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To

TIO Hostel
(Tain International
organisation)**NEXT IAS****anubhav-2025**

(To be filled by candidate)

TEST CODE : ANV2503**Test Date : 03/08/2025**Name of Candidate: **PAKSHAL SECRETARY** Mobile No. .Roll No. : **ANM159001378 / MTS PLTRA 046** Start Time **9:00** End Time **12:00**Date of Examination: **03/08/2025** Medium : English Hindi

Q. No.	Maximum Marks	Marks Obtained
1.	10	
2.	10	
3.	10	
4.	10	
5.	10	
6.	10	
7.	10	
8.	10	
9.	10	
10.	10	
TOTAL MARKS - 100		

Q. No.	Maximum Marks	Marks Obtained
11.	15	
12.	15	
13.	15	
14.	15	
15.	15	
16.	15	
17.	15	
18.	15	
19.	15	
20.	15	
TOTAL MARKS - 150		

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, 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 पृष्ठ 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, 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
.....
.....
.....
2	2
.....
.....
.....
3	3
.....
.....
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MARKING SCHEME *

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.

IMPORTANT QR CODES

 <p style="margin-top: 10px;">Topper's Copy</p>	 <p style="margin-top: 10px;">Common mistake and Correct Filled QCAB</p>
 <p style="margin-top: 10px;">Copy Scanner App</p>	 <p style="margin-top: 10px;">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.

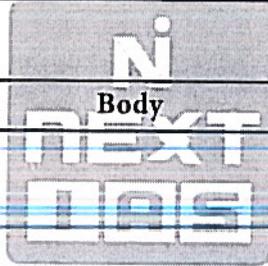
Introduction	Body	Conclusion

Q2.

Introduction	Body	Conclusion

Q3.

Introduction	Body	Conclusion



Q4.

Introduction	Body	Conclusion

Q5.

Introduction	Body	Conclusion

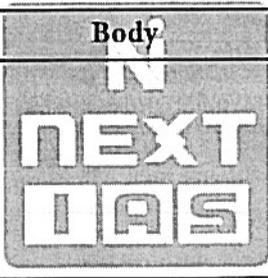
Q6.

Introduction	Body	Conclusion

Q7.

Introduction	Body	Conclusion

Q8.

Introduction	Body	Conclusion
		

Q9.

Introduction	Body	Conclusion

Q10.

Introduction	Body	Conclusion

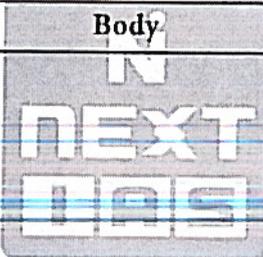
Q11.

Introduction	Body	Conclusion

Q12.

Introduction	Body	Conclusion

Q13.

Introduction	Body	Conclusion
		

Q14.

Introduction	Body	Conclusion

Q15.

Introduction	Body	Conclusion

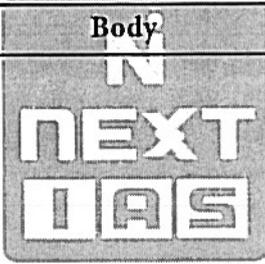
Q16.

Introduction	Body	Conclusion

Q17.

Introduction	Body	Conclusion

Q18.

Introduction	Body	Conclusion
		

Q19.

Introduction	Body	Conclusion

Q20.

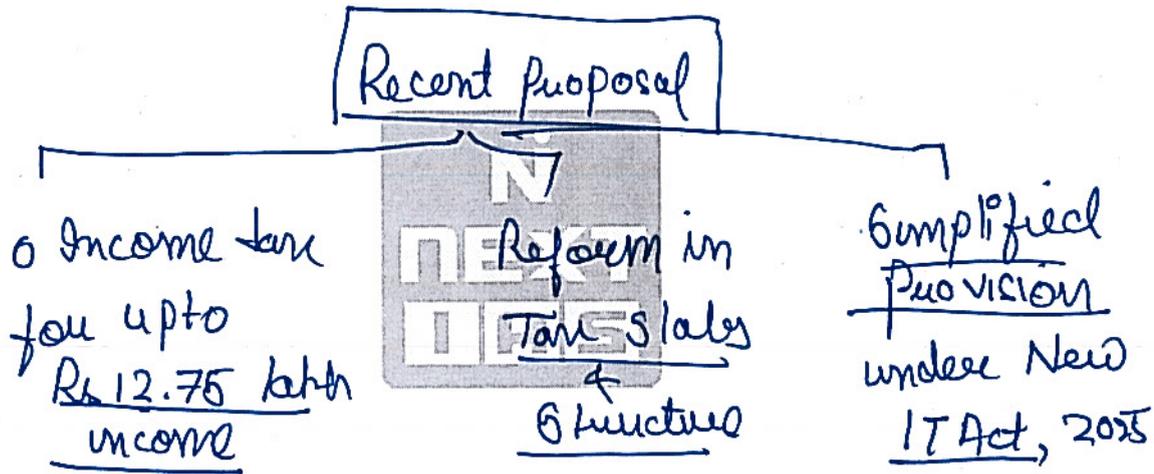
Introduction	Body	Conclusion



1. आपके विचार में भारत के कर ढाँचे में सुधार के हालिया प्रस्ताव भारत के कर उत्पादकता और कर आधार को बेहतर बनाने में किस सीमा तक सहायक होंगे? (उत्तर 150 शब्दों में दीजिए) 10 अंक

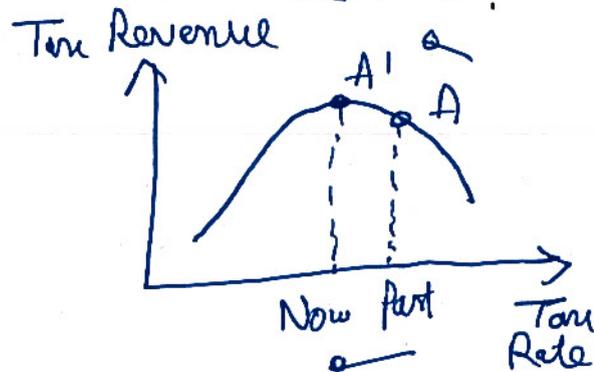
How far do you think the recent proposals to reform India's tax structure will help in improving India's tax buoyancy and base? (Answer in 150 words) 10 marks

In Budget 2025-26, government has decided to reform India's tax structure and also brought in New Income Tax Bill, 2025



Role in Improving Buoyancy

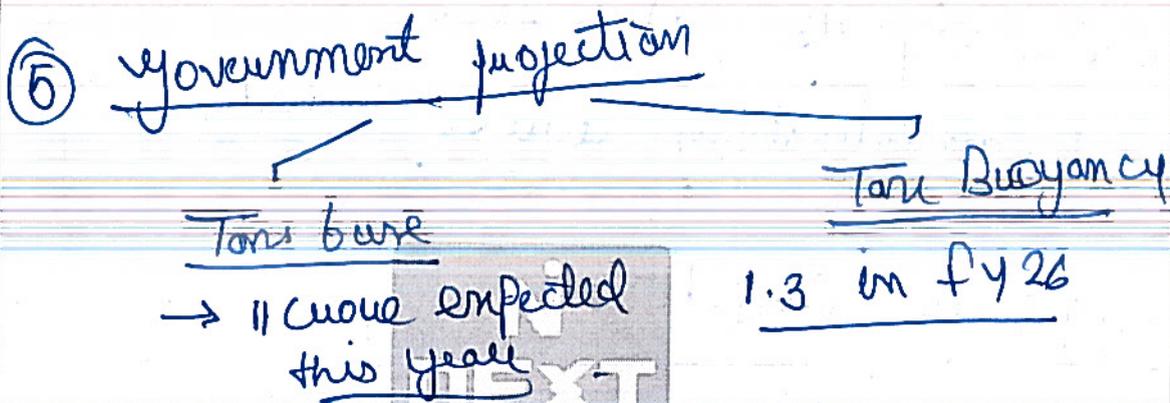
① Laffer curve → low tax burden will improve buoyancy



② Consumption and demand side boost due to higher disposable income → ↑ buoyancy

On Tax Burden

- ③ less burden of Tax → ↑ compliance
among tax payers
- ④ lower incentive to cheat and go
for tax evasion among corporates

Other side

- ① Projected loss of revenue → Rs
1 lakh crore (due to lowering of
rates)
- ② Structural issue persist
↳ inverted duty structure
- ③ Removal of exemption on investment
given by government → less buoyancy

As Adam Smith says, we must follow
3 canons of taxation → Canon of equity,
certainty and buoyancy

2. आर्थिक राष्ट्रवाद और संरक्षणवाद की बढ़ती प्रवृत्तियाँ भारत की वैश्विक व्यापार प्रतिस्पर्धात्मकता को कैसे प्रभावित करती हैं? इन चुनौतियों से निपटने के लिए भारत ने हाल ही में क्या उपाय किए हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक
- How do the rising trends of economic nationalism and protectionism affect India's global trade competitiveness? What recent measures has India taken to navigate these challenges? (Answer in 150 words) 10 marks

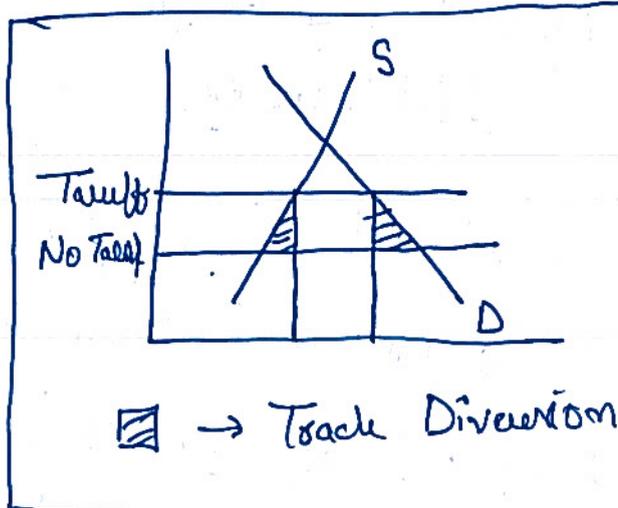
Recently, Trump Administration (US) has imposed 25% tariff on all Indian imports, also there is rise of de-globalisation across world.

Impact on Competitiveness

① Higher Tariff on Indian goods → less competitiveness.

② Trade Diversion from India to competitor

(eg) Vietnam, Bangladesh



③ Risk of Imported Inflation → would make our imported goods costly

④ Non-integration of India into global value chains

⑤ Will result in Shifting of MNCs from India → onshoring in USA

Opportunities → ① China+1 opportunity

↓
③ Depreciation of Rupee → ② Trade Deal → To Benefit from Trade Creation

↳ competitive exports

Measures Taken

① FTA — With UK } 0 duty access.
 With EFTA }

② PLI Scheme to reap "China+1" opportunity

③ RoDTEP Scheme → Make exports competitive

④ Negotiation for BTAs with USA & FTA with EU

⑤ Structural Reforms in labour law.

India needs to capitalise on "make in India for world" to increase our share in export to 6%.

3. कृषि उत्पादकता में सुधार लाने और कृषि के पर्यावरणीय प्रभाव को न्यूनतम करने में एकीकृत कृषि प्रणाली (IFM) की भूमिका का परीक्षण कीजिए। (उत्तर 150 शब्दों में दीजिए) 10 अंक

Examine the role of Integrated Farming System (IFM) in improving agricultural productivity and minimizing the environmental impact of agriculture. (Answer in 150 words) 10 marks



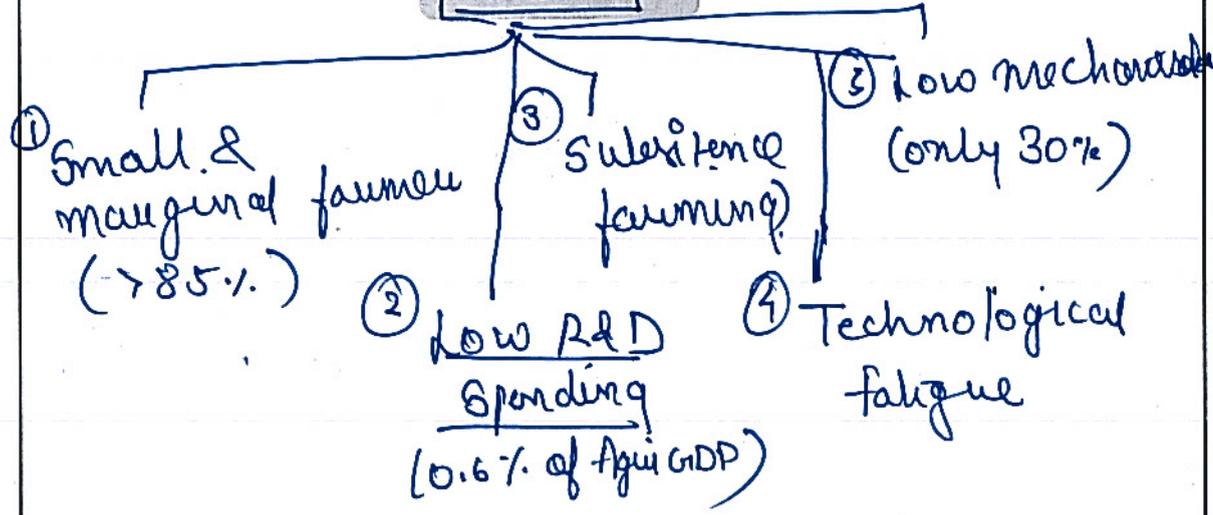
Candidates must not write on this margin



4. हाल ही के वर्षों में, भारतीय कृषि बेहतर उत्पादकता और किसानों की आय में सुधार की दिशा में एक परिवर्तन का साक्षी रही है। कृषि को अधिक लाभकारी और संधारणीय बनाने के लिए सरकार द्वारा कौन-से संस्थागत और संरचनात्मक सुधार किए गए हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक

In recent years, Indian agriculture has been witnessing a transformation towards better productivity and improved farmer incomes. What institutional and structural reforms have been undertaken by the Government to make agriculture more rewarding and sustainable? (Answer in 150 words) 10 marks

Indian Agriculture's productivity growth reached 1.8% in fy 20 to fy 25 but still the overall productivity is 30-60% of China in various crops and farmer's income only Rs 13,000 / month (NABARD) average.



Steps Taken

① Govt Making More Rewarding
 ① PM Kisan Shiksha Yojana → Budgets to make farming more remunerative & improve productivity

- ② R&D Mission on cotton productivity
 - ③ PM Kisan → income augmentation
(6,000 Rs / yearly)
 - ④ Higher MSP → price support
 Ⓣ wheat → ↑ by Rs 175 to Rs 2475/Ton
 - ⑤ More public investment in agriculture
→ to (2.5% of Agri - GDP)
- ⓑ For Sustainable Agriculture
- ⑥ PM PRANAM → Reduce fertiliser & pesticide usage
 - ⑦ Promotion of Natural & Organic farming → Jeevit Bharat
 - ⑧ Shift toward Agro-forestry
 - ⑨ PM Kisan → Turn "Anna Data" into "Uya Data"

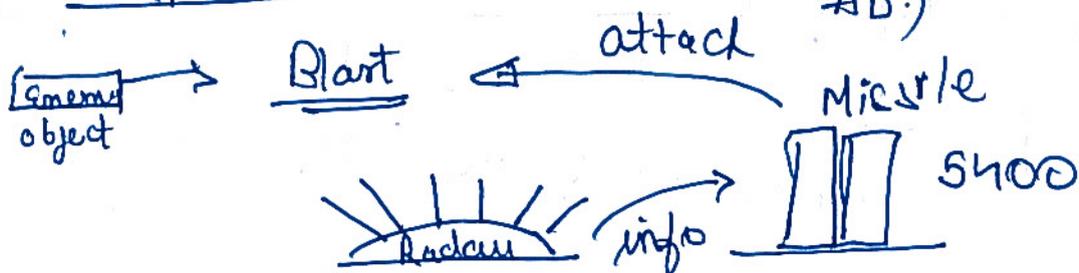
Committees like Ashok Dalwai Committee & Thakur Committee have also been formed to make Agriculture more productive & sustainable

5. वायु रक्षा प्रणालियाँ कैसे कार्य करती हैं? भारत के पास वर्तमान में कौन-कौन-सी विभिन्न वायु रक्षा प्रणालियाँ हैं?
 (उत्तर 150 शब्दों में दीजिए) 10 अंक
 How do Air Defence systems work? What are the various air-defense systems that India currently possesses?
 (Answer in 150 words) 10 marks

Recently, air force in Punjab Bangalore on Operation Sindoor, highlighted 100% interception rate of India's Air Defence which tackled >1000 enemy attack at one time.

Working of Air Defence

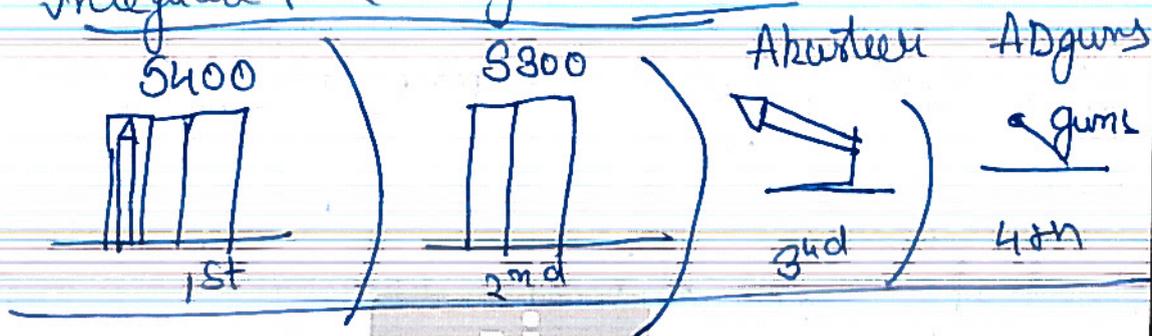
- ① Drone Based System → Air Defence drone target incoming object
- ② Gun Based system → Manual targeting of enemy objects.
- ③ Energy guided AD → use of lasers of high power to disable air object.
- ④ Complex AD system (Ballistic/Missile AD)



→ Radar sense object, sends info to battery, which release missile to kill enemy missile

Air Defense System of India

Integrated & layered AD



① for Missile Defense → S400 and S300 system.

② for Ballistic Defense → Aswin & Prithvi AD system

③ for Drone / Small missile

→ Akashteer and Akash AD system

④ Swarm Attack → Manual AD guns

Recent interception rates and success have improved visibility and Demand of Indian system across world

6. आनुवंशिक विकारों के उपचार में आरएनए संपादन (एडिटिंग) की क्षमता पर चर्चा कीजिए। डीएनए संपादन की तुलना में इसके क्या लाभ हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक
- Discuss the potential of RNA editing in treating genetic disorders. What are its advantages over DNA editing? (Answer in 150 words) 10 marks

RNA editing is a system of treating disorders by two processes

gene silencing gene attenuation

Potential → ① Solving monogenic disorders (e.g.) - sickle cell anemia

② use in oncology
 (e.g.) cancer treatment

③ solution to unresolved diseases
 (e.g.) HIV, AIDS

④ silencing of gene expression
 → only desirable fruits

Advantages

① Does not alter our cause damage to human DNA
 (DNA Editing might cause)

② limited / No side effect → precise editing by CRISPR

③ High Efficiency

<u>RNA</u>	<u>DNA</u>
99% due to <u>CRISPR Cas 9</u>	- 30-40% due to <u>CRISPR-Cas 13</u>

④ Simple process → only translation in RNA editing → no transcription (DNA editing)

⑤ Earlier delivery of genetic material
→ Cas 9 smaller in size

⑥ No changes in germ line (any misedit does not get transmitted)

Limitation → low shelf life of RNA
→ Frequent Re-treatment
Needs
Doesn't solve Root cause

Recent Noble 2024 for RNA Editing is testimony to its future potential

7. अनियोजित विकास और बुनियादी ढाँचे के ढहने के कारण नगरीय क्षेत्र आपदाओं के प्रति अधिक सुभेद्य होते हैं। चर्चा कीजिए।
ऐसी आपदाओं के प्रति नगरीय समुत्थानशीलता बढ़ाने के लिए आप कौन-सी रणनीतियाँ प्रस्तावित करते हैं?

(उत्तर 150 शब्दों में दीजिए) 10 अंक

Urban areas are more vulnerable to disasters due to unplanned growth and infrastructure collapses. Discuss. What strategies do you recommend to enhance urban resilience to such disasters? (Answer in 150 words) 10 marks

Recently there is rise in
urban disasters like urban floods
, urban Heat Island, Urban
Droughts across country.

More Vulnerability

- ① Very High population density
→ 3% of area but 30% of population
- ② Unplanned cities → urban sprawl
- ③ poor WASH and Hygiene → More disease burden
- ④ Encroachment of lakes / water bodies → increases vulnerability
- ⑤ Concretisation → ↑ Heat +
No water percolation

⑥ crowded spaces → urban
fires get spread fast

Strategies

- ① Planned Development eg Smart Cities
- ② Disaster Resilient Infrastructure
eg Retrofitting
- ③ Creating satellite towns to
reduce pressure.
- ④ Clear SOPs and Agencies to
deal with urban disasters
- ⑤ Early Warning System eg Doppler
Radar

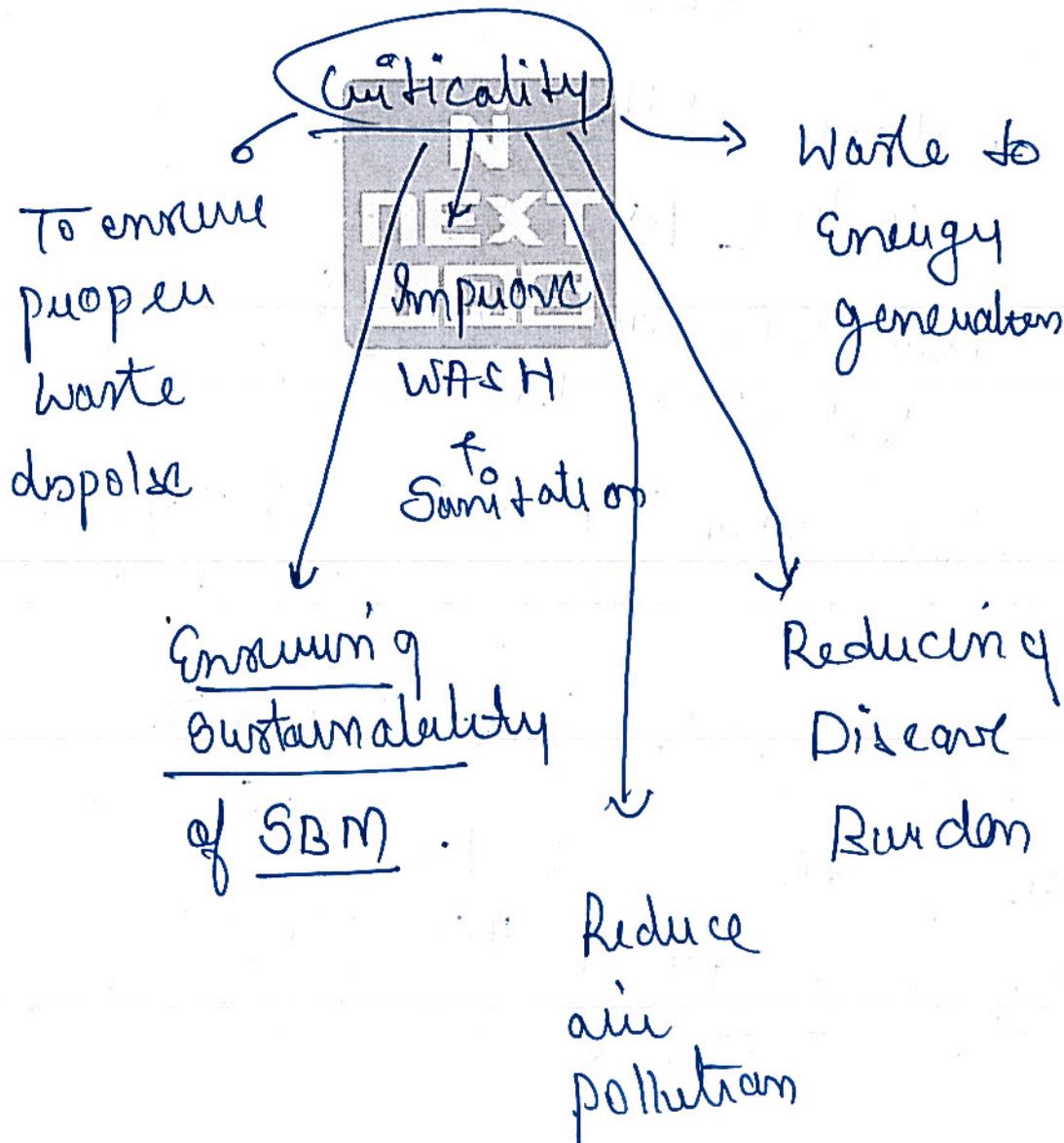
As Yamchaugan Declaration
of G20 calls need of how is
to have city specific planning
for disaster

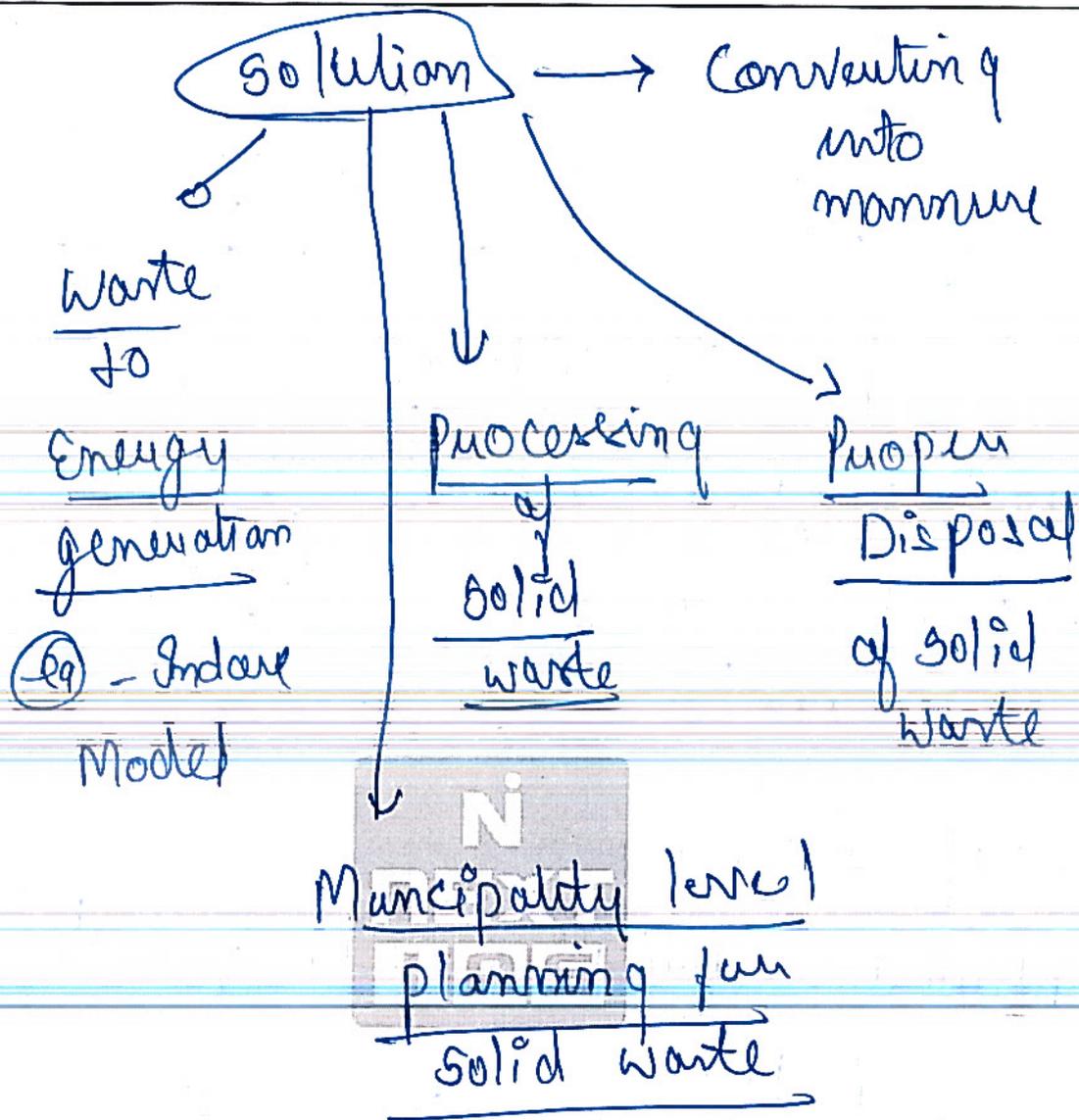
8. स्वच्छ भारत मिशन की सफलता के लिए इसकी महत्ता के बावजूद, भारत में ठोस अपशिष्ट प्रबंधन अब भी उपेक्षित (Sub-optimal) स्तर पर है। इस संदर्भ में, प्रभावी ठोस अपशिष्ट प्रबंधन हेतु दीर्घकालिक प्रौद्योगिकीय और संस्थागत समाधान सुझाए। (उत्तर 150 शब्दों में दीजिए) 10 अंक

Despite its criticality for the success of the Swachha Bharat Mission, solid waste management in India remains at a sub-optimal level. In this context, suggest long-term technological and institutional solutions towards effective solid-waste management.

(Answer in 150 words) 10 marks

Solid waste in India is managed through Solid waste management Rules, 2016





9. "सोशल मीडिया आधुनिक युद्ध में एक नए आयाम के रूप में उभरा है, जो अभिभाष्यों को आकार दे रहा है, धारणाओं को प्रभावित कर रहा है तथा राष्ट्रीय सुरक्षा को प्रभावित कर रहा है।" इस संदर्भ में, समकालीन संघर्षों में सोशल मीडिया की भूमिका का विश्लेषण कीजिए। (उत्तर 150 शब्दों में दीजिए) 10 अंक
- "Social media has emerged as a new frontier in modern warfare, shaping narratives, influencing perceptions, and impacting national security". In this context, analyse the role of social media in contemporary conflicts. (Answer in 150 words) 10 marks

Recent Operation Sindoor saw narrative and informational warfare by Pakistan on social media against India.

Role of Social Media

- ① Narrative Building → in eyes of people
- ② Reducing Misinformation → fact check by PIB FCU.
- ③ Information delivery → constant briefing by ANI.
- ④ use for surveillance → Tracking of Terrorist.
- ⑤ Informational warfare against adversary.

Challenges due to SM

- ① Cyber security with ~~eg~~ Attack on critical infrastructure
- ② Sensationalisation of National security ~~eg~~ war-hysteria on social media
- ③ Difficulty in tracking and deletion of disinformation
- ④ Revealing of sensitive information ~~eg~~ SM was showing army movements details
- ⑤ Post truth society → narrative matter more than facts
- ⑥ Might create echo chambers fear were against India

Way forward

- ① light but Tight Regulation
- ② Proactive countering of fake news
- ③ Code of Ethics for SM

10. सीमा सुरक्षा बल (BSF) ने अपने क्षेत्राधिकार और रणनीतिक महत्त्व, दोनों में ही सीमा प्रबंधन और आंतरिक सुरक्षा ढाँचे के संदर्भ में उल्लेखनीय विकास किया है। BSF की भूमिका और अधिदेश की व्याख्या कीजिए। सीमावर्ती राज्यों में कार्य करते समय बीएसएफ को किन समस्याओं का सामना करना पड़ता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक

The Border Security Force (BSF) has evolved significantly in its jurisdiction as well as its strategic importance in border management and the internal security framework. Explain the role and mandate of BSF. What are the issues BSF faces while operating in the border States? (Answer in 150 words) 10 marks

Recently, there were concerns raised due to enlargement of area under monitoring of BSF to 50 km from boundary by state.

Role of BSF & Mandate

- ① Protecting India's Border (eg) Pakistan Front
- ② Policing Role in Border Area
- ③ Countering infiltration attempts at the border
- ④ Protection of National Security
- ⑤ Countering new era threats (eg) Dug, Arms Trafficking
- ⑥ Patrol in Border Areas (eg) Bangladesh Border

Issues faced

- ① Limited Technological Adoption
- ② Rugged Terrain of Border
eg Rivers, Mountain
- ③ ~~Imp~~ Improper coordination & support from state force
- ④ Vacancy of people
- ⑤ lack of Demarked boundaries
→ Choking of border
eg BSF Soldiers to Pakistan
recently.
- ⑥ Manual Patrolling of Border
- ⑦ Rising instances of insurgency
and border infiltration

Way forward

- ① Technology adoption eg Drones
- ② Delayed ~~monit~~ monitoring
system

11. भारत की संवृद्धि गाथा असमानता और मध्यम आय-जाल को दीर्घस्थायी चुनौतियों से प्रभावित है। चर्चा कीजिए। मध्यम आय के जाल से बाहर निकलने और समावेशी एवं सतत आर्थिक संवृद्धि सुनिश्चित करने के लिए भारत को किन उपायों का पालन करना चाहिए, इस पर प्रकाश डालिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

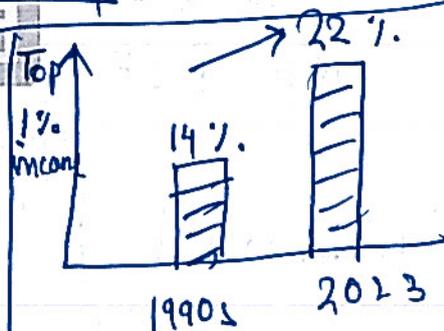
India's growth story is marred by persistent challenges of inequality and the middle-income trap. Discuss Highlight the approaches India should follow to escape the middle-income trap and ensure inclusive and sustainable economic growth.

(Answer in 250 words) 15 marks

As per World Inequality Database,
 Top 1% in India earns 22% of National Income, making it among worst country in terms of inequality.

Challenge of Inequality

- ① Reducing inequality
 (Share of Top 1% in Income) →



- ② Curbing capitalism

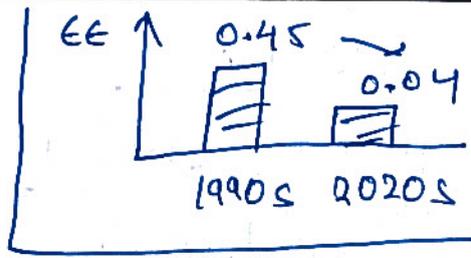
- ③ Problem of Rural - Urban Inequality Divide

- ④ poor K shape recovery post covid
 -19 → poor becoming poorer

Challenge of Middle Income Trap

- ⑤ Jobless growth - fall in employment

elasticity of growth
(see fig) \rightarrow 10%
growth creating only
0.47. \uparrow jobs

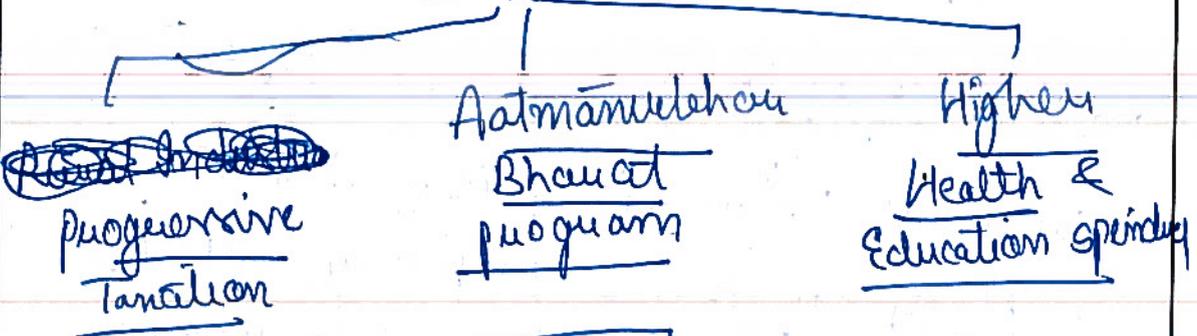


⑥ Very low per capita income (only \$ 2715 vs \$ 12000 need for escaping middle income trap)

⑦ Narrow Demographic window - dividend only till 2042. (WB)

⑧ Falling investment and exports as % of GDP \rightarrow investment only (31% of GDP vs 35% in 2007)

Steps Taken



Approaches to follow

① Rural Industrialisation \rightarrow Based on Lewis Model of Transformation \rightarrow Shift disguised agri-workers to industry

- ② Sen's Model → Investment in Human Development and capacity enhancement → ↑ social spending
- ③ Shift from "build to ~~design~~" to "build to design" to improve integration into GVC.
- ④ Specialization of Agriculture & industrial output by higher value addition
- ⑤ focus on labour intensive sector → our comparative advantage
eg Textile, leather.
- ⑥ Support to MSME
- ⑦ Higher investment and GFCF focus rather than consumption driven economy

Case Study
Middlestand Model
(economy) → MSME lead to growth

Economic Survey (2024-25) calls for creating a "Knowledge Economy" by innovation focus to escape middle income trap

12. MSMEs (सूक्ष्म, लघु एवं मध्यम उद्यम) "मेक इन इंडिया" पहल की सफलता के केंद्र में हैं, फिर भी उन्हें आमाम वधन और औपचारिक आपूर्ति शृंखलाओं में एकीकरण में चुनौतियों का सामना करना पड़ रहा है। चर्चा कीजिए। MSMEs (सूक्ष्म, लघु एवं मध्यम उद्यमों) को अधिक समुत्थानशील और प्रतिस्पर्धी बनाने के लिए आवश्यक संरचनात्मक सुधार प्रस्तावित कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

MSMEs are central to the success of the Make in India initiative, yet they face challenges in scaling up and integrating into formal supply chains. Discuss. Suggest structural reforms needed to make MSMEs more resilient and competitive. (Answer in 250 words) 15 marks

Despite 10 years of Make in India Scheme, the share of manufacturing in GVA is still 17% (vs target of 25% under MII)

MSMEs can play a central role for success because .

- ① High Employment potential → employs 11 crore people
- ② High export potential → 45% of total exports
- ③ potential to reap economies of scale and become more competitive
- ④ potential of integration into global value chains.
- ⑤ More empowerment of women → 18% MSME led by women

Face Challenges

(A) Scaling Up

- ① Regulatory Hurdles → High compliance burden for large firm
- ② Scale & size based incentive by government → looser them when grow big
- ③ Competition from MNCs and Big Companies ~~eg~~ Dumping by Chinese players → force them out
- ④ Unorganised Nature
- ⑤ Export challenges → not able to scale up
~~eg~~ inverted duty structure, no duty free access

(B) Integrating with supply chains

- ⑥ Missing Middle among MSME → not able to integrate due to small firms
- ⑦ Lack of Ancillary industry in India
- ⑧ Import dependence for parts instead of MSME → low integration

⑨ GST Regime → Reverse Charge Mechanism discourages integration of informal MSMEs.

Structural Reforms Needed

- ① Policy Reform (ES 2024-25) → age based incentive to firm
- ② Cluster Based approach → To reap Economies of Scope
- ③ Incentivising growth of firms
eg PLI scheme → for MSME.
- ④ Public Procurement priority to MSME sector
- ⑤ Factor Market Reforms
eg land, labour, EODD → ↑ ~~comp~~ Competitiveness
- ⑥ Export promotion of MSME
eg ODOP scheme

Thus, need to make MSME primary engine of growth to ensure Vijit Bharat by 2047.

13. "प्रधानमंत्री कृषि सिंचाई योजना (PMKSY) का लक्ष्य 'प्रति बूँद अधिक फ़सल' प्राप्त करना है, फिर भी भारत में सिंचाई दक्षता अभी भी उपेक्षित बना हुआ है।" आलोचनात्मक विश्लेषण कीजिए। इसके कार्यान्वयन को सुदृढ़ बनाने के लिए किन सुधारों की आवश्यकता है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

"The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) aims to achieve 'more crop per drop', yet irrigation efficiency in India remains suboptimal. Critically analyse. What reforms are needed to strengthen its implementation? (Answer in 250 words) 15 marks

The water use efficiency in India is 37%, which highlights suboptimal irrigation (WUE = 98% in Israel)

PMKSY : More crop per drop

- promotion of Drip Irrigation & precision Agriculture
- Integrated water development planning for agriculture
- Ensure synergies → 3 ministries and various sub-schemes
- focus on watershed development to improve irrigation efficiency

outcomes are suboptimal

① low Adoption of Micro-Irrigation (MI)
- only 8.8% farms in India

have MI (vs 60% in USA)

② Cereal centrality of cropping

↳ water guzzling Rice in Rainfed areas

③ High cost of installing MI System

④ * Need of Technical expertise for operation (low awareness among farmers)

⑤ Practical constraints

↳ Trapping of MI system by animals

↳ issue of sediment deposit and blockage of holes

↳ Small & marginal farmers (78.5%)
→ not able to adopt

Reforms Needed

① Vaidyanath Committee

① Subsidise price of installing MI system

② for small farmers → focus on

pooling and custom hiring
of ~~crops~~ micro-irrigation

③ Shift to resilient crops like
Millets for improving efficiency

② Achok Gulati (Agro-Economist)

④ Technology use (eg Tensiometers
, fertigation to improve
irrigation use efficiency)

⑤ Market for water → pricing
mechanism

⑥ Reform electricity subsidy to
reduce water intake.

③ Other steps

⑦ Better Targeting of scheme

⑧ gram panchayat level mobilisation
of outcome (eg water panchayats)

"Water can easily become in 21st century
what oil was in 20th century". Thus
focus should be on 3Rs: Reduce, Reuse
Recycle

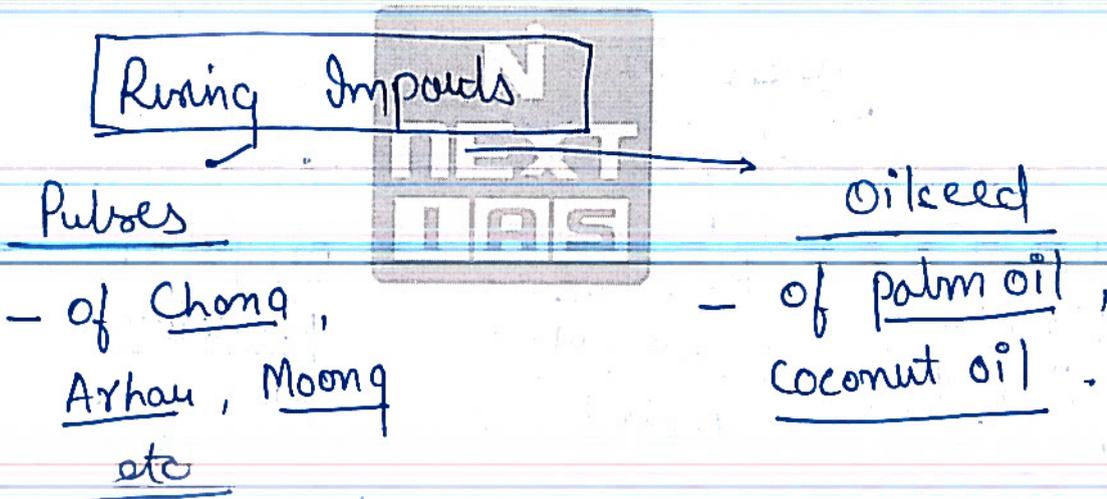
14. तिलहन और दलहन के बढ़ते आयात ने इनकी कृषि को अलाभकारी बना दिया है। इस कथन के आलोक में, भारत में तिलहन और दलहन के उत्पादन और उपभोग को बढ़ावा देने के लिए आवश्यक कदमों का विशदीकरण कीजिए।

(उत्तर 250 शब्दों में दीजिए) 15 अंक

The rising import of oilseeds and pulses has made their cultivation unremunerative. In the light of this statement, elucidate the steps needed to promote the production and consumption of oilseeds and pulses in India.

(Answer in 250 words) 15 marks

India is world's largest importer of oilseeds and pulses. The import dependency is 80% of oilseed and 10% for pulses.



Reasons for unremunerative cultivation

- ① No import duty on imports
eg government → duty free import
of pulses till March 2026.
- ② falling global prices eg Palm oil.
- ③ Dumping of products in Indian

market → cobweb phenomenon and lower prices for farmer

④ MSP Regime & cereal centrality
→ makes oilseed/pulse cultivation more risky & unremunerative.

⑤ High gestation time of oilseed & pulses (eg) oil palm - 5-6 year

Steps Taken

① National Mission on Oil Seed (NMOE)

R&D Mission for pulses (Budget 2025)

oil palm promotion scheme

Steps Needed

① Promote Promotion

① Aarvind Subramanian Committee on pulses

- procurement of pulses at MSP
- strategic buffer of pulse stock
- focus on improving yield

② NITI Aayog on oilseed

- flat per ha subsidy for oil palm cultivation
- encourage production of domestic oilseeds eg sunflower, groundnut

③ Other

- Diversification of cultivation towards pulses & oilseed
- R&D → Better variety to improve yield eg GM Mustard

④ Promote Consumption

① Encourage consumption of domestic available pulses & oilseed eg arhar, groundnut oil

② Eat right campaign → lower oil usage in cooking

③ Shift to more protein rich pulses

④ Include in PDS → incentives MSP procurement

Thus, concentrated efforts are needed to reduce dependency

15. मेघ बीजन के पीछे के वैज्ञानिक सिद्धांतों की व्याख्या कीजिए। वायु प्रदूषण और वैश्विक तापन के उपशमन में इसकी भूमिका पर प्रकाश डालते हुए, इसकी संभावित सीमाओं पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

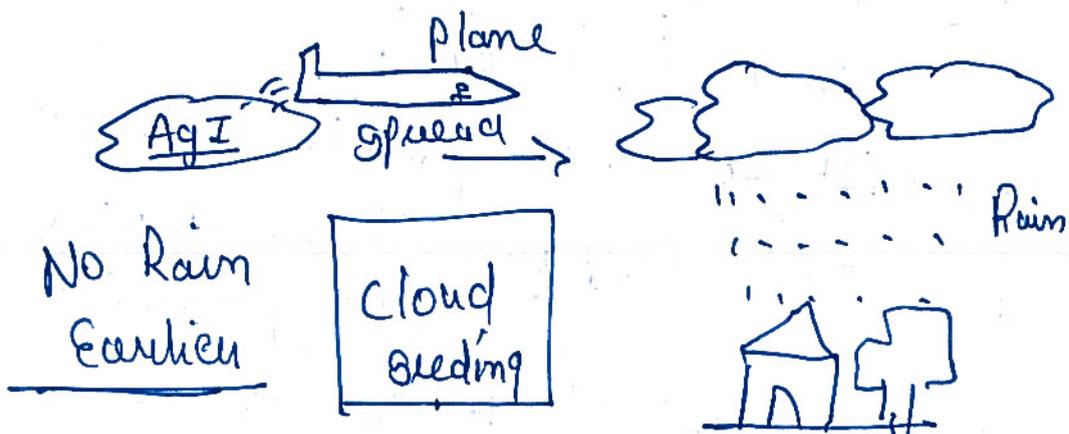
Explain the scientific principles behind cloud seeding. Highlighting its role in alleviating air pollution and global warming, discuss its potential limitations.

(Answer in 250 words) 15 marks

Recently Delhi government discussed proposal of cloud seeding to fight air pollution during winter

Scientific principle

- ① Spraying of chemicals like AgI, KI (silver iodide, potassium iodide) on cloud
- ② AgI → condensation nuclei → promote cloud formation
- ③ Rainfall due to high water load in cloud post seeding



Role in Alterating Air pollution

- ① Improves weather due to cloudy condition.
- ② Water Droplet → Bind to pollutants
(eg- PM10) → Bring them down
- ③ Empirical Evidence → In IIT Kanpur
→ Air Quality improved by 40%
post seeding
- ④ Rainy season → less vehicle on road → reduces pollution

Role in global warming

- ⑤ More Reflection of Heat by clouds → As darken cloud are formed
- ⑥ Cooling of environment → cooling effect of water
- ⑦ More evaporation → More cooling
- ⑧ Decreases Temperature due to cloud formation in sky → Blocks light.

Limitation

- ① Chemical used are carcinogenic
- ② Long term impacts are unknown
→ may trigger other problem
- ③ limited efficiency → many times
no rainfall despite
seeding
- ④ Need of initial cloud
for seeding
↳ experiments only
during monsoon
by IIT Kanpur.
- ⑤ Might lead to other Health &
environmental concern

Case Study

Dubai (2023)

→ Cloud Seeding
led to floods
for first time

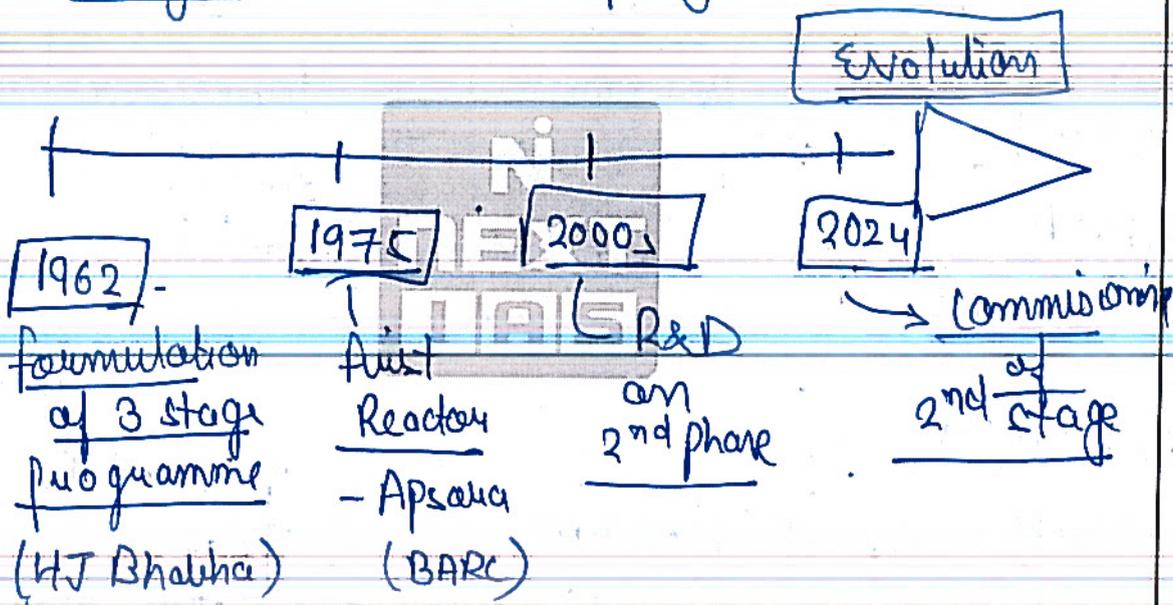
Way forward

- ① Proper Trials and field evaluations
- ② Studying long term effect

The real ~~problem~~ ^{solution} lies in reducing
pollution & mitigating climate change
& not in adaptation

16. भारत के त्रि-चरणीय परमाणु ऊर्जा कार्यक्रम के क्रमिक विकास का विवरण दीजिए। थोरियम-आधारित तृतीय चरण को साकार करने के क्या लाभ और रणनीतिक अनिवार्यताएँ हैं? (उत्तर 250 शब्दों में दीजिए) 15 अंक
 Give an account of the evolution of India's 3-Stage Nuclear Power Programme. What are the advantages and strategic imperatives of realising the thorium-based third stage? (Answer in 250 words) 15 marks

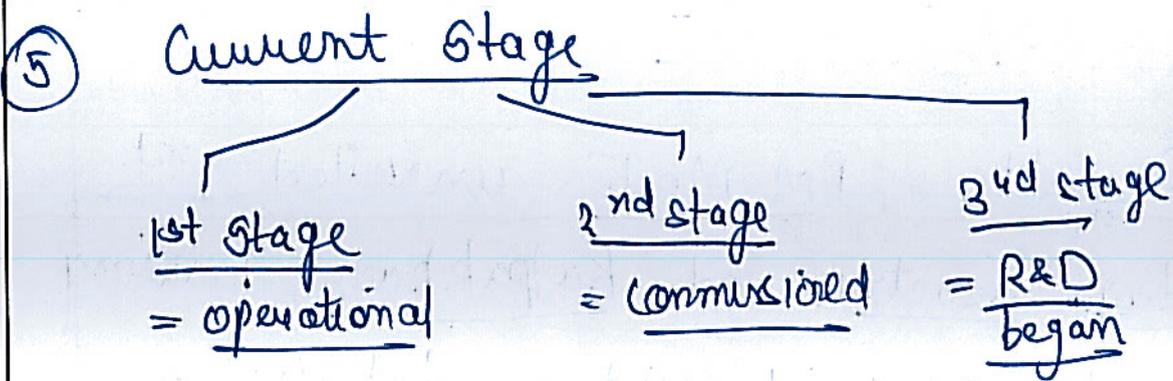
Recently, PM Modi unveiled 2nd stage reactor at Kalpakkam, marking a turnaround point in India's 3 stage Nuclear program



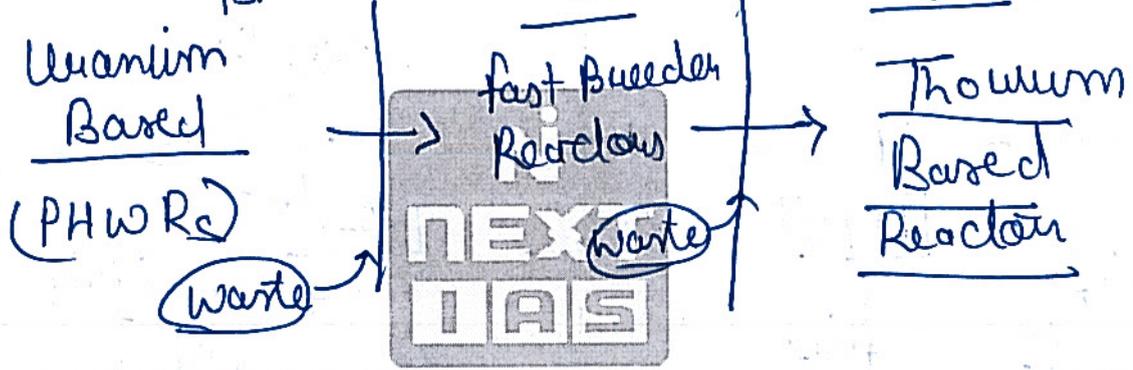
Evolution

- ① Conception → By HJ Bhabha in 1960s → of 3 staged programme
- ② 1st stage → Apsara Reactor of BARC.
- ③ Expansion of 1st stage via Tarapur, Kudankulam

④ Simultaneous R&D on 2nd stage

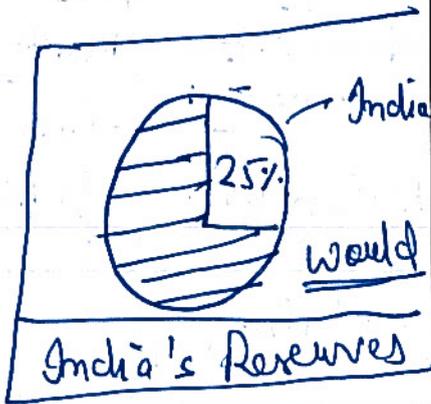


3 Staged plan



Advantages

- ① Utilising of Thorium Reserves of India
- ② Reduce import dependency on uranium
- ③ Increase contribution of Nuclear from 8.2 GW to 30 GW
- ④ Reduce Nuclear waste → Reprocess & Reuse the waste



Strategic Imperative

- ⑤ Ensuring Energy security (Energy Atmanubhava)
- ⑥ Reducing crude oil import dependence
- ⑦ Overcoming Technological Denial
Regime eg Non-inclusion in NSG of India
- ⑧ Nuclear soft-power → Transfer to other country
- ⑨ Key to ensure Sustainable energy generation

Way forward

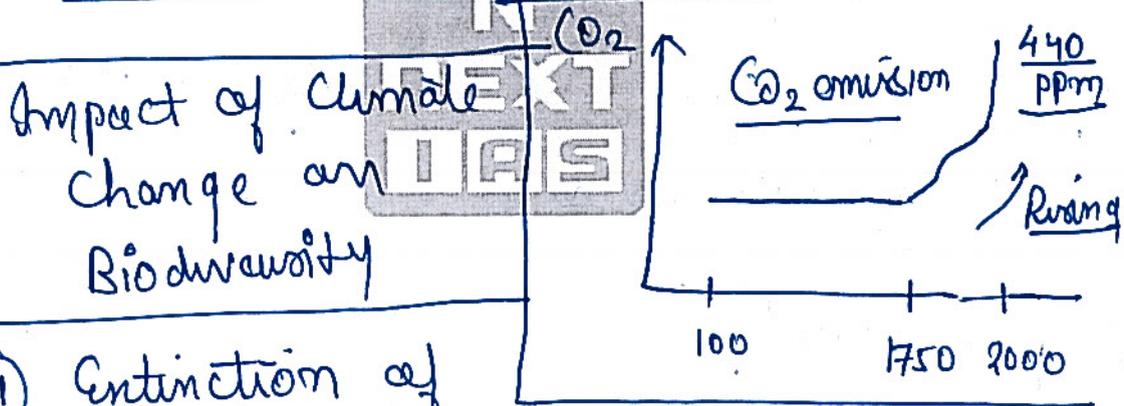
- ① Allowing private sector in Atomic Energy.
- ② Liberalise to allow FDI in sector
- ③ Joint cooperation eg Russia - Kudankulam
- ④ focus on SMRs → Budget 2025-26 focus

Continuous R&D and private sector research would be key to realise dream of 3rd Staged Nuclear program

17. हाल ही के अध्ययनों से संकेत मिलता है कि 2014-2024 का दशक अब तक का सबसे गर्म दशक और 2024 अब तक का सबसे गर्म वर्ष रहा है। तेज़ी से बढ़ते वैश्विक तापन के आलोक में, जलवायु परिवर्तन का जैव-विविधता पर क्या प्रभाव पड़ेगा? पारिस्थितिक समुत्थानशीलता और प्रजाति विविधता के संरक्षण को सुनिश्चित करने के लिए आवश्यक उपायों पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

Recent studies indicate that the 2014-2024 decade is the warmest decade and 2024 is the warmest year on record. In the light of rapid global warming, what are the impacts of climate change on biodiversity? Discuss the measures needed to ensure ecological resilience and conservation of species diversity. (Answer in 250 words) 15 marks

As per NOAA, the average rise in global temperature was $1.5^{\circ}C$ compared to pre industrial level in 2024 (Just equal to Paris Target)



① Extinction of species — As per IPCC AR6 — 22% of total threatened with extinction

② Polar migration of species from equator → pole

③ Compounding of effects

④ — Trippe planetary crisis

Global Warming
Biodiversity loss
pollution

④ Impact on Health ^{Strokes}
 ↳ Heat stress, Heat ~~stroke~~ among
 species
 ↳ Rising in communicable disease
 → due to AMR development

⑤ Impact on productivity → less
 productive biodiverse areas ^{eg} Rain
 forest

⑥ loss of Habitat
 eg coral bleaching due to high
temperature → loss of oceanic
rain forest

⑦ food insecurity among biodiversity
 → imp → food production to fall
 by 25% by 2030

⑧ Attenuation of food chains due
 to extinction of species

Measures Needed

① Ecological Resilience

① Reducing emission → Paris Target
 achieving → ↓ 1.5°C temperature

② Afforestation Program → carbon
sink

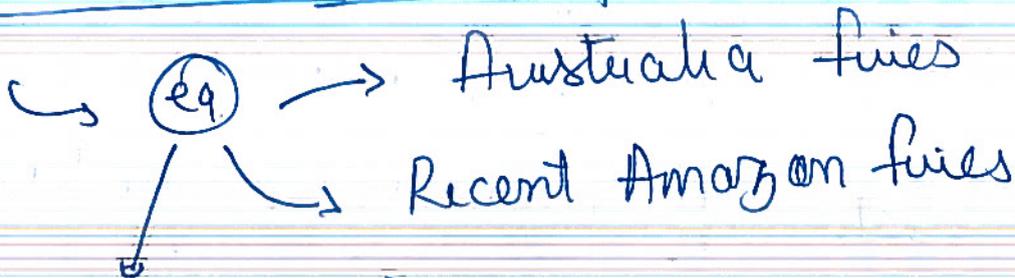
- ③ Geo-engineering → ocean fertilisation
solar mirrors
- ④ Adaptation
↳ Climate resilient food system
for biodiversity.
↳ Alternative sinks of carbon
- ⑤ Conservation of species
- ⑥ Protection programmes → Project Tiger
- ⑦ Global Collaboration → Kunming
Montreal framework
- ⑧ Dedicated financing for conservation
projects → \$100bn agreed in DNCRD
- ⑨ Innovative solutions → Sheds,
biofloc to adapt
- ⑩ Individual action → Mission
Life to conserve species
→ pro planet people

" We are just generation to experience
climate change and last generation
to being able to undo it "
— Barack Obama

18. भारत में वनाग्नि की आवृत्ति और तीव्रता में वृद्धि हो रही है, जिससे गंभीर पारिस्थितिक और आर्थिक चुनौतियाँ उत्पन्न हो रही हैं। वनाग्नि के विभिन्न कारणों का वर्णन कीजिए। भारत में वनाग्नि को रोकथाम और प्रबंधन के लिए क्या उपाय किए जाते हैं? (उत्तर 250 शब्दों में दीजिए) 15 अंक

Forest fires in India are increasing in frequency and intensity, posing severe ecological and economic challenges. Describe the various causes of forest fires. What measures are followed to prevent and manage forest fires in India? (Answer in 250 words) 15 marks

Forest fire Rising



American fire

In India

Mainly in North
East eg Mizoram fire

Swisska forest fire

Causes

① Dry climate → fire

② Slash & Burn Agriculture practices

③ Human induced fires

④ lack of Forest fire SOP

Not a notified disaster

⑤ lack of Monitoring

↳ (eg) - Sanika fire known
after 1 week

⑥ lack of methods to Tackle

(eg) No aircraft based docking
vehicle.

Measures followed

↳ Spraying of water
in Area

↳ Relief of people & Tubels

↳ ① Use of fire fighting
Vehicle

↳ cloud seeding to fight
forest fire.

↳ State-dedicated forces
to dose fire

↳ use of chemicals

(eg) - spraying CO₂ in
area

Way forward

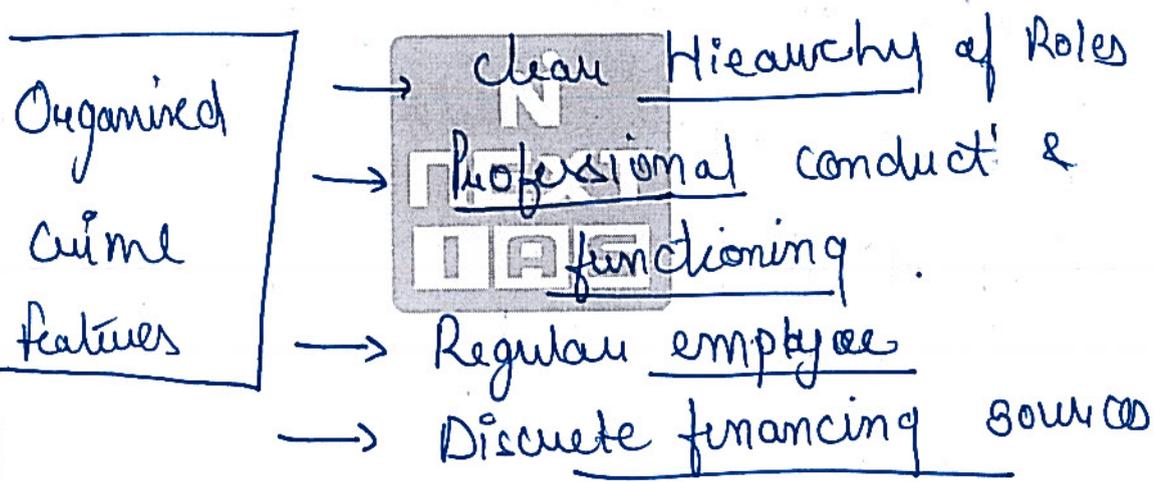
- ① Notifiable Diseases
- ② EWS system
- ③ Dedicated Response
plan & SOP

19. संगठित अपराध क्या हैं? संगठित अपराध और आतंकवाद के बीच संबंधों पर चर्चा कीजिए। ये संबंध भारत के लिए आंतरिक सुरक्षा संबंधी चुनौतियाँ कैसे उत्पन्न करते हैं? (उत्तर 250 शब्दों में दीजिए) 15 अंक

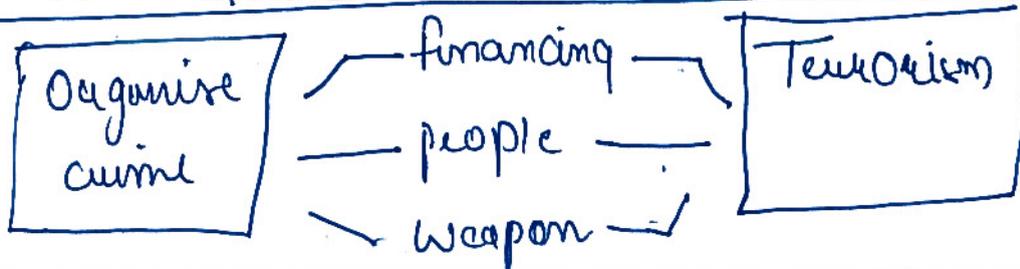
What are organized crimes? Discuss the linkages between organized crime and terrorism. How do such linkages pose internal security challenges to India?

(Answer in 250 words) 15 marks

Organised crimes are crimes by syndicate of criminals who have an organisation like structure and functioning ~~eg~~ Drug Cartel of Mexico



linkages between Organised crime & Terrorism



linkages → Organised crime provide

(r) financing for terrorism ~~eg~~ Mumbai 1993 blast

- ② Weapons so terrorist eg Afgan
Drug Trade → Taliban weapons
- ③ Recruit individual eg Dawood
gang → 26/11 Recruitment
- ④ professional conduct of terrorist
- ⑤ gives information and intelligence
eg Myanmar → Saging → NGCN(IM)
Region
- ⑥ Terrorist provide recognition,
fear psychosis among people and
objective to organized crime

Security Challenge

- ① Invisible Handshake → difficultly
in detection eg Arm supply through
Drones in J&K.
- ② Different agencies to deal → no coord-
ination
eg ED, SFIO → organized crime
IB, NIA → terrorism
- ③ Organized crime tend to support
terrorist activity

- ④ Rising organised crime in India
eg Drug Trafficking - Mundra Port seizure.
- ⑤ Terrorist disguised under organised crime umbrella → difficult to prove guilt & deportation
eg Dawood Yang Members
- ⑥ New Mechanism eg Bitcoin funding & Youtube Recruitment
↓
newer challenges

Steps Taken



- ① Recognition of organised crime under Bhadraya Nyay Samhitā
- ② Structure Monitoring eg Joint coordination
- ③ Curbing finances eg NMFT conference
- ④ International recognition of linkages eg FATF

Thus, we must deal with both threat unitedly

20. भारत का उत्तर-पूर्वी क्षेत्र विवादास्पद मुद्दों और सुरक्षा चुनौतियों से परिपूर्ण है। इस क्षेत्र में वर्तमान में व्याप्त विभिन्न सुरक्षा चुनौतियों का परीक्षण कीजिए। इन चुनौतियों से निपटने हेतु किए जाने वाले उपायों पर चर्चा कीजिए।

(उत्तर 250 शब्दों में दीजिए) 15 अंक

India's north-eastern region is fraught with contentious issues and security challenges. Examine the various security challenges currently prevailing in the region. Discuss the steps to counter these challenges. (Answer in 250 words) 15 marks

The Manipur Violence and conflict that started in 2023 is now in its 3rd year and still there is no resolution.

Security Challenges

① Drug Trafficking

→ golden triangle

② Ethnic conflict

→ Kuki - Meitei in Manipur

③ Insurgent group → NSCN (IM), ULFA

④ Counterfeit currency → from Bangladesh & Nepal



- ⑤ Illegal Immigrations → Bangladeshi immigrants
- ⑥ Terrorist group in the region
→ Jamaat e-Islami
- ⑦ Developmental Deficit → low infrastructure
- ⑧ Arms Trafficking → from Myanmar
- ⑨ Cattle Trafficking → Bangladesh
- ⑩ Rigged Terrain and unfenced Borders
- ⑪ Traditional security threat
→ Chichen Neck Dilemma

Steps Taken

- ① Borders fencing
- ② CIBMS system
- ③ Enhanced Patrol
- ④ Peace agreement

Moves Steps

- ① Madrhkan Gupta

- ① Layered Border Protection
 - ② Technology adoption eg Camera,
Drones
 - ③ Collaboration eg Operation Sunrise
with Nation
- (B) Shetkan Committee
- ④ Upgrade Border infrastructure
in the region
 - ⑤ Complete fencing
- (C) Other Steps
- ⑥ Development as an Antidote
eg PM Devine scheme
 - ⑦ Peace committee → for ethnic
conflict
 - ⑧ Integration with mainland
 - ⑨ Clean protection → for Tribal
culture.

Thus, way forward is "whole
of government" approach

NEXT IAS

Space for Rough Work

Faint handwritten notes and diagrams, possibly including a flowchart or list of items.

Faint handwritten notes, possibly a list or table.

NEXT IAS

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।	
<p>क्या न करें-</p> <ol style="list-style-type: none"> 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। 	<p>क्या करें-</p> <ol style="list-style-type: none"> 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 जाना 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 जांच करें। सुनिश्चित करें कि यह उसी के भौतिक संस्करण के अनुरूप है।

