



# NEXT IAS

## MAINS TEST SERIES 2.0 - 2025 (FLT)

(To be filled by candidate)

<b>TEST CODE: FLT2507</b>	<b>Test No. : 07</b>
Name of Candidate: <u>PAKSHAL SECRETARY</u> Mobile No. ....	
Roll No. : <u>MTG25 FLTRA046</u> Start Time <u>9:00</u> End Time <u>12:00</u>	
Date of Examination: <u>29/07/2025</u> Medium : English <input checked="" type="checkbox"/> Hindi <input type="checkbox"/>	

Q. No.	Maximum Marks	Marks Obtained	Q. No.	Maximum Marks	Marks Obtained
1			11		
2			12		
3			13		
4			14		
5			15		
6			16		
7			17		
8			18		
9			19		
10			20		
<b>TOTAL MARKS - 100</b>			<b>TOTAL MARKS - 150</b>		

**GRAND TOTAL** - ..... / 250

**EVAL CODE:** ..... **EVAL 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 20 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.

### सामान्य निर्देश

1. QCA पुस्तिका प्राप्त होने पर कृपया तुरंत जांच लें कि इस QCA पुस्तिका में कोई चूक या सामग्री आदि गलत छपी हुई या फटी हुई या गायब तो नहीं है। यदि ऐसा है, तो इसे एक नई QCA पुस्तिका से बदल लें।
2. अभ्यर्थियों को सभी प्रासंगिक विवरण जैसे नाम, ईमेल, रोल नंबर, मोबाइल नंबर आदि का आवंटित स्थान पर उल्लेख करना होगा।
3. अभ्यर्थियों से अपेक्षा की जाती है कि वह आवंटित समय-सीमा के भीतर ही सभी 20 प्रश्नों के उत्तर लेखन का प्रयास करें।
4. प्रत्येक उत्तर, प्रवेश के समय चुनी गयी भाषा के माध्यम में ही लिखे जाने चाहिए।
5. अभ्यर्थियों को विशिष्ट प्रश्न के उत्तर संबंधित प्रश्न के नीचे ही लिखने होंगे। आवंटित स्थान के बाहर लिखे गए किसी भी उत्तर को क्रेडिट नहीं दिया जाएगा।
6. कृपया साफ-सुथरा लिखें। अपठनीय लेखन से बचें।
7. QCAB में अप्रासंगिक तथ्यों को न लिखें / न ही चिह्नित करें।

**REMARKS:** .....

FOR OFFICE USE ONLY

<u>Student Concerns / Query</u>	<u>Evaluator's Feedback / Response</u>
1 .....	1 .....
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2 .....	2 .....
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3 .....	3 .....
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<u>MARKING SCHEME *</u>			
Marks Per Ques	Below Average	Average	Above Average
10 Marks	Below 3.00	3.00 - 3.75	4.00 and above
15 Marks	Below 4.50	4.50 - 5.75	6.00 and above

\* Subject to change without prior notice.

<u>IMPORTANT QR CODES</u>	
 <p>Topper's Copy</p>	 <p>Common mistake and Correct Filled QCAB</p>
 <p>Copy Scanner App</p>	 <p>Next IAS Test Centre Location</p>

**MACRO COMMENTS**

*The Purpose of MTS 2.0 Score Improvement Program (SIP) is to provide constructive suggestions on 'How to improve Answer Writing and thereby score better marks.*

Q1.

Introduction	Body	Conclusion

Q2.

Introduction	Body	Conclusion

Q3.

Introduction	Body	Conclusion

Q4.

Introduction	Body	Conclusion

Q5.

Introduction	Body	Conclusion

Q6.

Introduction	Body	Conclusion

Q7.

Introduction	Body	Conclusion

Q8.

Introduction	Body	Conclusion

Q9.

Introduction	Body	Conclusion

Q10.

Introduction	Body	Conclusion

Q11.

Introduction	Body	Conclusion

Q12.

Introduction	Body	Conclusion

Q13.

Introduction	Body	Conclusion

Q14.

Introduction	Body	Conclusion

Q15.

Introduction	Body	Conclusion

Q16.

Introduction	Body	Conclusion

Q17.

Introduction	Body	Conclusion

Q18.

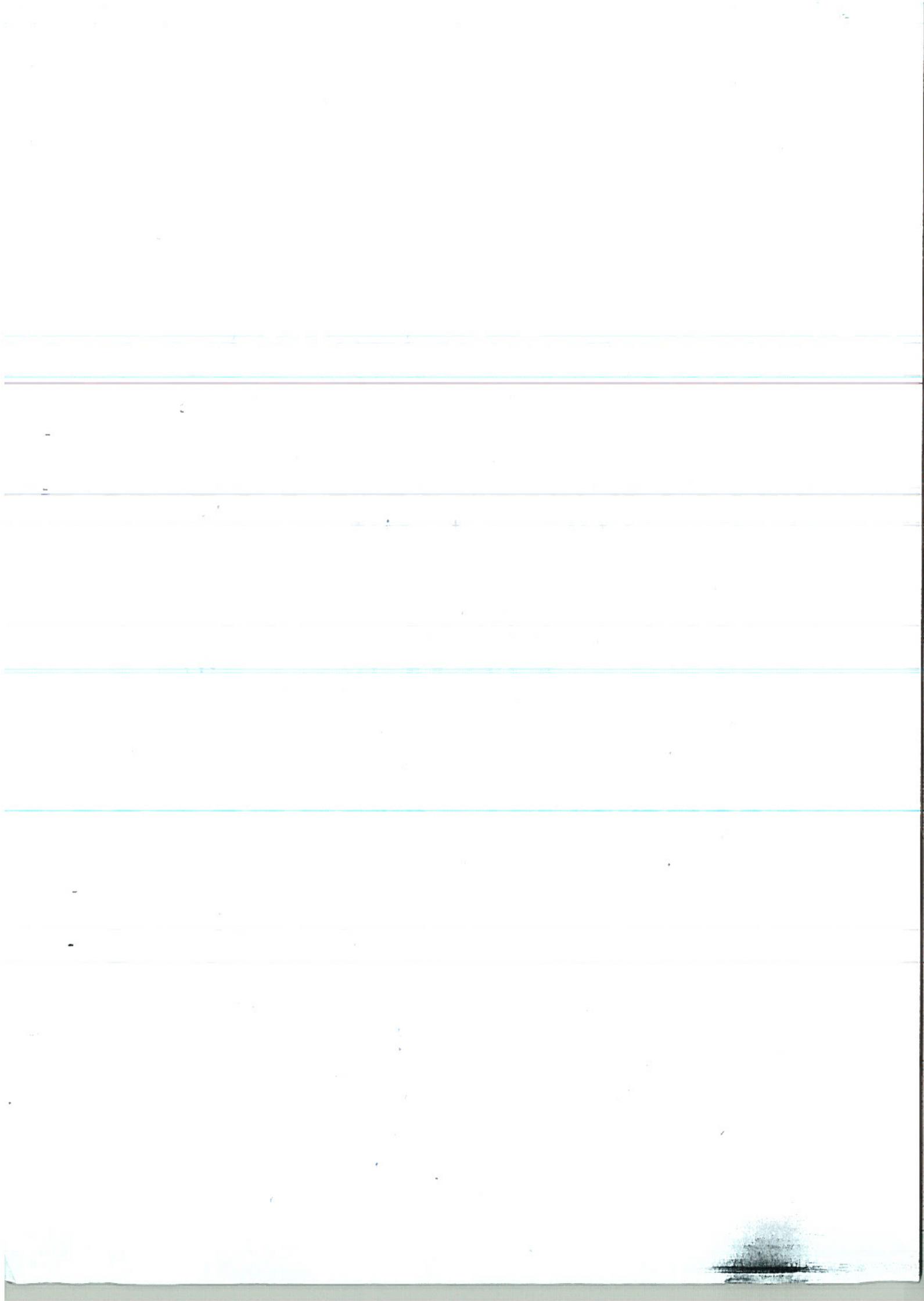
Introduction	Body	Conclusion

Q19.

Introduction	Body	Conclusion

Q20.

Introduction	Body	Conclusion

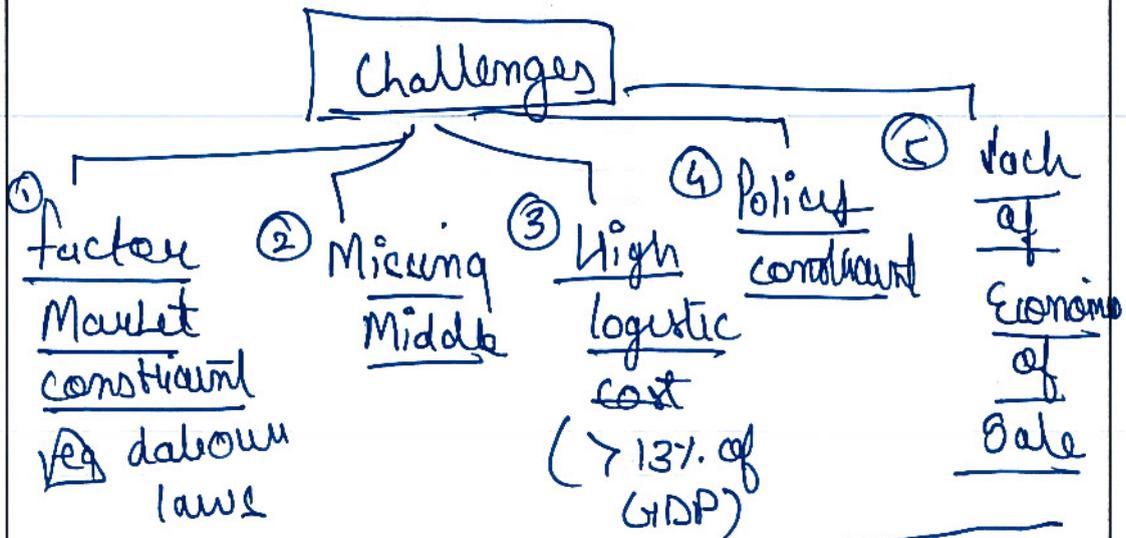




1. मेक इन इंडिया के एक दशक बाद भी, भारत का विनिर्माण क्षेत्र इसकी विकास गाथा में एक कमजोर कड़ी बना हुआ है। भारत जीडीपी वृद्धि और रोजगार सृजन में अपनी क्षमता का उपयोग करने के लिए, अपने विनिर्माण क्षेत्र को मौलिक रूप से कैसे नया रूप दे सकता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक

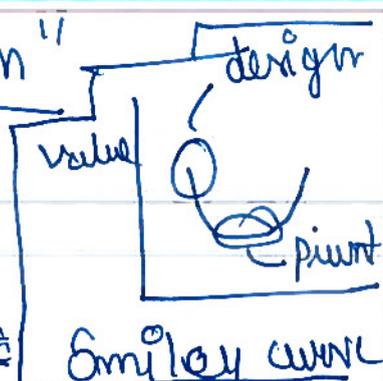
Even after a decade of Make in India, India's manufacturing sector has remained a weak spot in its growth story. How can India fundamentally reset its manufacturing sector to utilise its potential in GDP growth and job creation? (Answer in 150 words) 10 Marks

The share of Manufacturing sector in GVA remains at 18%, despite 10 years of Make in India (against MII target of 25%.)



Ways to fundamentally reset

- ① Reforms in factor market  
eg Implementing New labour code
- ② Cluster based approach for manufacturing eg Industrial corridor

- ③ focus on labour intensive manufacturing eg Textile  
[HO Model → comparative advantage]
- ④ Shift from "Build to print"  
to "Build to design"  
(Smiley curve of Raghuram Rajan)
- 
- ⑤ Special focus on MSME Smiley curve  
→ ES 2024: Shift from size based to age based incentive  
for solving missing middle.
- ⑥ Integrating with GVC →  
more FTAs, RTAs.
- ⑦ leveraging China + 1 opportunity
- ⑧ Serviceification of manufactured  
output (higher value addition)

Economic Survey says "make in India for world" has potential to  
create 80mn jobs and raise share  
to 25%.

2. भारतीय स्टार्टअप्स ने अपार संभावनाएं दिखाने के बावजूद नवाचार को आगे नहीं बढ़ाया है। चर्चा कीजिए। भारतीय स्टार्टअप को मूल्य श्रृंखला में ऊपर जाने के लिए उपाय सुझाएँ? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Indian startups, despite showing great potential, have not scaled up on innovation. Discuss. Suggest measures for Indian startups to go up the value chain.

(Answer in 150 words) 10 Marks

Despite having 12+ unicorns startup, no startup in India has been able to become a Multi National corporation till now

Startup - great potential

- ① Innovative solution to the problems eg Byjus in EdTech
- ② potential of growth and scaling up.
- ③ R&D expenses of startup are high → innovation potential

Not Scaled up

- ① Engaged in retail business  
(Moc Piyush Goyal highlighted)
- ② funding winter → not able



to raise new funds

- ③ Shifting focus from innovation to break even profit due to pressure from investors
- ④ Competition from established firms on R&D front.

### Measures

- ① Dedicated startup challenge fund for innovative solution
- ② Joseph Stiglitz → Bounty by government for R&D by startup (IPR with govt. + money reward to startup)
- ③ Incubation centers → focusing on innovation and new ideas
- ④ Academia linkages eg AT&T Imperial labs

Thus, MoC Piyush Goyal, called startup to shift from "one minute delivery" to IR 4.0 innovation for  
Vishit Bhanot @2017



3. एक मजबूत सार्वजनिक वितरण प्रणाली (पीडीएस) के बावजूद, खाद्य सुरक्षा भारत की जनसंख्या के लिए एक चुनौती बनी हुई है। वर्तमान पीडीएस प्रणाली में क्या कमियां हैं? प्रणाली में सुधार के लिए उपाय सुझाएं।

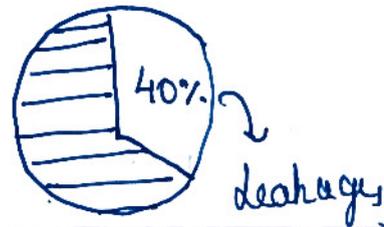
(उत्तर 150 शब्दों में दीजिए) 10 अंक

Despite a robust Public Distribution System (PDS), food security remains a challenge to the Indian population. What are the deficiencies in the current PDS system? Suggest reforms to improve the system. (Answer in 150 words) 10 Marks

67% of India's population (~80 crore) are covered under PDS, yet we rank 105 out of 127 countries in global hunger index 2025.

### Deficiencies in PDS

① High leakages as per Shanta Kumar Committee.



② focus on wheat, rice (cereal) in PDS → no nutrient security

③ Quality Issues → poor quality of grain.

④ Inclusion and Exclusion error in Targeting of Beneficiaries

⑤ ~~High~~ High food wastage (40%  
of total)

⑥ Logistic and Targetting Challenges  
UP, Bihar → only 20% of grain

Suggested Reforms

despite 40%  
of total pop

④ Shanta Kumar Committee

(i) Inclusion of oil, millets and  
nutritious food

(ii) Better Targetting — 40% of  
population

(iii) use of technology → GPS,  
CCTV to curb leakage

③ NITI Aayog

(iv) food vouchers instead of  
subsidy

(v) Imp. Decentralised Model →  
Outsourcing to state / private  
sector

Economist like Ashok Gulati call  
for DBT instead of subsidy for  
better results

4. हाल ही में शुरू किए गए डिजिटल कृषि मिशन के प्रमुख घटकों पर चर्चा कीजिए। यह मिशन किसानों के कल्याण में सुधार करने में कैसे सहायता करेगा? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss the key components of the recently launched Digital Agriculture Mission. How will this mission help in improving farmers' welfare? (Answer in 150 words) 10 Marks

Recently, Cabinet approved a Rs 2,800 crore Digital Agriculture Mission to create DPI (Digital Public Infrastructure) for agriculture sector.

Key component

- (A) AgriStack for agriculture
- (i) farmer → 11 digit unique ID
  - (ii) crop sown registry
  - (iii) village level maps for agriculture

- (B) Decision Support and Guidance System

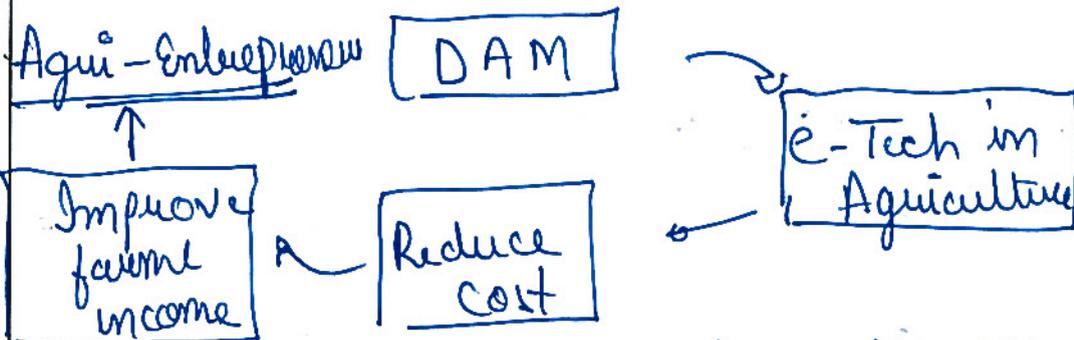
- (C) Soil profile Map for farmers

Role in welfare

- (i) focus on precision agriculture

by leveraging digital tech

- ② Improving Extension services  
 eg Decision Support system
- ③ Proper Targetting of Beneficiaries  
 eg "digit farm ID"
- ④ Reducing leakages and DBT of schemes
- ⑤ Personalised solutions for farmers → "lab to land" connect  
 eg personalised soil maps
- ⑥ Lower Marketing and post-harvest cost eg e-NAM integration and Agristech
- ⑦ facilitate earlier access to credit → online documents



Thus, DAM is key to turn farmer from agriculturist to Agri-Entrepreneur

5. एक्सऑम-4 मिशन क्या है? एक्सऑम-4 मिशन में भारत की भागीदारी भारत के मानव अंतरिक्ष कार्यक्रम को कैसे सशक्त करेगी? (उत्तर 150 शब्दों में दीजिए) 10 अंक

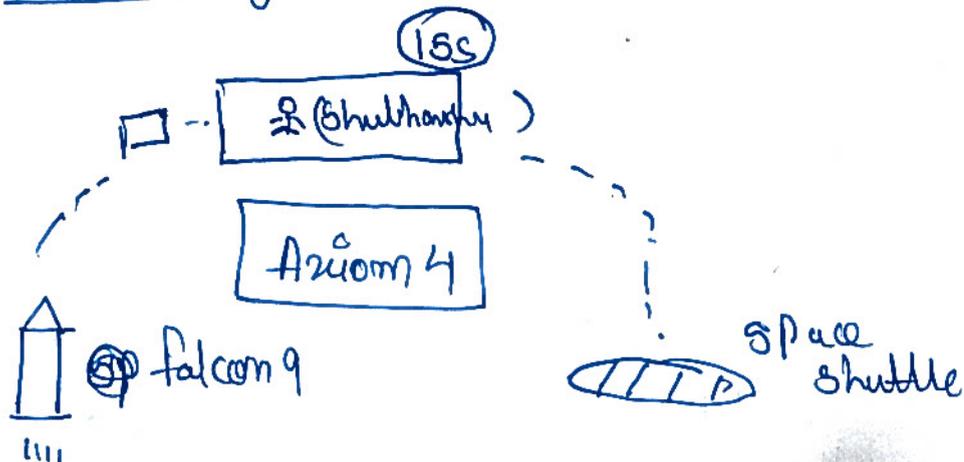
What is the Axiom-4 mission? How will India's participation in the Axiom-4 mission help in bolstering India's human space programme? (Answer in 150 words) 10 Marks



Recently, Indian Astronaut Shubhanshu Shukla went to International Space Station (ISS) as part of Axiom-4 mission.

Axiom-4 Mission

- ① Project to send astronaut to International Space Station
- ② Collaboration among ISRO and NASA.
- ③ Space X Falcon 9 → for space travel
- ④ Micro-gravity experiment



## Role of Anom-4 in India's human space program

- ① Will provide first hand data on space travel
- ② Capacity building → through received inputs
- ③ Sharing of experience from Shukhrakshu to Gaganyatri's
- ④ Health and psychological study data to ISRO
- ⑤ Collaboration with NASA → knowledge & expertise sharing.
- ⑥ Help in studying impact of high radiation during the mission
- ⑦ Learning from space shuttle → high polymer shield to protect astronauts
- ⑧ Sharing of micro gravity research results

As PM Modi said, "Anom-4 marks the beginning of India's Gaganyaan Program"

6. परिशुद्ध औषधि की अवधारणा का परिचय दीजिए। दुर्लभ एवं विशिष्ट रोगों के उपचार में परिशुद्ध औषधि की भूमिका पर टिप्पणी कीजिए। (उत्तर 150 शब्दों में दीजिए) 10 अंक

Introduce the concept of precision medicine. Comment on the role of precision medicine in the treatment of rare and specific diseases. (Answer in 150 words) 10 Marks



Precision Medicine are personalised medicine that target the root cause of disease and doesn't have any side effects

→ gene therapy for sickle cell anaemia.

### Concept

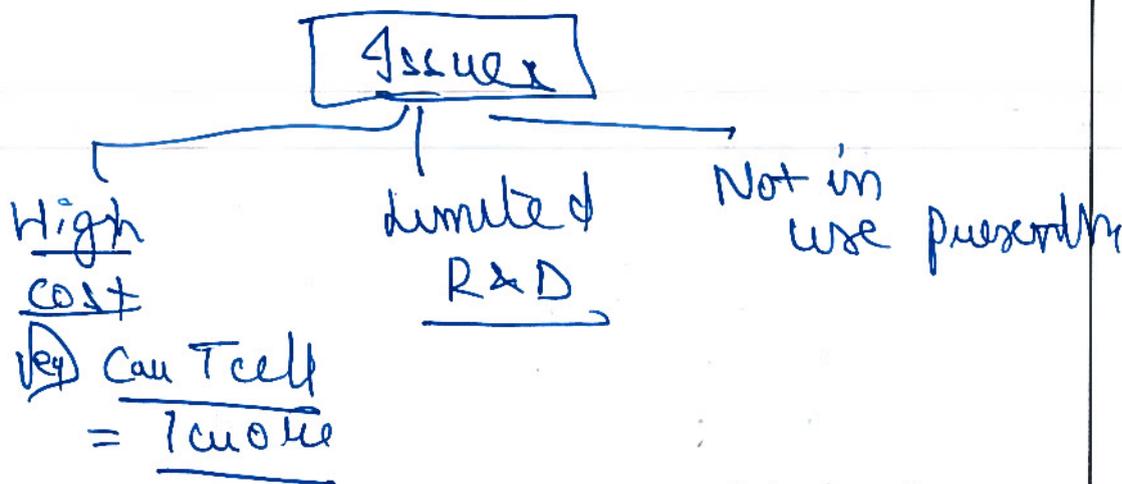
- Targetted disease fighting
- long term immunity
- personalisation based on needs of person
- Example → CAR T cell Therapy, use of gene gun.

### Role in Treatment

- ① Easier treatment of rare &

Specific disease  $\Rightarrow$  only available solution for Thalassemia to precision medicine

- ② No side effect on patient
- ③ long term treatment  $\rightarrow$  no need of regular medicine
- ④ Solves the root cause of disease  $\Rightarrow$  faulty gene
- ⑤ Helps in preparing patient specific response.
- ⑥ ~~more~~ easier administration  
 $\Rightarrow$  no complex procedure like chemo involved



Precision Medicine would be key to treat NTDs and ensure health for all

7. चर्चा कीजिए कि जैव विविधता अधिनियम, 2002 और हाल ही में अधिसूचित जैविक विविधता (पहुंच और लाभ साझाकरण) विनियमन, 2025 पारंपरिक उद्योगों की वृद्धि सुनिश्चित करते हुए पहुंच और लाभ साझाकरण को कैसे बढ़ावा देते हैं। (उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss how the Biodiversity Act, 2002, and the recently notified Biological Diversity (Access and Benefit Sharing) Regulation, 2025, promote access and benefit sharing while ensuring the growth of traditional industries. (Answer in 150 words) 10 Marks

Recently government notified  
Biological Diversity (A + B + C) Regulation  
2025

Role in promoting Access &  
Benefit sharing

- ① Mandatory to share benefit  
with local community.
- ② Formation of local committee  
(BMCs) to decide compensation
- ③ Inventorisation of Traditional  
Knowledge in people's  
biodiversity Register
- ④ NBA → ensures that  
patent are properly approved  
with benefit to people

⑤ SBA → provide permission  
of access to foreign firms  
and Indian firms

Role in growth of traditional

① 2025 Regulation

→ Exempted Ayush and  
Traditional medicine firms  
benefit sharing  
→ priority access to  
traditional industries

② would lower the cost of  
sharing for traditional  
industry

③ provide access to resource  
at cheap cost

④ Improve competitiveness of  
traditional firms

Thus, 2025-regulation balances  
role of ~~regulator~~ A&RC and  
growth of traditional

8. "आपदा जोखिम न्यूनीकरण की दिशा में तैयारी (तत्परता) पहला कदम है।" इस संदर्भ में, भारत में आपदा तैयारी और पूर्व चेतावनी प्रणालियों को सुदृढ़ बनाने में भारतीय मौसम विज्ञान विभाग (IMD) की भूमिका का आकलन कीजिए।  
(उत्तर 150 शब्दों में दीजिए) 10 अंक

"Preparedness is the first step towards disaster risk reduction". In this context, assess the role of the Indian Meteorological Department (IMD) in strengthening disaster preparedness and early warning systems in India.  
(Answer in 150 words) 10 Marks

Recently IMD celebrated 150  
years of its establishment and  
role in disaster risk reduction

### Role of IMD

- ① Early warning for the  
disaster  
eg IMD colour coded warning  
for cyclone
- ② Accurate weather prediction  
and monsoon prediction -  
70% accuracy
- ③ providing extension services  
to farmers and other  
people eg IMD App
- ④ Sumulating of Disaster

Impact of Supercomputer  
Rudra of IMD

- ⑤ Guidelines and SOPs for  
tackling with disaster  
by IMD SMC ~~the~~ guidelines  
during flood situation
- ⑥ Provide lead time for disaster  
preparedness for flood EWS  
gives a lead time of 72 hours
- ⑦ Ensuring Capacity building  
and knowledge sharing  
by Project Mausam of IMD
- ⑧ Key role in post-disaster  
forecast and rehabilitation.

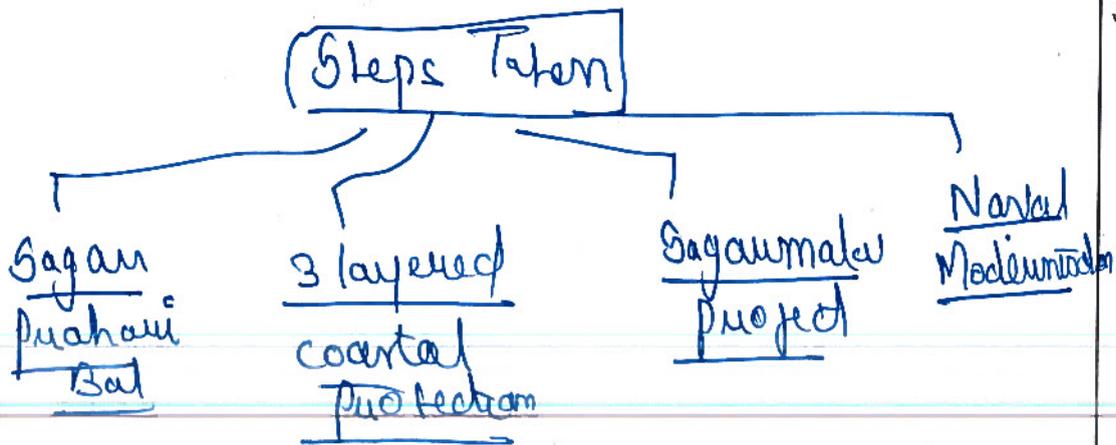
Thus, "Janaknagar Declaration"  
of 6120 (2023) place an entire  
importance on improving  
EWS capacity for Disaster risk  
reductions

9. भारत की लंबी समुद्री सीमा किस प्रकार आंतरिक सुरक्षा के लिए गंभीर चुनौतियाँ प्रस्तुत करती है? इन चुनौतियों से निपटने हेतु सुझाव प्रस्तुत कीजिए। (उत्तर 150 शब्दों में दीजिए) 10 अंक
- How does the long maritime border of India present immense internal security challenges? Suggest measures to address these challenges. (Answer in 150 words) 10 Marks



India has 11,098 km long coastline which makes it susceptible to various traditional and non-traditional challenges.

Internal security challenges	
① <u>Traditional Threat</u>	
eg. i) <u>Naval war</u>	
in Indo - Pacific	
ii) <u>surveillance by chinese ships</u>	
② <u>Influx of illegal migrants</u>	
eg. <u>Sri Lankan Tamils</u>	
③ <u>Dumps</u> eg. <u>Mundra Port - Rs 20,000</u>	
more worth dumps	
④ <u>Terrorism</u> eg. <u>26/11 attack</u>	
⑤ <u>Maritime piracy</u> eg. <u>Somaliyan attacks</u>	



### Measures to Address

- ① Adoption of gold level protection system → Navy → Coast guard → Police
- ② Use of Technology → GPS, Satellite Based monitoring
- ③ upgradation of smaller port.
- ④ Integrated command and coordination centre.
- ⑤ focus on Naval capacity enhancement.
- ⑥ "Denial by punishment" strategy

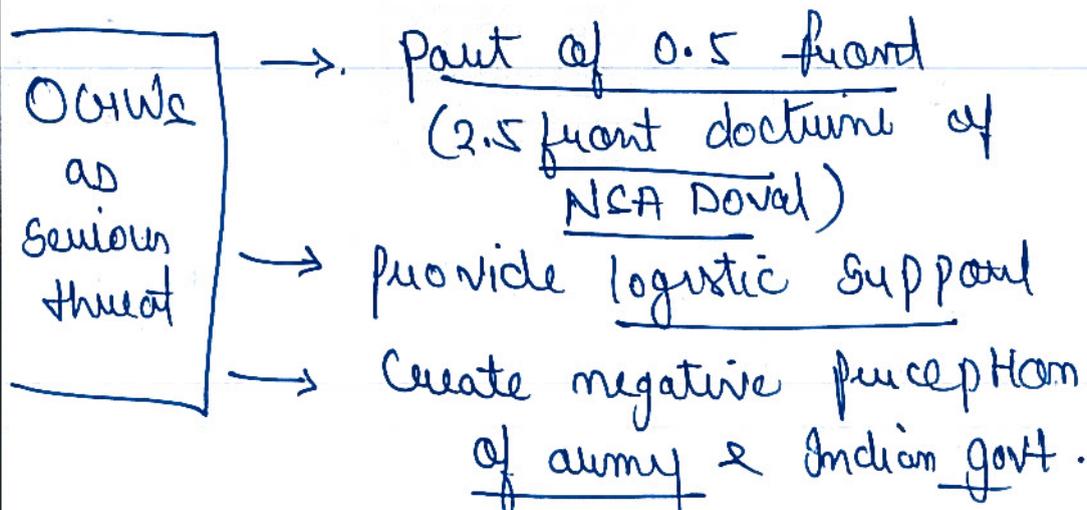
A "whole of government" approach is needed to prevent any future



10. जम्मू और कश्मीर में आतंकवादी गतिविधियों में कमी के बावजूद, ओवर ग्राउंड वर्कर्स (OGW) और छद्म (परोक्षी) आतंकवादी समूह भारत की आंतरिक सुरक्षा के लिए गंभीर खतरा बने हुए हैं। इन खतरों को निष्क्रिय करने के लिए क्या रणनीतियाँ अपनाई जा सकती हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Despite decline in terrorist activities in Jammu and Kashmir, Over Ground Workers (OGWs) and proxy militant groups continue to pose a serious threat to India's internal security. What strategies can be adopted to neutralize these threats? (Answer in 150 words) 10 Marks

Recent Pahalgam attack has highlighted the a serious threat posed by OGWs which facilitated movement of Pak-Based Terrorist to Baramulla Valley



Strategies to be adopted

- ① No Difference / Distinguishment between Terrorist and their supporters (OGWs)
- ② use of force to identify and

eliminate core supporters of  
terrorist.

- ③ Development as an antidote  
towards sympathisers
- ④ Targetted programs ~~to~~ winning  
heart and mind strategies
- ⑤ Curling source of finances  
→ make ~~the~~ OWs resourceless
- ⑥ Amendment in legal Domain  
eg VAPA → special provisions  
to deal with OWs.
- ⑦ Use of local people and social  
Capital → To identify and  
detect OWs.
- ⑧ Counter - Radicalisation strategies  
against OWs.

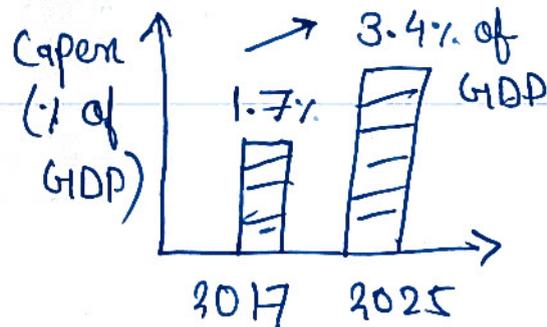
OWs needs to be viewed as  
① a serious threat like terrorism  
and should be tackled accordingly



11. "अवसरचना का विकास त्वरित और समावेशी आर्थिक विकास का एक प्रमुख चालक है"। दीर्घकालिक विकास को प्राप्त करने में अवसरचना में निवेश के महत्व पर प्रकाश डालते हुए, अर्थव्यवस्था में अवसरचना के नेतृत्व वाली वृद्धि को प्रोत्साहित करने में भारत की सफलताओं और विफलताओं पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक
- "Infrastructure development is a key driver of accelerated and inclusive economic growth".  
 Highlighting the importance of infrastructure investment in achieving long-term growth, discuss India's successes and failures in stimulating infrastructure-led growth in the economy.  
 (Answer in 250 words) 15 Marks

Budget 2025-26, increased the open Budget to Rs 11.2 lakh crore highlighting India's focus on infrastructure led growth

Importance of infrastructure



① Multiplicier

Effect on growth

(RBI - Capex impact multiplier = 1.32 vs Revenue multiplier = 0.72)

② Direct Job Creation → 11% people employed in logistic sector

③ Improves ICOR and economic efficiency of capital

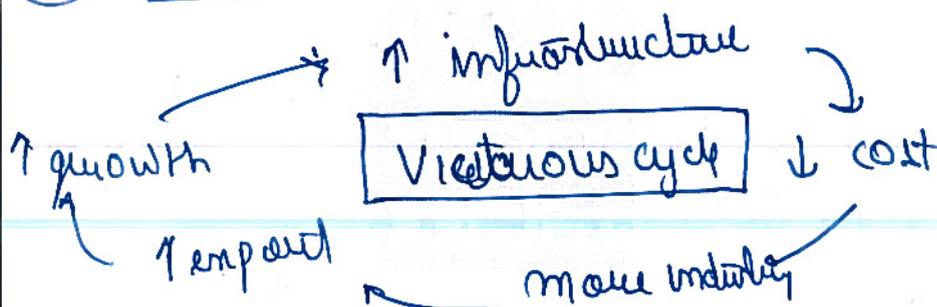
④ Reduces logistic cost → from

13% of GDP to 7-8% of GDP  
(NIP plan)

⑤ Boost to exports → As the competitiveness increases

⑥ National Integration eg Recent Road link (Chenab bridge) to J&K.

⑦ Virtuous cycle gets created



India's success

① Rise in investment in infrastructure sector eg NIP - Rs 111 lakh crore

② fourth largest rail network (59,000 km long)

③ third largest road network

④ Connectivity to hinterland eg PM egram yojana

⑤ Improvement in position in  
logistic Index (WB) → Rank = 40

⑥ Recent success

↳ In 2025 turnaround time on  
ports = 0.9 days (< Singapore  
, China)

Failure

① Quality of Infrastructure ↘  
potholes on NH

② Lack of focus on social infrastructure  
(Amitya Sen) ↘ Health only  
1.9% of GDP spend

③ Incomplete projects and very high  
NPAs in infrastructure sector

④ Multi Modal Paradigm  
→ while waterways is cheapest,  
it is least used (25% use)

⑤ Missing of Targets  
↳ Budget 2024-25 → missed Rs  
11.1 lakh crore

Amitya Sen thus calls for  
investment in 4 capitals: material,  
material, human and social capital  
↳ water infrastructure led growth

12. मौद्रिक नीति समिति (एमपीसी) की जिम्मेदारियाँ क्या हैं? एक स्थायी मुद्रास्फूर्ति दर बनाए रखते हुए आर्थिक सुधार को व्यापक बनाने के लिए आरबीआई की मौद्रिक नीति पहल कितनी प्रभावी रही है?

(उत्तर 250 शब्दों में दीजिए) 15 अंक

What are the responsibilities of the Monetary Policy Committee (MPC)? How effective has the RBI's monetary policy initiatives been to broaden economic recovery whilst maintaining a sustainable inflation rate?  
(Answer in 250 words) 15 Marks

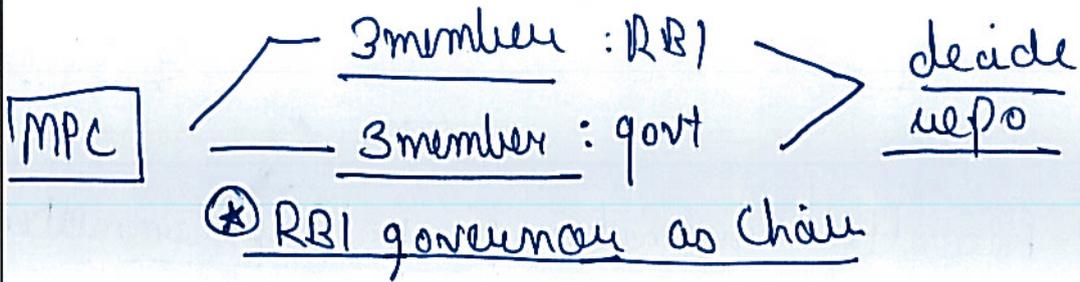
Recently monetary policy committee reduced the repo rate by 50 basis point in its April meet.

MPC was created on recommendation of Ujjit Patel Committee to decide monetary policy in India

### Responsibility of MPC

- ① Decide Monetary policy of the country
- ② fix repo rates for borrowing by banks.
- ③ Target inflation → Range of (4±2%) band
- ④ Support growth while having primary focus on inflation
- ⑤ Check on liquidity condition in

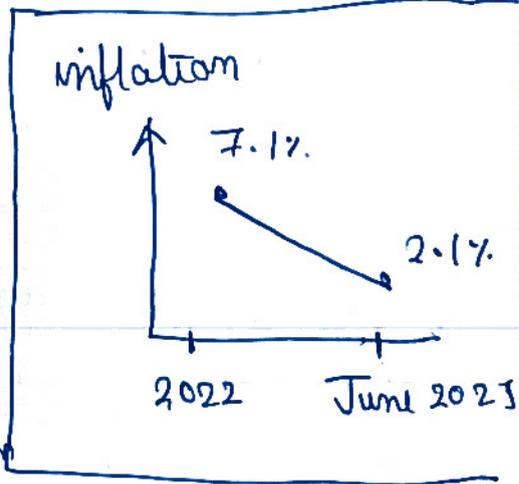
the banking system



Effectiveness of RBI's Monetary policy

Positives

① Able to bring down inflation (see fig) -



② In 2025 → Reduction in repo rates to support growth

③ C Rangarajan (Ex-RBI governor) views

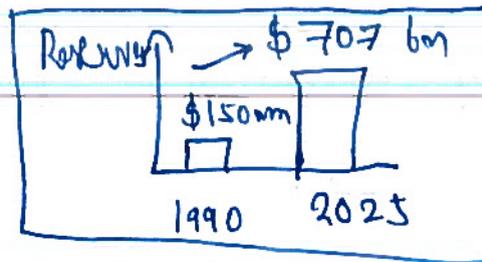
- lowered inflation expectation among economic agent
- Monetary policy credibility has improved → Rational Expectations among people

④ Helped in recovery during Covid-19 period via Quantitative

Working model of RBI.

⑤ Innovative solution's to deal with problem eg MSS Scheme, Operation Twist

⑥ Running foreign reserves.

Negatives

① In 2022 → inflation was above 6% for 10 consecutive months

② High core inflation persists

③ Economic Survey (2024-25) → Too much focus on inflation, hurts growth (Phillips curve)

④ Depreciation of rupee → 2.8% in FY 25

⑤ Government interference in MPC

Way forward

① Role of RBI in growth facilitation should be revised.

② flexible growth linked target for inflation instead of static target

13. भारत में खाद्य प्रसंस्करण उद्योग के अवसर और चुनौतियाँ क्या हैं? अपार संभावनाओं के बावजूद इस उद्योग में कुल निजी निवेश कम क्यों रहा है? उपाय सुझाएँ। (उत्तर 250 शब्दों में दीजिए) 15 अंक

What are the opportunities and challenges of the food processing industry in India? Why has the overall private investment remained low in the industry despite immense potential? Suggest measures. (Answer in 250 words) 15 Marks

Despite being 2<sup>nd</sup> largest producer of agriculture products (327 MT of foodgrain), only 10-12% of product is processed

### Opportunities

- ① Sunrise Sector → As per ES 2024-25 potential of > 15% CAGR of FP)
- ② Rural Industrialisation (PURA Model)
- ③ Employment opportunity for disguised labour in Agriculture (Lewis Model of structural transformation)
- ④ Foreign opportunity → High demand of Indian processed food abroad  
eg Processed mango product in EU
- ⑤ Women empowerment opportunity

→ As it provide employment to women ~~eg~~ Dijal Pappal (SEWA)

⑥ Comparative advantage of India

↳ Varied agri-products

⑦ opportunity for food security  
and reduce wastage (40% of total)

### Challenges

① unorganised production

② lack of economies of scale

③ ~~on~~ limited value addition → only  
primary production

④ Marketing and Branding constraint

⑤ Quality issue ~~eg~~ Recent rejection  
of US - Haldwani products

⑥ funding and skilled labour  
challenges for FPI.

⑦ Raw Material → poor backward  
linkages

Reason for low investment

- ① Backward and forward linkage challenges (highlighted & above)
- ② Regulatory complexity → low private investment
- ③ crowding out of investment due to high interest regime in India
- ④ Infrastructural Issues → limited FPI SEZs / industrial hubs

### Measures

- ① focus on value addition → shift to 2<sup>nd</sup> Tier FPI.
- ② Promoting FPI in rural areas
- ③ Cluster Based approach  Kisan Sampada Scheme
- ④ Market Access and export diversification of FPI
- ⑤ focusing on marketing support

"FPI can be growth-engine of nation's Vikas Yatra" - PM Modi



14. सूक्ष्म-सिंचाई प्रणालियाँ भारतीय कृषि में क्रांति ला सकती हैं, किन्तु इसे अपनाना सीमित है। इस संदर्भ में, चर्चा कीजिए कि सूक्ष्म-सिंचाई सतत जल प्रबंधन में कैसे सहायता कर सकती है। इसके व्यापक रूप से अपनाए जाने में क्या बाधाएँ हैं? उन्हें दूर करने के उपाय सुझाएं। (उत्तर 250 शब्दों में दीजिए) 15 अंक

Micro-irrigation systems can revolutionize Indian agriculture, but adoption remains limited. In this context, discuss how micro-irrigation can help in sustainable water management. What are the barriers to its widespread adoption? Suggest measures to overcome them.

(Answer in 250 words) 15 Marks

Micro - Irrigation refers to system of technological upgradation like drip irrigation, sprinkle system etc that improve "water use efficiency"

Role in Sustainable Water management

① As per Ashok Dalwai Committee  
Micro Irrigation can

- increase saving by 40%
- improve productivity by 45%
- improve farm income by 50%

② Improves water use efficiency

rate per Israel 95%. (WUE)  
due to micro-irrigation

③ Promotes recycling and reuse  
of water

- ④ Precision agriculture → reduces input use of water.
- ⑤ Improve water recharge capacity and water retention in soil

### Barriers in adoption

- ① High cost of Micro Irrigation installation.
- ② Limited awareness among the farmers
- ③ Complex operation procedure  
(eg) Sprinkler vs flood irrigation procedure.
- ④ Lack of extension services on micro-irrigation
- ⑤ Small & marginal farmers (85%)  
with small holding (<0.85 ha)  
→ unfeasible adoption
- ⑥ Limited government support

### Steps Taken

Government  
Subsidy

Micro Irrigation  
Fund

Custom  
Hiring  
Centres

### Measures Needed

- ① Incentivise adoption → by reducing cost of Micro-irrigation
- ② Extension services to farmer
- ③ Newer Technique → irrigation to overall improve productivity
- ④ Subsidy on adopting MI.
- ⑤ Pricing on water use by pump irrigation
- ⑥ Ashok Gulati → Develop a "water trade" market for credits.

Promoting circular agriculture  
using 3Rs: Reduce, Reuse, Recycle  
Should be way forward



15. 'मेजोराना 1 और विलो जैसे उन्नत चिप के विकास के साथ, क्वांटम कंप्यूटर अब केवल एक सिद्धांत नहीं, बल्कि वास्तविकता बन चुके हैं।' क्वांटम कंप्यूटिंग के सिद्धांत क्या हैं? भारत में क्वांटम प्रौद्योगिकियों के विस्तार (वर्धन) में राष्ट्रीय क्वांटम मिशन कैसे सहायक है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

'With the development of advanced chips like Majorana 1 and Willow, quantum computers are no longer a theory but a reality'. What are the principles of quantum computing? How does the National Quantum Mission help in scaling up quantum technologies in India?

(Answer in 250 words) 15 Marks

Recently google launched Willow Quantum chips, while Microsoft launched its Majorana 1 Quantum computer.

Display of Quantum ~~Supremacy~~ by Sycamore in 2019 has made Quantum a reality instead of Theory.

### Principle of Quantum

- ① Superimposition principle → one particle can be superimposed on other to create unique outcome
- ② Existence of partial states → not only (0, 1) of traditional but partial state eg  $+\frac{1}{2}$ ,  $\frac{1}{4}$  etc (Qubits)

- ③ Uncertainty principle → Quantum particles are uncertain unless someone observes them
- ④ Quantum supremacy → can do work in min which traditional computer would take years
- ⑤ Quantum entanglement → Two particles once entangled can be predicted even seeing only one of them
- ⑥ Travelling of information at speed > light if particles are entangled
- ⑦ Quantum cryptography → secure and unbreakable

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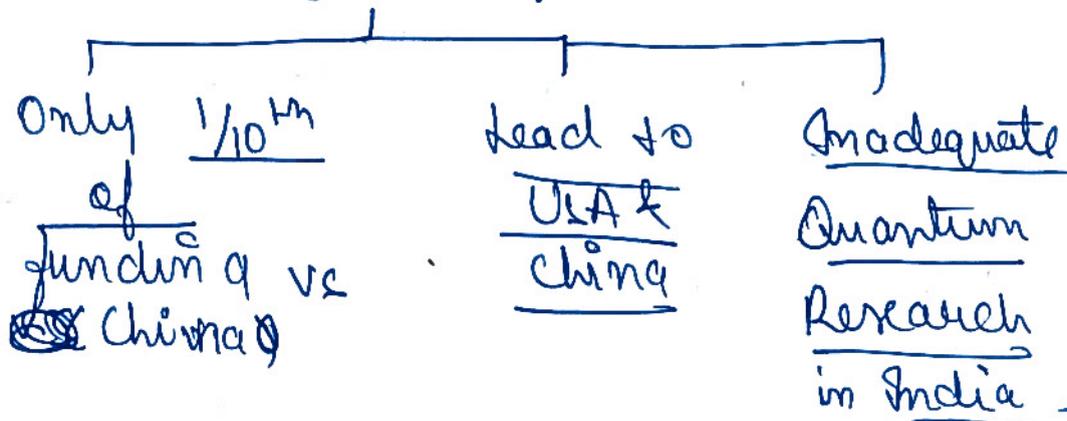
### Role of National Quantum Mission

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- ① Provides funding (~ \$ 0.8 billion) for Quantum Research

- ② Development of Quantum Computer of upto certain Qubits
- ③ Quantum Communication → development for > 100 km
- ④ Aims to establish a Quantum Research infrastructure in India
- ⑤ Recognition to Quantum Research and dedicated funding for it
- ⑥ Quantum cryptography focus to develop resilient system

### Challenges



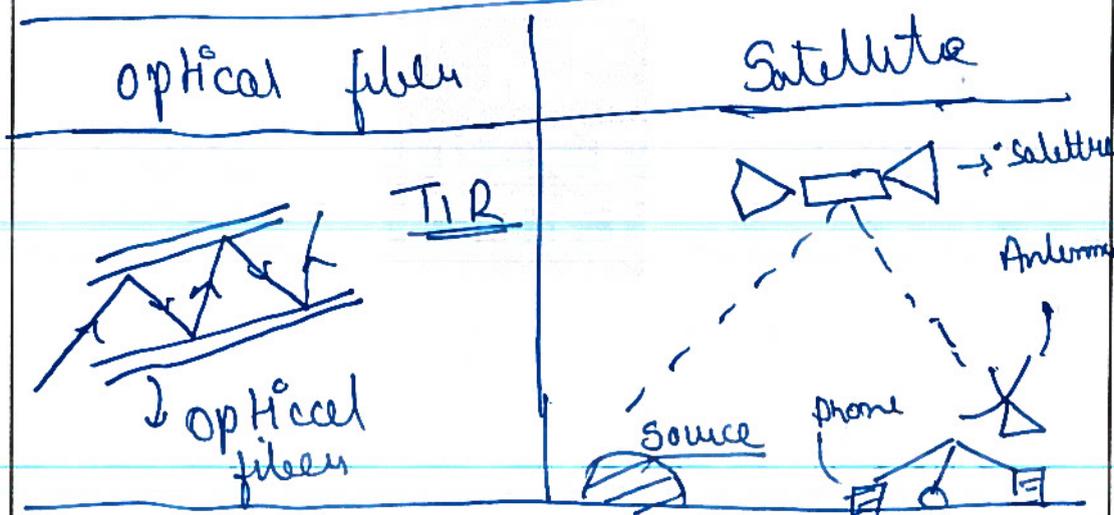
As we enter new era of Quantum world, NQM will pave way for India to become a leader

16. कार्य सिद्धांत, पहुँच, विस्तार क्षमता और सीमाओं के संदर्भ में फाइबर ऑप्टिक संचार के साथ उपग्रह संचार की तुलना कीजिए एवं अंतर बताइए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

Compare and contrast satellite communication with fiber optic communication in terms of working principles, accessibility, scalability, and limitations.

(Answer in 250 words) 15 Marks

Recently, India allowed Starlink, OneWeb and other players to launch satellite based internet in India.



Similarities

- Both provide high speed internet
- Both are scalable and have good reach
- Both support Digital India Mission

## (A) Working principle

### Optical

- ① Based on Total Internal Reflection
- ② use of light as source
- ③ ground based system

### Satellite

- ① Multiplexing of signal by satellite
- ② use of microwaves as source
- ③ ground and space based system

## (B) Accessibility

### Optical

- ① More accessible in city (crowded area)
- ② costly for rural (low crowd area)

### Satellite

- ① lower speeds in crowded areas
- ② potential to provide last mile delivery

C Scalability

Optical

① Scalable across globe

req GLOE cables

② High infrastructure cost

③ Susceptible to local damage

Satellite

① Same

req Starlink project

② Lower cost of delivery of internet

③ More resilient and long lasting

D Limitation

Optical

① Last Mile Delivery is challenge

② High per gb transmission cost

Satellite

① latency via a vic optical is high

② lower speed compared to optical

Both together would help in providing last mile connectivity as envisioned under Bhaudat Net

17. आर्द्रभूमि पारिस्थितिक संतुलन बनाए रखने में महत्वपूर्ण भूमिका निभाती हैं, फिर भी उन्हें कई मानवजनित और जलवायु संबंधी खतरों का सामना करना पड़ता है। चर्चा कीजिए। आर्द्रभूमि के संरक्षण एवं संवर्धन के लिए भारत सरकार द्वारा क्या कदम उठाए गए हैं? (उत्तर 250 शब्दों में दीजिए) 15 अंक

Wetlands play a crucial role in maintaining ecological balance, yet they face several anthropogenic and climate-related threats. Discuss. What steps have been undertaken by the Government of India to conserve and promote wetlands? (Answer in 250 words) 15 Marks

As per Ramsar Convention, wetland are area of swamp, marsh, peat etc, that contain water that is static or fluid with coastal areas upto 6m depth.

Crucial in ecological balance

- ① Act as kidney of earth  
eg Kolkata Wetland → water pollution
- ② sponges → absorb water in case of high rainfall and release in case of low-rainfall
- ③ Biodiversity protection  
eg Birds → migrate to Keoladeo in Rajasthan
- ④ Ensuring ecological sustainability

cycle (eg) Role in water cycle

⑤ Regulating services of wetland

(eg) Act as water divide,  
pollution control.

⑥ provisioning services →

(eg) food in form of fish ensure  
human - environmental balance

### Threats

① Anthropogenic

(i) Alteration of Natural  
Hydrological Regime

(ii) Excessive intervention from  
wetland (eg) fishery.

(iii) encroachment (eg) Bengaluru  
wetlands

(iv) Pollution of existing wetland  
(eg) Chilika lake

② Climate Related Threats

(v) Uneven Rainfall → DRAINAGE  
of wetlands

- ⑥ High temperature → More evaporation → less water
- ⑦ Wetland acidification and eutrophication.
- ⑧ Rising Threat of Invasive Species due to climate change  
eg water hyacinth.

### Steps Taken

- ① 85+ wetland listed under Ramsar Convention
- ② National wetland Management Rules, 2017 → State level control  
Samman → maintaining inventory
- ③ AMRUT Mission → for rejuvenating  
100 wetland in every district
- ④ Atal Bujal Yojana.
- ⑤ AMRUT → for urban wetland  
preservation

local & traditional preservation  
technique need to be leveraged  
have community based



18. अनुचित भीड़ नियंत्रण तंत्र के कारण होने वाली भगदड़, जो कि रोकी जा सकती है, भारत में लगातार लोगों की जान ले रही है। ऐसी आपदाओं के अंतर्निहित कारणों पर चर्चा कीजिए। कुशल भीड़ प्रबंधन के लिए कौन-से संस्थागत और प्रौद्योगिकीय उपाय किए जा सकते हैं? (उत्तर 250 शब्दों में दीजिए) 15 अंक

In spite of being preventable, stampedes due to improper crowd control mechanisms continue to claim lives in India. Discuss the underlying causes of such disasters. What institutional and technological measures can be taken for efficient crowd management?

(Answer in 250 words) 15 Marks

India has recently seen 3 major stampede incidents in past 1 year which took more than 100 lives

- ① Mahakumbh Stampede
- ② Bengaluru - RCB Stampede
- ③ New Delhi Railway Stampede

### Underlying causes

- ① poor planning and coordination of programme  $\rightarrow$  Bengaluru case
- ② lack of civic sense among people  $\rightarrow$  rush to be first during Mahakumbh.
- ③ lack of mitigation efforts  $\rightarrow$  NDLS stampede...
- ④ Too much population pressure  $\rightarrow$  60 crore + people in Mahakumbh

### ⑤ Behavioural Issue

- Not following line & instructions
- Head mentality of people

### ⑥ Structural Issue

- Poorly planned infrastructure
- degraded quality eg Bridge damaged during tsunami

### ⑦ Fanaticism and Euphoria

among people eg Hatred Stampede

### ⑧ Administrative Apathy

## Measures

### ① Institutional

- (i) Structural measures eg  
Z shaped line for crowd control (Ujjain)
- (ii) Infrastructural upgrade
- (iii) Clear SOPs for administration

(iv) Early warning indicators  
~~req~~ ~~to~~ crowd density analysis

(v) pre-planning and crowd management techniques

(vi) Civic education → to children and ~~adult~~ adult.

(B) Technological

(vii) Predictive Analysis ~~req~~ use of AI for simulation

(viii) use of Drones, sensors, cameras for crowd management

(ix) Technological Assessment of infrastructure capacity

(x) Unified command and control centre for crowd management

Case study

① Saudi Hajj

→ use of IoT, AI

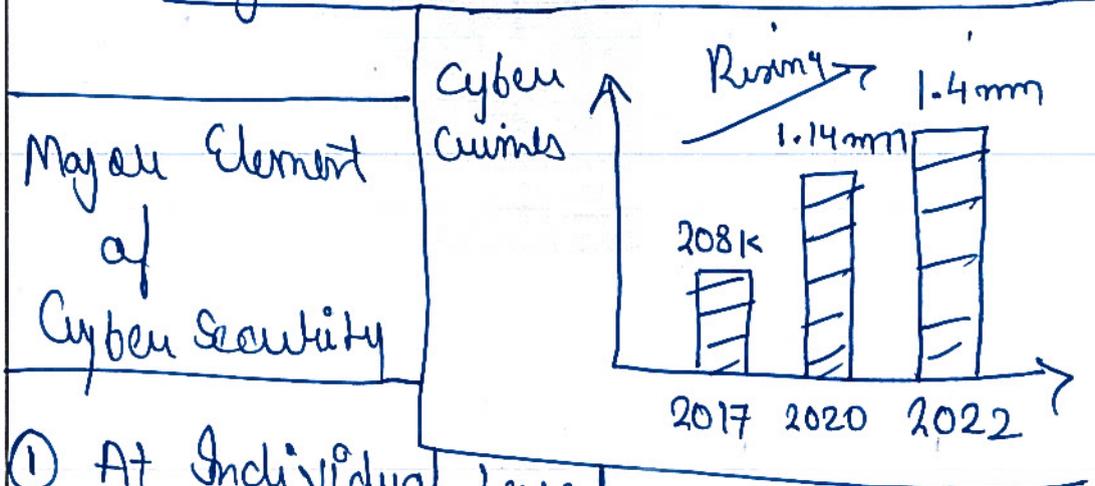
→ Z shaped line

Clear SOPs and administrative guidelines are need of hour

19. भारतीय समाज के तेजी से डिजिटलीकरण के साथ, डिजिटल गिरफ्तारी जैसे साइबर अपराध में भी वृद्धि हुई है। साइबर सुरक्षा के प्रमुख तत्वों पर प्रकाश डालते हुए, भारत की साइबर सुरक्षा अवसंरचना को सुदृढ़ करने के लिए आवश्यक उपायों पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

With the rapid digitalization of Indian society, cyber crimes like digital arrest have also increased. Highlighting the major elements of cybersecurity, Discuss the measures needed to strengthen India's cybersecurity infrastructure. (Answer in 250 words) 15 Marks

Recently MHA, report highlighted Indians on average are losing Rs 100-150 crore monthly to digital arrest



① At Individual level

① Cyber security through anti virus malware protection

② Cyber hygiene principles

② At legal level

① DPDP Act → protection of personal data

② IT Act → Due diligence for firms

→ protection against cyber fraud

③ At institutional level

① CERT-IN → To tackle and counter cyber attacks

② NCIIPC → protection of critical infrastructure from cyber attacks

④ Technological level

① cyber security guid → to prevent attacks

② Building of cyber defence capabilities.

### Measures Needed

① Gulson Rai Committee

① cyber security doctrine

② vulnerability analysis at district level

③ More funding to CERT-IN

④ ~~Req~~ Recruitment of Talent.

## (B) Indrajit Rao Committee

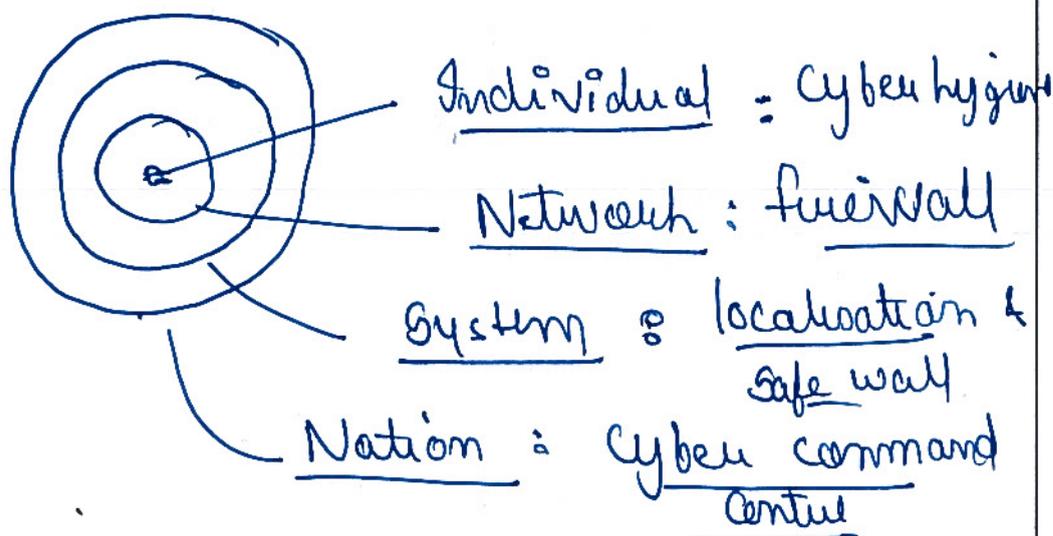
(v) focus on Recovery of money in cyber fraud.

(vi) Monitoring all → At national level for all system

(vii) Dedicated cyber command for grey zone warfare.

## (C) Other Recommendations

(viii) Layered system



We need to build cyber offensive capabilities to create a deterrence by hitting the attackers in their home (ghau mei ghus he mare)

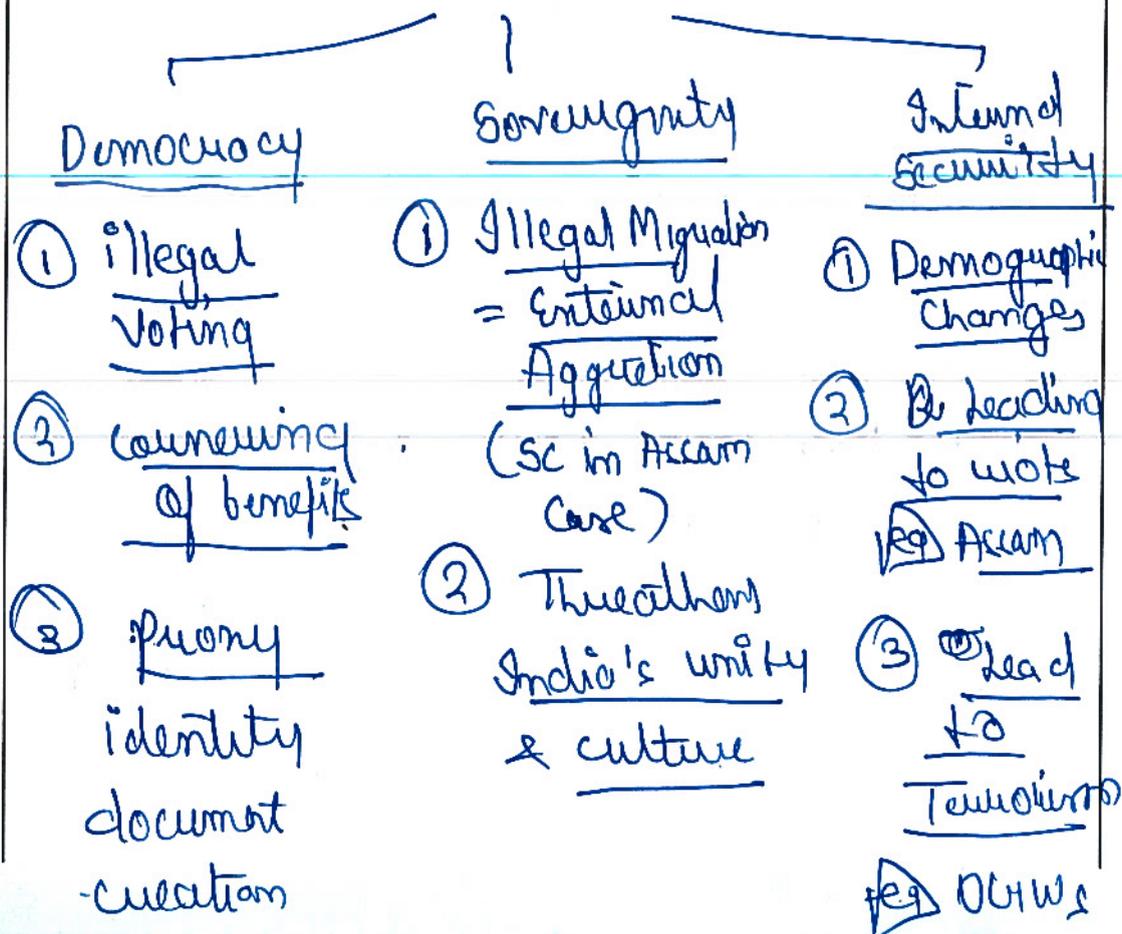


20. अवैध आब्रजन भारत के लोकतंत्र, संप्रभुता और आंतरिक सुरक्षा के लिए खतरा उत्पन्न करता है। इस कथन के आलोक में, चर्चा कीजिए कि हाल ही में पारित आब्रजन और विदेशी अधिनियम, 2025 अवैध आब्रजन के मुद्दे से प्रभावी ढंग से निपटने में कैसे सहायता करता है। इस अधिनियम से संबंधित संवैधानिक और संभावित मानवाधिकार संबंधी चुनौतियाँ क्या हैं? (उत्तर 250 शब्दों में दीजिए) 15 अंक

Illegal immigration poses a threat to India's democracy, sovereignty, and internal security. In light of this statement, discuss how the recently passed Immigration and Foreigners Act, 2025, helps in effectively addressing the issue of illegal immigration. What are the constitutional and potential human rights challenges associated with the Act? (Answer in 250 words) 15 Marks

As per Census 2011, there were 11 million illegal immigrants living in the India

Threat to Democracy, sovereignty & internal security



## Role of Immigration and Foreigners Act, 2025

- ① Allows for sending back  
of illegal migrants
- ② Empowered Foreign Tribunal  
to declare them foreigner
- ③ Duty of state → To identify  
and deport.
- ④ Reduced court intervention  
in process

## Challenges with Act

- ① Constitutional
  - ① Might lead to deportation of Refugees (Against Art 51)
  - ② Violation of Right to life (Art 21) of people
  - ③ Discriminates people against

Article 14

④ Violation of Principle of  
equality

③ Human Right Challenges

⑤ Deportation → against Human  
rights charter

⑥ No safeguards against  
legal migrants / persecuted  
members

⑦ use of harsh method

Recent allegation of  
dumping Rohingya in sea

⑧ Detention for extended period  
→ Against human rights  
of liberty.

"As land of Buddha & Gandhi,  
India has always welcomed  
persecuted people, but there  
is no place for illegal migrants"  
— Pm Modi

# NEXT IAS

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*Space for Rough Work*

# NEXT IAS

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*Space for Rough Work*

# NEXT IAS

## IMPORTANT INSTRUCTIONS

CANDIDATES SHOULD READ THE UNDERMENTIONED INSTRUCTIONS CAREFULLY. VIOLATION OF ANY OF THE INSTRUCTIONS MAY LEAD TO PENALTY.

### **DONT'S**

1. Do not write your name or registration no. anywhere inside this Question-cum-Answer Booklet.
2. Do not write anything other than the actual answers to the questions anywhere inside your QCA Booklet.
3. Do not tear off any pages from your QCA Booklet, if you find any page missing do not fail to notify the supervisor/invigilator.
4. Do not leave behind your QCA Booklet on your table unattended, it should be handed over to the invigilator after conclusion of the exam.

### **DO'S**

1. Read the Instructions on the cover page and strictly follow them.
2. Write your registration number and other particulars, in the space provided on the cover of QCA Booklet.
3. Write legibly and neatly. Do not write in bad/illegible handwritings.
4. For rough notes or calculation, the last two blank pages of this booklet should be used. The rough notes should be crossed through afterwards.
5. If you wish to cancel any work, draw your pen through it or write "Cancelled" across it, otherwise it may be evaluated.
6. Handover your QCA Booklet personally to the invigilator before leaving the examination hall.

## SPECIAL REQUEST FOR CANDIDATE AVAILING ONLINE FACILITY

1. Scan the QCA booklet properly. We suggest the uses of the app CAM scanner (Scan QR code in page 2) based on our previous experiences.
2. Please scan the QCA booklet in ample light. Copies scanned under moderate light can hamper evaluation quality.
3. Any page/pdf having shadow needs to be rescanned. Please make sure that the pdf that you upload is as clean as possible.
4. **Candidates not using the QCA booklet** must mention their details on the front page. And leave the next page blank for the macro comments. It must be understood that the answer should start from Page no. 3 in of the scanned pdf.
5. Candidates not using the QCA booklet must follow the sequence of the answer as per the question paper.
6. Please check the sequence of the answer and total number of pages in the scanned version. Make sure it is in consonance with the physical version of the same.

## NEXT IAS

### महत्वपूर्ण निर्देश

अभ्यर्थियों को निम्नलिखित निर्देशों को ध्यानपूर्वक पढ़ना चाहिए। किसी भी निर्देश का उल्लंघन करने पर दण्डित किया जा सकता है।

#### क्या न करें-

1. इस प्रश्न-सह-उत्तर पुस्तिका के भीतर कहीं भी अपना नाम या पंजीकरण संख्या न लिखें।
2. अपनी QCA पुस्तिका में कहीं भी प्रश्नों के वास्तविक उत्तरों के अलावा कुछ भी न लिखें।
3. अपनी QCA पुस्तिका से कोई भी पृष्ठ न फाड़ें, यदि आपको कोई पृष्ठ गायब लगे, तो पर्यवेक्षक/निरीक्षक को सूचित करना न भूलें।
4. अपनी QCA पुस्तिका को अपनी टेबल पर न छोड़ें, परीक्षा समाप्त होने के पश्चात इसे निरीक्षक को सौंप देना चाहिए।

#### क्या करें-

1. कवर पृष्ठ पर दिए गए निर्देशों को ध्यान पूर्वक पढ़ें और उनका सख्ती से पालन करें।
2. QCA पुस्तिका के कवर पृष्ठ पर दिए गए स्थान पर अपना पंजीकरण नंबर और अन्य विवरण लिखें।
3. स्पष्ट और पठनीय तरीके से लिखें। खराब/अपठनीय लिखावट में न लिखें।
4. रफ नोट्स या गणना के लिए, इस पुस्तिका के अंतिम दो खाली पृष्ठों का उपयोग किया जाता चाहिए। रफ नोट्स को बाद में क्रॉस कर देना चाहिए।
5. यदि आप किसी कार्य को रद्द करना चाहते हैं, तो उस पर अपना पेन चलाएं या उस पर "रद्द" लिखें, अन्यथा उसका मूल्यांकन किया जा सकता है।
6. परीक्षा हॉल छोड़ने से पहले अपनी QCA पुस्तिका व्यक्तिगत रूप से निरीक्षक को सौंप दें।

### ऑनलाइन सुविधा का लाभ उठाने वाले अभ्यर्थियों के लिए विशेष अनुरोध

1. QCA पुस्तिका को ठीक से स्कैन करें। हम चाहेंगे कि आप स्कैनिंग के लिए कैमस्कैनर ऐप (CAM SCANNER) का प्रयोग करें। (यह कोई प्रमोशन नहीं है)।
2. कृपया QCA पुस्तिका को पर्याप्त रोशनी में स्कैन करें। कम रोशनी में स्कैन की गई पुस्तिकाएं, उनके मूल्यांकन की गुणवत्ता को बाधित कर सकती हैं।
3. स्कैन के दौरान छाया वाले किसी भी पृष्ठ/पीडीएफ को फिर से स्कैन किया जाना चाहिए। कृपया सुनिश्चित करें कि आपके द्वारा अपलोड की गई पीडीएफ यथा संभव स्पष्ट हो ।
4. QCA पुस्तिका का उपयोग नहीं करने वाले उम्मीदवारों को अपना विवरण पहले पृष्ठ पर देना चाहिए और मैक्रो टिप्पणियों के लिए अगला पृष्ठ खाली छोड़ दें। यह समझना चाहिए कि उत्तर स्कैन की गई पीडीएफ में पृष्ठ नंबर 3 से शुरू होना चाहिए।
5. QCA पुस्तिका का उपयोग नहीं करने वाले उम्मीदवारों को प्रश्नपत्र के अनुसार उत्तर के अनुक्रम का पालन करना चाहिए।
6. कृपया स्कैन किए गए संस्करण में उत्तर के अनुक्रम और कुल पृष्ठों की संख्या की जाँच करें। सुनिश्चित करें कि यह उसी के भौतिक संस्करण के अनुरूप है।

