

**VAJIRAM & RAVI**  
SURE SHOT TEST SERIES FLT 2024

**GENERAL STUDIES**  
**Full Length Test**  
**Test - 11 (GS 3)**

Time allowed: Three Hours

Maximum Marks: 250

ADMIN. NO.: 1 6 0 0 0 3 3 0

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SUBMISSION DATE: 14<sup>th</sup> - Sept - 2024

**UPSC CSE 2024**

**AIR-01**

**QUESTION PAPER SPECIFIC INSTRUCTIONS**

*Please read each of the following instructions carefully before attempting questions:*

*There are TWENTY questions printed in ENGLISH. All the questions are compulsory.*

*The number of marks carried by a question/ part is indicated against it. Word limit in questions, wherever 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.*

Q No.	Marks	Q No.	Marks	Q No.	Marks
Q1	/10	Q8	/10	Q15	/15
Q2	/10	Q9	/10	Q16	/15
Q3	/10	Q10	/10	Q17	/15
Q4	/10	Q11	/15	Q18	/15
Q5	/10	Q12	/15	Q19	/15
Q6	/10	Q13	/15	Q20	/15
Q7	/10	Q14	/15	Total	/250

**Follow these steps to avail the facility of mentoring –**

1. Go through the soft copy of your evaluated answer sheet and analyse all the comments and suggestions given.
2. Call 9717565805 between 11:00 am to 5:00 pm to fix your mentoring slot.
3. Please follow the mentoring appointment timings properly.

Parameters	Excellent	Very Good	Good	Average	Poor	Very Poor
Language and Articulation						
Structure and Presentation						
Conceptual clarity and Content						
Number of Attempted questions						

### Evaluator/Reviewer Suggestions





(Answer questions in NOT MORE than the word limit specified for each in the parenthesis. Content of the answer is more important than its length.)

1. Internationalisation of the rupee seeks to elevate India's role in global finance by encouraging its use in international trade and investment. Comment on the present policies of the Government in this regard. (10 marks, 150 words)

India has full current account convertibility but only partial capital account convertibility in order to insulate Indian economy from global economic downswings.

### Internationalisation of Rupee :-

- (1) This will lead to increase in capital inflow leading to increase in forex
- (2) Increased foreign direct investment
- (3) Decrease the dependence of India on dollars
- (4) Can lead to trade deals based on rupee exchange
- (5) Improve trade relations of India. However, it has its own sets of challenges:-
  - (1) Make Indian economy

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more vulnerable

- (2) The impact on global economy can have serious repercussions.
- (3) Can destabilise Indian economy because of increasing volatility in FDI
- (4) This can lead to negative impact on macroeconomic indicators
- (5) Can lead to imported inflation.

Policies of Indian Government :

- (1) Masala Bonds - exchange taking place in domestic currency
- (2) Currency swap agreements
- (3) Liberalised FDI norms for attracting more investments

thus India follows a regulated path, ensuring ease of doing business along with ensuring stability in economic framework.

**Students should not write anything inside the box**

Introduction	Suggestions:
Body	
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Marks:	

2. The FinTech sector has emerged as a disruptive force, reshaping traditional banking and financial services in India. Examine. (10 marks, 150 words)

According to NSSO - The digital penetration in India has increased from <5% (2014) to >73% (2023) which has revolutionised several socio-economic sectors.

### FinTech Sector :-

- (1) In recent times the rise of technology has played a crucial role in shaping different sectors
- (2) FinTech has played a crucial role in ensuring financial inclusion
- (3) India's JAM Trinity played a crucial role in ensuring financial inclusion
- (4) Further with increased use of Unified payment interface - ease of financial transaction has improved
- (5) According to Economic Survey 2023-24 >50% accounts

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Under Jan Dhan Yojana is owned by women.

(6) It has led to decline in leakages and corruption through direct benefit transfers.

(7) This can help in better monitoring of financial transactions in order to keep a check on Black money & Money laundering.

→ Lack of digital literacy (only 30%)  
challenges → Lack of proper digital public infrastructure as digital penetration is ~73% only  
cyber-attacks → Lack of awareness among people - Eg: - women are 33% less likely to use internet the right way

This creates challenges for digital India but through Infrastructure for India but through schemes like Digital India Mission, India is on way to become a digitally sustained economy.

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3. How do Krishi Vigyan Kendras (KVKs) function as Knowledge and Resource Centres of agriculture technology? Explain. (10 marks, 150 words)

In India ~69% of farmers are small & marginal belonging to poor socio-economic background (~1/5th are BPL-NSO) this creates a challenge related to knowledge & Awareness resulting in poor agricultural productivity.

## Krishi Vigyan Kendra :-

- (1) These are centres for educating the farmers about the agricultural schemes, technologies, etc
- (2) They play an important role in raising awareness
- (3) They help farmers in better understanding of the schemes and policies
- (4) They help in digitisation of agriculture
- (5) Promote use of - e-technology by educating the farmers.

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- (6) They also provide information related to weather pattern
- (7) Also educate farmers on crop types for better productivity
- (8) Ashok Dalwai committee has recommended to convert Agriculture into Entrepreneurial business to improve the scalability of agriculture

These Krishi Vigyan Kendras are acting as a facilitator for advancement of agri business.

however challenges like -

- ↳ lack of internet penetration
  - ↳ lack of smart phone availability
  - ↳ lack of digital literacy
- acts as a road block - which can be addressed via regular training along with focus on building resilient digital public infrastructure

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Introduction	Suggestions:
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4. Discuss the need for a new export-import policy for Indian agriculture.  
(10 marks, 150 words)

India is one of the largest producer of Agricultural product while it only contributes 2.5% to the global agri export.

### Export-Import policy for Indian Agriculture :

According to Economic Survey 2023-24

Recent Trends in India agri exports:-

(1) contributes ~2.5% to global export

(2) Only ~23% are processed food

(3) Exported Items — Basmati rice, Non-Basmati, Buffalo meat.

(4) Export destination - USA, UAE, Indonesia, etc

(5) Import — fruits, non-agriculture products, raw cotton

Despite having suitable climatic conditions to grow these

India needs to :-

- (1) Increase contribution to agri export
- (2) diversify our export basket

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- (3) Increase focus on Food processing as they are more valuable - better price
- (4) Diversify Export destination.
- (5) decrease Imports of item that can be naturally grown in India.

## steps by government

- (1) APEDA - by ministry of commerce & industry to promote agri export
- (2) Export promotion forums - to promote export of & agricultural items
- (3) Agri export policy, 2018 - to setup a proper supply chain
- (4) District as export hub - to promote export of local products
- (5) Farmers connect portal - to connect farmers i.e. sellers & buyers, digitally

These are intended towards making agricultural export significant contributors to India's GDP that can help India achieve its ideal viksit Bharat.

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Introduction	Suggestions:
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5. What Artificial Intelligence (AI) is to software and quantum computing is to computers, graphene is to materials. What are the properties of graphene that make it a unique material? Discuss its potential applications. (10 marks, 150 words)

carbon is of the very important element in the atmosphere which is known for its catenation property because of 4 electrons in the outer shell.

Graphene :-

- (1) It is an allotrope of carbon
- (2) It is made up of carbon atoms arranged hexagonally
- (3) It is the strongest known substance
- (4) It is present in 2 D structure
- (5) can be further used to create carbon nanotube as well which is 3 D

Potential application :-

- (1) can be used in space sector for manufacturing Satellites because of its low weight & very high strength (Isp will be low)

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- (2) It can be used in health sector as Graphene sheets can be rolled to produce nanotubes
- (3) It can be used in creating body & hardware of electronic phones - to increase their strength
- (4) It can be used to create PPE kits which are easily biodegradable
- (5) Can be used creating fishing nets → high strength & also biodegradable
- (6) It can be used to create low weight automobiles as well for high speed vehicles, etc.

Thus Graphene can be used in various sectors because of its huge tensile strength along with biodegradability.

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Introduction	Suggestions:
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7. Analyse the various causes of landslides in India. What strategies can be implemented to enhance disaster resilience against them? (10 marks, 150 words)

According to NDMA → 12% of Indian landmass is susceptible to landslide. Both the Himalayas and western ghats are prone to such damage.

### Causes of landslides :-

#### A:- Natural causes

- (1) Climate change - impacting geology of area making it more prone to landslide
- (2) Tectonic movements in Himalayas
- (3) Unconsolidated deposits in Himalayan region
- (4) It can also be caused as a result of other disasters eg:- After Cloud burst, floods, etc

#### B:- Anthropogenic causes

- (1) Increased footfall adding pressure on fragile ecosystem
- (2) Unregulated mining activities

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- cq:- Sillyara tunnel collapse
- (B) Reservoirs Induced collapse
  - (C) Deforestation making the soil loose & prone to landslides
  - (D) Large scale construction.

## strategies for ensuring Resilience

- (1) Advanced early warning system to detect even minute changes in geology
- (2) Landslide vulnerability mapping
- (3) ensure properly regulated human activities in these fragile ecosystem e.g.-construction & mining
- (4) India needs R&D for innovation to ensure disaster resilience

### Infras

According to IPCC 6<sup>th</sup> AR - climate change will increase the vulnerability of such events - we need to have proper Disaster preparedness to deal with these issues

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Introduction	Suggestions:
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8. Discuss the potential of carbon farming as a sustainable agricultural practice in mitigating climate change. (10 marks, 150 words)

According to the IPCC report - 2023 the concentration of carbon in atmosphere has increased by 246% from pre-industrial era.

## Carbon farming!

- (1) It is a method of carbon sequestration, storage and utilisation
- (2) Soil act as one of best absorber of CO<sub>2</sub> and is preferred option for carbon sequestration.
- (3) This also improves soil nutrient thereby improving the productivity.
- (4) The ancient methods used like zero tillage, mulching, etc are some of the prominent way of carbon farming.

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- (5) This can help in tackling the global warming arising out of the Global warming potential of CO<sub>2</sub>
- (6) Soil carbon - can be used for improving the soil profile as well
- (7) This is therefore an sustainable method of agriculture along with ensuring mitigation of climate change

Therefore - carbon farming can help India in achieving its SDG-13 - along with improving productivity of crops to ensure India's food security

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9. The nexus between separatism and organised crime poses a significant threat to India's national security. Analyse. Discuss the measures to be taken to tackle this threat. (10 marks, 150 words)

Former CDS - Bipin Rawat - Gave the concept of 2.5 front warfare which Indian intelligence - this included challenges from China, Pakistan & along with this Internal security challenges arising from - Insurgency, organised crime, etc

Nexus between Separatism & Organised Crime :-

- (1) These two have synergistic relationship with each other
- (2) where Separatism helps in creating situation conducive for Organised crime.
- (3) on the other hand - criminal benefits from activities of organised crime are used to fund further separatist activities
- (4) Organised crime is a structured network of individuals across the

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- borders involved in illegal activities like drug, arms & human trafficking, etc
- (5) India's pose international borders makes it prone to easy access for such activities.

Measures to tackle this :-

- (1) legal measures - eg enactment of laws like - Prevention of Money Laundering Act, NDPS Act, FCRA, etc
- (2) Institutional measures :- government has set up bodies like ED, CBI, FIU-Ind, etc to look into such nexus
- (3) operational measures :- NATGRID to create a compiled database in order to keep a track of all criminal records

Apart from this India needs to focus on strengthening its institutions, creating synergy among them in order to ensure better surveillance

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10. Developing a joint culture within the armed forces is often seen as essential for operational effectiveness. In this context, discuss the significance of creating theatre commands for enhancing the joint culture within Indian armed forces.

(10 marks, 150 words)

The idea of Integrated Theatre Command was mooted by Sukakar Committee with an aim to increase interoperability among military services for better and quicker response

Significance of creating Integrated Theatre command :-

- (1) This aims to create a joint command structure of three military services i.e., Army, Navy, Airforce
- (2) This will help in creating better interoperability and building synergy
- (3) Lead to quicker & more efficient response during crisis situation
- (4) Lead to better tackling of threat
- (5) Having an integrated command will have deterrent effect on

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the adversary.

- (6) This will help India strengthen its National security
- (7) For vast country like India there is a need for 4 zonal Threat Command - North, south, east, west

### Challenges

- (1) Lack of experience with this model
- (2) Lack of cooperation among four armed forces.
- (3) This will require more funds & better digital & physical infrastructure
- (4) might face resistance from military services as well

While India, recently expressed willingness to create its National Security doctrine - the concept of Integrated Threat Command must be slowly & steadily imposed for better security

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Introduction	Suggestions:
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11. Analyse the potential economic and social impacts of replacing the minimum wage with a living wage in India. (15 marks, 250 words)

According to NITI Aayog's - Multidimensional Poverty Index - 2023 - In India 11% of population is multidimensionally poor. Though India has been successful in lifting 25 cr people out of poverty line but challenges still remain.

## Concept of living wage v/s minimum wage

- (1) Labour codes in India have been designed to ensure social security benefit to workers
- (2) one such aspect is assurance of minimum wage
- (3) This is a threshold below which an employer cannot decide to pay to the work
- (4) while minimum wage is based on kind of employment it is decided based on supply side factors eg:- working hours, kind of employment, etc

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- (5) on the other hand - "Living Wage"  
is a new concept which is based  
on demand side factors
- (6) This ensures a basic minimum  
standard of living for the worker

## Economic Impact

### Positive Impact

- (1) May lead to better purchasing power
- (2) Increased social sector spending
- (3) Increase per capita income of Indian population
- (4) Ensure basic amenities like fooding, clothing, shelters, healthcare, etc

### Challenges

- (1) It may put an additional burden on the employer
- (2) Resistance from Employers
- (3) May lead to regulatory challenges & complain
- (4) May put additional burden on government to ensure compliance.

The idea of living wage will have sufficient social consequences as well

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- positive      challenges
- (1) lead to better socio-economic indicators
  - (2) lead to nutritional security as increased wage may lead to better quality food
  - (3) may decrease proportion of multi-dimensionally poor population
  - (4) Create a vicious cycle of growth & development
  - (1) Lack of awareness among workers about their right
  - (2) Increase spending on things like - alcohol, etc
  - (3) May lead to less recruitment by companies to avoid the compliance.

currently with one of largest population in the world - India needs to work towards realising the potential benefit of demographic dividend by ensuring better standard of living and living wage can be a positive move in this direction

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12. The extent of India's integration into the global value chain depends on harnessing the various opportunities and addressing the associated challenges. Discuss.

(15 marks, 250 words)

India along with Australia and Japan recently launched supply chain resilience initiative - in order to avoid supply chain volatility in future as India's integration into global value chain has been increasing.

### Opportunities with India :-

- (1) World's largest young population.  
(15- 59 years)
- (2) Availability of skilled youth
- (3) India has 24 agroclimatic zone making it suitable for growth of various agri related product
- (4) Rich environmental resources making India an obvious choice after setting up industries
- (5) Growing focus on emerging technology - eg:- Artificial Intelligence, quantum mechanics, etc
- (6) Entrepreneurial ecosystem as India has the world's 2nd largest

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## Startup ecosystem in world

### Steps taken by India :-

- ① PM - Kaushal Vikas Yojana - to skill the youth to make them employable
- ② MSME champion Scheme :- To promote MSME growth in the country
- ③ Production linked Incentive Scheme:- to promote manufacturing capability in export oriented sector
- ④ Make in India - to increase self reliance
- ⑤ Sampada Yojana :- To promote Food processing industry
- ⑥ PM - MiB - To increase textile export
- ⑦ Liberalised FDI norms - to increase foreign investment
- ⑧ Bagalmala Initiative - development of ports to improve connectivity in the global ~~for~~ value chain
- ⑨ Export promotion forums - for export oriented horticulture product, etc

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Though Indian government is focusing on integration into global value chain, challenges remain:-

- (1) Increased dependence on imports  
eg:- India has huge trade imbalance with USA, Russia
- (2) Dependence on China ( $\sim 30\%$ ) for crucial imports - eg:- Active pharmaceutical ingredients
- (3) According to NITI Aayog only 4% of formally trained workforce
- (4) Increasing issue of brain drain
- (5) Lack of private sector investment ( $< 22\%$ )

In order to achieve its target of \$ 5 trillion economy by 2025 India needs to focus on strengthening its economy by promoting private sector participation along with proper implementation of existing schemes.

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13. Inland fisheries play a crucial role in India's economy and food security. Discuss the challenges faced by the sector and suggest measures to enhance its productivity and sustainability. (15 marks, 250 words)

Asiok Dalwai committee has suggested for doubling of farmer's income by 2022 which has not yet being achieved. Fisheries sector in this regard can help in ensuring additional income support.

## Inland Fisheries Sector in India :-

- (1) India has the 2nd largest fisheries sector in the world
- (2) This can help in increasing farmer income - by better income realisation
- (3) Better nutritioned quality can help India tackle issue of hidden hunger
- (4) India having a perennial river system (Alimayalan + Peninsular) has huge scope of Inland fisheries
- (5) In India - There has been change in food preference - There is a shift

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from carbone based to protein based food C Angus Deaton Theory)

- (6) It's has help in fulfilling the required demand
- (7) help in Increasing Export of aqua products
- (8) Fisheries can act as raw material for Food processing Industries

Challenges faced by the sector :-

- (1) Lack of Government support in form of MSP
- (2) Lack of private Sector Investment
- (3) Poor linkages of Fisheries sector with food processing industries
- (4) Lack of cold storage & other infrastructure facility
- (5) Climate change has impact on production of fishes
- (6) Lack of Integration of technology
- (7) Lack of skilled human resource in e.g. fisheries sector.

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## Measures to enhance productivity

- (1) Government has started - PM Matsya Sampada Yojana to regulate fisheries sector along with promoting export
- (2) Regulatory authority MPEDA - has been set on lines of APEDA
- (3) There is a need to incorporate use of technology and R&D for better productivity
- (4) Need for private - public partnership to boost fisheries sector
- (5) better infrastructural facility

This can help India tackle the issue of Agricultural distress and help in achieving its target of being Viksit Bharat by 2047.

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- 14.** Lease farming is an economic necessity that can help the Indian farmers to escape the cycle of poverty. Examine. (15 marks, 250 words)

According to NSSO - 89% of Indian farmers are small and marginal having less than 2 hectare of land which prevents economies of scale & reinforces poverty. challenges remain more in case of tenant farmers & sharecroppers

## Lease farming : an economic necessity

India is an agricultural economy employing 41% of Indian population directly -

### Challenges :-

- (1) climate change - since 52% of agriculture is monsoon dependent
- (2) Disharvest cropping pattern - because of benefits like MSP concentrated to few crops
- (3) Agrarian distress - lack of storage facility leading to distress sale
- (4) Small & marginal farmers (89%)
- (5) 25% farm mechanisation
- (6) According to NSSO - 15th farmers are BPL (Below poverty line), etc

## Lease farming

- ↳ Land is given to farmer on a fixed rent to grow crop for a fixed tenure
- This can help solve the issue of landless farmers
- can help in solving the issue of small farm as big lands can be leased together
- lead to better mechanisation on farm
- lead to economies of scale

## Benefits of lease-farming :-

- (1) Ensure a better income for tenant farmers & sharecroppers
- (2) can decrease the cost of input as the owner is equally a beneficiary so must contribute
- (3) lead to increased productivity
- (4) Better income realisation
- (5) solve issue of basic

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minimum income.

## Challenges :

- (1) Lack of regulation can lead to exploitation of farmers
- (2) There is lack of personalised contracts as India we follow one size fits all approach
- (3) Rent can be charged high by the owner if no oversight mechanism exist
- (4) might lead to increase in conflicts.

Thus we need to implement the concept of "lease farming" with a proper regulatory oversight mechanism - in order to break the viscous cycle of poverty and can help India achieve SDG-1

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Introduction	Suggestions:
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15. Discuss the role of Deep Tech in addressing key challenges in sectors of healthcare, agriculture, and defense. (15 marks, 250 words)

The contemporary era is defined as era of Industrial revolution 4.0 which has the potential to revolutionise various sectors with the rise in emerging technologies like - AI, Machine Learning, etc

#### Healthcare Sectors :-

Deep tech can be used for:-

- (1) Better data collection and monitoring of health profile of Indians
- (2) lead to prediction of disease susceptibility of Indians
- (3) Help in predicting future Pandemics
- (4) can lead to early and better disease diagnosis
- (5) Data Analytics - can help in analysing the trends of disease in young populations

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- (6) Use of AI, robotics can be done for care related work
- (7) Use of Nanotechnology for better drug delivery
- (8) It can help in digitising the health records of Indians for better profiling.

## Agriculture

- (1) It can be used for better weather prediction
- (2) Soil analysis can help in deciding suitable crop to be sown
- (3) Genetic engineering can be used to create genetically modified & more resilient crop variety
- (4) Use of nano technology can help in better & efficient use of fertilisers eg:- nano urea
- (5) Robots can be used for application of pesticides to avoid health hazard
- (6) Micro irrigation techniques for better water use efficiency
- (7) Blockchain for data storage of the farmers eg:- Agristack
- (8) Drones for monitoring of crops

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## Defence

- (1) Rise in hybrid warfare calls for technological upgradation
- (2) for better border management  
eg:- CIBMS (comprehensive Integrated border management system)
- (3) Robots can be used to guard difficult terrain
- (4) For better digital surveillance  
AI tools can be used eg:- NETRA by DRDO
- (5) Use of automated weapons & drones
- (6) Enhancing military capability by technological upgradation, etc

Thus deep tech is a promising future technology, which can revolutionised several sectors if regulated properly.

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Introduction	Suggestions:
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16. India's ambition to build its own space station holds a great significance in its space exploration journey. Highlight the benefits and challenges associated with it.

(15 marks, 250 words)

India recently released its Indian Space Policy, 2023 in order to reform its space sector for better research, development & innovation.

### India's own space station:

- (1) India currently is a part of International Space Station which was created by 5 major nations.
- (2) Along with USA & 26 other nations, India under Astro-21's programs aims to create a lunar gateway for exploration of moon.
- (3) Currently India is the first nation to exhibit its soft landing capability of Chandrayaan-3 on southern pole of moon.
- (4) India became 1st nation to send a Mars Orbiter Mission in first attempt.

(5) India recently is planning its manned space mission i.e., Gaganyaan, looking at above developments it shows India's growing presence in global space sector - and based on these parameters having a space station can have both benefits & challenges.

## Benefits of Space Station:

- (1) Reduce dependence on other nations like USA
- (2) ensure space sovereignty for India
- (3) It will exhibit the growing capabilities of ISRO
- (4) ISRO is 6<sup>th</sup> largest space sector in the world and having own Space Station will further add on to India's stature
- (5) Reduced dependence on other nation for space related data
- (6) can lead to revenue generation for India by allowing other nations to use it for experiment.

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(7) Can lead to better R&D in space exploration

challenges:

- (1) It will lead to space race which may culminate into space wars
- (2) Increase in space debris
- (3) Increased geopolitical tension
- (4) Requires huge investment
- (5) For this high level skills are required & thus India needs to focus on R&D
- (6) Lack of private sector participation

These challenges need to be addressed as India spends only 0.6% of GDP on space sector. This must improve as India aims to capture 10% of global space market by 2040.

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Introduction	Suggestions:
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17. Project Tiger, a monumental initiative, highlights India's one of the successful conservation efforts and serves as a model for global wildlife protection. Examine. (15 marks, 250 words)

Project Tiger was launched by India in 1973 in order to conserve the declining tiger population in India.

### [Success of Project Tiger]:

- (1) Aim was to conserve the existing species of tiger
- (2) Increase breeding among the population to ensure stable growth rate
- (3) According to Tiger census of 2022 the current population of tiger in India is 73000 which an increase from 2900 (2019 - Tiger census)
- (4) There has been increase in number of Tiger reserves to 55 - to protect even the tiger movement corridors

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This is an excellent example of conservation efforts and must be replicated by India and other countries for wildlife protection.

## Challenges faced by world

- (1) Climate change is impacting Animal, human & planet equally
- (2) It has led to increase in rate of extinction of several species eg:- Asian cheetah
- (3) Increased rapid rate of urbanisation has led to destruction of Animal habitat
- (4) leading to increase animal-human conflict
- (5) Several species are also illegally trafficked and poached  
eg:- Pangolin etc
- (6) Decline in open & free corridor for movement of animals further act as a hindrance.

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## Project Tiger model

- (1) Creation of critical habitat - This can be done for conservation of any species threatened with extinction.
- (2) Regular monitoring - like under project tiger - M stripes, method is used similarly we can have regular monitoring mechanism
- (3) Census of Animal population - Under project tiger census is done every 4 year, similar lines Census must be conducted
- (4) Protecting coridors - not just the critical habitat but also the coridors must be protected

Therefore the Project Tiger model can be replicated for other conservation initiatives as well.

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18. Blue Economy 2.0, focusing on coastal restoration and sustainable development, also needs to address the challenges to economic advancements in the coastal regions. Discuss.

(15 marks, 250 words)

India has a very long coastline of 7,500 km which presents a huge scope for Blue economy, but at the same time climate change and economic advancement presents certain challenges as well.

## Blue economy 2.0 :-

- ① It comprises the overall sustainable development of the coastal ecosystem
- ② Focus is on promoting aquaculture
- ③ Along with ensuring overall development of coastal community
- ④ Target is to provide better livelihood and income opportunities
- ⑤ Major focus is on sustainable development based on "one health" approach
  - coastal health
  - community health
  - Aquatic life Health

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⑥ Along with coastal restoration

Steps taken by government

(1) PM-Matsya Sampada Yojana -  
to promote aquaculture & fisheries

(2) Deep ocean mission - target is on  
exploring the rich poly metallic  
nodules on floor of Indian Ocean

(3) Coastal regulation zone - to regulate  
activities in the coastal area

(4) Sagarmala project - along with  
port development - focus on coastal  
community development as well

(5) At WTO India has also raised concerns  
related to illegal, unregulated &  
unresponsive fishing.

Challenges from Economic Advancement:-

(1) Increasing cluster based develop-  
ment approach, has led to concen-  
tration of industries in coastal  
region

(2) Major cause is - close and proximity

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to other port towns

- (3) It has led to increased incunnon -  
mental pollution
- (4) Discharge of untreated waste water  
has led to negative impact on health  
of marine ecosystem.
- (5) This has also led to "development  
induced displacement" of  
coastal community

In order to counter these negative  
impact there is a need to:-

- (1) Follow strict Environment Impact  
Assessment.
- (2) Follow Supreme court guidelines  
of MC Mehta case - Polluter's pay  
principle
- (3) There is a need for - Extended  
producer responsibility

This will have a multiplier effect  
on the coastal region leading to  
Sustainable as well as Inclusive deve-  
lopment

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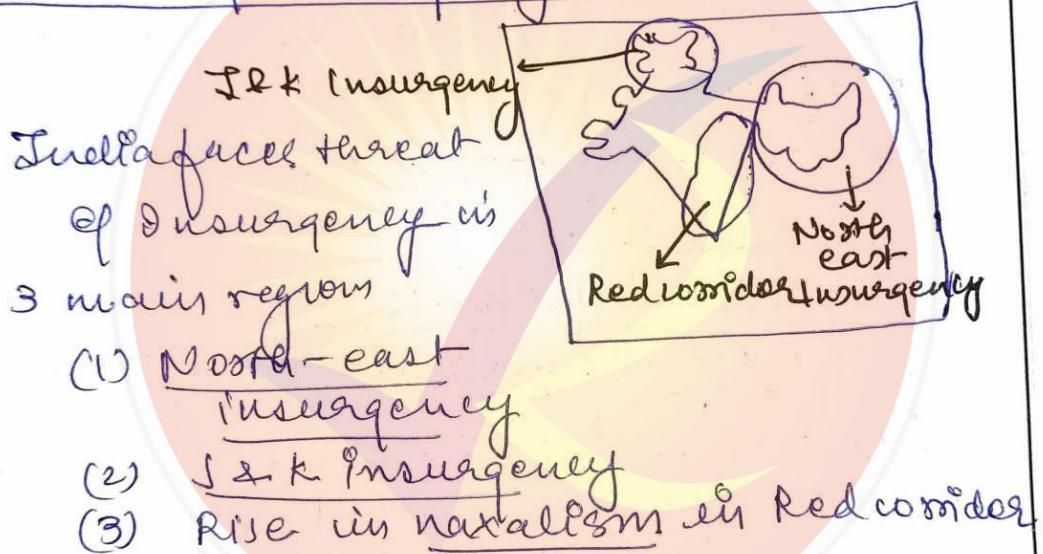
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Suggestions:

19. India's enduring struggle with insurgencies since independence reflects a complex interplay of historical grievances and contemporary challenges. Analyse. Also discuss the measures required to be taken to combat these internal security threats. (15 marks, 250 words)

According to recent MHA report of 2023 - There has been 77% decline in violence leading to insurgency and 66% decline in deaths related to such issues.

## Cause of Insurgency in India <sup>1</sup>



## Cause of Insurgency <sup>1</sup>

### (A) Historical reasons

→ Historical British policies which has led to alienation of the North east

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- ↳ Poor land revenue policies of British has led to ~~over~~ grievances among the tribals
- eviction from their own land because of "distorted development model"
- ↳ Post Independence — lack of proper implementation of legal safeguards like — VH Schedule, etc

### (B) Contemporary reasons:

- ↳ Developmental deficit in the region
- ↳ Regional disparity
- ↳ poor socio-economic indicators
- ↳ poverty & unemployment
- ↳ Recent time there has been increasing role of external powers like - China, Pakistan, etc

Measures required to combat Internal security threat :-

- (1) There is a need for proper implementation of legal safeguards like — ERA, 2005, PESA, VH Schedule

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- ② Increase in infrastructural development in the region through various schemes eg:- PM Dhan
- ③ Improve Industrial growth in the region eg:- North East Economic Corridor program
- ④ Border area development to avoid infiltration eg:- Vibrant village program.
- ⑤ Better health, education & employment opportunities
- ⑥ Using - DNA Approach i.e., Dialogue, negotiation and action

This will help us to create more strong & stable India. In order to tackle the issue of insurgency Government has also put forward SAMADHAN strategy

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20. Grey zone warfare, characterized by a blend of conventional and unconventional tactics, has increasingly influenced geopolitical conflicts. In this context, discuss the challenges posed by it on India's security interests. (15 marks, 250 words)

Grey zone warfare is an emerging tool of geopolitical rivalry where the focus has shifted from Hard power to combination of hard & soft power along with psychological warfare.

Challenges posed by Hybrid Warfare on India's security concern:-

- (1) India is sandwiched between two major areas of instability i.e., Afghanistan & Pakistan & Myanmar
- (2) Presence of hostile neighbours like Pakistan
- (3) The aggressive rise of China as mentioned by Bortin in his book "India-China war".
- (4) The rising use of emerging technologies like AI, Machine learning, etc. has led to increase

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In severity of attacks

(5) India faces internal security challenges as well which may pose significant challenge

(6) presence of caste & class divide along with religious differences propaganda warfare has become a new normal

(7) cyberspace has emerged as a source of advanced persistant threat

(8) use of psychological warfare - for religious indoctrination

(9) use of fake news to fuel up animosity eg:- Toolkit controversy

(10) Rising incidents of attack on critical information infrastructure eg:- AIIMS cyberattack

(11) Attacks on Power Infrastructure eg:- Mumbai grid attack, etc

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This has made ensuring National Security a bigger challenge

Way forward :

- (1) Indian enforcement agencies needs to cope up with rising growth in emerging technology
- (2) To tackle fake news use tools like Facebook etc
- (3) keep a check on network traffic to look for element of threat  
eg :- NETRA by DRDO
- (4) monitor the critical information infrastructure eg:-  
NRIIPC
- (5) increased coordination between various agencies for better response

India's national security is more vulnerable than before and government needs to take proactive measures to tackle this.

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