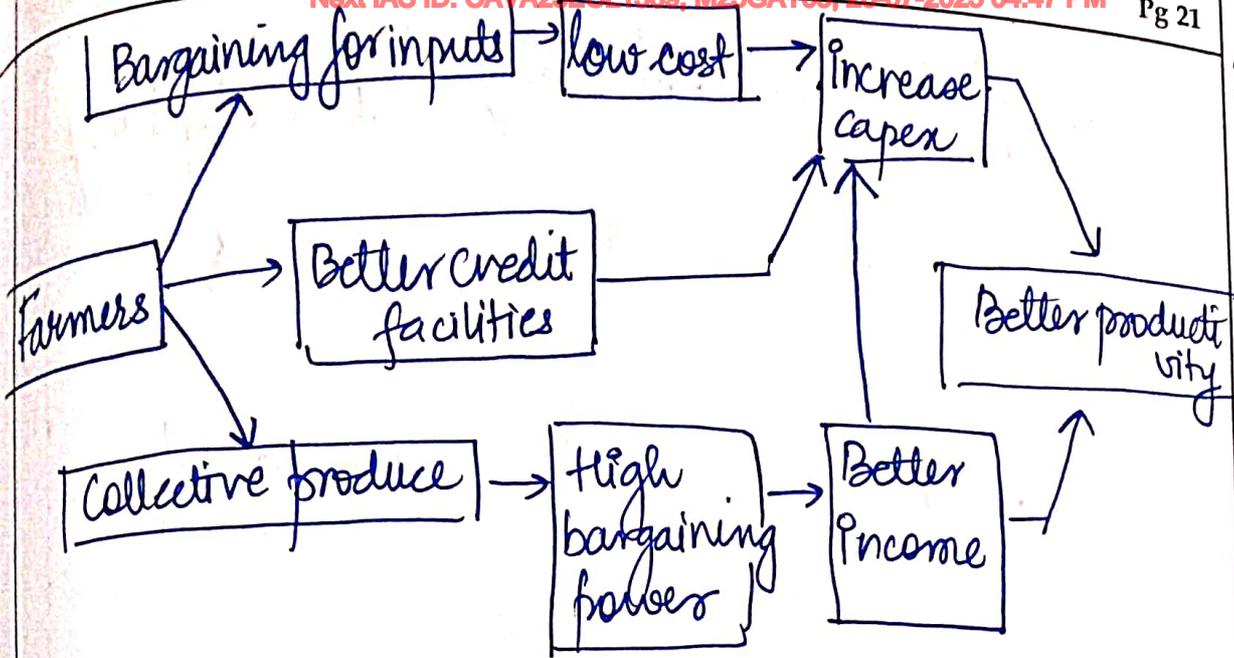
Farmer Producer Organisations are voluntary groupings involving farmers which aim to work collectively along the farm value chain to work for a common goal of better economic prospects.



Potential of FPOs to transform Indian agriculture

They can help in both backward and forward linkages :-

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① Inertia among farmers - historical fears of losses in cooperative farming

② Lack managerial skills to gain access to better buyers

Challenges faced by FPOs

④ Elite capture leading to further marginalisation of farmers

③ Political interference to gain vote bank

→ ① Promotion of FPOs via budgetary and non-budgetary supports

→ ② Credit facility nudging of banks for FPOs

Initiatives undertaken by govt. → ③ Improving managerial skills
via of personnels.

→ ④ Encouragement of successful models

⑤ Sahayadri Foundation of Maharashtra

FPOs can act as a ~~vehicle~~
vehicle of change for farmer
profitability achieving the goal of
'Sahyakarta se Samriddhi'

Q10. Analyse the opportunities for enhancing agricultural exports from India and the challenges impeding their growth. Also, suggest measures needed for a stable and effective Agri-export policy in India.
(Answer in 250 words) 15 marks

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India became a net importer of cotton in the year 2024-25 causing significant decline in its exports. This demand a robust agri-export policy.

Opportunities for enhancing agricultural exports from India

① Largest producer of many crops.

eg Banana, mango etc.

② Leveraging opportunities offered by disruption of supply chains.

eg Ukraine - largest exporter of wheat now engaged in war

③ Improvement in packaging infrastructure

- push to Food processing industry

eg Jams etc

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④ Decline in production of major players @ Climate change induced disruption of food crops in Brazil.

⑤ ~~Massive~~ Increase in dairy products
@ India largest producer of milk.

① Lack of adequate market intelligence among farmers

@ High culture crops

② Underdeveloped Food Processing Industry

@ Dairy products

⑤ Frequent export bans
@ Rice



④ Non Tariff barriers - Sanitary & Phytosanitary by EU & US

@ Salmonella bacteria allegations

③ Post Harvest losses

@ 8% in Cereals
4% in fruits and vegetables.

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① National Agricultural Exports Policy
→ listing down clear timelines and
procedures to achieve goals

② Interoperability between
institutions ⊕ Ministry of Agriculture
Ministry of Transportation etc
(Road and Highways)

Measures need for
stable and effective
agri-exports

③ Investment in
market intelligence
infrastructure

⊕ ONDC

④ Handholding for Food Processing
industry - Mega Food Parks

⑤ Investment in cold chain
storage ⊕ R&D

Increasing agricultural exports
is not only an ambition but also an
imperative to achieve Viksit Bharat @ 2047