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NEXT IAS

MAINS TEST SERIES 2.0 - 2025 (FLT)

(To be filled by candidate)

TEST CODE : FLT2503

Name of Candidate: Harsh bodha. Mobile No. [redacted]

Roll No. : MT25FLTRA012 Start Time 9:30 End Time 12:30

Date of Examination: 22/06/2025 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, 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 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, 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: .....

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FOR OFFICE USE ONLY

Student Concerns / Query	Evaluator's Feedback / Response
1	1 .....
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2	2 .....
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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

Topper's Copy	Common mistake and Correct Filled QCAB
Copy Scanner App	Next IAS Test Centre Location

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

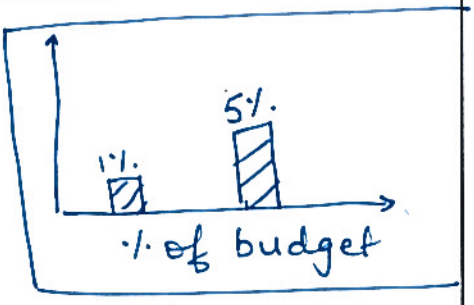
Candidates must not write on this margin

1. सरकारी बजट में जेंडर बजटिंग की ओर हाल ही में किए गये प्रयास महिला सशक्तिकरण के लिए इसके महत्व को दर्शाता है। भारत में जेंडर बजटिंग की दिशा में हालिया पहल और उनके महत्व क्या हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक

The recent push towards gender budgeting in the Government Budget reflects its importance for women empowerment. What are the recent initiatives towards gender budgeting in India and their importance? (Answer in 150 words) 10 Marks

Budget 25-26 allocated 3.1 trillion ₹ towards gender budgeting.

Recent Initiatives towards 9t



(1) Larger allocation

(2) Focus on women empowerment in STEM
Eg. Vigyan Jyoti scheme

(3) Separate document highlighting the funds allocated towards women.
Eg. Janani-Shishu Suraksha Karyakram.

(4) Policy and specific directions to ministry to present seperate portfolio for women.

(5) Nirmala Sitharaman called for ambitious goal of to reach 10% of budget.

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Importance of these initiatives

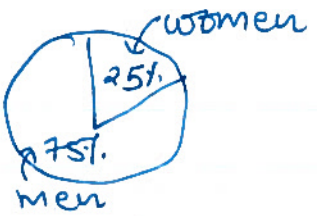


Fig. Workforce Comp.

(1) Inclusive growth of economy

(2) Economic mobility leading to social mobility.

(3) Monetisation of 'care based' economy.

(4) Additional pressure on government to allocate equitable funds for women

(5) Egalitarian development of society.
[2 wheel theory of Hansa Mehta]

(6) Capability approach of Amartya Sen truly implemented

Gender Budgeting is thus step forward to achieve goal of 'welfare state' as per Article 38 of Indian Constitution.

- Quote.
- SDG.

Candidates must not write on this margin

2. बंदरगाह आधारित विकास को भारत में आर्थिक विकास और क्षेत्रीय एकीकरण के प्रमुख चालक के रूप में देखा जाता है। चर्चा कीजिए कि सागरमाला पहल किस प्रकार बंदरगाह आधारित विकास और तटीय अर्थव्यवस्था को बढ़ावा दे सकती है। (उत्तर 150 शब्दों में दीजिए) 10 अंक

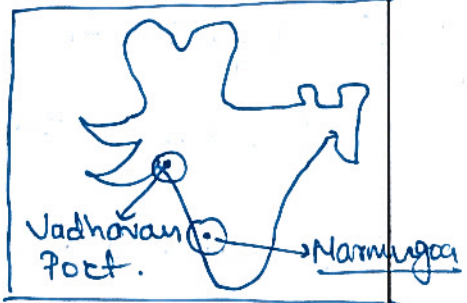
Port-led development is seen as a key driver of economic growth and regional integration in India. Discuss how the Sagarmala initiative can promote port-led growth and the coastal economy. (Answer in 150 words) 10 Marks

Recent recalculation of Indian coastline came to 12000km (approx) highlighting its potential.

Sagarmala Initiative → Port led development → Blue Revolution
Sagarmala Initiative → Coastal regurvination → Blue Revolution

Promote port-led development

(1) New ports sanctioned
Eg. Vadhavan Port, Dahanu



(2) Landlord port model augmented for professional management.

(3) Aim to reduce transit time to 60%, clearance time to 50%.

(4) Privatisation of some ports for better operations
Eg. Mundhra to Adani

(5) Green Port Model through 'Harit

Candidates must not write on this margin

Shrey Initiative'

Eg. 1st Green Port at Marmugoa.

Enhance Coastal Economy

1. Employment → for coastal population leading to better livelihood.
2. Integrated economy enhancing scope for ancillary industry
3. Boom to fishing industry especially for exports.
4. Aquaculture industry can be expanded so as to further 'Neel Kranti'
5. Food Processing Parks under Sagarmala will add value to fishing industry
   ↳ Double fisher's income.

In addition to sagarmala, PM Matsya Sampada Yojana, PPP models can help in coastal development.

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3. गैर-कृषि अर्थव्यवस्था में पशुपालन के महत्व पर चर्चा कीजिए। पशुपालन को बढ़ावा देने के लिए हाल ही में प्रस्तावित पशुधन जनगणना की क्या आवश्यकता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss the importance of livestock farming in a non-farm economy. What is the need for the recently proposed livestock census in promoting animal husbandry?
(Answer in 150 words) 10 Marks

Recent global stocktake of livestock by FAO declared highest livestock population in India.

Importance in non-farm economy

1] Inputs → 'Gaumutra' for medicinal purpose
→ 'Gobar' for agri-manure

2] Food Security → Meat consumption for protein
→ Milk consumption for vitamins.

3] Income Security → Stable income as compared to agriculture (monsoon)
→ Regular cycle (daily to monthly) opposed to agriculture (biannual/annual)

4] Credit → Asset for hypothecation
→ Natural gain in asset.

Candidates must not write on this margin

Need for proposed census

(1) Data collection so as to identify potential of industry.

(2) Information-based policy making would be possible.

(3) Tailored approach for different classification of livestock
Eg: Cow for milk, Sheep for wool, etc.

(4) Analysis of breeds, their efficiency, need for hybridisation, etc.
Eg: National Bovine Breeding Prg needs data.

(5) Increase share of livestock sector in GDP of India.

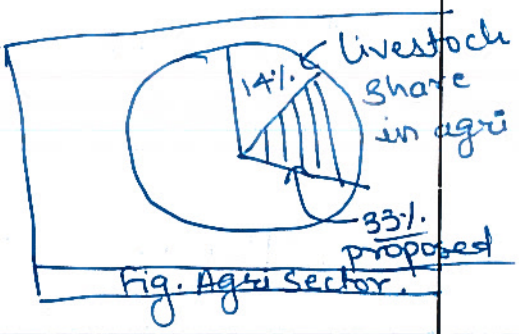


Fig. Agri Sector.

Livestock sector in India can act as 'balancing wheel' of the deeply volatile agri sector.

Candidates must not write on this margin

4. न्यूनतम समर्थन मूल्य किसानों की आय को बढ़ाने में कैसे मदद कर सकते हैं? न्यूनतम समर्थन मूल्य का लाभ प्राप्त करने में किसानों को किन चुनौतियों का सामना करना पड़ता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक

How can minimum support prices help in promoting farmers' income? What are the challenges faced by farmers in accessing the benefits of minimum support prices? (Answer in 150 words) 10 Marks

Recently, MSP was declared by CACP for 23 crops with average increased of 6% in prices.

MSP : promote farmer income

1. Income security for farmers as assurance that hardwork not wasted.
2. Augment risk taking as a % of income secure. [Broccoli farming]
3. MSP acts as support price so helps in **price discovery**.
4. Although not legalised, govt. procures **30%** of market produce (rice) through FCI under MSP regime
5. **MSP calculation** includes 150% of (A2 + FL) giving enough margins for farmers

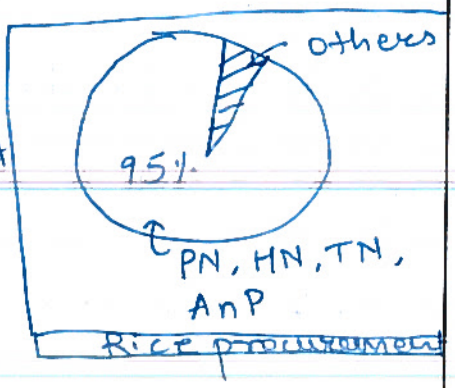
[**Rangarajan** rec^{n} [C2 + FL] for calculation.

Candidates must not write on this margin

Challenges to access MSP benefit

1. **Crop dominance** → Wheat, Rice → 90% of procurement.

2. **Regional dominance**
   - Similarly 90% wheat from Punjab (PN), Haryana (HN) and UP.



3. Since centralised procurement, FCI procures near warehouse facility [64% facility in PN, HN, Chattisgarh, UP]

4. MSP **not legalised** and thus, not have statutory backing to force government to procure stock.

5. Corruption by FCI workers seen in CHG (fake slips) but less payment.

Recent farmers protest called for MSP legalisation. **Shantakumar** Cttee of Price Deficiency Payments can be looked at.

Candidates must not write on this margin

5. कृत्रिम तंत्रिका नेटवर्क क्या हैं? मशीन लर्निंग और कृत्रिम बुद्धिमत्ता में उनके महत्व पर चर्चा कीजिए।
(उत्तर 150 शब्दों में दीजिए) 10 अंक

What are artificial neural networks? Discuss their importance in machine learning and artificial intelligence. (Answer in 150 words) 10 Marks

Recent boom of General Artificial Intelligence saw 'Open AI' reach 1 billion customer base.

Artificial neural networks

These are fundamental building blocks' of generative AI.

With aim to mimic human intelligence and brain, scientist thought of building 'neural networks' for computer operating system similar to neurons in human brain.

These are 'artificial neural network' which carry, analyse, transfer signals and generate informational output similar to human brain.

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Importance of ANN in Machine Learning and Artificial Intelligence

1) 'Core' of any AI or ML network to function
2) Carry data and signals to generate output as per query.
3) Stronger and larger the network of ANN, smarter and more developed the AI/ML system.
   Eg. Open AI has neural network of billions of neural networks.
4) Interoperable and thus issue in one part can affect entire AI ecosystem

Recently, India to has announced 'Sovereign AI' and a strong Artificial Neural Network would go a long way in making it advanced.

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6. रक्षा क्षेत्र और आधुनिक युद्ध में मानव रहित हवाई वाहनों (यूएवी) के महत्व पर चर्चा कीजिए।
(उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss the importance of Unmanned Aerial Vehicles (UAVs) in the defense sector and modern warfare. (Answer in 150 words) 10 Marks

Unmanned Aerial Vehicles are the 'new tool' in modern warfare and its usage seen in recent India-Pakistan skirmishes.

Importance in defense sector

1. Useful for border security especially like Pakistan, China, etc.
2. Technology development in UAV could increased our share in global defence market.
3. Export potential as huge demands from SE Asia, Russia, Iran, etc.
4. Prototypes could lead to enhanced image of India. (Nishant, Lakshay)
5. Share of drones in global market increasing

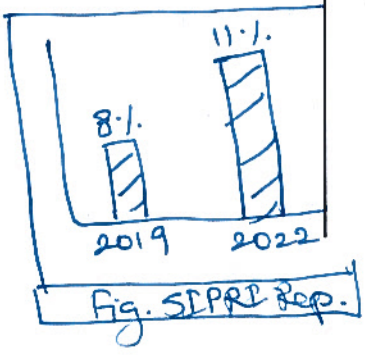


Fig. SIPRI Rep.

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Importance in modern warfare

1. Patrolling of sensitive areas, remote areas (Garuda drone in URI)
2. Human contact reduce and thus tool of 'aggressive' warfare.
3. Enhanced capabilities
   - 3.1. Air to surface strikes
   - 3.2 Stealth mode to avoid detection
   - 3.3 Carry supplies of higher load.
4. Anonymity increased due to drones and geographical barriers reduced
5. Response time reduced as quick deployment possible.
6. Supplies transport.

Recent initiative of India to develop 'air-to-air' strike capability drone highlights importance of UAV in modern era.

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7. समुद्री और तटीय पारिस्थितिकी तंत्र पर तेल रिसाव के पर्यावरणीय प्रभावों की जांच कीजिए। तेल रिसाव की सफाई के लिए इस्तेमाल की जाने वाली विभिन्न विधियाँ क्या हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Examine the environmental impacts of oil spills on marine and coastal ecosystems. What are the various methods used for cleaning-up of oil spills?

(Answer in 150 words) 10 Marks

Recent oil spill in Baltic Sea due to explosion of Nord Stream has affected its marine ecosystem.

Environmental Impacts of Oil Spills

On marine ecosystem

1. Fish population affected
2. Corals destroyed
3. Ocean acidification leading to phytoplankton loss.
   - Reduced oxygen level leading to high BOD.

On coastal ecosystem

- loss of livelihood of local fishermen.
- Health issues due to biomagnification
- Coastal pollution affecting aquaculture.
- Seaweed cultivation, agriculture affected as soil fertility reduced.

Candidates must not write on this margin

Methods for clearing oil spills

1. Oil eating bacteria like methanogens put in affected area.
2. Oilzapper and Olivorous-S being developed by TERI to clean oil spills.
3. Devices like 'skimmers' to skim the oil off surface.
4. Bioremediation technique for in-situ clean up of oil.
5. Vacuum systems to soak the oil from the water bodies.
6. In-situ burning of oil, Oil-washing are other methods.

Marine ecosystem is lifeline of 2bn people and thus its protection is essential.

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8. भूकंप संबंधी आपदाओं के प्रति उत्तरी भारत की संवेदनशीलता पर चर्चा कीजिए। उनके प्रभावों को कम करने में भारत की तैयारियों पर प्रकाश डालें। (उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss the vulnerability of northern India to earthquake-related disasters. Highlight India's preparedness in mitigating their impacts. (Answer in 150 words) 10 Marks

As per NDMA, 12.6% of India is prone to earthquakes, especially Himalayan region.

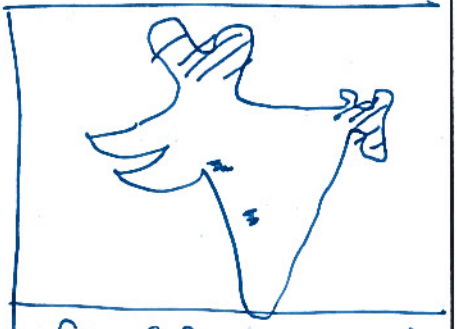


fig. EQ. prone region

Vulnerability to EQ related disasters

(1) Landslide: earthquakes can lead to land subsidence (tectonic movements)
Ex. Recently in Kinnaur, HP

(2) GLOFs: glacial lake outburst due to ecostatic imbalance
Ex. Recent in S. Lhoknak lake.

(3) Dam collapse: earthquake can lead to collapse of various structures.
Ex. Recent in Ladakh (Nimo Bazgi Dam)

(4) Forest fires: due to magma eruption
Ex. Recently in Uttarakhand.

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Indian mitigation measures

1. Regulation → ESZ norms to reduce habitation and infra projects
   → Environmental Impact Assessment before project.
2. Hazard zonation mapping to identify vulnerable areas
3. Early Warning System so as to reduce impact by 'quick rehab'.
4. Satellite systems like NISAR to keep 'bird's eye' on region for data analysis and policy.
5. NDMA guidelines for mock drills, SOP's, etc.
6. Village-level disaster management plan.
7. Structural measures like iron railings, etc to reduce impact.

CDRI is step in right direction for global effort to adopt, mitigate and relocate disaster risk.

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9. चर्चा करें कि क्रिप्टोकरेंसी और अन्य उभरती प्रौद्योगिकियां मनी लॉन्ड्रिंग और आतंकवाद के वित्तपोषण के खतरे में कैसे योगदान करती हैं। इस समस्या से निपटने के लिए भारत सरकार द्वारा क्या कदम उठाए गए हैं?

(उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss how cryptocurrency and other emerging technologies contribute to the menace of money laundering and terror financing. What steps have been undertaken by the Government of India to tackle this issue? (Answer in 150 words) 10 Marks

As per recent UN Prevention on Money Laundering (ML) report, [2-5]% of global GDP lost due to money laundering.

Contribution of Cryptocurrency and others to this menace

1. Adding to the already complex process of ML. [Placement → Layering → Reentry]
2. Anonymity due to traceability issues.
3. End-to-end encryption
4. Geographical and physical barriers gone.
5. New forms of asset to launder like NFT, Bitcoin, etc.

Contribution to terror financing

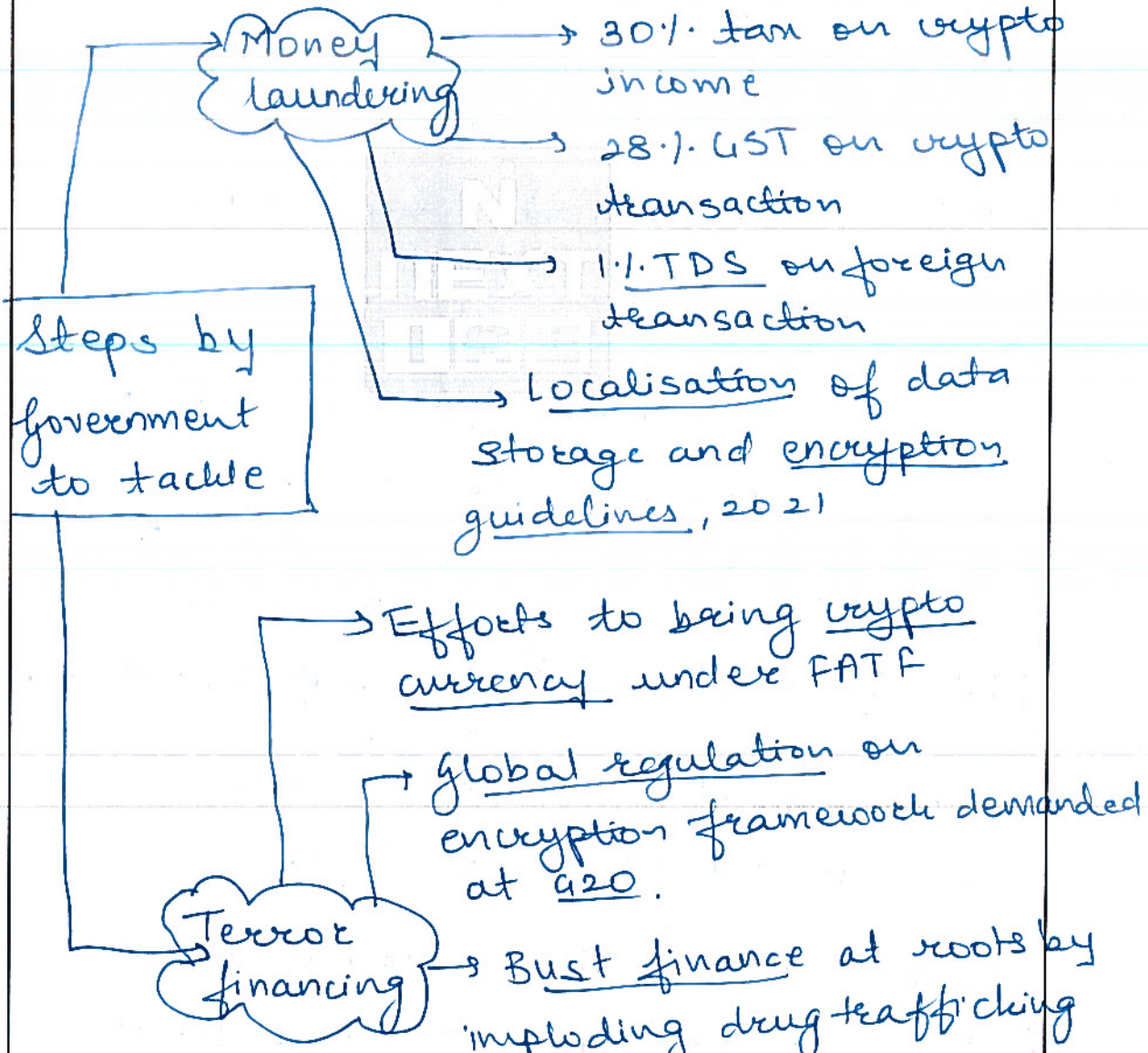
1. Threat of FATF sanctions reduced as new forms of funding.

Candidates must not write on this margin

(2) DeFI (decentralised finance) creating anonymity for terrorists.

(3) Identification of accounts difficult as end to end encryption.

(4) Mobility of funds easier as increased acceptability of cryptocurrency.



Thus, new emerging technology is a 'double edge' sword.

Candidates must not write on this margin

10. हाइब्रिड युद्ध क्या है? यह पारंपरिक युद्ध से किस प्रकार भिन्न है? भारत हाइब्रिड युद्ध की चुनौतियों का सामना किस प्रकार कर सकता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक

What is hybrid warfare? How is it different from conventional warfare? How can India navigate the challenge of hybrid warfare? (Answer in 150 words) 10 Marks

Hybrid warfare is the new normal where shift from 'physical to digital', 'hard to grey' warfare has occured.

Tools of hybrid warfare

- Cyber attacks
- Fake news
- Economic manipulation
- Narrative / Propaganda setting
- Critical Infra targeting.

Difference from conventional warfare

Hybrid	Conventional
(1) Digital in nature	(1) Physical in nature.
(2) Below actual war threshhold.	(2) After threshhold breached.
(3) Impact of digital infra, economic and mental framework.	(3) Destroy or damage physical infrastructure.

Candidates must not write on this margin

(4) Grey zone warfare Eg. Cyber terrorism in form of radicalisation. Cyber espionage in form of AIIMS database attack	(4) Actual warfare in conventional sense. Eg. Missile attack on Pakistan by India. ~~Army incursion~~ in other's territory.

How can India Navigate ?

(1) Strong legal framework to avoid cyber frauds. (IT Act, 2000)

(2) Policy framework to reduce import dependence on critical tech.

(3) Cyberforce in line with National Cyber Security Policy.

(4) Strong implementation of 'Social Media Guidelines', PIB 'Fact Check Unit'

(5) Institutional strength in form of NCIIPC, CERT-IN, etc.

Hybrid warfare suits narrative of any 'situational warfare' and needs to be championed.

Candidates must not write on this margin

11. भारत द्वारा मजबूत डिजिटल अर्थव्यवस्था के लिए प्रयास करने के बावजूद, भारत को डिजिटल समावेशन के संबंध में चुनौतियों का सामना करना पड़ रहा है। चर्चा कीजिए। डिजिटल संसाधनों तक समान पहुँच सुनिश्चित करने के उपाय सुझाएँ।
(उत्तर 250 शब्दों में दीजिए) 15 अंक

Despite India's push for a robust digital economy, India faces challenges with regard to digital inclusion. Discuss. Suggest measures to ensure equitable access to digital resources.
(Answer in 250 words) 15 Marks

As per recent RBI report, digital economy has seen 'huge push'.

50 billion UPI transactions per month	800bn $ worth of UPI transactions.
e-commerce industry CAGR of 27%.	50 crore QR codes active.

India's digital economy push

1. UPI revolution increasing digital payments for all → Accessible, Affordable, Accurate
2. Internet revolution leading to support infra (10₹/gb)
3. e-Commerce democratisation using the newly launched 'ONDC' platform.
4. IT Act deductions in form of 6% (physical 8%) tax on digital payments for businesses under Section 44AB.
5. Digital India Mission, Digital

Candidates must not write on this margin

Sakshacta Abhiyaan, etc.

Challenges in digital inclusion

(1) Digital illiteracy at 36% as per NITI Aayog report.

(2) Digital divide (rural - urban) where 70% population but only 28% access.

(3) Gender marginalisation : women access to digital infra lower (recent suicide by college student as no laptop)

(4) 'English'-isation of digital platforms.

Ex: 83% content in English (Brij Bhushan committee Report)

(5) Inertia due cyber attack threat.

Ex: As per NCRB, 572% increase in cyber attacks from 2016.

(6) Broadband penetration still lagging

Ex: National Optic fibre Network underway.

(7) Interoperability issue of digital platforms.

Candidates must not write on this margin

Measures for equitable access

(1) Vernacularisation of content

Efforts by Brij Kothari to translate content of government schemes for local consumption.

(2) Digital literacy campaigns.

(3) Quick deployment of broadband network.

(4) Common Service Centres for support to access digital opportunities.

(5) Strong cyber security architecture in form of laws, workforce, etc.

(6) Gender specific schemes to enhance uptake of women in digital economy.

(7) PPP with e-commerce players to support indigeneous population.

Recent inclusion of Dokra Metal Art on Amazon highlights the robust digital economy push and related inclusivity efforts.

Candidates must not write on this margin

12. जैसे-जैसे कृत्रिम बुद्धिमत्ता अर्थव्यवस्था के विभिन्न क्षेत्रों में प्रवेश कर रही है, वैसे-वैसे नौकरियों का खत्म होना एक वास्तविकता बनती जा रही है। रोजगार पर एआई के प्रभावों का विश्लेषण करते हुए, इस चुनौती से निपटने और रोजगार वृद्धि को बढ़ावा देने के उपाय सुझाएं। (उत्तर 250 शब्दों में दीजिए) 15 अंक

As artificial intelligence penetrates into various sectors of the economy, job losses are becoming a reality. Analysing the impacts of AI on employment, suggest measures to navigate this challenge and promote job growth. (Answer in 250 words) 15 Marks

NITI Aayog in its 'India AI' steategy, called 'Artificial Intelligence as double-edged sword' due to its multidimensional impacts.

Impacts of AI on employment

(A) Positive impacts of AI

- Huge global demands for AI workforce which India can cater due to its demographic dividend
- Scope for skilled labour to earn more (30-40% salary of AI data analytics expert)
- Opening up of new avenues for IT workforce which had become 'backyard of outsourcing'.

AI → Entrepreneur → Generate employment

Role from employment seeker to employment provider

Candidates must not write on this margin

(B) Negative impacts on employment

(i) Compete with humans rather than complement.

(ii) Profit-seeking attitude of corporates to cheap AI preferred.

(iii) Major threat to unskilled and semi-skilled workforce

As per recent ILO report, AI does routine work with 35% more efficiency at 48% less cost. It could take away 350 mn jobs.

(iv) Layoffs in IT industry is corroboration to this AI-era.

Eg: Recently, Amazon laid-off 12000 employees in India.

(v) Redundance of various sectors due to AI

Eg: VFX sector has faced massive downtrends due to DALL-E.

Candidates must not write on this margin

Measures to navigate challenges

1. Skilling of workforce (PM Kaushal Vikas Yojana)
2. AI as complement not supplanting the workforce.
3. Exploit global demands for AI workforce by updating curriculum.
4. Introduce basic understanding of 'AI' at higher secondary level to generate curiosity (National Education Program)
5. 'Women in AI' (35% opposed to 30% globally) complementary as 'work from home' help balance life.
6. National strategy of AI be implemented rigourously through tech development, global partnerships (I-CET with USA)

'Sovereign AI' development is a step in right direction.

Candidates must not write on this margin

13. भारत में फसल-उपरांत होने वाला नुकसान प्रतिवर्ष लगभग ₹1,52,790 करोड़ है। भारत में फसल-उपरांत होने वाली हानियों के लिए किस हद तक कृषि उत्पादों के परिवहन और विपणन में आने वाली बाधाओं को जिम्मेदार ठहराया जा सकता है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

India's post-harvest losses amount to approximately ₹1,52,790 crore annually. To what extent can post-harvest losses in India be attributed to the constraints in the transport and marketing of agricultural products? (Answer in 250 words) 15 Marks

As per FAO report, post harvest losses of India can feed 1/3rd global population. (25% of produce in some cases).

Attribution of post harvest loss to

(A) **Transport constraints**

(1) Railway dependency more than railway capacity

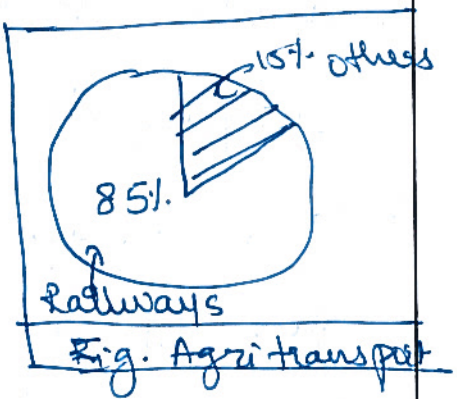


Fig. Agri transport

(2) Poor road infra and thus damage of perishables.

(3) Cold storage vans almost negligent so product exceed shelf life.

(4) Air transport costly and thus slow uptake (86% small and marginal farmer cannot afford)

Candidates must not write on this margin

(5) Cross subsidisation in railways so 'compromise' by farmers to avoid costs.

(B) Marketing constraints

(1) Poor price for produce → throw away produce [Recent case of tomatoes → 1₹/kg]

(2) Hoarding for speculation of better price as 'price discovery issues'

(3) Long supply chain so final consumption delayed

Farmer ⇒ APMC ⇒ Trader ⇒ Distributor
⇓
Consumer ⇐ Retailer ⇐ Wholesaler

Other constraints →
- Poor storage and warehousing facility
- Cold storage infra absent
- Central procurement and poor deployment policies.
- Inherent perishable nature of agri produce.

Candidates must not write on this margin

Measures to avoid post-harvest losses

(1) Scientific storage → Cover and plinth
→ PAU bins
→ Silos for large quantity.

(2) 'Farm to fork' approach to create dynamic supply chain.

(3) Augment cold storage infra using PPP models, IT exemptions (Sec 35AD)

(4) Multi modal transport facility for foodgrains; Air for perishables [KRISHI UDAN]

(5) Contract farming to reduce intermediaries.

(6) Forward linkages with Food Processing Industry to enhance market.

Agriculture is the 'backbone' of Indian Economy and need rejuvination through infrastructure upgrade.

Candidates must not write on this margin

14. भारतीय कृषि में प्रत्यक्ष और अप्रत्यक्ष सब्सिडी क्या हैं? इन सब्सिडी ने देश की फसल विविधता और कृषि अर्थव्यवस्था को किस प्रकार प्रभावित किया है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

What are the direct and indirect subsidies in Indian agriculture? How have these subsidies impacted the cropping diversity and farm economy of the country?

(Answer in 250 words) 15 Marks

Recent Budget 25-26, saw reduction in subsidy to 7% from earlier year amounting 6.8 lakh crore.

Direct Subsidy

These are subsidies that donot affect the price of produce. They are visible and traceable in the fiscal and value chain.

(1) Direct Benefit Transfer under PM-KISAN

(2) Price Deficiency Payments under Rythu Bandhu.

Indirect subsidies

These are the subsidies not given directly in cash but affect the price of the produce.

They are not directly given to

Candidates must not write on this margin

farmers.

(1) Fertiliser subsidy for urea, etc.

(2) Electricity subsidy under DDU-Gramin Jyoti Yojana.

Impact on crop diversity

(1) Concentration of agriculture to certain crops like wheat, rice (due to MSP)

(2) Cropping mismatch due to poor policy framework.

[Rice in semi arid area of Punjab due to electricity subsidy]

(3) Shift from millets and coarse cereals to cash crops like sugarcane and cotton



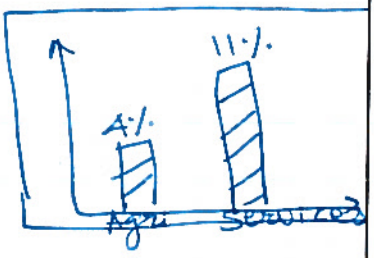
Fig. Millet share.

(4) Risk averse nature and lazy attitude of farmers.

(5) Lack focus on 'Agri-education' and thus no innovation in crops.

Candidates must not write on this margin

Impact on farm economy



1. Handsised growth rate of 4% never breached
2. Export reduction due lack of focus on branding.
3. WTO issue due to breach of 'de-minimis' level under Uruguay Protocol)'
4. Import increased due to 'pulse crisis', 'oilseed neglect'.
5. Shift of labour from agriculture to other sector

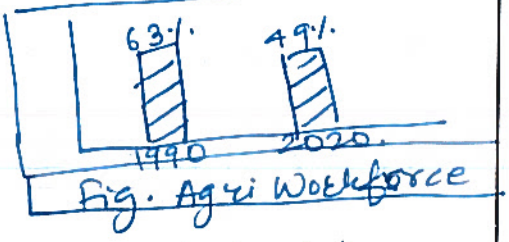


Fig. Agri Workforce

Government efforts

1. Augment Agripreneurs (Incubation centres)
2. Food Processing Industry (20% value addition target)
3. PM-AASHA for oil seed procurement.

Subsidy is only 25% for capital expenditure and that needs to be augmented as per Ashok Gulati.

Candidates must not write on this margin

15. भविष्य के अंतरिक्ष संचालन और मिशनों में पुन: प्रयोज्य प्रक्षेपण वाहनों की क्षमता पर चर्चा कीजिए। पुन: प्रयोज्य प्रक्षेपण वाहनों के विकास की दिशा में भारत की क्या पहल है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

Discuss the potential of reusable launch vehicles in future space operations and missions. What are India's initiatives towards the development of reusable launch vehicles?
(Answer in 250 words) 15 Marks

India recently completed successful launch of 'Docking Experiment' which is in line with our 'Humans in Space Policy' and prequel to "development of RLV" as per ISRO.

Potential of Reusable launch Vehicles

1. Reduce 'cost of project' leading to sustainable space sector.
2. Reentry possibility can augment 'Humans in space' goal.
3. Fundamental step to achieve goal of 'Bhartiya Antriksh Station'
4. Augment Indian share in space sector and improve exports.
   (National Space Policy goal of 5% share)

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(5) Stepping stone to future inter-planetary missions like Shukrayaan, etc

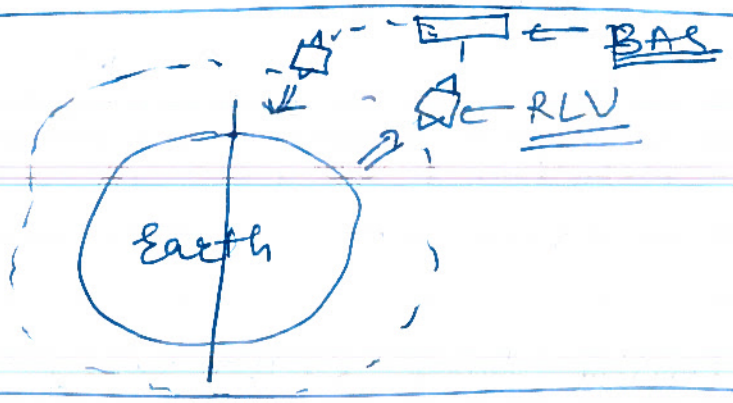


Fig. Reentry Module.

Initiatives by India for RLV development

(1) Pushpak launched which is our 1st RLV launch.

(2) Project Sooryā to create NGLV which will have reentry module.

(3) Global Partnership with Russia and France for 're-entry' simulation and tech transfer.

(4) Budgetary support to ISRO for

Candidates must not write on this margin

RLV project amounting to 12000 cr.

Delays in prg. deadlines as foreign dependence

Challenges

- Russia backed out
- Skilled workforce availability
- Funding issues (20000 cr demand)

India has structurally bettered its space sector through newly incorporated IN-SPACE, NSIL and space privatisation.

Candidates must not write on this margin

16. हाल ही में शुरू की गई BioE3 नीति के लक्ष्यों और उद्देश्यों की व्याख्या कीजिए। यह नीति अर्थव्यवस्था के "हरित विकास" को सुनिश्चित करने में किस प्रकार सहायक हो सकती है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

Explain the aims and objectives of the recently launched BioE3 policy. How can the policy help in ensuring "green growth" of the economy? (Answer in 250 words) 15 Marks

Bio E3 policy was launched for achieving the goal of 'sustainable development' and reach 'Amrit Kaal' by 2047.



Aims and Objectives of Bio E3

1. Generate sustainable employment in every sector.
2. Utilise the demographic dividend.
3. Achieve the goal of 5 tn $ economy by 2027-28, 30 tn $ by 2047.
4. Sustainable growth of economy by boosting 'green manufacturing'
5. Ecological conservation of flora & fauna.

Candidates must not write on this margin

(6) Complement economy with ecology leading to inclusive growth.

Contribute to green growth

(A) Employment → 'Green jobs' expanding as per economic survey 24.

'Employment potential' in green sector tremendous (from a·1. share to 4·1. share in 4 yrs as per CNIE)

→ 'Green skilling' for solar and green hydrogen uptake (Amitabh Kant)

(B) Economy → Green hydrogen and solar industry cost effective (2₹ per unit achieved in solar)

'Green products' in global demand due to awareness [As per RBI, customers willing to pay more for green products].

→ Sustainable shipping [Harit Sagar Scheme]

Candidates must not write on this margin

(c) Environment → Reduce carbon emission thus better health and productivity (Reduce DALY)

→ Natural resource sustainability so future growth ensured.

long term approach of 'economic development' over short term 'growth' (Indigenious Community Integration)

High cost so poor affected

Challenges → Funding constraints (1.3 tn $ needed annually by 2035)

Challenges ← can increase inequalities

Challenges → Capitalist mindset of corporates not taking social responsibility

India has demanded expansion of National Collective Quantified goals under COP 29 so as to augment policies like BioE3 of developing countries.

Candidates must not write on this margin

17. क्योटो प्रोटोकॉल के अंतर्गत विभिन्न बाजार तंत्र क्या थे? पेरिस जलवायु परिवर्तन समझौते का अनुच्छेद 6 क्या है? नेट-शून्य लक्ष्यों को प्राप्त करने में वैश्विक कार्बन बाजार के महत्व की व्याख्या कीजिए।(उत्तर 250 शब्दों में दीजिए) 15 अंक
What were the various market mechanisms under the Kyoto Protocol? What is Article 6 of the Paris Climate Change Agreement? Explain the significance of the global carbon market in achieving net-zero targets. (Answer in 250 words) 15 Marks

Various mechanisms under Kyoto

1. Integrated emission trading
2. Clean Development Mechanism
3. Joint Implementation

Article 6

1. Market mechanisms
2. Non-market mechanisms

Significance of global carbon market

1. Polluters Pay mechanism.
2. Technology transfer
3. Encourage clean energy usage
4. Investment in alternative energy options.

Candidates must not write on this margin

Candidates must not write on this margin



Candidates must not write on this margin

18. जलवायु परिवर्तन और तेजी से हो रहे शहरीकरण ने भारत में गर्मी की लहरों के प्रभाव और आवृत्ति को तीव्र कर दिया है। चर्चा कीजिए। हीट एक्शन प्लान (एचएपी) भारत में हीटवेव प्रबंधन को कैसे बेहतर बना सकते हैं?

(उत्तर 250 शब्दों में दीजिए) 15 अंक

Climate change and rapid urbanization have intensified the impact and frequency of heat waves in India. Discuss. How can Heat Action Plans (HAPs) improve heatwave management in India?

(Answer in 250 words) 15 Marks

Heatwaves in India are not defined disaster as per Disaster Management Act, 2005 which is concerning.

Intensified frequency reasons

1. Global warming (2023 warmest as per IPCC report)
2. Urban Heat Island effect (Delhi heatwave is more than 50°C)
3. Deforestation for agriculture, urbanisation.
4. Water body reclamation for urban usage.
5. Climate change leading to extreme events
6. Ozone depletion and holes creating increased intensity.

Candidates must not write on this margin

This has led to 23 occurances of heatwaves in 2021-23 period affecting urban areas of India.

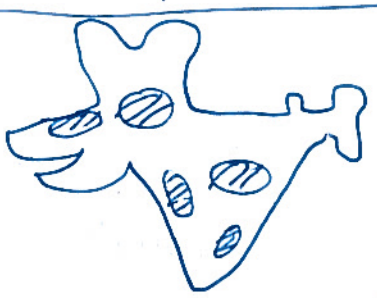


Fig. Heatwave areas.

Intensified Impact

1. Health
   - Sunstrokes, dehydration
   - UV radiation leading to cancer
2. Economy
   - Halt of activities of livelihood
   - Productivity of labour hampered. (23% as per ILO)
3. Social
   - Schools closed leading to educational outcome issues
   - Casual/daily labours affected.
4. Environment
   - Water evaporation affecting flora & fauna
   - Migration patterns affected (Siberian Crane reduced)

Candidates must not write on this margin

Measures : Heat Action Plan

1. Afforestation using Miyawaki, 'Rent your backyard' campaign.
2. Green Building code implementation.
3. Green spaces in urban areas (Gardens compulsory in residential complex of Delhi)
4. Water aquifers in hub and spoke model.
5. ORS, Lemon water at every signal for rehydration, salts, etc.
6. Night economy flourishing.

Thus, heatwaves are fatal and they must be included as 'notified disaster' for better planning & funding for their mitigation.

Candidates must not write on this margin

19. बाह्य सरकारी एवं गैर-सरकारी तत्वों द्वारा भारत की आंतरिक सुरक्षा के लिए उत्पन्न खतरे क्या हैं? इन खतरों से निपटने के लिए आवश्यक रणनीतियों पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

What are the threats posed to India's internal security by external State and non-state actors? Discuss the strategies necessary to tackle these threats. (Answer in 250 words) 15 Marks

Recent India-Pakistan skirmish and Pahalgam attack highlighted how Internal Security of India threatened by state & non-state actors.

Threats by external state actors

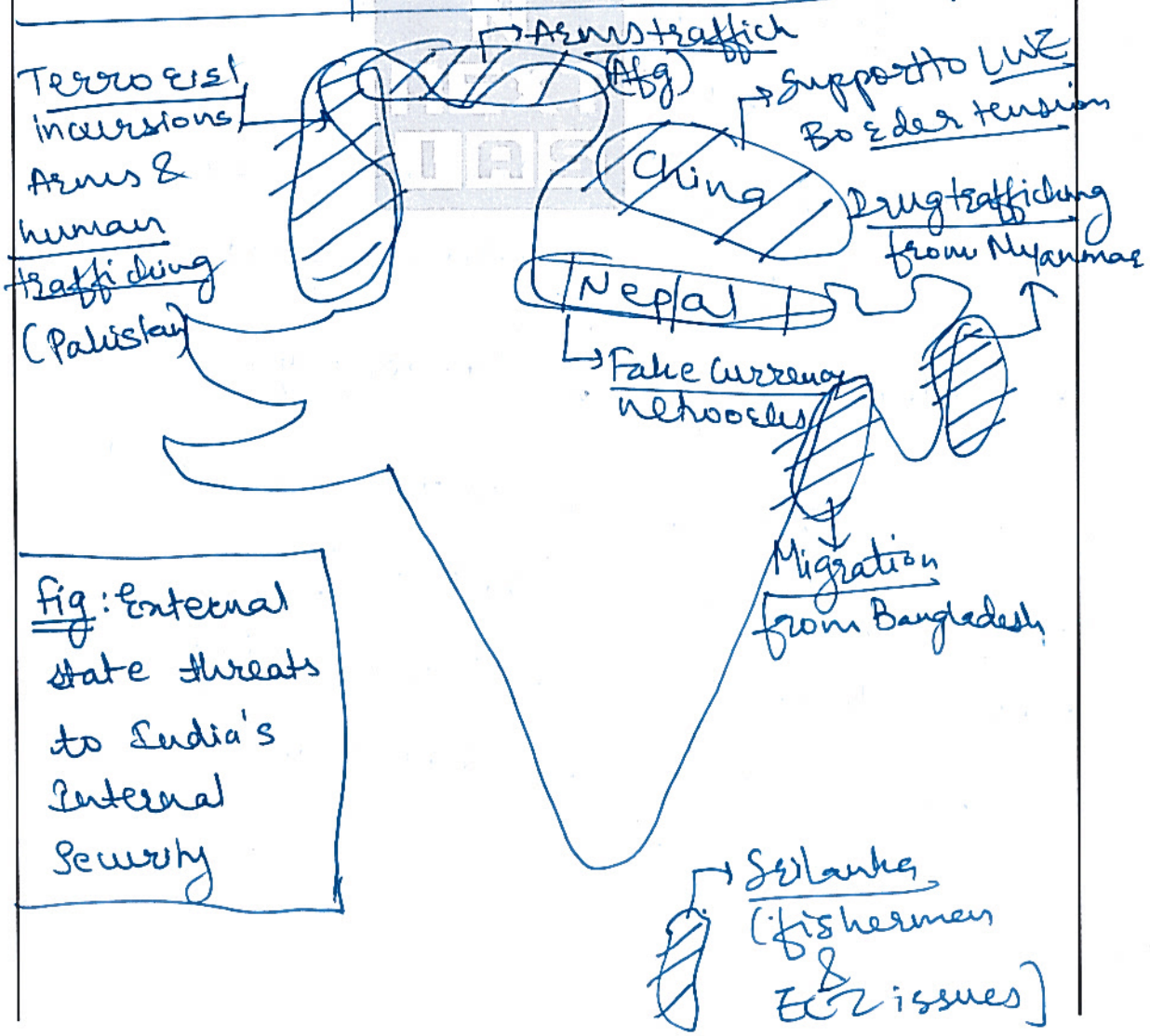


fig: External state threats to India's Internal Security

Candidates must not write on this margin

Threats from non-state actors

(1) Cyber attacks (Legion hacking zomato data)

(2) Organised Crime → Arms, Human, Drugs } Youth Radicalised

(3) Terrorist organisations

- Radicalisation leading to lone wolf attacks.
- Money laundering, internal peace affected.

(4) Left Wing Extremists

- Violent revolution against norms of Indian democracy.
- Statelessness and anarchy breeded.

Strategy to tackle threats

(A) Legal measures → strong airtight laws for quick punishment (PMLA, UAPA, etc)

→ Training for better implementation of laws. (IT Act, etc)

Candidates must not write on this margin

(B) Governance measures → Reduce governance deficit by more skill & employment
↓
Value education to focus on nature of brotherhood and unity.

(C) Stronger institutions → Integrated theatre command to deploy fast in war situation.
↓
Integrated intelligence network (NATGRID)

(D) Technology synergy → Nip fake news in bud. (PIB fact check)
↓
Strong 'social media' predictive analysis using AI.

(E) Psychological strength → Adolescents & youth focused policy for redirection (National Youth Policy)
↓
Surrender and Rehabilitation policy (SAMADHAN)

"We can change our enemies, not our neighbours", so effort for better neighbour relations by reawakening SAARC, BIMSTEC, etc

Candidates must not write on this margin

20. वामपंथी उग्रवाद (एलडब्ल्यूई) भारत की आंतरिक सुरक्षा के लिए चुनौती बना हुआ है। देश में वामपंथी उग्रवाद के मुद्दे को हल करने के लिए भारत सरकार के दृष्टिकोण पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

Left-wing extremism (LWE) continues to remain a challenge to India's internal security. Discuss the Government of India's approach towards solving the issue of LWE in the country. (Answer in 250 words) 15 Marks

Former PM Honourable Manmohan Singh called LWE as 'biggest threat to internal security' of India. This threat continues to remain a challenge in various forms.

- Challenges
  - Expansion of red corridor to Kerala.
  - Strong funding mechanism as linkage with organised crime.
  - Support of external states like China through arms, etc
  - Ideological indoctrination in form of Urban Naxalism
  - Strong cadre despite efforts by government to solve issue.
  - Newer forms of attack like cyber attack, use of drones, etc

STRONGER FRONT ORGANISATION in form of CPI, etc

Candidates must not write on this margin

Government Approach to solve it

1. Governance upgrade → Nai Roshi Scheme
   - → SAMADHAN strategy
   - ↓ Better funding for social devl of tribals (Eklavya Schools)

2. Collaborative approach → Negotiation with certain leaders for surrender and rehabilitation
   - ↓ Amchi Bastar initiative; Aasdwar Project for local involvement.

3. Technological approach → Satelite monitoring (NISAR)
   - ↓ Drones, etc used to avoid surprise attacks.
   - Predictive analysis using AI

4. Institutional Approach → NATGRID for integrated intelligence.
   - ↓ Greyhounds in Andhra pradesh for added vigilance
   - ↓ COBRA unit trained in guriella warfare

Candidates must not write on this margin

(5) Psychological reawakening → Strong local governance so they feel secure.
- ↓ Expose true nature of LWE (power hungry)
- ↓ Protect locals from coercive fear psychosis

(6) Linkages broken → Accounts seized or frozen
- → Foreign linkages busted using local intelligence.

Successes seen

- 47% reduction in deaths from 2016
- 43% reduction in incidences of attack
- 44 districts removed from LWE affected category.
- 41% increase in surrender of LWE cadre.

Although, 'continued effort' on policy, governance and security front needed with idea of 'Sabka Saath, Sabka Vikas' for elimination LWE.

Space for Rough Work

Space for Rough Work

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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.

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 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 SCANER) 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।