

TEST CODE 8 1 3 4 1 5

MGP 2025

Time Allowed : Three Hours  
समय : तीन घंटे

ForumIAS

Maximum Marks : 250  
अधिकतम अंक : 250

## GENERAL STUDIES / सामान्य अध्ययन

|   |                  |   |                                |
|---|------------------|---|--------------------------------|
| Name Of Candidate<br>परीक्षार्थी का नाम | Aryan Srivastava |   |                                |
| Roll No./अनुक्रमांक                     | Medium/माध्यम    | English <input checked="" type="checkbox"/> | Hindi <input type="checkbox"/> |
| Center Code/परीक्षा केंद्र              | Date/दिनांक      | 13/08/25                                    |                                |

\*Center Code : For Online - 1900 / Delhi : Karol bagh - 1901, ORN - 1902, Mukharji Nagar - 1903 / Patna : Boring Rd. - 2001 / Hyderabad : Jawahar Nagar - 2101

| INDEX TABLE / अनुक्रमणिका  |                          |                              | INSTRUCTION / अनुदेश   |  |
|--|--------------------------|------------------------------|--|--|
| Q. No.<br>प्र.सं.  | Max. Marks<br>अधिकतम अंक | Marks Obtained<br>प्राप्तांक | 1. Please do furnish Name, Email, Roll No and Mobile in the answer sheet.<br>कृपया उत्तर-पुस्तिका में नाम, ईमेल, रोल नंबर और मोबाइल नंबर भरें।   |  |
| 1  |                          |                              | 2. There are <b>TWENTY</b> questions printed in ENGLISH & HINDI, all questions are compulsory.<br>उत्तर पुस्तिका में अंग्रेजी/हिंदी में बीस प्रश्न दिए गए हैं, सभी प्रश्न अनिवार्य हैं।  |  |
| 2  |                          |                              | 3. The number of marks carried by a question/part is indicated against it.<br>प्रत्येक प्रश्न/भाग के लिए निर्धारित अंक उसके सामने अंकित किए गए हैं।  |  |
| 3  |                          |                              | 4. Answers must be written in the medium authorized in the admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided.<br>उत्तर प्रवेश पत्र में अधिकृत माध्यम में लिखे जाने चाहिए, जो कि दिए गए स्थान में इस प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के कवर पर स्पष्ट रूप से लिखा जाना चाहिए। |  |
| 4  |                          |                              | 5. Word limit in questions, if specified, should be adhered to. Any page or portion of the page left blank in the Question-Cum Answer Booklet must be clearly Struck off.<br>प्रश्नों में शब्द सीमा, यदि निर्दिष्ट हो, का पालन किया जाए। प्रश्न-सह-उत्तर पुस्तिका में खाली छोड़े गये किसी भी पृष्ठ या पृष्ठ के भाग को स्पष्ट रूप से काट दें।                   |  |
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| Total/कुल अंक  | 250                      |                              | For Student Only / केवल परीक्षार्थी प्रयोग हेतु  |  |
| Examiner's Discretion/मूल्यांकन कर्ता का विवेक :   |                          |                              | Start Time/प्रारंभ करने का समय :   | End Time/समाप्त करने का समय :  |
|  |                          |                              | 9:45 AM  | 12:45 PM   |
| Total Marks/कुल अंक :  |                          |                              | Mode Of Examination/<br>परीक्षा की विधि :  | Online/ऑनलाइन <input checked="" type="checkbox"/><br>Offline/ऑफलाइन <input type="checkbox"/> |
| *Examiner's Discretion is the marks awarded at the discretion of the examiner based on your overall impression, on the basis of (but not limited to) your handwriting, presentation, use of diagrams, flowcharts, facts and figures or absolutely anything that he/she liked in your copy.<br>मूल्यांकन कर्ता का विवेक अंक, आपकी लिखावट, प्रस्तुति, आरेखों के उपयोग, प्लोचार्ट, तथ्यों और आंकड़ों या समग्र रूप किसी अन्य विषय वस्तु, जो मूल्यांकन कर्ता को आपकी कॉपी में पसंद आयी के आधार पर (लेकिन इन्हीं तक सीमित नहीं) पर दिए गए अंक हैं। |                          |                              | For Office Use Only / केवल कार्यालय प्रयोग हेतु  |  |
|  |                          |                              | ECN CODE/<br>ईसीएन कोड :   | Evaluation Date/<br>मूल्यांकन तिथि :   |
|  |                          |                              | ① ② ③ ④ ⑤  |  |

**Note:** Students are expected to incorporate suggestions from the feedback provided in the answers. Discussion classes and the tests are also available online in your portal to aid in your preparation. Further, students are requested to see the copies of the tests and learn from them. You can also discuss your copy with a Mentor and discover ways and means to improve your answers, or if you have any issues with this test / copy. Ask specific questions, to get specific answers.

## EXAMINER'S REMARKS

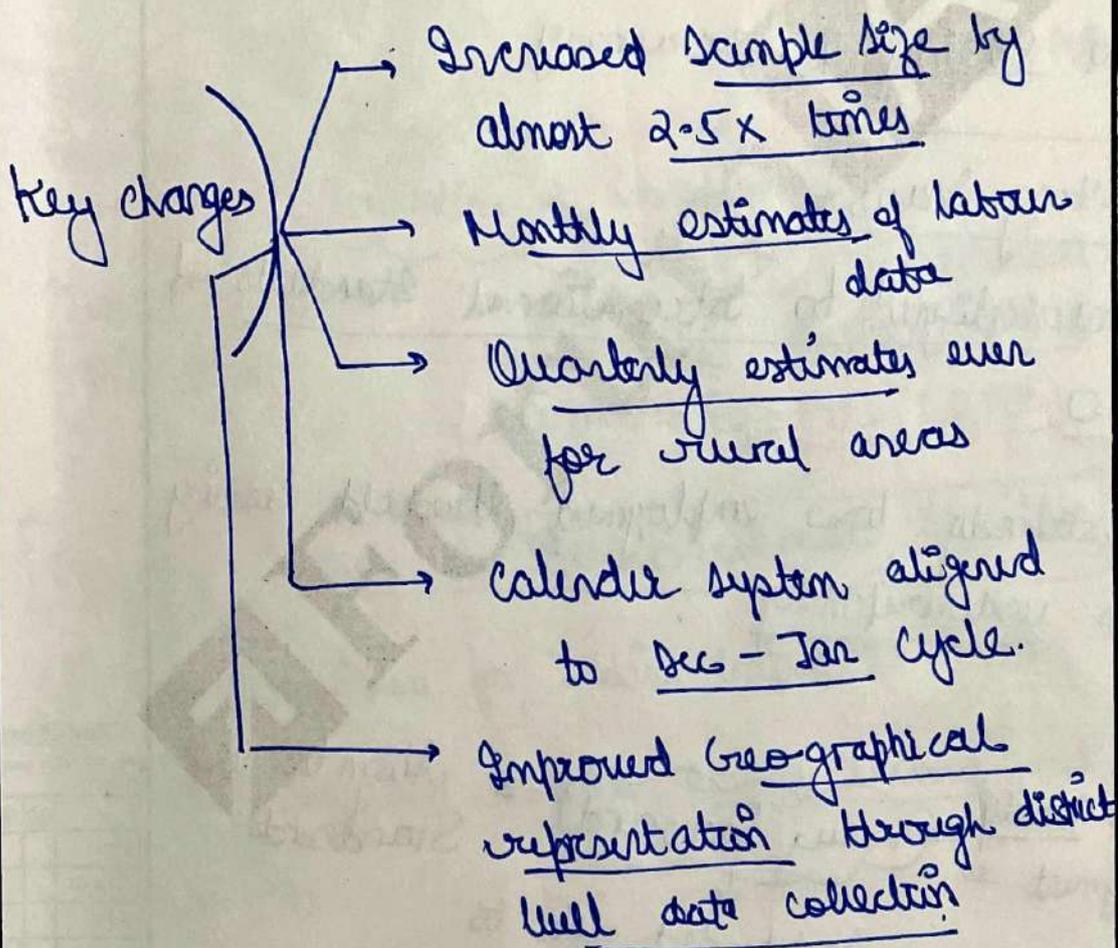
### CRITERIA FOR THE FEEDBACK SECTION AT THE END OF EACH QUESTION

1. **AWIS = Answered What is Asked.** This means whether you have addressed the core demand of the question or not. Addressing the core demand of the question gets you an objectively fair score. It is examiner's perception if you have understood the question and if you know the answer in the first place. Creative answer writing, sometimes missing the core demand, may fetch very high or very low scores, and exposes your answer to the subjectivity of the examiner.
2. **CD & VA = Content Density & Value Addition.** Examiner will evaluate the quality and quantity of your content in the answer. In the same word limit and space limit have you (a) written what is asked (b) gone beyond what is asked (c) enriched answers through combination of ( but not all!) suggestions, ideas, quotes, flowcharts, diagrams, facts and figures, data etc. This affects objective components of assessment.
3. **S & F = Structure & Flow =** Whether you have structured your answer properly or not. Whether the answer has been broken into parts and sub-parts and each part has been addressed appropriately or not. Whether the flow of the answer is maintained. Affects both subjective and objective components of assessment.
4. **P & R =** How your answer performs on the criteria of **presentation, ease of read, clarity and apparent effort** in writing the answer. This affects the subjective components of assessment.

Q.1) Explain the significance of the recent changes made to the Periodic Labour Force Survey (PLFS) with respect to labour market data estimation in the country. (10 Marks, 150 Words)

देश में श्रम बाजार डेटा आकलन के संबंध में आवधिक श्रम बल सर्वेक्षण (PLFS) में किए गए हाल के परिवर्तनों के महत्व को समझाइए। (10 अंक, 150 शब्द)

The National Statistics office under MOSPI announced new changes to PLFS to better represent employment data in the country.



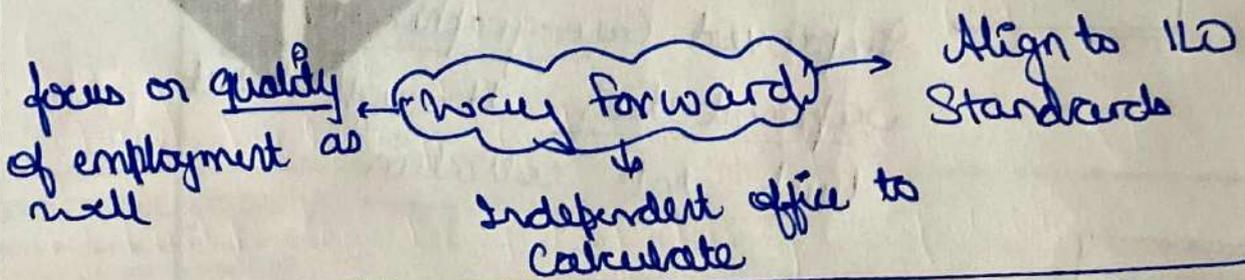
### Significance

(i) Increase statistical validity of data. due to increased sample

- (vi) Better representation of problems of rural labour force
- (vii) Monthly data enables immediate remedial action
- (viii) District level data collection improves data quality & accuracy

**Persisting Issues**

- (i) Not aligned to International Standards of ILO
- (ii) Extremely low employment threshold leading to under-reporting



The recent amendments are a step in the right direction to achieve **SDG 8** - decent work for all

**Feedback**  
 (For OFFICE use)

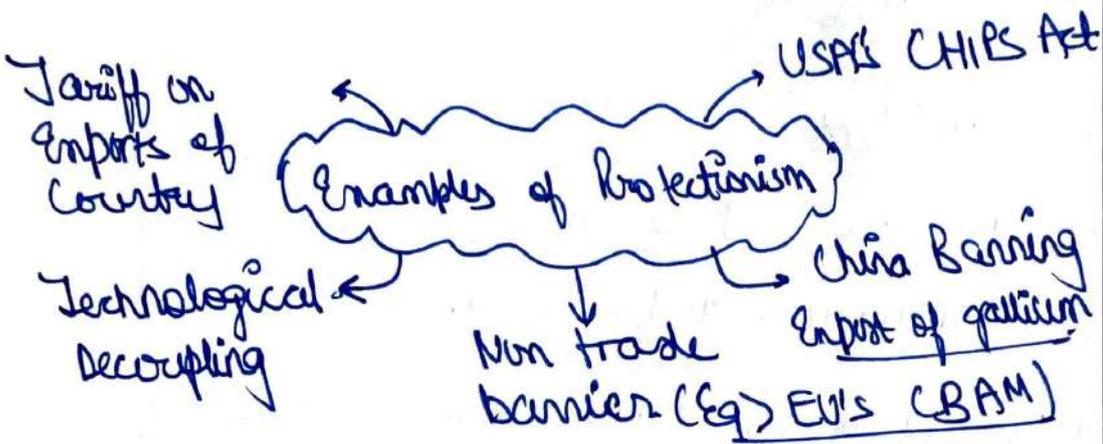
|         |  |
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|         |  |
| AWIS    |  |
| CD & VA |  |
| S & F   |  |
| F & R   |  |

Please put tick marks in the table.  
 Here G is Good, Average and Poor.  
**TOTAL MARKS**

Q.2) Discuss the implications of the rising trend of protectionism and tariff wars in global trade for India's macroeconomic stability. (10 marks, 150 words)

वैश्विक व्यापार में संरक्षणवाद और टैरिफ युद्ध की बढ़ती प्रवृत्ति के भारत की व्यापक आर्थिक स्थिरता पर पड़ने वाले प्रभावों पर चर्चा कीजिए। (10 अंक, 150 शब्द)

The Economic Survey '25 highlighted rising Geo-economic fragmentation due to rising global protectionism and trade weaponisation



**Negative Impact on Macroeconomic Stability**

- (i) Reduce Access for Indian exports to foreign markets ⇒ will reduce export income and forex
- (ii) capital flight resulting in currency depreciation

(iii) Negatively effect Growth prospects  
Ex) Growth estimate downward revision by  
0.2% due to USA tariffs (ADB)

(iv) May increase imported inflation due  
to strategic supply chain restrictions  
Ex) AI GPUs to India restricted

### Positive Implications

(i) Will increase self reliance  
Ex) Atmanirbhar Bharat Mission

(ii) Reduce exposure to global shocks such as 2008  
crisis

(iii) Improved strategic relation with allies due  
to friendshoring (Economic survey)  
(5)

### Way forward

(i) use trade agreements to increase access (ES/25)

(ii) Build domestic manufacturing capabilities.

(iii) Increase economic integration of South Asia

Thus increasing protectionism must be tackled with  
geopolitical & economic prudence

|                                       |  |
|---------------------------------------|--|
| AWIS                                  |  |
| CD & VA                               |  |
| S & F                                 |  |
| P & R                                 |  |
| Please put tick marks in the table.   |  |
| Here G is Good Average and P is Poor. |  |
| TOTAL MARKS                           |  |

Q.3) "Genome-edited crops have the potential to strengthen food and nutritional security in the country." Examine. (10 Marks, 150 Words)

"जीनोम-संपादित फसलों में देश में खाद्य और पोषण सुरक्षा को सशक्त करने की क्षमता है।" परीक्षण कीजिए। (10 अंक, 150 शब्द)

FAO's World food report has highlighted the growing importance of Genome edited crops since the past few years to counter food + nutritional insecurity.

Significance In Resolving Food & Nutritional Insecurity.

(i) Increasing crop productivity - e.g. M.S. Swaminathan cross bred Sonalika wheat with Dwarf variety during Green revolution.

(ii). Reduce susceptibility to pest attacks

e.g. GM-Cotton resistant to pink bollworm

(iii). Reduce period of crop cycle enabling increase of crop intensity

e.g. Pusa rice - 120 days vs 150 of others

(iv) Biofortification for nutritional security

& > Golden rice - Vitamin A

(v) Climate resistant Crops

& > IARI's heat resistant wheat variety

### Challenges of Genome Edited Crops

(i) lead to creation of superbugs.

& > Bollworm strengthened & are affecting cotton

(ii) Regulatory ambivalence → no approval to  
GM Mustard, Brinjal

(iii). May negatively alter environment

### Way forward

(i) Conduct long term field trials to assess impact

(ii) Increase farmer training & awareness

& > Kaushik Sakhis

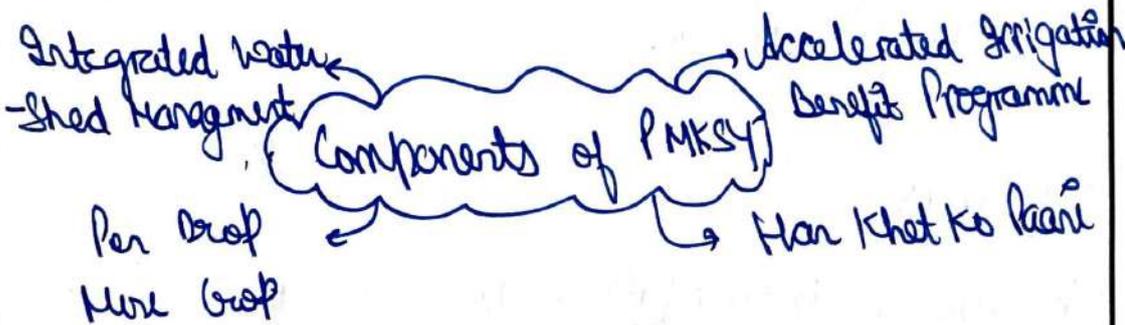
Thus genome edited crops can enable food & nutritional security for achievement of SDG-2

| #       | Q |
|---------|---|
| AWIS    |   |
| CD & VA |   |
| S & F   |   |
| P & R   |   |

Q.4) Assess the role of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) in expanding irrigation coverage and improving on-farm water use efficiency. (10 Marks, 150 Words)

सिंचित क्षेत्र का विस्तार करने और खेत पर जल उपयोग दक्षता में सुधार करने में प्रधानमंत्री कृषि सिंचाई योजना (PMKSY) की भूमिका का आकलन करें। (10 अंक, 150 शब्द)

The PMKSY was launched in 2015 to improve India's water use efficiency of irrigation which languishes at 40% (National water mission)



Role In Improving Irrigation Coverage & Water Use Efficiency

(i) Aims to lower irrigation for all farms to India

↳ Har Khet Ko Pani

↳ Accelerated irrigation benefit programme

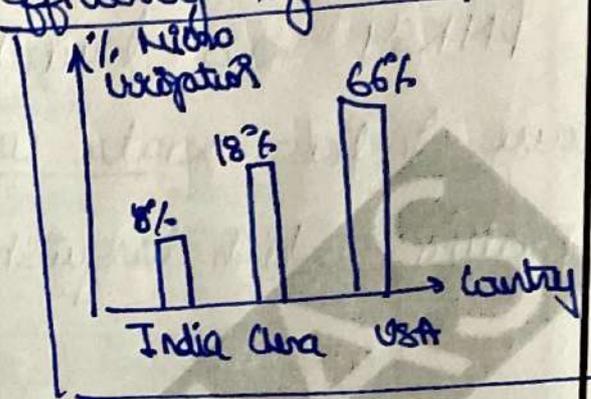
(ii), Improve water use by treatment of

Municipal Waste Water

(ii) Improve irrigation efficiency by adoption of micro irrigation

(iv) Integrated Watershed Management to improve water planning & usage

efficiency by adoption



Shortcomings

(i) Subsidies on electricity & water acting counterproductively

(ii) Micro irrigation adoption only 8% (Economic Survey 25)

(iii) Excessive groundwater extraction ~80%

Way forward

(i) Shift from crop to water productivity (WABAR)

(ii) Incentivise micro irrigation adoption (NSIS)

These measures will enable doubling of farmer income as well as sustainable agriculture

Feedb  
(For OFFIC

|  |  |
|--|--|
| AWIS   |  |
| CD & VA  |  |
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| Please put marks in table. Here G is Average and Poor. |  |
| TOTAL MARKS  |  |

Q.5) Starlink, a satellite internet service provider, has recently been granted a license to operate in India. What is satellite internet? How does it work? What are its advantages and limitations?

(10 Marks, 150 Words)

सैटेलाइट इंटरनेट सेवा प्रदाता, स्टारलिनक को हाल ही में भारत में परिचालन का लाइसेंस मिला है। सैटेलाइट इंटरनेट क्या है? यह कैसे काम करता है? इसके क्या लाभ और सीमाएँ हैं? (10 अंक, 150 शब्द)

Recently JIO & Airtel entered into agreement with Starlink to provide satellite based internet services in India.

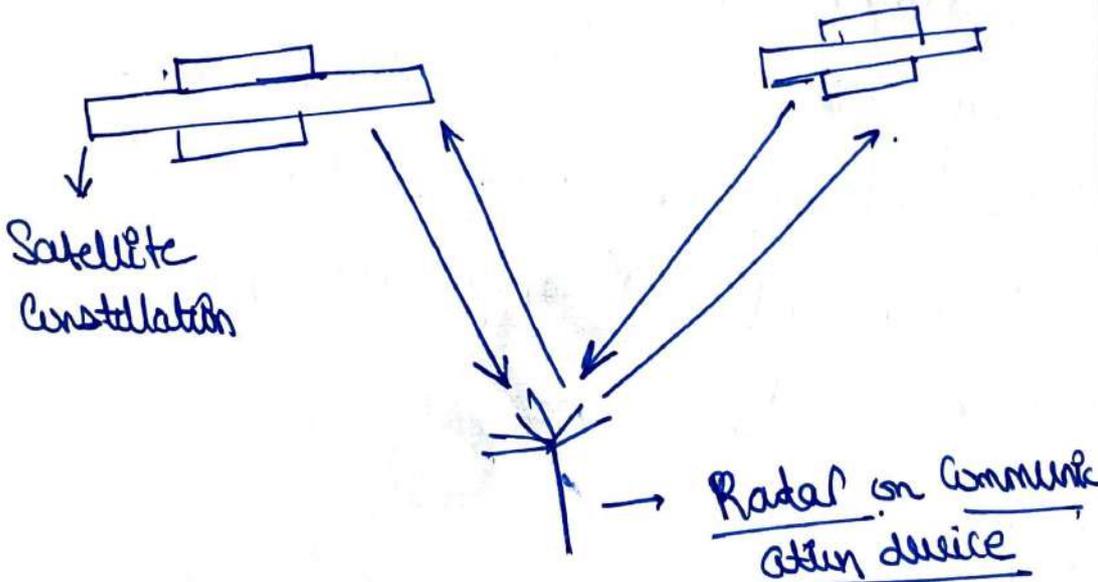


Fig: Satellite Internet Service

What is satellite internet & its working?

(a) It is a technology that involves provision of high speed internet through satellite constellations in low earth orbits

(ii) Working

- Satellite Constellation launched into space
- Special Modems installed at place of use
- Modems & Satellite exchange data for provision of wireless wifi

### Merits of Satellite Internet

- (i) Extremely high speed & low latency
- (ii) Reduce land usage for network poles
- (iii) Greater bandwidth and larger scope of anywhere internet

### Demerits

- (i) Extremely costly → as compared to present models → May increase digital divide
- (ii) Kessler Syndrome leading to space overcrowding
- (iii) Problems during inclement weather, auroras

Thus while satellite internet is a novel futuristic technology its implementation must ensure inclusivity

|                                       |  |
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| AWIS                                  |  |
| CD & VA                               |  |
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| Please put tick marks in the table.   |  |
| Here G is Good Average and P is Poor. |  |
| TOTAL MARKS                           |  |

Q.6) What is a Geographical Indication (GI)? What are the legal frameworks governing it? How does it differ from a trademark? How can GI infringement be tackled? (10 Marks, 150 Words)

भौगोलिक संकेतक (GI) से क्या अभिप्राय है? इसे नियंत्रित करने वाले विधिक ढाँचे को स्पष्ट करें? यह ट्रेडमार्क से कैसे भिन्न है? GI उल्लंघन से कैसे निपटा जा सकता है? (10 अंक, 150 शब्द)

Geographical Indication Tag is a recognition provided by the government for the original geographical origin of a good preventing mislabelling and protection to original inventors

Eg > Darjeeling Tea

**Legal Frameworks**

- GI Tag Act (2000).
- WTO's provision for GI

| GI Tag.                                  | vs | Trademark  |
|--|----|--|
| (i) Indicative of place of <u>origin</u> |    | (i) Indicative of <u>property / possession</u> due to <u>inventors</u> . |
| (ii). Prevents labelling goods           |    | (ii) Prevents use of   |

incorrectly by producers  
not from original place

(iii) Applicable to goods

(iv) valid for 10 years  
with another 10 year  
extension

good / service / symbol etc  
trademarked

(vii) applicable to symbols,  
names etc.

(viii) valid for 20 years

### Jacking GI Infringement

(i) Maintain digital data base of all GI tags  
good corresponding to location

(ii) provide QR Codes of authenticity on packaging

(iii) Blockchain technology to assess farm to table /  
factory to table journey.

(iv) Increase penalty for infringement

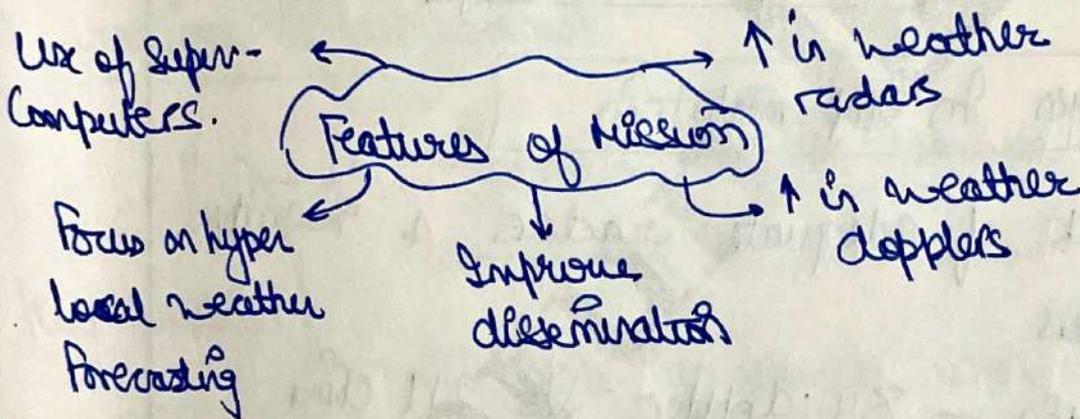
while India has made considerable progress in  
GI Tags, we still lag behind China, Mexico etc  
Thus need is to empower more local producers  
through GI recognition

Q.7) What are the salient features of Mission Mausam launched by the Government of India? Why is such a mission needed? What are the likely challenges in its effective implementation?

(10 marks, 150 words)

भारत सरकार द्वारा शुरू किए गए मिशन मौसम की मुख्य विशेषताएँ क्या हैं? ऐसे मिशन की आवश्यकता क्यों है? इसके प्रभावी कार्यान्वयन में संभावित चुनौतियों का वर्णन करें? (10 अंक, 150 शब्द)

Mission Mausam was recently launched by the prime minister to enable improved weather forecasting - long term & short term



### Need of Mission Mausam

(i) Improve disaster resilience - act as early warning signals.

(ii) Wayward landslide high losses due to lack of local EMS.

(iii) Improve resilience of Agriculture through

## Hyper local weather data:

(ii) Increase citizen safety → Ex) IMD's early warnings regarding heat waves, orange rain alerts etc

(iii) Enhanced Data collection to improve weather forecasting & modelling.

## Challenges In Implementation

(i) Lack of adequate radars & weather dopplers

Ex) India - 39 dopplers Vs 219 China

(ii) Shortage of supercomputers for proper forecasting

(iii) Hyper local weather data difficult due to several infrastructure lacking

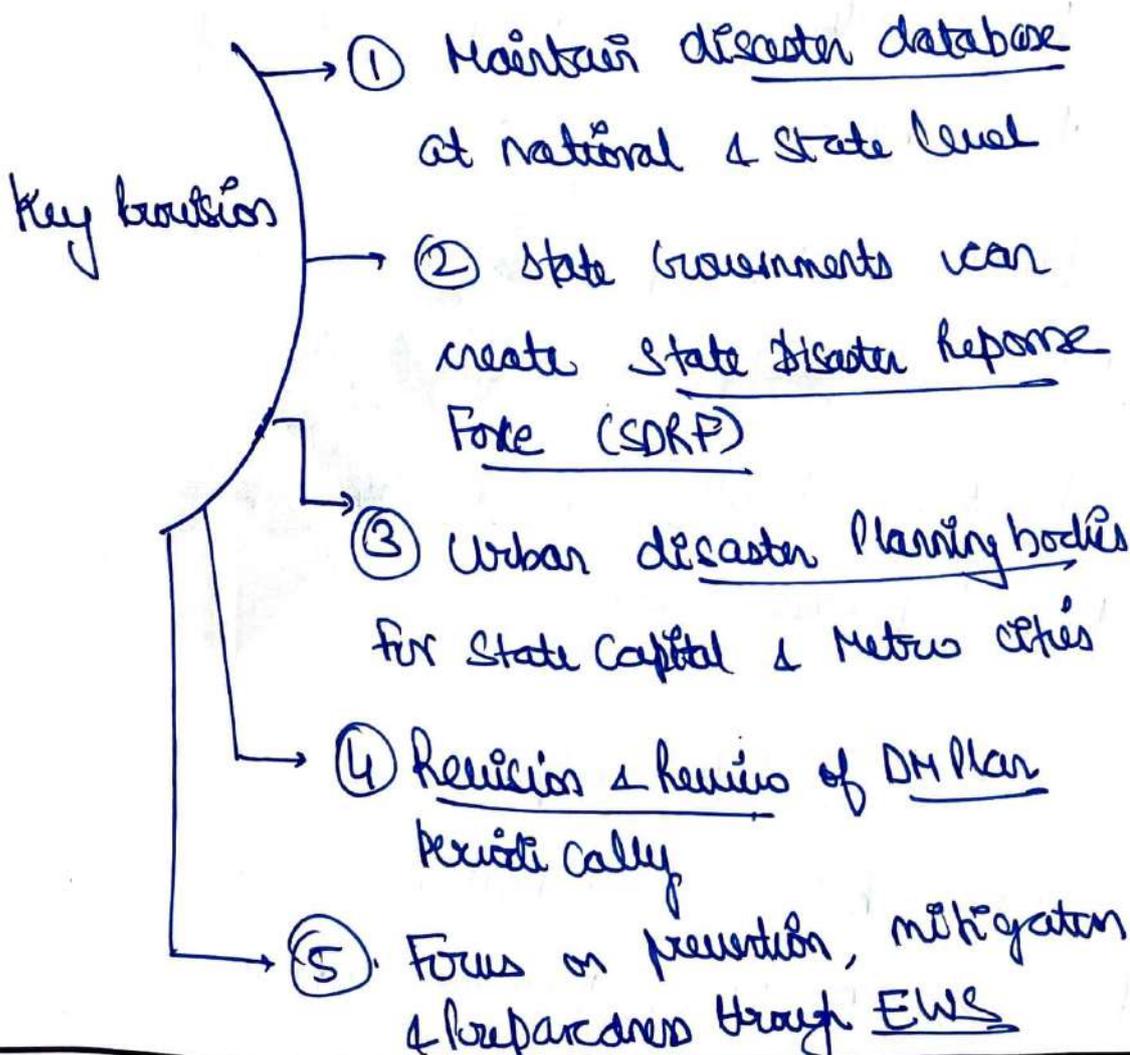
Thus the need of the hour is to increase investment, capacity building and data

sharing to ensure achievement of Mission Mausam

Q.8) Highlight the key provisions of the Disaster Management (Amendment) Act, 2025. How would the amendment help strengthen the disaster management framework in the country?  
(10 Marks, 150 Words)

आपदा प्रबंधन (संशोधन) अधिनियम, 2025 के प्रमुख प्रावधानों पर प्रकाश डालिए। यह संशोधन देश में आपदा प्रबंधन ढाँचे को सुदृढ़ करने में किस प्रकार सहायक होगा?  
(10 अंक, 150 शब्द)

The Government of India recently passed the Disaster Management (Amendment) Act 2025 in a bid to strengthen disaster resilience & preparedness.



## Significance of DM/25 Act

- (i) Achievement of International objectives
- (ii) SENDAI framework → Inclusion of all stakeholders
- (iii) Increase participation of local govt & community in line with NDMA guidelines.
- (iv) Improve disaster reaction & recovery through SOAP
- (v) Improve disaster preparedness & forecasting through ELWS & database
- (vi) Collaborative federalism in disaster preparedness through Best practice sharing.

Thus the DM/25 Act helps shift from R3 (Recovery, Rehabilitation, Rebuilding) to P3 (Preparedness, Proactiveness, Promotion of Resilience)

Q.9) 'Operation Sindoor' signals a strategic evolution in India's approach to cross-border terrorism.  
Analyze. (10 Marks, 150 Words)

'ऑपरेशन सिंदूर' सीमा पार आतंकवाद के प्रति भारत के दृष्टिकोण में एक रणनीतिक बदलाव का संकेत देता है। विश्लेषण करें। (10 अंक, 150 शब्द)

The operation Sindoor was launched in May 2015 in response to the cross border terrorism which led to Pahalgam Massacre.

### Evolution of India's Approach To Terrorism

- (i). Stronger deterrence through doctrine of all cross border terrorism as "acts of war".
- (ii). No differentiation between terrorists & sponsors of terrorism.
- (iii) Direct action against Nuclear blackmail & threatening.

(iv) Increase incorporation of technology  
to retaliate  
e) Use of BRAMHOS, Herop drones etc

(v) Multi pronged Action → e) India leader  
treaty into abeyance.

(vi) Greater International Collaboration - through  
of India foreign delegations.

### Way Forward

(i) Continue strengthening of Military infrastructure

(ii) Increase preparedness of Geography & Zone warfare  
(CCDS)

(iii) Developing Credible deterrence.

e) Agni-V → envelopes entire Pakistan

Thus the operation Indra marked a  
watershed moment in India's fight against  
terrorism & Proxy warfare

| Feedb                                  |   |
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| #                                      | Q |
| AWIS                                   |   |
| CD & VA                                |   |
| S & F                                  |   |
| P & R                                  |   |
| Please put<br>marks in the<br>table.   |   |
| Here G is the<br>Average mark<br>Poor. |   |
| TOTAL<br>MARKS                         |   |

Q.10) 'Cyberspace has emerged as a distinct domain of warfare, posing serious threats to national security.' Discuss this statement and suggest counter-measures. (10 Marks, 150 Words)

'साइबरस्पेस युद्ध के एक विशिष्ट क्षेत्र के रूप में उभरा है, जो राष्ट्रीय सुरक्षा के लिए गंभीर खतरा पैदा कर रहा है।' इस कथन पर चर्चा करें और सुरक्षात्मक उपाय सुझाएँ। (10 अंक, 150 शब्द)

The India Threat Landscape report (2023) stated that there was a 278% increase in cyberwarfare against India highlighting Cyberspace as 5th domain of warfare.

Cyberwarfare - Threats National Security

(i) Attack on critical infrastructure assets

Ex) 1/5 of attacks of financial institutions  
(Economic Survey 25)

(ii) Leads to large scale economic losses around 2.5% GDP (Data Security Council India)

(iii) Rapid digitisation makes India even more vulnerable with over 800 mn digital Indians

(Don't Write in this Area)

(iv) Data Breach of Indians violating Arts 19 (privacy) → (e) BI-5G accounts leaked in Aadhar breach,

## Required Counter Measures

(i) Establish Cyberprotection Authority (Jagpat Singh Committee)

(ii) Establish Cyber Command of Indian Army (Narash Chandra Task force)

(iii) Rationalisation of Cyber security architecture ⇒ Presently over 22 agencies

(iv) Building skilled workforce → (e) ethical Hackers

(v). Reduce import of critical electronic technology - (e) 51.6% electronic from China

As the Grey zone warfare rises India must build a robust Cyber security architecture to ensure "SURAKSHIT" Bharat

### Feedback

(For OFFICE use only)

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Please put tick marks in the above table.

Here G is Good, A is Average and P is Poor.

TOTAL MARKS

Q.11) What are the key objectives of the Insolvency and Bankruptcy Code (IBC), 2016? To what extent has it been successful in achieving them? (15 Marks, 250 Words)

दिवाला और शोधन अक्षमता संहिता (IBC), 2016 के प्रमुख उद्देश्य क्या हैं? यह उन्हें प्राप्त करने में किस हद तक सफल रहा है? (15 अंक, 250 शब्द)

The Insolvency & Bankruptcy Code 2016 was launched to simplify dissolution and bankruptcy procedure for distressed Companies.

### Key objectives

(i) To enhance Ease of Doing Business in India by simplifying liquidation.

(ii) Provides rules based dissolution offering fair return to ~~debtors~~ creditors & investors

(iii) To fasten liquidation process by deadline of 180 days (CRP) & 330 day (PIRP)

(iv) Not just resort to liquidation but search alternatives for continuation

### Success of IBC, 2016

(i) Creation of specialised Debt recovery tribunals & National Company law Appellate tribunals have simplified process.

(ii) Increased recovery of Assets & returns to creditors from liquidating companies

(iii) Creation of Insolvency Professionals & Indian Insolvency (Bankruptcy) Board has formalised liquidation process

(iv) Reduction in overall time for resolution

However, continues to suffer from following shortcomings

(vi) Deadline for resolution not followed  
=> Present average time 552 days.

(vii) Large scale pendency at DRT & NCLAT  
level

(viii) Self focus is on liquidation and not  
searching for alternatives to continue  
Company

(ix) Smaller MSME's not using CIRP process  
made for them.

### Way forward

(i). Increase emphasis on adhering to timelines

(ii) Promote various alternatives to dissolution

Eg) Creditor on Board of distressed firm

The realisation of full potential of IBC '16  
will truly achieve goal of doing business  
and make India a "hub of business"

### Feedback

(For OFFICE use only)

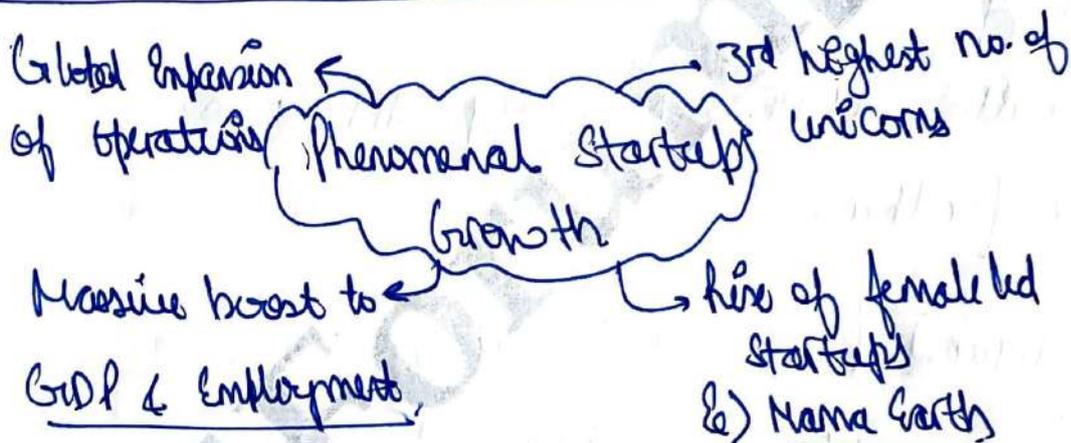
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Q.12) Despite phenomenal growth in recent years, India's startup ecosystem lags in innovation across strategic sectors. Identify the factors responsible for this inadequate focus on deep-tech and suggest strategies to bridge this gap. (15 Marks, 250 Words)

हाल के वर्षों में अभूतपूर्व वृद्धि के बावजूद, भारत का स्टार्टअप पारितंत्र रणनीतिक क्षेत्रों में नवाचार के मामले में पिछड़ रहा है। डीप-टेक पर इस अपर्याप्त ध्यान के लिए उत्तरदायी कारकों की पहचान करें और इस अंतर को पाटने के लिए रणनीतियाँ सुझाएँ। (15 अंक, 250 शब्द)

India recently became the country with 3rd largest number of startups in the world. However it lags far behind in startup innovation in sectors like deeptech, space, quantum etc.



## Inadequate focus on Deep Tech Startups

- ① Requirement of massive initial investment  
(e.g.) Open AI with over \$100Bn investment
- ② Extremely long gestation periods  
(e.g.) Chinese Quantum startups working since 2014

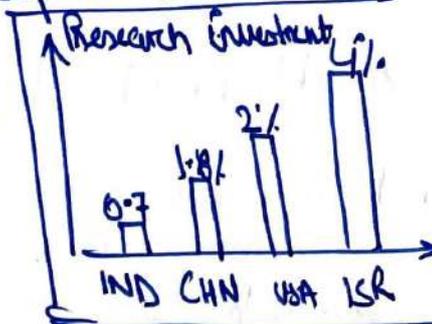
(iii) Much more unbearable risk compared to other startups - uncertainty of demand, large costs, etc

(iv) Insufficient govt. support - excessive regulatory compliance, institutional jungle etc

(v) In space sector - Dept of Space, Space India Limited etc

(vi) Flipping → Indian startups shift abroad where there is access to better capital + support

(vii) Poor research & development culture in India - only 0.7% GDP



Strategies To Bridge Gap

(i) Promote long term financial support to deep tech startups like Agnikul Cosmos

(ii) Create national deep tech policy to  
reduce regulatory ambiguity.

(iii) Create deep tech incubators for  
mentorship, support, finance etc

Ex) IIT-Delhi's startup incubator

(iv) De-regulate critical technology  
sectors providing considerable freedom  
to startups

(v) Boost R&D expenditure to 2% of  
GDP

The establishment of National Research  
foundation along with fund of funds  
for deep tech are a step in right  
direction to achieve supremacy in  
frontier technologies

**Feedback**

(For OFFICE use only)

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Q.13) What is floriculture? How is it helpful in enhancing farm income and boosting agri-exports? (15 Marks, 250 Words)

फूलों की खेती क्या है? यह कृषि आय बढ़ाने और कृषि निर्यात को बढ़ावा देने में कैसे सहायक है? (15 अंक, 250 शब्द)

The Economic Survey '25 highlighted the importance of floriculture sector as a "sunrise" industry with 100% export orientation.

What is Floriculture

(i) Agricultural sub-sector involved with cultivation, production, processing and marketing of flower & derived products

(ii) In India -

(iii) 95% farmers

involved are small & marginal

(Economic Survey 25)

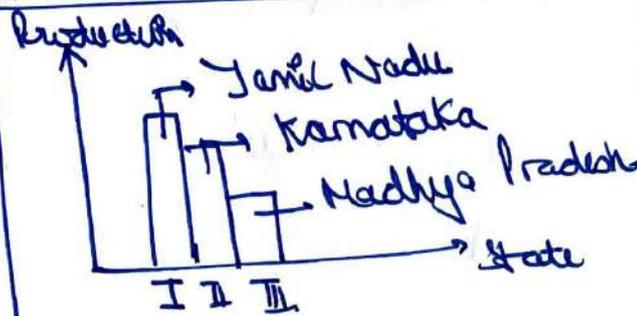


Fig.: I(A)

## Floriculture Boosting Farm Income & Agriculture Exports

- (i) Higher value realisation than food crops
- (ii) 100% export oriented demand to USA, Singapore, Netherlands (Top 3).
- (iii) Higher productivity of crop per unit area of land.
- (iv) Extremely massive processing potential for cosmetics & perfume industry.
- (v) Ensures inclusive growth as most involved are women & marginal farmers
- (vi), India has high potential due to favourable conditions
- (e). Orchids in North East

Challenges To Floriculture

- (i) Extremely informal with more than 80% seller being street vendors.
- (ii) Higher capital investment as compared to normal crops.
- (iii) High wastage rate with around 20% being unsaleable.
- (iv) Rise of non tariff barriers like phytosanitary measures → (i) European Union

Way Forward

- (i) Organise farmers into floriculture Farmer Producer Organisation (Economic Survey).
- (ii) Create facilities for standardisation & Quality Control.
- (iii) Provide financial & operational support.

This floriculture, a part of Green Revolution Plus, can help in doubling farmer income & Exports.

**Feedback**  
(For OFFICE use only)

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Q.14) "Women play a crucial role in Indian agriculture, yet continue to face systemic exclusion." Discuss with reference to land ownership, access to credit, and agri-extension services. What initiatives has the government taken in this regard? (15 Marks, 250 Words)

"महिलाएँ भारतीय कृषि में महत्वपूर्ण भूमिका निभाती हैं, फिर भी उन्हें व्यवस्थागत बहिष्कार का सामना करना पड़ता है।" भूमि स्वामित्व, ऋण तक पहुँच और कृषि-विस्तार सेवाओं के संदर्भ में चर्चा कीजिए। सरकार ने इस संबंध में क्या पहल की है? (15 अंक, 250 शब्द)

The agricultural census 2011 highlighted the "feminisation of agriculture" with over 70% rural women employed. Yet, the condition of women in agriculture is not optimal.

Women Facing Systemic Agricultural Exclusion

① Land ownership

(i) Around 75% of women in agriculture are agricultural labourers without own agricultural land.

(ii) Household agricultural land is often registered in the name of males, thus

## Disempowering Women

- (i) Extremely high land Gini Coefficients due to ignorance during land reform measures
- (e) No provision for joint registration of distributed land

## ② Access To Credit

- (i) SHG's formed for credit can not fulfill need for loan on large scale
- (a) 35% SHG's survive while others perish due to low financial literacy (NABARD)
- (ii) lack of collateral hindering ability to take loan & low accessibility of formal banks

## ③ Agri Extension services

- (i) Near zero female registration of PM-Fasal Bima Yojana application

(i) Low access to Common Service Centers due to Digital illiteracy.

(ii) Only 33% women have used internet as compared to 57% men.

### Steps Taken By Govt

(i) Prone Didi Yojana → to increase access to modern technology.

(ii) Appointment of female Kishi Sakhi to provide agricultural extension.

(iii) Expansion of formal banking services with priority lending to women.

(iv) Organisation into SHGs for increased finance access.

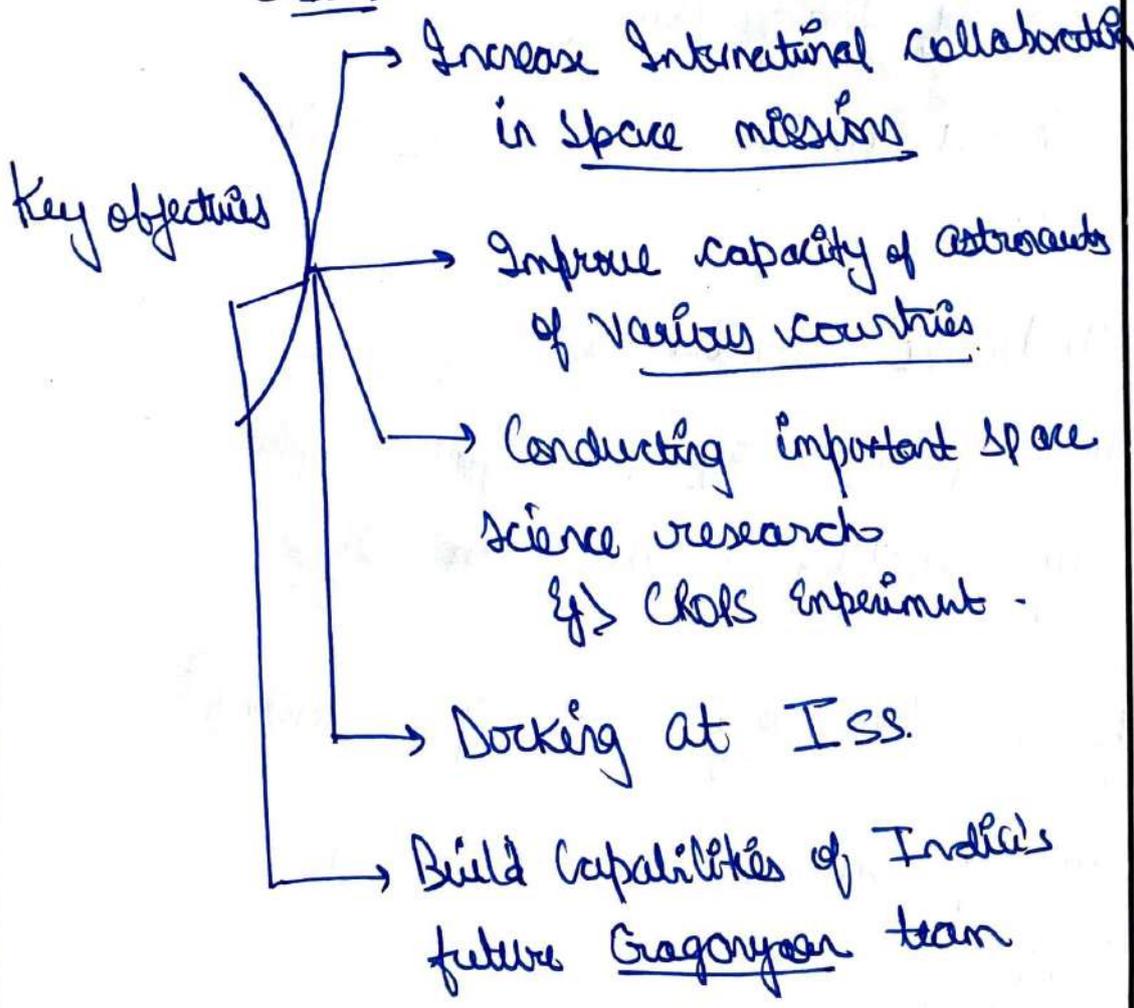
(v) Joint land registration under SVANITVA.

Female farmers are the backbone of agriculture and must be provided with all necessary support to ensure women led agricultural

Q.15) Launched on 25th June 2025, the Axiom-4 (Ax-04) mission has been much in the news since then. What are the key features of the mission? What significance does it hold for the Gaganyaan project and India's long-term space ambitions? (15 Marks, 250 Words)

25 जून 2025 को लॉन्च होने वाला एक्सओम-4 (Axiom-4; Ax-04) मिशन तब से ही काफी चर्चा में है। इस मिशन की मुख्य विशेषताएँ क्या हैं? गगनयान परियोजना और भारत की दीर्घकालिक अंतरिक्ष महत्वाकांक्षाओं के लिए इसका क्या महत्व है? (15 अंक, 250 शब्द)

Recently Airforce Astronaut Shubhashu Shukla became the 1st Indian on the International Space Station as a part of Axiom-4 Mission (ISS)



## Significance For Gaganyaan Project

(i) Build capacity & training of astronauts  
involved in Gaganyaan

(ii) Improve international collaboration for  
success of Gaganyaan

(e) Shukla underwent G-force testing  
at NASA

ISRO undertake crucial mission for  
future space stay (Gaganyaan plans  
3 day docking in low Earth orbit)

## Significance for long Term Space Ambitions

(i) Building India's own Bharat Space  
Station by 2035

(ii) Exploring impact of space stay on

## Health of Astronaut

eg) loss of bone density

(iii) Study ISS and incorporate learnings  
for future missions

## Way forward

(i) Continue International Collaboration through

various measures

eg) NISAR Satellite

(ii) Document learnings of Arion mission &

best practices of ISS

(iii) Thorough study on long term impact of  
space stay.

Arion-04 was thus the 1<sup>st</sup> step towards

launching the aspirations of 1.4 Bn

Indians in space (PM Modi)

### Feedback

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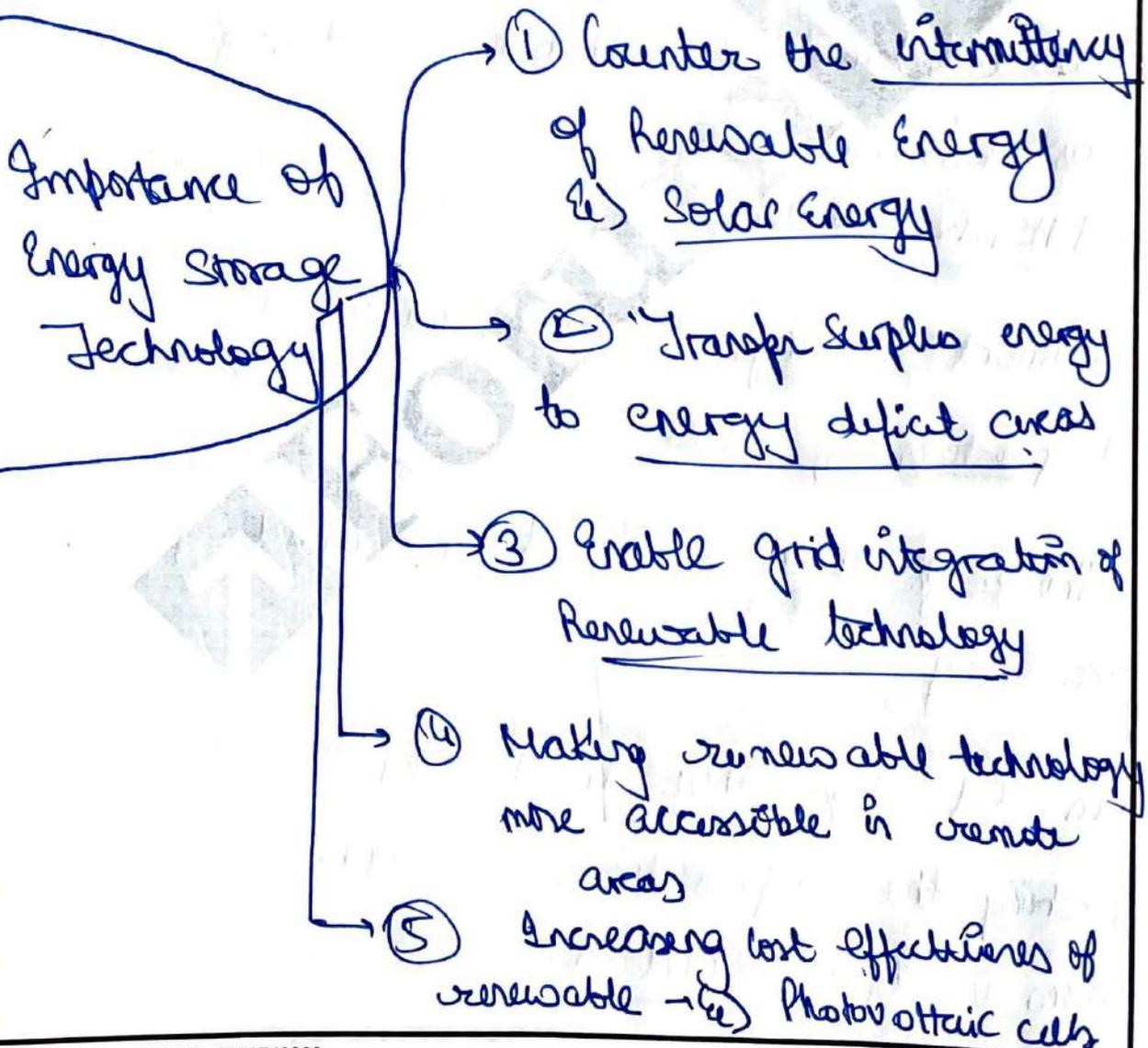
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Q.16) Energy storage technology is one of the major components of renewable energy integration and decarbonization of world energy systems. Briefly discuss any three such technologies, citing their key merits and demerits. (15 Marks, 250 Words)

ऊर्जा भंडारण तकनीक, विश्व ऊर्जा प्रणालियों के नवीकरणीय ऊर्जा एकीकरण और कार्बन-मुक्तिकरण के प्रमुख घटकों में से एक है। ऐसी किन्हीं तीन तकनीकों की संक्षेप में चर्चा कीजिए और उनके प्रमुख गुण-दोषों का उल्लेख कीजिए। (15 अंक, 250 शब्द)

The success of renewable energy technology hinges upon the development of effective & cost efficient energy storage technology.



## Emerging Energy Storage Technologies

① Battery Energy Storage System → Converts

electrical energy into chemical energy &

enables electricity generation through anode-cathode reaction

Merits

Demerits

(i) Most developed Storage technology as of now

(i) Raw material supply chain highly concentrated in China

(ii) Cost efficient & technology proven

(ii) Fast discharge & redundancy

(iii) Not usable for electric vehicles

② Gravity Energy Storage system → During

surplus times electrical energy is used to lift heavy weight. During energy demand weight

is dropped & kinetic energy used to rotate turbines

### Merits

- (i) No requirement of scarce raw material
- (ii) works on simple technology of kinetic energy-turbine rotation

### Demerits

- (i) Massive costs for development
- (ii) Not suitable for all technologies
- (iii) Electric vehicles

③ Photovoltaic cells → Convert ~~to~~ heat energy of sun into chemical energy which produces electricity to ~~at~~ cathode - anode reaction

### Merits

- (i) best efficient development
- (ii) best for remote Renewable energy technology

### Demerits

- (i) supply chain bottlenecks
- (ii) billions
- (iii) Not for largescale energy storage

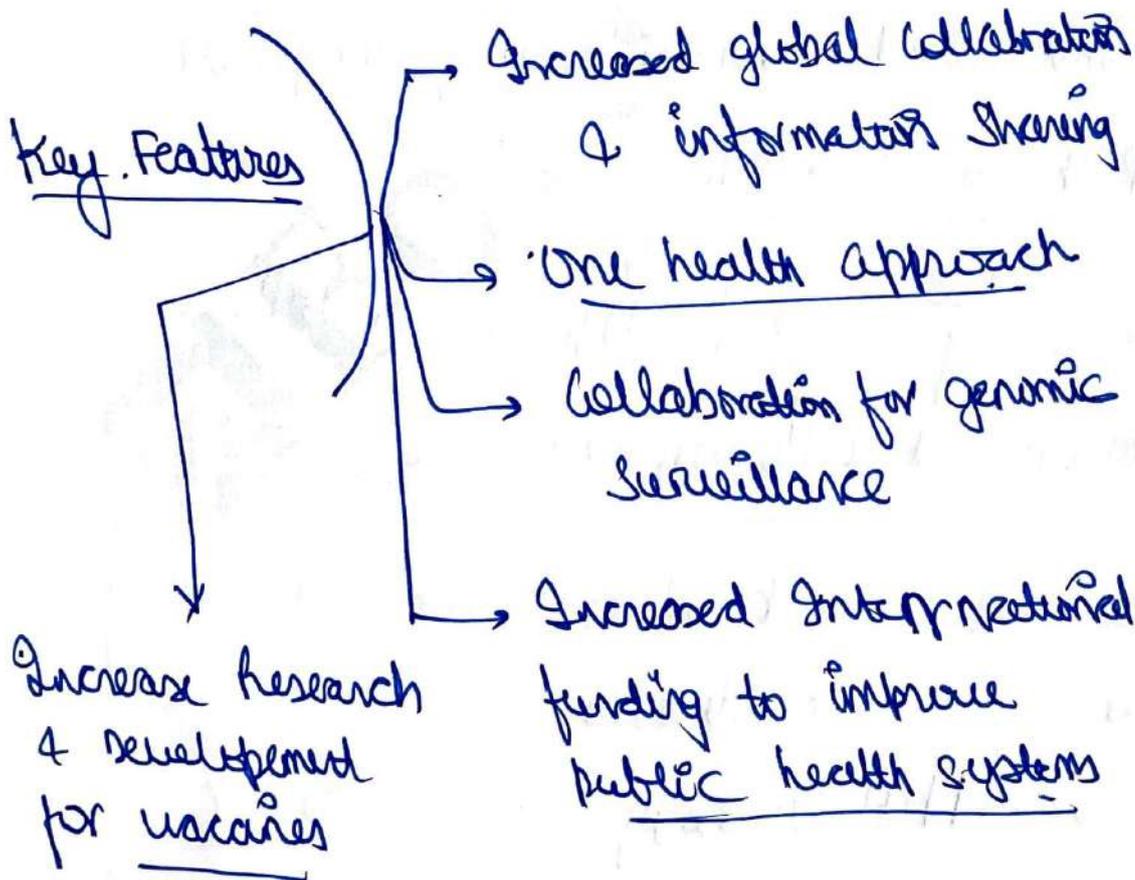
There is a need for greater research to develop more cost efficient & effective storage technologies

Q.17) Global Pandemic Agreement (2025) recognizes the 'One Health' approach as critical to pandemic prevention, preparedness, and response. Highlight the key features of the agreement, and elaborate on how the One Health approach can help in preventing future pandemics. What steps are needed to integrate this approach into India's environmental and health governance?

(15 marks, 250 words)

वैश्विक महामारी समझौता (ग्लोबल पैडेमिक एग्रीमेंट; 2025) महामारी की रोकथाम, तैयारी और प्रतिक्रिया के लिए 'वन हेल्थ' दृष्टिकोण को महत्वपूर्ण मानता है। इस समझौते की प्रमुख विशेषताओं पर प्रकाश डालिए और विस्तार से बताइए कि वन हेल्थ दृष्टिकोण भविष्य की महामारियों को रोकने में कैसे मदद कर सकता है। भारत के पर्यावरण और स्वास्थ्य प्रशासन में इस दृष्टिकोण को एकीकृत करने के लिए क्या कदम उठाने की आवश्यकता है? (15 अंक, 250 शब्द)

Global Pandemic Agreement marks major milestone in handling public health emergencies by creating formal frameworks for dealing with pandemics



## One Health Approach To Reduce Pandemics

- ① Increase holism in preparedness
- ② Involvement of all stakeholders
- ③ Prevention of zoonotic diseases
- ④ Greater international collaboration
- ⑤ Increased surveillance of all possible pathogen reservoirs

## Integrating One Health in India's Environment & Health Governance

- ① Best collaboration between various scientific institutions  
Ex) Natl Virology center & Center for Zoonotic disease

- ② Improve genomic Surveillance at all levels
- ③ Increase R&D on one health approach
- ④ Increased <sup>of</sup> international Collaborations  
 & with WHO

Thus one health approach is de rigueur for future pandemic prevention & preparedness

**Feedback**

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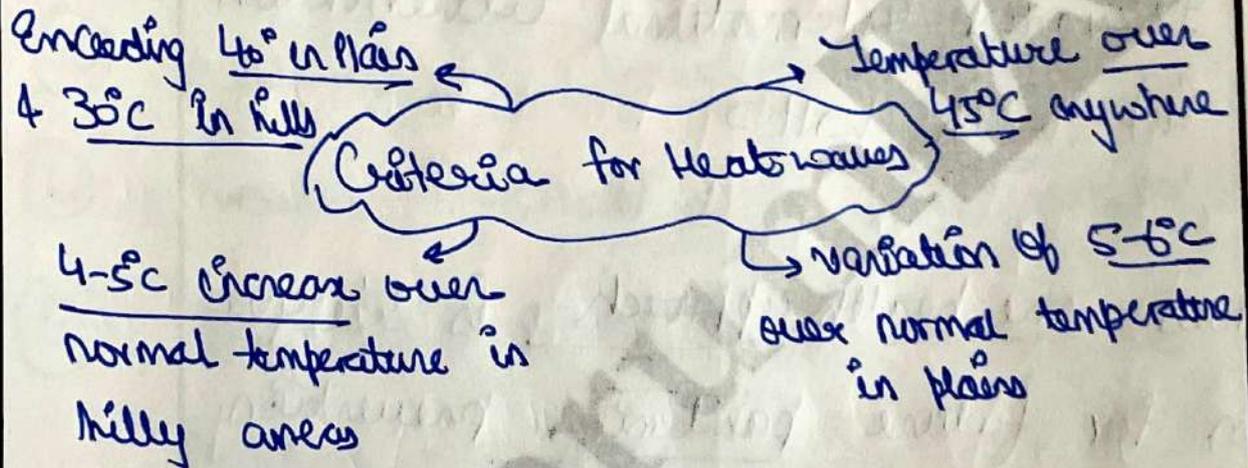
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Q.18) The frequency and intensity of heatwaves, particularly in urban centres, have increased in recent years. Describe the various causes and effects of heatwaves. What policies and frameworks have been adopted in India towards extreme heat risk management? (15 Marks, 250 Words)

हाल के वर्षों में, विशेष रूप से शहरी क्षेत्रों में, हीटवेव की आवृत्ति और तीव्रता में वृद्धि हुई है। हीटवेव के विभिन्न कारणों और प्रभावों का वर्णन कीजिए। भारत में अत्यधिक ऊष्मा के जोखिम प्रबंधन के लिए कौन सी नीतियाँ और ढाँचे (फ्रेमवर्क) अपनाए गए हैं? (15 अंक, 250 शब्द)

Heatwaves refer to prolonged periods of extremely hot temperatures over an area

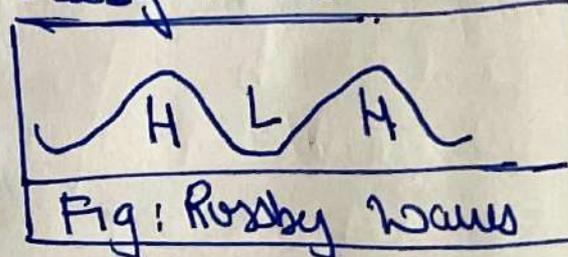


## Causes For Heatwaves

### ① Natural

101) Omega blocks → prolonged high pressure due to slowing down of rosey waves

102) El Niño Conditions promote heatwaves in India



- 1.3) Seasonal local wind like Loo over North India
- 1.4) Tropical location of India → excessive insolation
- 1.5) Upper wind circulation bringing winds from Thar to central India

## ② Anthropogenic

- 2.1) Urban microclimate leading to heat island effects
- 2.2) Rise of global warming due to use of fossil fuels
- 2.3) Deforestation & glacial melting

## Impacts of Heat waves

### ① Human & Social

- 1.1) Leads to death & illness - over 25,000 deaths between 1992-2015 (INDIA).
- 1.2) Increases inequality as poor are worst affected

## ② Economic

2.1) loss of agricultural productivity leading to inflation

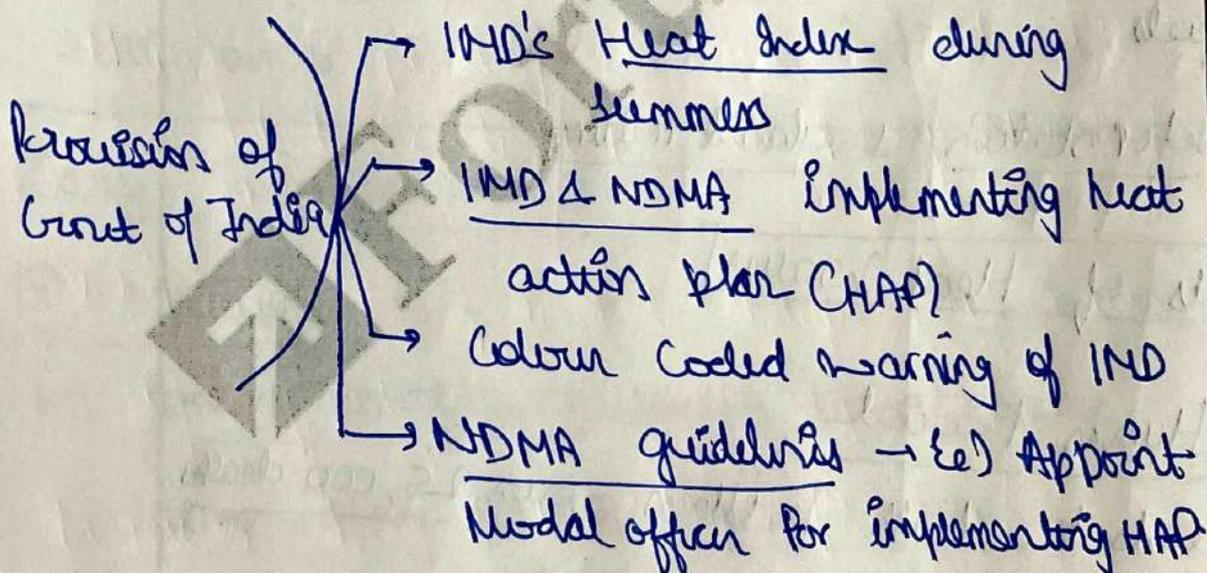
↳ wheat in 2023 rabi season failed

2.2) Increased poverty as wages reduce due to reduced productivity

## ③ Environmental

3.1) Forest fires & droughts

3.2) Increased energy usage - (i) AC's



• Nature based solutions such as blue green infrastructure can enable increased resilience & prevention of heat waves

Feedback  
(For OFFICE use)

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Q.19) Discuss how emerging technologies and globalization contribute to terror financing. Elaborate measures to tackle the menace of terror financing both at national and international levels.

(15 marks, 250 words)

चर्चा कीजिए कि उभरती प्रौद्योगिकियाँ और वैश्वीकरण किस प्रकार आतंकवाद के वित्तपोषण में योगदान करते हैं। राष्ट्रीय और अंतर्राष्ट्रीय दोनों स्तरों पर आतंकवाद के वित्तपोषण के खतरे से निपटने के उपायों पर विस्तार से चर्चा कीजिए।

(15 अंक, 250 शब्द)

"Terror financing is the lifeblood of Terrorism"  
- NSA Asit Datta

The expansion & advancement of technology and globalisation has provided an impetus to terror financing.

Terror financing - Impact of Technology & Globalisation

(i) Use of Crypto currencies to fund terror activities

Ex) NIA highlighted use of crypto in 2022 terror racket bust

(ii) Use of dark net, social media platforms to hedge donations & funds.

Ex) Buwan Ward used facebook

(vii). Globalised organised criminal network used by terror groups to fund activities

eg) Taliban uses global drug trafficking network

(viii). E-Commerce shell companies increasingly used for illegal transfers for terror activities (interpol)

(ix). Creation of front organisations such as NGOs & pleading donations in online forums

eg) FBI highlighted several proxy NGOs of Hamas

(x). Druses being used to deliver Fake Indian currency notes

### Measures To Tackle Terror financing

#### National level

(i) Terror financing & fake currency cell of National investigation Agency

(ii) Defence Cyber Agency as well as National Cyber Crime Center tracking suspicious online fund transfer

(iii) Fake Indian currency network of Financial Intelligence Unit - India

(iv) UAPA Act has provisions for terror financing

International level

(i) Financial Action Task force to monitor money laundering & terror financing

(ii) No Money for terror conferences

(iii) UNSC's 2482 & 1343 committee sanctioning financially terror groups

There is a need for greater international collaborations to completely check terror funding to create a terror-free global order

**Feedback**

(For OFFICE use only)

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| TOTAL MARKS  |   |   |   |

Q.20) Explain the key components of the National Policy and Action Plan (2015) that have contributed to the significant decline of Left-Wing Extremism (LWE). What additional steps would you suggest to eliminate LWE in the near future? (15 Marks, 250 Words)

राष्ट्रीय नीति एवं कार्य योजना (2015) के उन प्रमुख घटकों का वर्णन कीजिए जिन्होंने वामपंथी उग्रवाद (LWE) में उल्लेखनीय गिरावट में योगदान दिया है। निकट भविष्य में वामपंथी उग्रवाद को समाप्त करने के लिए आप कौन से अतिरिक्त कदम सुझाएंगे? (15 अंक, 250 शब्द)

"LWE is the greatest threat to Internal security" — PM Manmohan Singh

LWE refers to an armed proletarian movement aiming to overthrow democratic governments to create a proletarian dictatorship.

Components of National Action Plan 2015

(i) Increased Centre State Coordination through Home Minister level meetings

(ii) Increased financial support to security forces

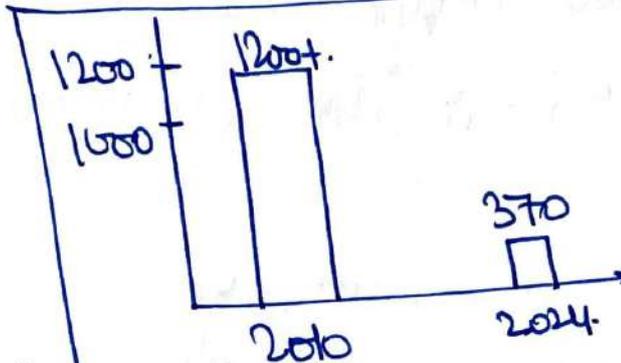
(iii) Countering of front organisations & urban nodes

(iv) Development first approach towards LWE areas

(b) Increased funds for Rehabilitation of Surrendered naxals

Decline Due to National Action Plan 2015

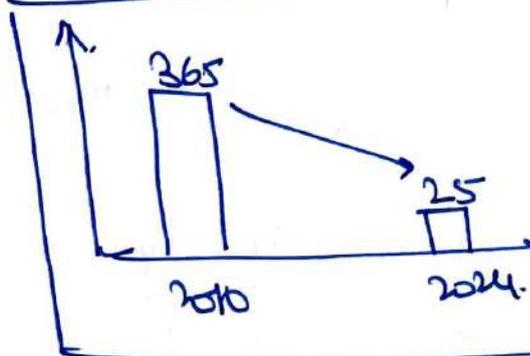
① Significant Decline in Number of Violent Incidents



② Number of most affected districts reduced from 35 to 6 (2024)

③ Attack of Economic Infrastructure

④ Top leaders like Basavaraja Killed and over 881 surrendered in last alone



## Additional Steps Required

(i) Increase investments in development of roads & infrastructure (K. Vijay Kumar Committee)

(ii) Proper implementation of Forest Right Act & PESA, 1996 (D. Bandopadhyaya Committee).

(iii) Increase investment on security force upgradation (K. Vijay Kumar)

(iv) Adopt Best Practices

Eg) Andhra Pradesh's Jannabhoomi programme to foster trust & improve development

These measures will help in achieving our objective of Naval Nukt Abhyas by 2026