NEXT IAS

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23 JUL 2023

(To be filled by candidate)

Name of Candidate : MAHI SHARMA

NEXT IAS Roll No.: AIM24GCRA040 Date of Examination : 23/07/23

Exam Centre : Old Rajinder Nagar ☑ Bhopal ☐ Online ☐

Test Code : TC052 Program : SLT ☐ SLT+ ☑

MAIN TEST SERIES 2023
(SECTIONAL TEST-6)

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Question paper will be provided separately and can be taken by the candidates after conclusion of the exam.

.....

SUBJECT/PAPER
GENERAL STUDIES

Invigilator's Sign. : .....


NEXT
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(For filling by Examiners only)

Evaluator Code :

Q.No	Pg No.	Maximum Marks	Marks	Total
1	1			
2	3			
3	5			
4	7			
5	9			
6	11			
7	13			
8	15			
9	17			
10	19			
11	21			
12	24			
13	27			
14	30			
15	33			
16	36			
17	39			
18	42			
19	45			
20	48			
Grand Total				

Signature

MACRO COMMENTS

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2. Write your registration number and other particulars, in the space provided on the cover of QCA Booklet.
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5. If you wish to cancel any work, draw your pen through it or write "Cancelled" across it, otherwise it may be evaluated.
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1. वैटरी ऊर्जा भंडारण प्रणाली (बीईएसएस) से आप क्या समझते हैं? इसके अनुप्रयोगों पर चर्चा कीजिए और यह भारत के ऊर्जा कार्यक्रम में किस प्रकार क्रांतिकारी बदलाव ला सकता है। (150 शब्दों में उत्तर दीजिए) 10 अंक

What do you understand by Battery Energy Storage Systems (BESS)? Discuss its applications and how it can revolutionize the energy program of India. (Answer in 150 words) 10 Marks

One of the panchamrits, as announced by India in COP 27 requires lowering the carbon intensity of economy by 45%, in this regard Battery Energy Storage System (BESS) which means "storing the energy (renewable or H_2)" at a place that can be transfered to distant places as per needs.

Applications of BESS :-

① Storage of ~~batteri~~ energy in the batteries

② It can be used as a point of energy transfer

③ It will lower the energy scarcity in some places by transfering from energy abundant areas.

④ It will be a tool for energy security →

Candidates must not write on this margin

It can revolutionize energy program of India :-

① Grid pattern → energy stored here and used somewhere else
(Ex): One sun - one world - one grid.

② Boost to renewable energy production

③ It can help in smooth transition

④ It will phase out carbon from the economy in phased manner

⑤ Greater input to output ratio.

⑥ Strengthen the international collaboration
(Ex): International Solar Allians (ISA)

Thus, ambitious Indian economy requires the smooth transition due to changing climatic challenges and socio-~~economic~~ economic needs of the masses and BESS can be an efficient tool for this.

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2. इसरो के गगनयान मिशन में हुए विकास और उपस्थित चुनौतियों पर संक्षिप्त चर्चा कीजिए। समाज के लिए मिशन के संभावित लाभ क्या हैं?
(150 शब्दों में उत्तर दीजिए) 10 अंक

Discuss in brief developments and challenges in the Gaganyaan mission of ISRO. What are the possible benefits of the mission for the society?
(Answer in 150 words) 10 Marks

In order to be a leader is space exploration, India has announced to send its first ever human crewed (3 members) on a space flight in Low Earth orbit for 7 days by 2026

Developments :-

- 3 Indian Air Force officers are under training in Russia
- Human rated HS200 has been tested (recent Chandrayaan launch)
- LVM-3 has been tested
- Vyommitra → humanoid is being tested upon the atmospheric conditions

Challenges :

① Testing Crew Escape Module for safety of crew members.

Candidates must not write on this margin

② Possible health concerns of crew in space

③ India is at low level of deep space communication technology

④ Recent, India joining Artemis can pose potential challenges

⑤ India didn't announce its space doctrine yet

Benefits for the society:-

① It will enhance scientific outlook of the society

② It can be a space refuelling centre for Indian mission

③ Help in moon missions → search of He_3 for energy security (clean energy)

Ex:- One vagon of He_3 → energy till 10 generations

In future, Indias position in Artemis and further space race depends on successful launch of Gaganyaan which will revolutionize Indian space programme.

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3. ब्रह्मोस सुपरसोनिक क्रूज मिसाइल की अद्वितीय विशेषताएँ और क्षमताएँ क्या हैं, और इसने भारत की रक्षा क्षमताओं और सामरिक स्थिति के क्षेत्र में किस प्रकार योगदान दिया है? (150 शब्दों में उत्तर दीजिए) 10 अंक

What are the unique features and capabilities of the BrahMos supersonic cruise missile, and how has it contributed to India's defense capabilities and strategic position in the region? (Answer in 150 words) 10 Marks

In wake of hostilities from its neighbours, India has positioned the Brahmos missile at Arunachal and Ladakh border.

Features and capabilities of Brahmos :-

working :-



Fig. 1

① Brahmos is an anti air craft carrier missile

② It is manovourable missile

③ It follows tree-top trajectory.

④ It is non-nuclear missile

⑤ It has magnetic communication and radar tracing system

⑥ Range = 600 km → can hit its target (after joining MTCR)

Candidates must not write on this margin

Contributions of defence capabilities and strategic position :-

① It can identify ~~enemy~~ enemy's radar and aircraft.

② It requires just 5 seconds to operate

③ Stationing Brahmos at arunachal border deters China's air attack.

④ It has strengthened air defence and air surveillance system of India

Thus, brahmos provide teeth to Indian Air Force but we still need to modernize our defence equipment to provide sustainable defence in wake of any attack.

Candidates must not write on this margin

4. समुद्र की गहराई का पता लगाने और उसमें मौजूद संसाधनों का दोहन करने के देश के प्रयासों के अनुरूप, भारत सरकार ने गहरे समुद्र में अन्वेषण मिशन 'समुद्रयान' का प्रस्ताव रखा है। यह मिशन देश में समुद्र विज्ञान और प्रौद्योगिकी की प्रगति में किस प्रकार योगदान दे सकता है?

(150 शब्दों में उत्तर दीजिए) 10 अंक

In line with the country's efforts to explore the depths of the ocean and harness the resources it holds, the Indian government has proposed a deep-sea exploration mission Samudrayaan. How can this mission contribute to the advancement of ocean science and technology in the country?

(Answer in 150 words) 10 Marks

According to Ministry of Earth sciences, more than 83% resources in the world are concentrated in oceans and Indian ocean accounts of 23% of it.

Samudyaan mission
- → deep sea exploration
- → polymetallic nodules
- → deep sea communication
- → energy security
- → sea control (indirectly)

Contributing to advancement of ocean science and technology :-

① Polymetallic nodules → technology for non-fossil energy
- → less water
- → High input to output ratio
- → less radioactive

Candidates must not write on this margin

② Medical resources → fish oil, fish bones, pearls etc can be harnessed.

③ Ocean minerals → reporitory of economic value and energy.

④ Encouraging the academia - administration-industry collaboration

⑤ Deep sea exploration and communication technology

⑥ It will enhance research and development in ocean sciences. (R&D)

⑦ Young graduates will be encouraged to develop state of art technology at incubation centres.

⑧ ~~Save~~

Thus, "Samudrayaan" deep sea exploration mission is a chapter of "India under and over ocean" but its successful implementation requires promoting incubation centres and investing in R&D (still only 0.7%)

Candidates must not write on this margin

5. हाल ही में जोशीमठ, उत्तराखंड में आई आपदा के आलोक में, हिमालय क्षेत्र में आपदा प्रबंधन और पर्यावरण संरक्षण के लिए मुख्य सबक क्या हैं? (150 शब्दों में उत्तर दीजिए) 10 अंक

What are the key lessons for disaster management and environmental conservation in the Himalayan region, in light of the recent disaster in Joshimath, Uttarakhand? (Answer in 150 words) 10 Marks

India's vulnerability to disasters i.e., 58% prone to earthquakes, 12% prone to floods, 12.6% prone to landslides makes it imperative to learn lessons for Joshimath incident.

Lessons for disaster Management

① Establishment of 'Disaster Mitigation Fund" (by 15th finance commission)

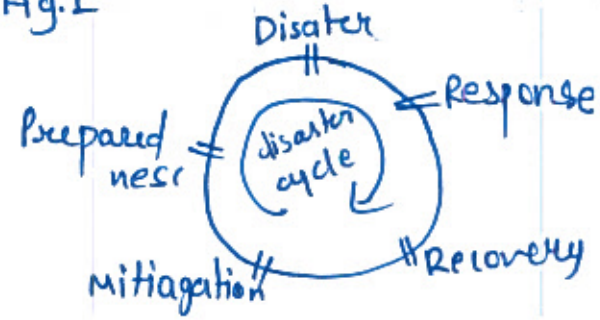
② Involvement of local communities in regional developmental plans (Hyo Hyugo framework)

③ Regional governance for disaster } Sendai Framework

④ Investing in structural and non structural measures for resilience.

⑤ Build Back better approach (B_3)

Fig.1



Candidates must not write on this margin

Lessons of environmental conservation :-

① Limiting the tourist ~~outfall~~ footfall
   (Ex) 21 lakh tourist in 2021 (in Himalayan region)

② Recognising and respecting the carrying capacity of the region.

③ Responsible waste disposal
   (Ex) :- 8 lakh tonne waste → anually in Himalayan region

④ Mandatory Een Environmental and social impact assessment for new construction (EIA & SIA) → Dockies irritation index

⑤ Responsible adventure tourism

Thus, Joshimath incident has directed us to change the approach from "ECOFRIENDLY" to "ECO-SENSITIVE" tourism by promoting Swadesh Darshan 2.0, rural tourism to make India a tourist hub.

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6. कोविड–19 महामारी ने सार्वजनिक स्वास्थ्य में आपदा प्रबंधन के महत्त्व पर प्रकाश डाला है। महामारी और अन्य संक्रामक रोग के प्रकोप के प्रबंधन के लिए प्रमुख रणनीतियों और चुनौतियों पर चर्चा कीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

The COVID-19 pandemic has highlighted the importance of disaster management in public health. Discuss the key strategies and challenges for managing pandemics and other infectious disease outbreaks. (Answer in 150 words) 10 Marks

Pandemics and Epidemics pose a big threat to societal existence and sustainable living which requires disaster managment strategies in public health systems.

Disaster managment in public health
- → Reducing number of persons to be affected per one lakh or died (Hyogo framework)
- → Post pandemic health issues
  - ↓ sanitation
  - ↓ doctor to patient ratio (862 : 1 lakh population in India)

Key strategies

① Inter agency cordination

NDMA ←→ health ministry ↔ insurance players ←--- etc

② Responsibility matrix for responsibility of government vis-a-vis society (2016 Disaster Management Action plan)

Candidates must not write on this margin

③ Effective ~~emph~~ engagement of health and disaster policies.

④ Preventive to proactive approach.

⑤ Using education, innovation and knowledge to built cultural capital.

Challenges for managing pandemics

① 862 : 1 lakh population → good in quantity but not quality.

② Public awareness.

③ lack of private insurance and public awareness

④ Low sanitation levels in backward regions.

solutions
- → increasing sanitation and awarness
- → govt. insurance
- → good quality doctors
- → increase bed: patient ration (very poor in India)

Health indicator is the reflection of social well being, thus "Health is wealth" and strategies need to be adopted for sustainable Health ecosystem (one Health)*

Candidates must not write on this margin

7. "पंजाब में हालिया कट्टरपंथी रुझानों से पता चलता है कि खालिस्तान का मुद्दा अभी भी उबल रहा है।" हालिया घटनाक्रम के संबंध में कथन पर चर्चा कीजिए और इससे निपटने के उपाय सुझाएँ। (150 शब्दों में उत्तर दीजिए) 10 अंक

"The recent radical trends in Punjab show that the Khalistan issue is still simmering." Discuss the statement with respect to recent developments and suggest measures to handle it.
(Answer in 150 words) 10 Marks

India's multiculturalism, multilinguality, multiethnicity and vast regional diversity is a double edged sword — sometimes promoting harmony but sometimes disturbance.

Recent developments
- protest in UK, Canda and USA
- killing of khalistani terrorist
- Radical movements in some areas of Punjab.

Factors contributing :-

① Financial inputs from china, Pakistan, organised crimes etc.

② Political motives of regional leader

③ Connection with overseas terrorist groups

④ Perception of "India being the perpetrator"

Candidates must not write on this margin

loss of life and property ← **Implications** → Money laundering

organised crimes ↙ ↓ ↘

Drug and human trafficking (golden cresent)

Measures to handle it :-

① surveillance of border areas to stop financial assistance

② Drone surveillance

③ local community and administration collaborating

④ Persuading khalistani militants through their parents / family members (as used in JK) (emotional intelligence)

⑤ Incentives for surrendering.

⑥ Increase rehabilitation centres and counselling college students to destroy the drug market.

Khalistani issue and its sustainance can pose a threat to India's unity so a need is felt for judicious use of "FORCE AND PERSUATION"

Candidates must not write on this margin

8. ड्रोन संचालन में आसानी और साथ ही इसके संचालक की अनामिता, भारत की सीमा सुरक्षा की चुनौतियों में वृद्धि करती है। विस्तारपूर्वक वर्णन कीजिए और सीमावर्ती क्षेत्रों में ड्रोन समस्या से निपटने के लिए सुझाव दीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

The anonymity and ease of drone operation contribute to the challenges of India's border security. Elaborate and give suggestions to tackle the drone problem in border areas.

(Answer in 150 words) 10 Marks

Technology has a greater role to play in ones defence system be it missile technology, air craft technology or drone technology.

Drone operation
- compact size
- easy operation
- less resources
- target and operating point distance

Challenges to India's border security

① Increasing drone surveillance by neighbouring country.

② Difficult to locate and intercept due to compact size

③ Drug delivery (Ex) :- 70 kg opium by drone at Rajasthan border

Candidates must not write on this margin

④ Difficult to trace the location of the operator.

⑤ Breach of critical defence Information

⑥ Drones can be used to carry out strikes also.

Suggestion to tackle drone problem:-

① Strengthening radar and drone surveillance.

② Laying sky mines

③ Awareness in local community to report any instance of drone look

④ ~~Jam~~ Drone frequency Detection meter ⑤ Rajasthan

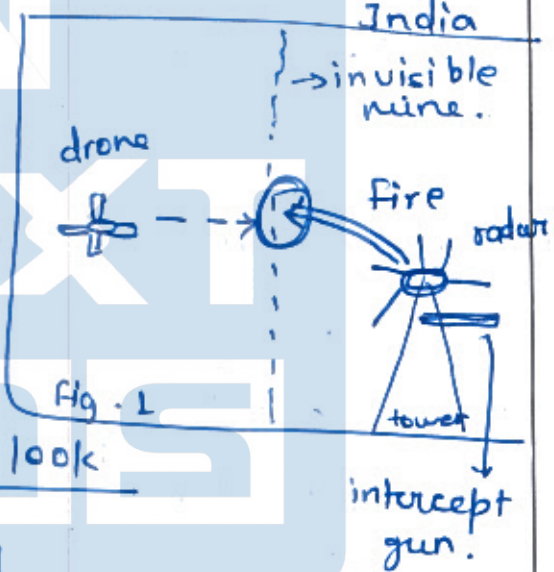


Fig. 1

Thus, Indian defence surveillance has to be strengthened multidimensionally to tackle drone problem and reduced the instances of attack and organized crimes.

Candidates must not write on this margin

9. "पूर्वी और मध्य भारत का संसाधन अभिशाप वामपंथी उग्रवाद का एक महत्वपूर्ण चालक रहा है"। इन क्षेत्रों के सतत और समावेशी विकास के लिए उपायों को विस्तार से बताइए और सुझाव दीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

"The resource curse of Eastern and Central India has been a crucial driver of LWE". Elaborate and suggest measures for sustainable and inclusive development of the region.
(Answer in 150 words) 10 Marks

"Resources are imperative for economic prosperity". These resources helped India to prosper but also raised the problem of LWE.

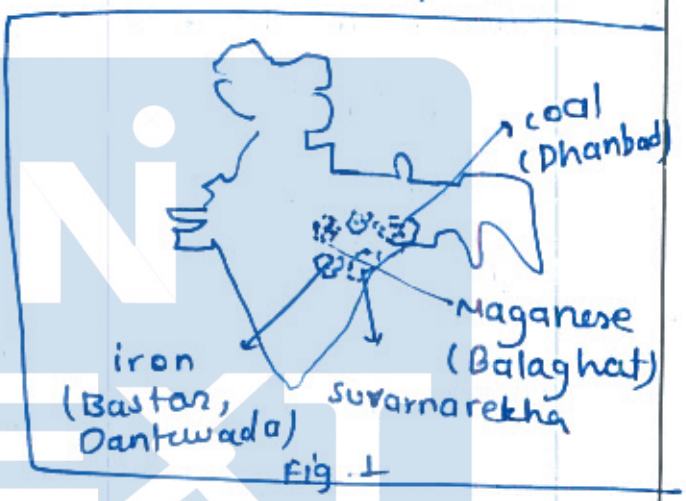


Fig. 1

Causes of LWE in central and Eastern India :-

① Over exploitation of resources by big corporates.
② land allienation and not suitable compensation not
③ No satisfied rehabilitation
④ Diluting the local cultures and practices
⑤ Regional disparity and relative deprivation
⑥ Perception of "STATE AS AN ENEMY"

Candidates must not write on this margin

Suggestions

① skilling the people to be absorbed in the industries

② Fair and equitable sharing of resources

③ Adequate compensation and rehabilitation

④ Youth counselling.

⑤ Reducing trust deficit by increasing the quality of service delivery

Ex: Dantewara Education Model. (by IAS OP Chaudhary)

⑥ Peace talks bet^n between government machinery and regional leaders.

As per recent Home Ministry reports districts with left Wing Extremism has been reduced by 70% but efforts must be continued to involve them in mainstream society by allowing them to preserve local identities

Candidates must not write on this margin

10. उत्तर पूर्व और जम्मू-कश्मीर क्षेत्र में हिंसा की घटती प्रवृत्ति के आलोक में क्या आपको लगता है कि एएफएसपीए (अफस्पा) अपनी उपयोगिता बरकरार रख पाया है? टिप्पणी कीजिए (150 शब्दों में उत्तर दीजिए) 10 अंक

In light of the declining trend of violence in the North East and J&K region do you think that AFSPA has lived its utility? Comment. (Answer in 150 words) 10 Marks

Due to multiethnicity and role of foreign states, areas like J&K and northeastern region saw a rise in separatist movements and anti-national activities, to curb which AFSPA was continued

Utility of AFSPA :-

① It allowed to use force where peace was difficult to be brokered.

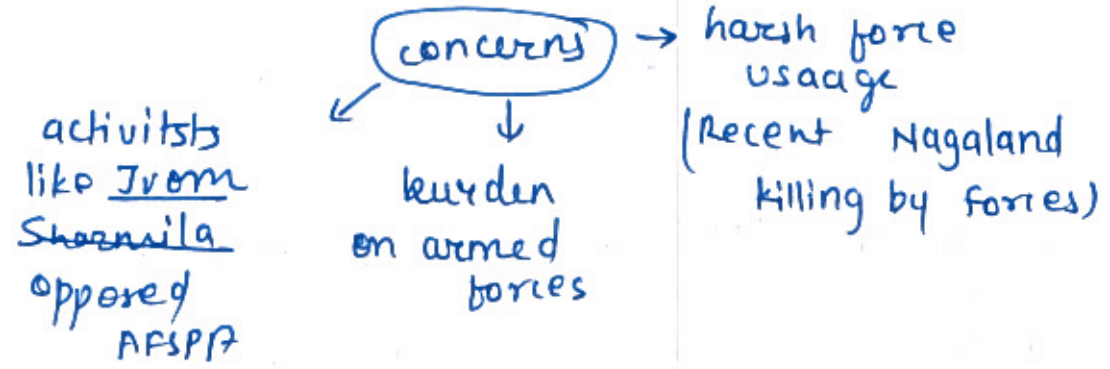
② It was deterrent to separatist activities Ex: Greater Nagalim

③ To check cross border terrorism, organized crime, druck and human trafficking.
Ex Golden triangle / women traficked to Thailand.

④ It allowed "preventive detention" to stop any future disturbace.

Candidates must not write on this margin

However some concerns are.



Suggestions

→ strengthen local police stations.
→ Bridge the trust deficit.
→ using other laws like UAPA, NSA etc
→ peace talks between government and regional leader
(Ex): Recently Nagaland Socialist Council and Home Ministry talks.

Recent trends of ~~dealing~~ declining voilence in North-Eastern India (~~by~~ 70 districts free from voilence – MOHA), AFSPA should be revisioned and if viable, removal should be done in phases over a period of time.

Candidates must not write on this margin

11. परमाणु ऊर्जा और अंतरिक्ष प्रौद्योगिकी के क्षेत्र में क्रमशः डॉ. होमी जहाँगीर भाभा और डॉ. विक्रम अंबालाल साराभाई के योगदान से भारत को रणनीतिक रूप से किस प्रकार लाभ हुआ? (250 शब्दों में उत्तर दीजिए) 15 अंक

How India benefitted strategically from the contributions of Dr. Homi Jehangir Bhabha and Dr. Vikram Ambalal Sarabhai in the fields of atomic energy and space technology respectively? (Answer in 250 words) 15 Marks

From finding "0" (zero by Aryabhatta) to Pythagoras theorem (Bodhayan) to modern day nuclear and atomic technologies, India has contributed immensly to the global science.

Strategic Benefits for contributions of Dr. Homi Jahagir Babha:-

① India proposed III^rd stage nuclear power program
- I^st - uranium (U^{235})
- II^nd - plutonium
- III^nd - thorium (abundant in India)

② India → 1st country in asia to have nuclear reactor (1958)

③ Civil nuclear deals, especially with America → NSG waiver (India is the only country)
↳ 123 Agreement with USA

Candidates must not write on this margin

④ India published largest number of thorium based research paper.

⑤ India, only NON-NPT COUNTRY to have official military reactor

⑥ India → able for minimum credible deterrence. (2 nuclear tests at Pokhran)

Benefits from contributions of Vikram Ambalal Sarabhai.

① Contributions in establishment of ISRO.

② His vision gave us the way of space exploration

③ India → 4th country to have successful Mars Mission with least cost

④ Joining of Artemis → influencing the revision of Open Space Treat, 1967 and Moon treaty.

⑤ India launches satellite (world's best launcher and at lowest cost)

⑥ Launches like Mars Orbital Mission, Chandrayaan 1, 2, 3 etc has increased India's global image.

Candidates must not write on this margin

Institutional contributions
- DRDO
- ISRO
- Vikram Sarabhai Research Centre
- Satish Dhawan launch station etc.

Contributions of Dr. Homi Jehangir Bhaba and Vikram Amkalal Sarabhai has sailed India in nuclear and atomic fields but now it's the responsibility of young graduates to take it to the heights of space with the vision of "Shiskhit Yuva, Viksit Bharat"

Candidates must not write on this margin

12. जेनरेटिव एआई निकट भविष्य में नवाचार की सीमाओं को आगे बढ़ाने का सामर्थ्य रखता है, फिर भी इसका सामाजिक प्रभाव पर्याप्त चुनौतियाँ खड़ी करता है। सविस्तार उत्तर दीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

Generative AI holds the potential to push the boundaries of innovation in the near future, yet its societal impact raises substantial challenges. Elaborate. (Answer in 250 words) 15 Marks

Generative AI - creating novel things through human like intelligence is used widely for 4th industrial revolution to boost productivity. with least resources. with apps like Alphafold, ChatGPT, bard etc

Potential to ~~pose~~ push boundaries of innovation :-

- investment in R&D
- encourage the students to take up innovation
- enourage private investment in R&D and innovation (still 36% only)
- Generating stories, songs, photos etc
  Ex: Recently generating images of GODs
- Time saving research oriented.
- Top quality outcomes

Candidates must not write on this margin

But, generative AI has wide ranging social impacts and challenges as follows:-

① **Pleasurizing** : Violation of merit principle

② **Deepfakes** → can cause law and order problem and communal disturbance

③ **Childpornography** :- Right to dignified life and right to privacy (article 21)

④ Credibility of data and outcome

⑤ Personal data protection.

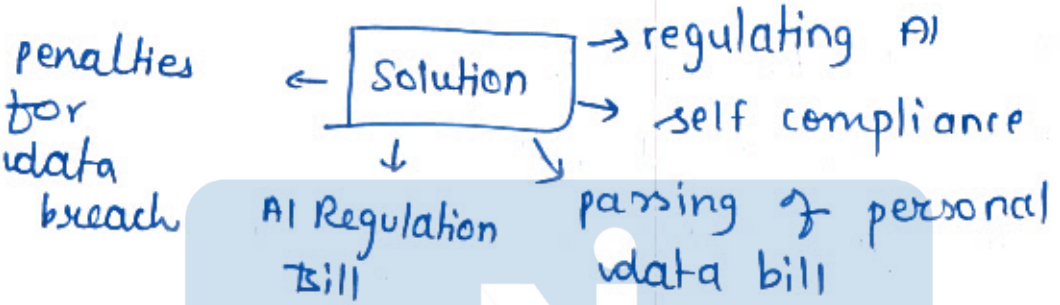
⑥ It is analysing human behaviour, choices, preferences etc. → it can be used by enemy countries or big corporates
↳ voilation of **consumer sovereignty**

⑦ Discouraging self innovation, physical labour and habit of reading books.
↳ **intellectual slavery**

Candidates must not write on this margin

⑧ Job loss → ie., structural unemployment.

However, these problems can be tackeled as follows:



AI is an indespensable tool for drug discovery, higher productivity, creating jobs innovations etc but it all depends on the usage of AI by human community whether AI becomes BOON OR BANE

Candidates must not write on this margin

13. रोगाणुरोधी प्रतिरोध (एएमआर) एक तेजी से बढ़ता संकट है जो दुनिया भर में सार्वजनिक स्वास्थ्य के लिए एक गंभीर खतरा है। रोगाणुरोधी प्रतिरोध की बढ़ती समस्या में योगदान देने वाले प्रमुख कारक क्या हैं, और इस वैश्विक स्वास्थ्य खतरे से निपटने के लिए कौन से कदम उठाए जा सकते हैं? (250 शब्दों में उत्तर दीजिए) 15 अंक

Antimicrobial resistance (AMR) is a rapidly escalating crisis that poses a grave threat to public health worldwide. What are the major contributing factors to the growing problem of antimicrobial resistance, and what steps can be taken to address this global health threat? (Answer in 250 words) 15 Marks

Recent concept of "One Health" → human health, animal health, environmental health has shifted focus towards

Anti Microbial resistance (AMR)

↳ virus/pathogens become resistant to medical treatment/medicines

concerns of AMR
- → 60,000 death globally
- weak immunity
- India → largest AMR Patients
- ineffictivity of medical treatment.
- Rise in HIV deaths

Contributing factors to AMR

① Human vaccines used for poultry and cattles and growth injections in fruit and vegetables.

Candidates must not write on this margin

② Over the table medicine purchasing
↳ without doctor's prescription

③ Not completing the required dosage of mediciences

④ Changing consumption patterns.

⑤ ~~Sanisation~~ Sanitation. issue in generic drug manufacturing

⑤ Fungus found in Dewas plant

⑥ Home based remedies → rampant usage. (without prescriptions)

⑦ Changing life styles.

Steps to tackle AMR:-

① Phytosanitary measures for organic Imports

② Regular checking medical stores → invoices and bills.

③ Awareness among People → about doctor's Prescription

④ AWARE and WOW by WHO to tackle rising cases of AMPs.

Candidates must not write on this margin

⑤ ~~Sanisad~~ Sanitation drive for generic drug producers

⑥ Sustainable presence of "veterniary doctors in rural areas."

Thus AMR, is an emerging heath issue which needs to be tackled through a multipronged strategy to LIVE HEALTHY & HAPPY LIFE.

Candidates must not write on this margin

14. विघटनकारी नवाचारों से आप क्या समझते हैं? हाल के दिनों में विघटनकारी नवाचार के कुछ उदाहरण बताइए और यह भी बताइए कि इन नवाचारों ने उद्योगों के संचालन के तरीके को किस प्रकार परिवर्तित किया है?

(250 शब्दों में उत्तर दीजिए) 15 अंक

What do you understand by Disruptive innovations? What are some examples of disruptive innovation in recent times, and how have they changed the way industries operate?

(Answer in 250 words) 15 Marks

Dissuptive innovations means innovations that can produce disturbing impacts on society, human kind, economy, etc.

Examples of disruptive innovations

① Chemical and biological weapons
② Ransomware and cyber attack
③ unethical use of generative AI.

Changing industries ways to operate

① large lay offs due to heavy mechanization and artificial intelligence
② No ~~physi~~ or minimal physical interface

Candidates must not write on this margin

③ strengthening cyber security measures.

④ Shifting approach from

CONSUMER ORIENTED → PROFIT ORIENTED

⑤ No research on lowering the input cost and innovations for societal peace are often neglected.

⑥ Factors and Relations of productions have been changed.

Factors : Human → to → Artificial Intelligence

Relations : Employee/Employer → to → skilled/unskilled

Candidates must not write on this margin

Thus disruptive innovations have a (negative) multiplier effect which affects every strata of the society and thus community resilience is needed to be built.

NEXT IAS

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15. आपदा प्रतिरोधी बुनियादी ढाँचे के लिए गठबंधन का गठन भारत में आपदा प्रबंधन दृष्टिकोण को और अधिक मजबूती प्रदान करता है। टिप्पणी कीजिए। भारत में आपदाओं से निपटने के लिए एक नई रणनीति की आवश्यकता के औचित्य सिद्ध कीजिए।
(250 शब्दों में उत्तर दीजिए) 15 अंक

The Formation of the Coalition for Disaster Resilient Infrastructure brings more robustness to the Disaster Management approach in India. Comment and justify the need for a new strategy to tackle Disasters in India.
(Answer in 250 words) 15 Marks

India, with vast geographical diversities — young fold mountains, coastal areas, plateaus, volcanoes is prone to many disasters like:

Earthquake = 58.6%.
Cyclones = 12.3%.
Floods = 12%.
Landslides = 12.6%.
} NDMA data

So India sought international cooperation in the form of Coalition for Disaster Resilence Infracture (CDRI)

Disaster Management Robustness in India

① Shifting focus from DISASTER RESPONE to DISASTER PREPAREDNESS

Candidates must not write on this margin

② Investing in structural and non-structural resilence.

Ex Bhuj Hospital used wooden / floating base technique.

③ Multistakeholder approach
- tribals / Indigenous community
- Youth (Agent of change)
- women
- Media / Scientific community etc.

④ Regional approach :- Ex Orissa has done well to face cyclones.

Need for New strategy to tackle disaster management :-

① 15th Finance Commission recommended to create a "National Disaster Management Fund." (NDMF)

NDMF
- Mitigation Fund — 20%
- Response Fund — 80%

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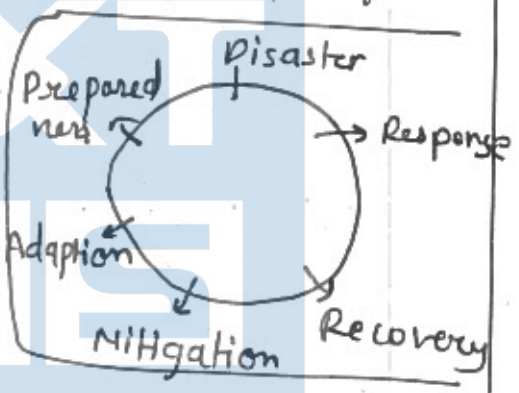
② Need to establish a "National Institute for Disaster Response."

③ CAG audit Report :- NDMA is burdened with numerous works. So it should be only a policy making body.

④ Delay in implementing disaster strategies

Ex:- Telemetry stations → could have mitigate Kedarnath flood
Is Kedarnath

⑤ ~~Regional and relic~~
Regional resilience governance (RRG)



⑥ establishing connect between pre disaster and post disaster activities

⑦ Incorporate Disaster Risk Reduction approach in designing developmental policies.

New new Disaster Management strategy shall focus on adaptation and mitigation to averse the social and economic losses of disaster ($3.2 bn yearly → Down to Earth)

Candidates must not write on this margin

16. आपदा प्रबंधन सिर्फ आपात स्थिति से निपटने के बारे में नहीं है, बल्कि लचीले समुदायों के निर्माण के बारे में भी है। उन प्रमुख रणनीतियों पर चर्चा कीजिए जिनका उपयोग सामुदायिक लचीलापन बनाने और आपदाओं के प्रभाव को कम करने के लिए किया जा सकता है। (250 शब्दों में उत्तर दीजिए) 15 अंक

Disaster management is not just about responding to emergencies but also about building resilient communities. Discuss the key strategies that can be used to build community resilience and reduce the impact of disasters. (Answer in 250 words) 15 Marks

Disaster management → a sum total of Respone, Mitigation, Adaptation and Resilence is an approach to pre prepare and post act in case of any disaster.

Need for resilent community
- reduce loss of lives
  - Ex: 26,000 deaths (1988 - 2008)
- reduce economic loss
  - Eg :- 9,900 cr → in Bhuj earthquake
  - 5,000 cr annually on floods & landslids
- proactive approach
  - averse disruption of basic service
  - protecting critical infrastructure
  - Faster recovery.
  - to reduce disaster impacts.

Candidates must not write on this margin

Resilience = resistance + Recovery during disaster

Strategies to built community resilience

① Capacity building
- ↳ awarness
- ↳ Mock drills
- ↳ Guidelines during disaster
  Ex:- under table during earthquake

② Investment in community resilient infrastructures through CSR and SSR (scientific social responsibilities)
(Ex): Bhuj hospital → floating base.

③ New Building codes and training of engineers. Tax inventi incentives for adopting resilient building designs
- ↳ Dhajji Diwari
- ↳ Rammapa temple (sand box technique)
- ↳ Koti Banal technique (Rajasthan)

Candidates must not write on this margin

④ Involvement of local communities and Panchayats in disaster governance (Hyogo and Sendai Framework)

⑤ Mitigation and Resilience Fund
↳ recommended by 15th Finance commission

⑥ International collaboration, sharing of technologies and best experiences.
Eg: ① China has predicted 200 landslides accurately in Yangzate valley.
② CDRI

In the wake of rising disaster activites due to unsustainable construction and tourism, community resilience becomes an imperative to reduce the impacts of disasters.

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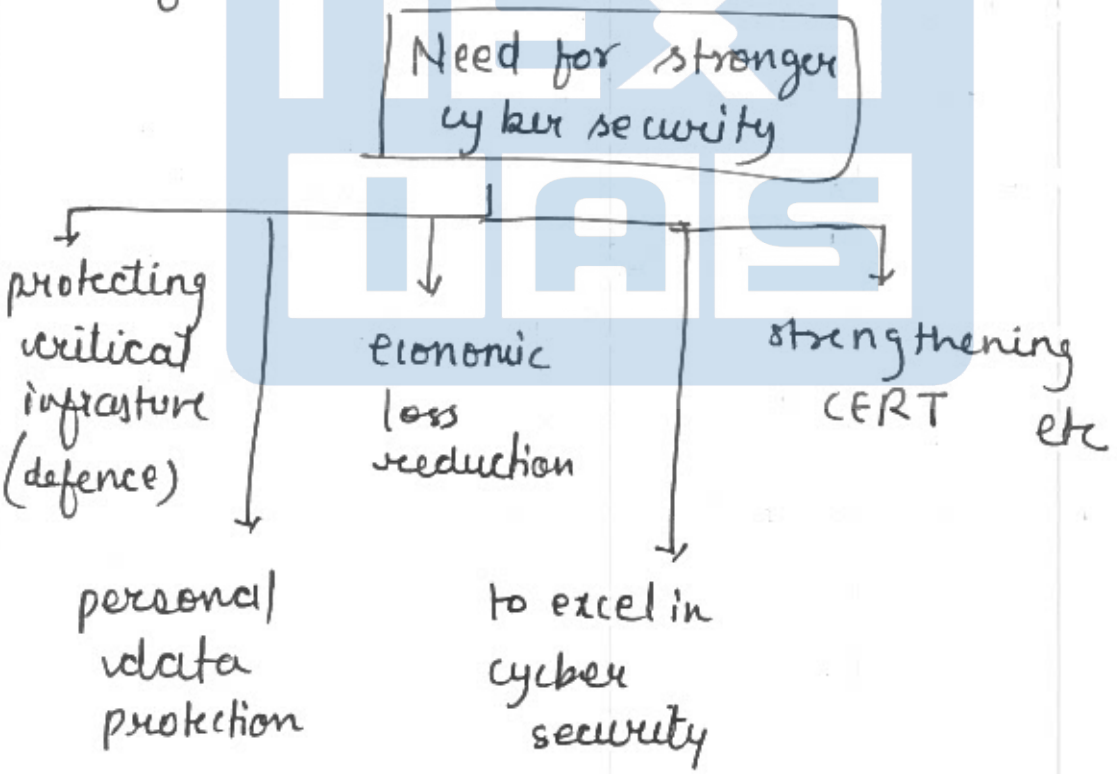
17. महत्त्वपूर्ण बुनियादी ढाँचे (क्रिटिकल इंफ्रास्ट्रक्चर) और प्रमुख निगमों को लक्षित करने वाले रैंसमवेयर हमलों में हुई हालिया वृद्धि ने मजबूत साइबर सुरक्षा उपायों और नीतियों की तत्काल आवश्यकता पर प्रकाश डाला है। इस प्रवृत्ति में योगदान देने वाले प्रमुख कारकों पर चर्चा करते हुए, विभिन्न क्षेत्रों पर इन हमलों के प्रभाव का विश्लेषण कीजिए।

(250 शब्दों में उत्तर दीजिए) 15 अंक

The recent rise in ransomware attacks targeting critical infrastructure and major corporations has highlighted the urgent need for stronger cybersecurity measures and policies. Discussing the key factors contributing to this trend, analyze the impact of these attacks on various sectors.

(Answer in 250 words) 15 Marks

"Cyber is the new domain of war",
in wake of this fact world over ransomware attacks are on rise and approximately [35%] corporates in India has faced cyber attack once in life



Candidates must not write on this margin

key factors for increasing ransomware attacks :-

① Cyber war and data is the new oil

② Digital illiteracy and language problem
(Ex) :- 20% rural population dont know how to use phones

③ Loops in cybersecurity framework.
(Ex) self disclosure → As no corporate is willing to disclose its data breach

④ Hefty and lucy techniques used by attackers
(Ex) 50,000 lottery prize

⑤ State sponsered cyber attacks
(Ex): AIIMS attack (recently)

⑥ Increasing no. of reporting and identification of cases.

Impact of the Attacks

① Breach of private data. (article 21)

② Undermining consumer soveriegnty.
[individual]

Candidates must not write on this margin

③ Potential biological attack but the data ~~theif~~ thief. [Health]

Ex: AIIMS data breach.

④ Selling data on dark web. [society]

- pornography
- economic loss
- harassment
- social boycott
- may lead to suicide

⑤ Threat to data localization [Economy]

⑥ Breaches in defence data is a threat to India's unity and sovereignty. [Defence].

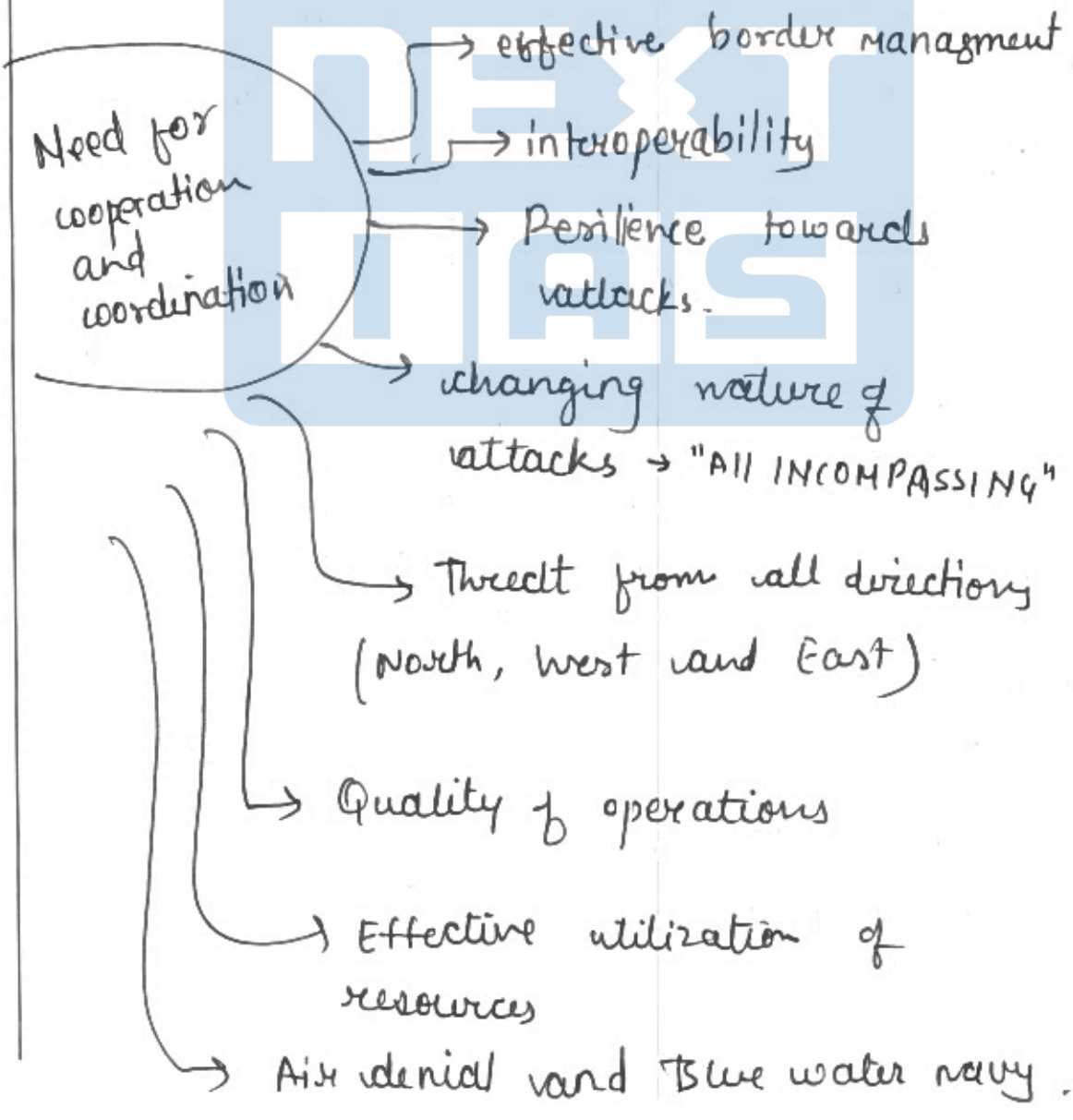
Thus, there is need to strengthen India's cyber security framework for data localization and protection of its citizens.

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18. सीमा सुरक्षा के संदर्भ में, तटीय और स्थलीय सीमाओं के प्रभावी और कुशल प्रबंधन को सुनिश्चित करने के लिए विभिन्न सुरक्षा एजेंसियों के बीच सहयोग और समन्वय को कैसे बेहतर बनाया जा सकता है? (250 शब्दों में उत्तर दीजिए) 15 अंक

In the context of border security, how can cooperation and coordination between different security agencies be improved to ensure effective and efficient management of coastal and terrestrial borders?
(Answer in 250 words) 15 Marks

India having very long terrestial, aerial and coastal borders is a country which requires coperation and coordination between different security agencies for border security.



Candidates must not write on this margin

Ways to improve coordination and cooperation

① **Theatre command**
- ↳ interopertability
- ↳ coordination
- ↳ better utilization of resources

② **Assam Rifles – Gorkha Regiment**
↳ combined operations for tackling disturbances in north-eastern India and border security.

③ **Institution of CDS** → chief of Defence staff
↳ it ~~has~~ is an umbrella institution which ensures cooperation and coordination among security agencies.

④ Deputation and exchange for certain period

⑤ Annual tri services exercises in different domains of war

Candidates must not write on this margin

⑥ Annul defence chiefs meet.

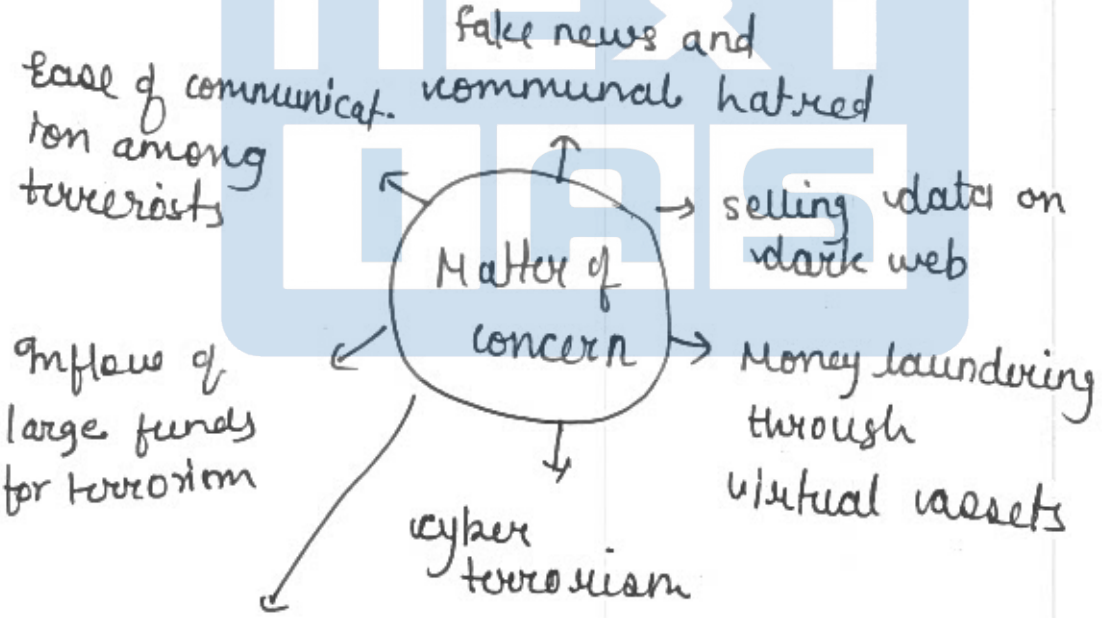
India, strategically positioned in the centre of Indian ocean with two hostile neighbouring countries need to increase cooperation between its security agencies to ensure its sovereignty and security.

Candidates must not write on this margin

19. मेटावर्स और वर्चुअल एसेट्स जैसी नई और उभरती प्रौद्योगिकियों के उपयोग के माध्यम से आतंकवाद का परिवर्तन चिंता का विषय है। हम आतंकवादी उद्देश्यों के लिए नई और उभरती प्रौद्योगिकियों के उपयोग का मुकाबला किस प्रकार कर सकते हैं? इस संबंध में "दिल्ली घोषणा पत्र" के महत्व को स्पष्ट कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

The transformation of terrorism through the use of new and emerging technologies like metaverse and virtual assets is a matter of concern. How can we counter the Use of New and Emerging Technologies for Terrorist Purposes and Elucidate the importance of the "Delhi declaration" in this regard?
(Answer in 250 words) 15 Marks

"New and Emerging Technologies" have proved to be a boon for society but when it is converged with terrorists activities, It has increased the vulnerability of the masses



Helps terrorism to bypass - security networks → Virtual Private Network

Candidates must not write on this margin

Ways to counter Use of New and emerging techologies in terrorism

① ~~FAF~~ FATF (Financial Action Task Force)
↳ adding a new chapter of "New and Emerging technology.

② International collaboration like QUAD, SCO etc

③ strengthening the national cyber security framework

④ Taxing virtual assets → for tracing them
Ex: 30% in India

⑤ Investing in R&D to make our technologies competant with attacks.

⑥ RATS → Regional Anti Terrorism System
↳ sharing of technology and data
↳ capacity building of national govt
↳ blacklisting the state sponsered terrorism

Candidates must not write on this margin

Importance of Delhi declaration

Recently, summit level meeting on terrorism was organized in delhi with following outcomes:

① Intolerance for terrorism

② No distinction between good or bad terrorism (reiterated by Mrs. Ruchika Khamboj)

③ Framework for sharing words best practices

Thus, these technologies when used in terrorism pose a great threat to humanity which can only be addressed through capacity building and international collaboration

Candidates must not write on this margin

20. "अग्निपथ योजना हमारे सशस्त्र बलों के लचीलेपन और प्रभावकारिता के लिए आवश्यक एक कड़वी गोली है।" प्रासंगिक तर्कों के साथ कथन का आलोचनात्मक विश्लेषण कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

"The Agnipath scheme is a bitter pill needed for the resilience and efficacy of our armed forces." Critically Analyze the statement with relevant arguments. (Answer in 250 words) 15 Marks

With decades old inductment scheme to armed forces, a need for new policy was required and Agnipath scheme will be the driver of resilience and efficiency of defence forces (announced by Defence minister)

Resilience and Efficiecy of armed forces:-

↳ "More younger army"

From 32 years to 24 years average age

→ Modernizing the defence forces

→ Lowering the burden of salaries and life long pensions.

→ "SEVA NIDHI FUND" :- ₹ 11 lakhs at the time of retirement.

→ Relaxation for COVID year

Candidates must not write on this margin

But, some concerns are pointed out by critics as follows:-

① Training period of 6 months is not adequate.

② 75% of soldiers returned to society can pose a challenge for law and order.

③ It will down size the army → compromising with security of the nation.

④ No social security benefits to 75% retired soldiers.

⑤ Inefficient operations due to lack of experience and proper training

⑥ Retired soldiers have to start from scratch to obtain professional qualification for further employment.

Candidates must not write on this margin

But, we need to modernize our armed forces due to changing dimensions and domains of war, with this zeal, first round of Agnipath induction has been completed and results on resilience are awaited

Candidates must not write on this margin

Space for Rough Work



12
×9
90
18
108

1:17

62