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GENERAL STUDIES (TEST CODE : 1836)

Name of Candidate	Maniya Verma	Registration Number	658508
Medium Eng./Hindi	English	Date	30/08/2022
Center			

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
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3	10	
4	10	
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18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

- Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
- There are **TWENTY** questions printed in **ENGLISH & HINDI**
इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
- All questions are compulsory.
सभी प्रश्न अनिवार्य हैं।
- The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
- 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. No marks will be given for answers written in medium other than the authorized one.
प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
- Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
- Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

16-B, 2nd Floor, Above National Trust Building, Bada Bazar Marg, Old Rajinder Nagar, Delhi-110060

Plot No. 857, 1st Floor, Banda Bahadur Marg (Opp Punjab & Sindh Bank), Dr. Mukherjee Nagar
Delhi- 110009

EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

1. The PM-AASHA scheme is aimed at improving procurement mechanism as well as ensuring remunerative prices for farmers. In this context, highlight the various components of the scheme and discuss the concerns associated with it.

(150 words) 10

पीएम-आशा योजना का उद्देश्य खरीद तंत्र में सुधार के साथ-साथ किसानों के लिए लाभकारी मूल्य सुनिश्चित करना है। इस संदर्भ में, योजना के विभिन्न घटकों को रेखांकित कीजिए तथा इससे जुड़ी चिंताओं पर चर्चा कीजिए।

PM-AASHA Scheme is aimed at
ensuring adequate remuneration for
farmers with an emphasis on crop diversification

COMPONENTS

- 1) Price Support Scheme wherein NAFED procures oilseeds, copra & pulses from farmers
- 2) Price Deficiency Payment Scheme wherein shortfall in payment is granted to farmer
- 3) Private procurement Stockist wherein private players are encouraged to procure in place of government

CONCERN

1. Budget 2022 reduced funding for PM-AASHA to ₹1cr from ₹400cr in FY21
2. Does not incentivise diversification of low lignocellulosic crops
3. Lack of private participation hinders progress
4. Delay in remunerating farmers under Price Support Scheme
5. Assurance of MSP hinders farmers to diversify from cereal centric crops.

Though PMAASHA intends to increase farmers income in line with doubling it by 2024, however it should be implemented on priority basis.

2. Explaining the concept of blended finance, discuss the role it can play in mobilizing capital for infrastructure development in developing countries like India.

(150 words) 10

मिश्रित वित्त की अवधारणा की व्याख्या करते हुए, भारत जैसे विकासशील देशों में अवसंरचना विकास हेतु पूंजी जुटाने में इसकी भूमिका पर चर्चा कीजिए।

Budget 2022 provided for blended finance - wherein the private and public contribute funds to take up developmental activity. eg Finance Minister proposed 20:80 govt: private investment.

Role in mobilising capital

- ↳ Private participation can aid in infrastructure creation as govt funding is limited (Already fiscal deficit 6.8%.)
- ↳ Govt assurance (eg 20% as proposed) can attract investors for PPP
- ↳ It can augment National Infrastructure Pipeline in India.

- ↳ It will lead to less crowding out of private investors from capital market
- ↳ PPP, BOT, BOOT model can be employed to attract private investment.
- ↳ Govt could be able to prioritise towards social welfare measures due to more availability of funds.

However — Idea is in nascent stage

- Encouraging private sector to invest
- Provision to reduce time & cost overrun
- Accountability in bidding process must be addressed.

Blended finance can augment India's infrastructure needs and same must be encouraged on priority basis.

3. Discuss the challenges faced in the revival and revamp of dry ports in India and state the measures that can be adopted in this regard.

(150 words) 10

भारत में शुष्क पत्तनों (ड्राई पोर्ट्स) के पुनरुद्धार और सुधार में आगे वाली चुनौतियों पर चर्चा कीजिए तथा इस संबंध में अपनाए जाने वाले उपायों का सुझाव दीजिए।

Dry ports or inland ports refer to hinterland areas near ports where cargo is stationed for export & import.

Challenges faced in revival & revamp

- ↳ Lack of connectivity (Rail-road) with the harbour
- ↳ Inadequate infrastructure for storage, warehousing for perishable goods
- ↳ Congestion hinders movements of cargo
- ↳ Suffers from politicisation of board responsible for maintaining ports
- ↳ Low financial allocation to revamp

Measures

- ↳ Initiating private partnership via PPP, Build-own-operate model
- ↳ focussing on road-rail connectivity to enhance ease of doing business
- ↳ faster custom clearances (Presently takes ~14 days - Es 2021) to ease congestion
- ↳ Decentralisation & democratisation of port handling committees (Recent Port Amendment is step in right direction)

68% of goods by value are transported via ports, hence in order to increase export, it is essential that dry ports be liberalised

4. Monoculture is one of the major threats to ensuring food security and sustainability of Indian agriculture. Discuss. (150 words) 10
एकल कृषि (मोनोकल्चर) खाद्य सुरक्षा और भारतीय कृषि की गंधारणीयता सुनिश्चित करने के
समय विद्यमान प्रमुख खतरों में से एक है। वर्णन कीजिए।

Monoculture is the cultivation of
a single crop in one cropping season.

Govt intends to promote diversification through
agroforestry and polyculture.

Major Threat :

Food security

- 1. Relies on single crop
- 2. Prone to pest infestation
- 3. Failure of crops due to drought, heat stress hinders food security
- 4. Mostly cereal centric due to MSP
- 5. Hinders biodiversity due to single crop.

Sustainability of agriculture

- 6. Water intensive practice (Already 25% groundwater extraction)

→ 7. Intensive use of chemical fertilizers hinders biodiversity.

- 8. Loss of soil fertility due to prolonged crop duration
- 9. Climate change induced impacts

Hence though Monoculture ensures —

- ↳ Greater yield
- ↳ Specialised production
- ↳ Ease of managing

Yet in order to promote sustainability and security, it is essential to diversify (crop-rotation, organic farming, horticulture) to attain ~~Sustainable~~ Sustainable development.

5. While highlighting the impact of single-use plastic on health and the environment, state the recent efforts taken by the government to curb plastic pollution in India.

(150 words) 10

स्वास्थ्य और पर्यावरण पर एकल-उपयोग वाले प्लास्टिक के प्रभाव को रेखांकित करते हुए, भारत में प्लास्टिक प्रदूषण को रोकने के लिए सरकार द्वारा हाल ही में किए गए प्रयासों का उल्लेख कीजिए।

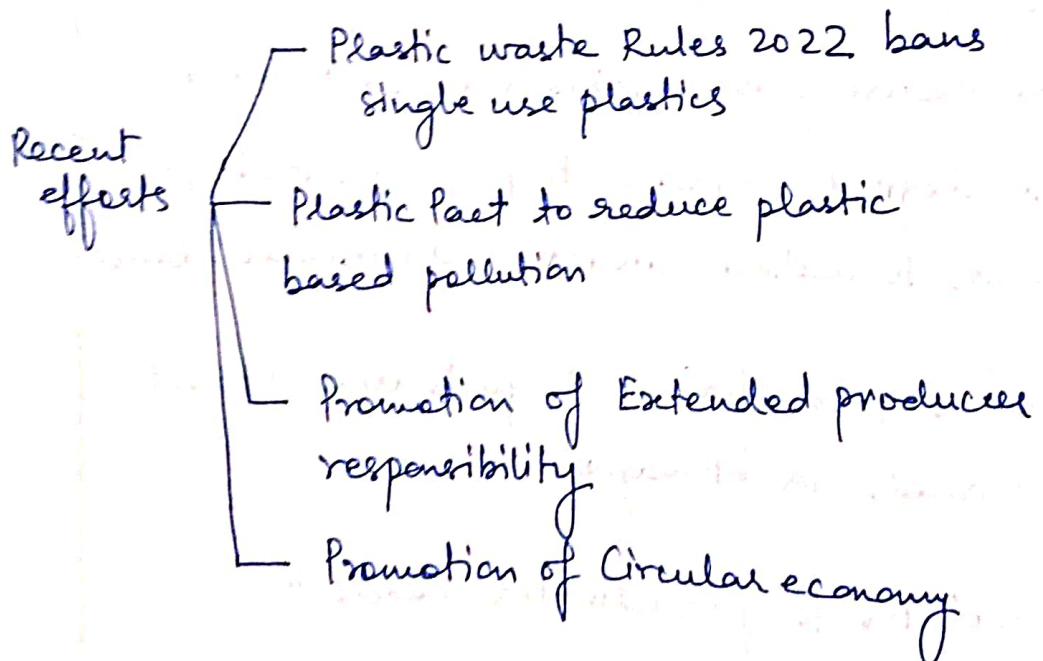
India aims to eliminate single use plastic by the end of 2022. Plastic pollution is set to triple by 2060 with associated impact.

Impact on health

1. Single use plastic takes nearly 100 years to degrade — Incinerating releases toxic gases. leads to asthma, cancers, cardiovascular disease
2. Enters food chain : Impacts animals and Spreads via biomagnification
3. Percolates to groundwater leads to degrading water quality → water borne diseases

Impact on environment -

- 1) Leads to marine litter & impacts biodiversity eg Great Pacific Garbage Patch
- 2) Petroleum based plastic release toxic chemicals — PM2.5 emissions
- 3) Animal deaths due to consumption



Hence it is essential to curb the menace of plastic & India is taking steps in right direction

6. Aapda Mitra – a force of volunteers from across India trained in disaster response – is becoming a game changer in the field of disaster management in the country. Elaborate, (150 words) 10
आपदा मित्र-आपदा प्रतिक्रिया हेतु प्रशिक्षित भारत भर के स्वयंसेवकों का एक बल-देश में आपदा प्रबंधन के क्षेत्र में एक गेम चेंजर के रूप में उभर रहा है। यवित्तर वर्णन कीजिए।

Two-Third ($2/3$) of India's geographic area is prone to some form of disaster.

India's disaster management is thus essential to mitigate impact & Aapda Mitra is a game changer.

Aapda Mitra – game changer

1. local volunteers well averse with local disasters.
2. Effective training for disaster response – Search, rescue and evacuation more effective.
3. Availability of volunteers eases operation of NDRF, SDRF teams

4. Pan India operation - more agile, responsive in handling disaster
5. Have cared in rehabilitation - ensuring safety kits, medical help, food & safe drinking water to bring down casualties.
6. More engagement of women - palliative care

Hence Aapda Mitra has helped calibrate disaster management in country and its efforts must be streamlined to ensure inclusive & sustainable relief.

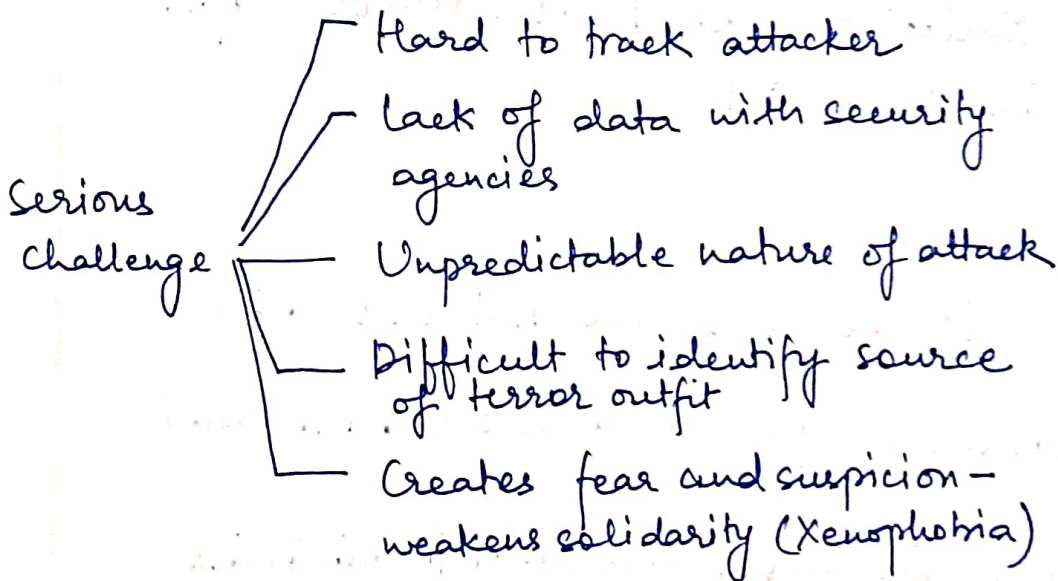
7. Why is the rise in lone wolf attacks considered as a serious challenge for security agencies around the world? Highlight the role of the internet in exacerbating such attacks.

(150 words) 10

विश्व भर में लोन वुल्फ हमलों में वृद्धि को सुरक्षा एजेंसियों के लिए एक गंभीर चुनौती क्यों माना जाता है? ऐसे हमलों की वृद्धि में इंटरनेट की भूमिका पर प्रकाश डालिए।

Lone wolf attacks are terror attacks planned and implemented by a single person. There has been a rapid increase in rate of such cases around the world.

eg Recent killings in New York supermarket



Role of the Internet —

↳ Easier to spread radicalisation and fundamentalism

↳ Lone wolf attacks in one part serve to encourage other dissenters to follow the route

↳ Perpetuation of communal hatred globally eg Recent attack on Salman Rushdie

↳ Easier to connect with terror outfits via Dark Web

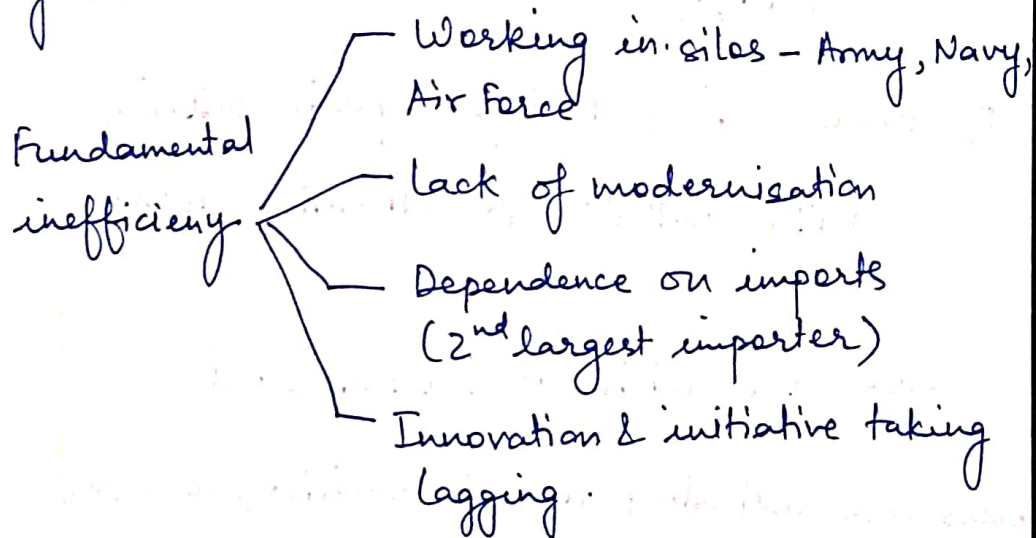
Hence it is essential for security agencies to upgrade to new realities and engage in global cooperation to minimise such attacks.

8. The fundamental inefficiencies embedded in our military structures and processes are now being addressed through a slew of defence reforms in the country. Discuss.

(150 words) 10

हमारे सैन्य ढांचे और प्रक्रियाओं में अंतर्निहित मूलभूत अक्षमताओं को अब देश में विभिन्न रक्षा सुधारों के माध्यम से दूर किया जा रहा है। चर्चा कीजिए।

India's military structure and process are being upgraded to address the demand of time.



Slew of defence Reforms

- 1) Proposal for Common Military Command Theatres for coordinated work of three wings
- 2) Recruitment suited to present technological modernisation requirement eg Recent Agniveer scheme

- 3) Encouraging innovation in defence
via IDEX recognition
- 4) Indigenisation of defence equipments
(Procurement quota increased from 58%
to 68%.)
- 5) Encouraging FDI for capacity building
(eg FDI limit through automatic route 74%.)

Hence the military structure and
processes are adjusting to new realities, however
agile and coordinated implementation can
go long way.

9. In light of the recent establishment of the WHO Global Centre for Traditional Medicine in India, discuss the advantages and challenges in mainstreaming traditional medicine in the country. (150 words) 10

हाल ही में, भारत में डब्ल्यू. एच. ओ. ग्लोबल सेंटर फॉर ट्रेडिशनल मेडिसिन की स्थापना के आलोक में, देश में पारंपरिक चिकित्सा को मुख्यधारा में लाने के लाभों और चुनौतियों पर चर्चा कीजिए।

Recently WHO Global Centre for Traditional Medicine was established in Jamnagar which is first of its kind centre.

ADVANTAGES

1. Time tested medicines and procedures for diseases not covered by conventional medicines.
2. Source of income for practitioners of traditional medicine.
3. India's soft power can be channelised for global cooperation
4. Promote healthy and traditional lifestyle
eg Golden Milk
5. Sustainability and nature based solution.

Challenges —

- 1) Lack of trust on traditional medicines
- 2) Institutional lag for mainstreaming it in public hospitals
- 3) Threat of commercial exploitation under Biopiracy.
- 4) Traditional secrets and culture need to be addressed.
- 5) Lack of practitioners in mainstream.
- 6) Lack of awareness among people

Hence to reap the benefits of traditional medicine, it is essential to institutionalise the same & raise awareness among masses.

10. Nano Urea Liquid has the potential to transform farming in India and across the world by improving productivity while reducing environmental pollution and input cost. Discuss.

(150 words) 10

नैनो यूरिया लिक्विड में पर्यावरण प्रदूषण और इनपुट लागत को कम करने के साथ-साथ उत्पादकता में सुधार करके भारत और विश्व भर में कृषि कार्य को रूपांतरित करने की क्षमता है। चर्चा कीजिए।

Economic Survey 2022 has highlighted the potential benefits of Nano urea liquid to transform agriculture productivity.

Transform Farming

- ↳ Ease of operation - Can be sprayed via drones
- ↳ More efficient absorption by stomata

Improving Productivity

- ↳ ES 2022: For a 1 acre farm: Dry urea powder needed (90kg) while liquid nanourea (500ml)
- ↳ Reduces environmental pollution as lesser amount of urea yields less nitrogen emission

↳ Enhances fertilizer efficiency and protects soil

↳ low input cost as conventional urea costs more than ₹500 while liquid urea costs nearly ₹240 (ES2022)

↳ IFFCO claims to be first company globally to manufacture liquid urea — Reduce

India's Current Account Deficit

However — { accessibility
suitability to different crops
awareness must be acted upon

To channelise sustainable agriculture,
Nano urea liquid can be a game changer
and its use should be mainstreamed to
enhance productivity.

11. Discuss the domino effect of high crude oil prices on the Indian economy. Also, enumerate the measures that India can take in this context.

(250 words) 15

भारतीय अर्थव्यवस्था पर कच्चे तेल की ऊँची कीमतों के डोमिनो प्रभाव की विवेचना कीजिए। साथ ही, भारत द्वारा इस संदर्भ में अपनाए जा सकने वाले उपायों को सूचीबद्ध कीजिए।

India imports 85% of its crude oil requirement and high crude oil prices act as a setback in Indian economy.

Domino effect

1. Current Account Deficit : \$ 1/barrel hike in oil price increases India's import bill by ₹10700 crore.
2. Impacts exports : India exports petroleum products made from crude oil.
3. Inflation : Due to high transportation costs

4. Monetary policy won't be able to regulate supply side inflation
5. Government will cut taxes on crude oil which will impact its spending capacity
6. Operation of industries will be impacted

It may however lead to

- Higher remittances from Middle east
- Increase value of India's OMC

However the drain on economy would be larger compared to short term benefit.

MEASURES

↳ Diversify resources eg India imported crude oil from Russia

- ↳ Develop strategic petroleum reserve to offset lukes.
- ↳ Utilisation of Price Stabilisation Fund to ease inflationary shock
- ↳ Counter cyclical fiscal policy to boost industries, sectors impacted.
- ↳ Shift towards methanol economy
(NITI Aayog proposed cutting down crude oil imports by 10% by 2030 by methanol substitution)

Hence govt must adopt a Barbell strategy based on agile approach to deal with current shocks in crude oil prices.

12. The consistent high operating ratio of the Indian Railways is indicative of its incapability to generate high operational surplus. Explain the reasons behind this trend. Also, highlight the remedial measures taken by the government in this regard. (250 words) 15

भारतीय रेलवे का लगातार उच्च परिचालन अनुपात उच्च परिचालन अधिशेष सृजित करने में असमर्थता का संकेत है। इस प्रवृत्ति हेतु उत्तरदायी कारणों को स्पष्ट कीजिए। साथ ही, इस संबंध में सरकार द्वारा किए गए उपचारात्मक उपायों को रेखांकित कीजिए।

The operating cost of the Indian railways is pegged at 98%. while the target is 95%. Consistent poor operating ratio indicates lag in Railways financial capacity.

REASONS

- 1) Congestion in rail tracks and delay in train schedules.
- 2) Populist measures leads to many stopping stations - reduces Rail speed & efficiency.

- 3) Cross subsidisation lowers revenue generated from passengers
- 4) Vandalism & protests damaging rail property
- 5) Slow speed due to infrastructure lag
(Govt aims increase it from present 54 km/hr to 100 km/hr)
- 6) Lack of funding - Finance Minister said Railways needs ₹ 30 Lcr from 2015-30 but govt can provide only ₹ 1 Lcr per year.

Remedial Measures

- 1) National Rail Plan 2030 to develop high speed Rail Corridors and achieve 100% electrification by 2024.

- 2) Attracting private investment to enhance operational efficiency on revenue sharing model
- 3) Identify PM Gati Shakti Freight Corridors
- 4) Liberalised FDI in Railways to 100% via automatic route.

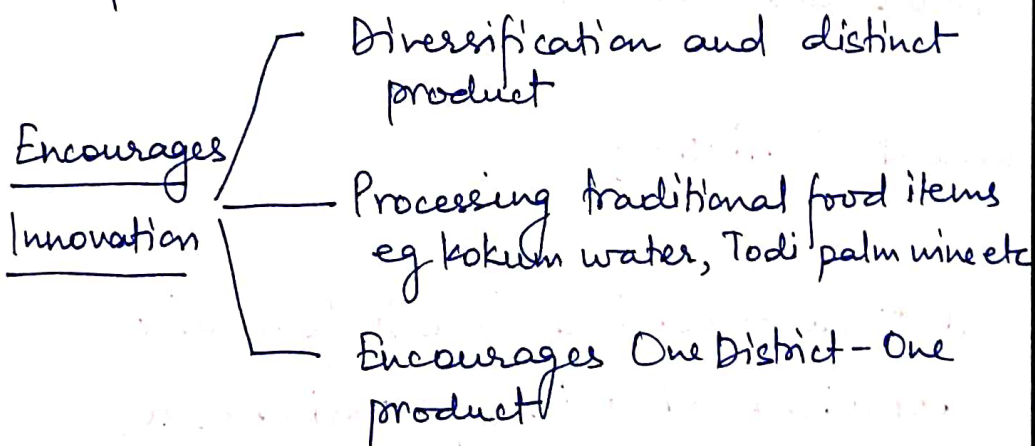
Indian railways is the 4th largest in the world - In order to realise its true potential, structural reforms must be implemented on war footing.

13. Micro food processing sector is the key driver of growth in the Indian economy as it encourages food processing innovation. In this context, state the challenges faced by the micro food processing sector and discuss how the recent initiatives taken by the government aim to address them.

(250 words) 15

सूक्ष्म खाद्य प्रसंस्करण क्षेत्रक भारतीय अर्थव्यवस्था में संवृद्धि का प्रमुख चालक है क्योंकि यह खाद्य प्रसंस्करण नवाचार को प्रोत्साहित करता है। इस संदर्भ में, सूक्ष्म खाद्य प्रसंस्करण क्षेत्रक द्वारा सामना की जाने वाली चुनौतियों का उल्लेख कीजिए और चर्चा कीजिए कि किस प्रकार सरकार द्वारा हाल ही में प्रारंभ की गई पहलों का उद्देश्य इनका समाधान करना है।

Micro food processing deals with value addition in food products by micro enterprises.



CHALLENGES

- ↳ Access to institutional credit in the unorganised sector
- ↳ Lack of technological modernisation & equipments.

- ↳ Lack of marketing, packaging skills to attract customers
- ↳ Quality check labs not present in rural areas
- ↳ Digital literacy is poor - which limits reach and exposure
- ↳ Deplorable working conditions

Recent Initiatives

- ↳ Govt announced scheme to formalise unorganised micro food processing sector to increase capacity.
- ↳ PM Sampada Yojana also incentivises food processing sector
- ↳ Shaphari certification by MPEDA for marine food products will increase

income for microenterprises

- ↳ Mega Food parks to be extended in rural areas
- ↳ Atmanirbhar Package - Collateral free loans to revamp micro food sector.

Hence Micro food processing sector can be a driver for change and adequate measures should be implemented on ground to enhance MSME's contribution in making India \$5tn economy by 2030.

14. Despite efforts by successive governments, equitable growth remains elusive and income inequality continues to persist in India. Discuss. (250 words) 15

क्रमिक सरकारों के प्रयासों के बावजूद, न्यायसंगत विकास दुष्प्राप्य बना हुआ है और भारत में आय असमानता निरंतर बनी हुई है। चर्चा कीजिए।

1% population in India occupies 50% of country's wealth. This highlights stark

inequality in Indian society.

Efforts by govt

- Gram Swarajgar (1999, NSAP 1995)
- PM - Awas Yojana, UJJWALA, SAUBHAGYA.
- Ayushman Bharat - Digital Mission
- MSP, NFSA 2013 - covers 67% people

Equitable growth remains elusive

↳ Rural - urban dichotomy 1) lack of opportunities in rural areas (60% hospitals - urban)
2) 32% internet subscribers in rural while 99% in urban

↳ Jobless growth

- ↳ NFSA 2013 - 70% leakages (Shanta Kumar Committee)
- ↳ 25% primary schools and 40% public health centres unelectrified
- ↳ 1.2 lakh single teacher schools - 85% in rural areas
- ↳ Low child sex ratio (940/1000)
- ↳ WEF Gender Gap Report 2022 - India worst performer in Health & Survival rate.

Income inequality continues

- ↳ Domestic work of women recognised
- ↳ Poor state of unorganised sector employing 94% workforce - Power asymmetry
- ↳ Out of pocket expenditure (67%) - global average (18%)
- ↳ Rising gender wage gap (82% men while 18% of total wages women)

However successive government action is leading to gradual change —

- ↳ Maternal Mortality Rate has declined to 103/1 lakh
- ↳ PM-Awas Yojana 80 lakh will be covered
- ↳ Recognition to contributions of unorganised sector, SHG, MSME
- ↳ Rise in women led startups

However more proactive steps are needed to end inequality to promote sustainable and job oriented growth.

15. Stating the factors that determine the employment situation of an economy in the long-term, discuss the measures that are needed for India to address its unemployment problem. (250 words) 15

किसी अर्थव्यवस्था की दीर्घवधि में रोजगार की स्थिति को निर्धारित करने वाले कारकों का उल्लेख करते हुए, उन उपायों की विवेचना कीजिए जो भारत में बेरोजगारी की समस्या के समाधान हेतु आवश्यक हैं।

India has only 39% LFPR (PLFS)
out of which majority are unemployed.

Factors determining employment situation

- 1) Availability of Jobs to cater to demand of workforce
- 2) Skills in line with structural changes in economy eg AI, ML, Big Data Analytics
- 3) Quality elementary education and mentoring
- 4) Infrastructure support to promote Ease of Doing Business to attract industries
- 5) Labour costs for companies

Measures for India

- ↳ Skilling as per industrial demands
eg Under Skill India - only 16% trained
out of which 35% unemployed due to
lack of market demand (skills)
- ↳ Availability of Jobs to cater to rising
population
- ↳ Boosting labour intensive sectors of comparative
advantage eg Textile, carpet, pharma
- ↳ Infrastructure support - Building
connectivity
- ↳ Uniform industrialisation to curb
distressed migration
- ↳ Encourage MSME to become microentrepreneurs
via value addition

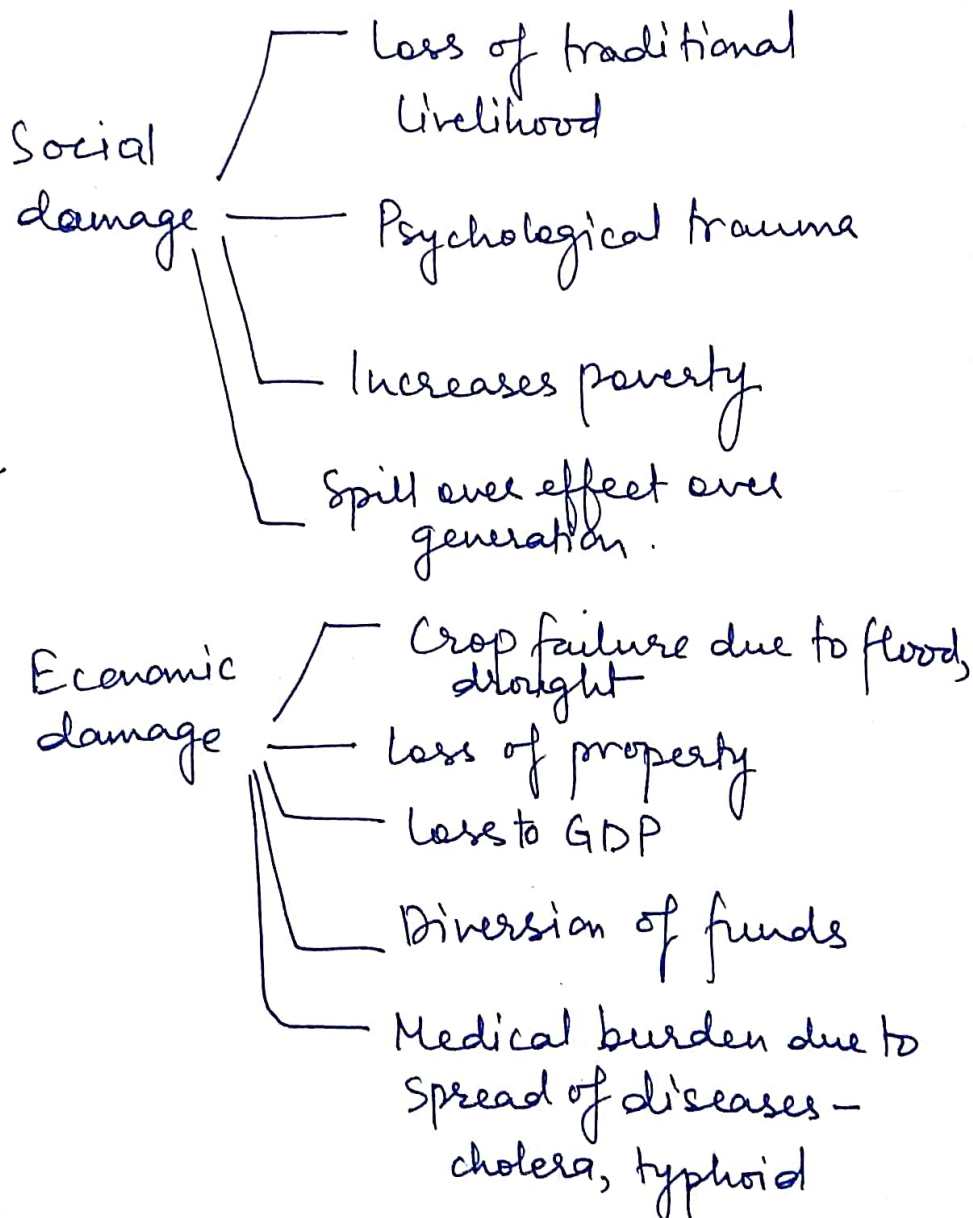
↳ Enhancing the startup culture to build more jobs.

Hence as PM highlighted New India -
Jai Vigyan, Jai Anusandhan; it is
imperative to address lacunae of
unemployment to reap benefit of our
demographic dividend.

16. In view of the rapidly increasing socio-economic damage caused by disasters, integrating Disaster Risk Reduction (DRR) into development planning requires an effective stakeholder engagement mechanism. Discuss. (250 words) 15

आपदाओं के कारण तेजी से बढ़ रही सामाजिक-आर्थिक क्षति को देखते हुए, आपदा जोखिम न्यूनीकरण (DRR) को विकास योजनाओं में एकीकृत करने के लिए एक प्रभावी हितधारक जुड़ाव तंत्र की आवश्यकता है। विवेचना कीजिए।

Recent IPCC Report highlighted that frequency and intensity of disaster will increase in future — which makes DRR more of a compulsion.



Integrating DRR requires stakeholder engagement mechanism

- ↳ DRR aims to mitigate effects of disaster by building resilience
- ↳ For effective planning, stakeholders must be engaged
- ↳ Decentralised planning to meet local realities
- ↳ As per Sendai Framework, capacity building based on stakeholder engagement is needed to enhance
 - structural measures
(relief camps, resilient structure)
 - non-structural measures
(workshops, training)

Stakeholder engagement mechanism

- ↳ To provide innovative solutions - disaster specific
- ↳ To raise awareness regarding disaster preparedness
- ↳ Training local volunteers eg Odisha govt training women SHG
- ↳ Localisation via Local Bodies eg Recent People's Plan campaign

India has adopted National DM Plan 2016 in line with Sendai Framework &

Voices for CDR1 — Time is ripe for
converting crisis into catalysis

17. Provide an account of the existing carbon trading mechanisms in India. Also, discuss the significance of an efficient carbon trading market in the country and state the challenges that currently exist. (250 words) 15
- भारत में मौजूदा कार्बन व्यापार तंत्र का विवरण प्रस्तुत कीजिए। साथ ही, देश में एक कुशल कार्बन व्यापार बाजार के महत्व पर चर्चा कीजिए और वर्तमान समय में विद्यमान चुनौतियों का उल्लेख कीजिए।

India took Panchamrit target of Net Zero by 2070 to become carbon neutral.

Carbon trading mechanism aims to incentivise green processes.

Existing carbon trading mechanism

- 1) CERC's India Energy Exchange (IEX) and PXIL allowed to trade Renewable Energy Certificates (REC)
- 2) Green Term Day Market also incentivises Green Tech.

3) Bureau of Energy Efficiency —
Perform, Achieve, Trade (PAT) mechanism
to trade carbon certificates

SIGNIFICANCE

- ↳ Promotes green and clean technology by incentivising Net zero products.
- ↳ Penalty for carbon emitters as they have to purchase certificates
- ↳ Encourages Responsible Production
- ↳ Encourages generation of renewable energy (REC)
- ↳ More income by generating non-conventional energy

CHALLENGES

- ↳ Lack of effective monitoring by CERC
- ↳ Violator can compensate by buying certificate rather than actual green solutions
- ↳ Information asymmetry among stakeholders
- ↳ Legal loopholes wherein company avoid scrutiny of CERC
- ↳ Uncoordinated pan India operation
Hence to realise the vision of green and clean India, it is essential to develop a robust carbon trading mechanism.

18. The menace of drug trafficking in India has been on a rise due to a mix of factors, both internal and external. Discuss. Also, state the challenges posed by drug trafficking to India's national security. (250 words) 15
- भारत में ड्रग ट्रेफिकिंग का खतरा आंतरिक और बाह्य दोनों कारकों के समन्वय के कारण बढ़ रहा है। चर्चा कीजिए। साथ ही, भारत की राष्ट्रीय सुरक्षा के समक्ष ड्रग ट्रेफिकिंग से उत्पन्न चुनौतियों का उल्लेख कीजिए।

According to NCB, there has been an exponential rise in drug trafficking cases in India in last 5 years.

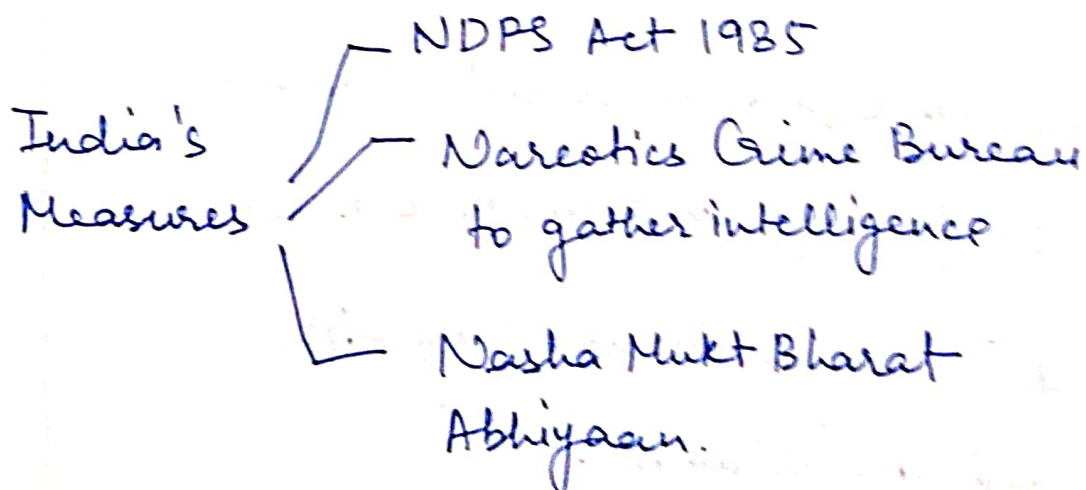
INTERNAL FACTORS

- 1) Demand of drugs in North East and Western border areas
- 2) Porous borders without adequate surveillance and fencing
- 3) Organised chain of trafficking pan India.
- 4) Failure of enforcement agencies to track down perpetrators

- 5) Support by locals to drug trafficker
- 6) Criminals - trafficker nexus

EXTERNAL FACTORS

- 1) India's position between Golden Crescent and Golden Triangle
- 2) AS a means of turning demographic dividend to disaster by terror outfits
- 3) To finance, non-state activities
- 4) Trafficking via coastline - off the coast of Somalia



Challenges to national security

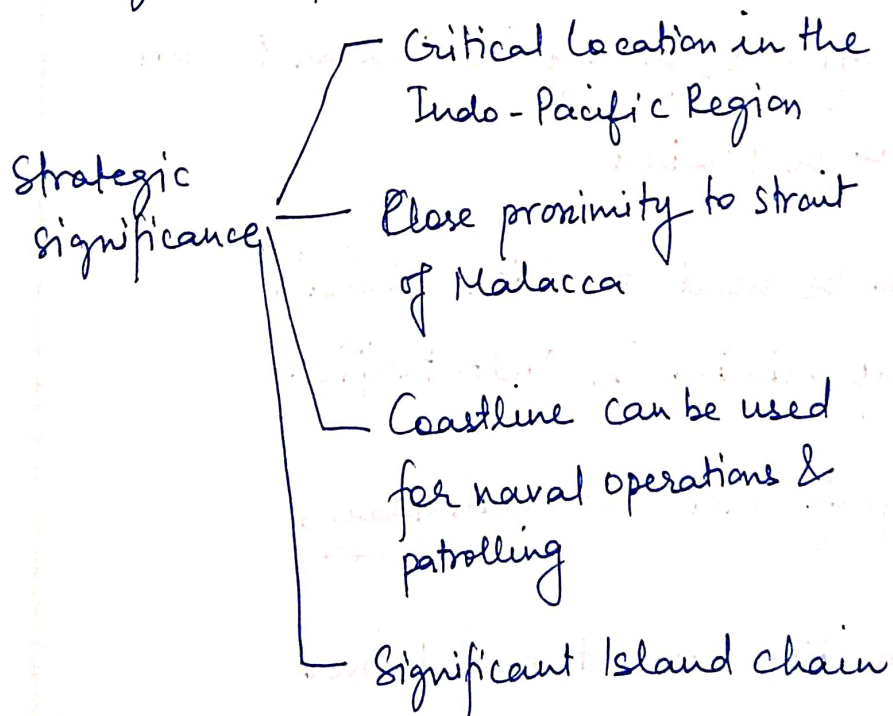
- 1) Routes used to traffick drugs can be used to traffick weapons, terrorists.
- 2) Law and order problem due to rising substance abuse
- 3) Financing terror activities against India
- 4) Strategy to convert demographic asset to liability.

Hence in order to combat menace of drug trafficking collective efforts are needed in border areas along with increased surveillance.

19. The Andaman and Nicobar islands' strategic significance in the Indian Ocean region (IOR) has been underplayed by India's policy of 'masterly inactivity and benign neglect'. Critically discuss. (250 words) 15

हिंद महासागर क्षेत्र (IOR) में अंडमान और निकोबार द्वीप समूह के रणनीतिक महत्व को भारत की 'कुशल अकर्मण्यता और सौम्य उपेक्षा' की नीति के तहत कम करके आंका गया है। समालोचनात्मक चर्चा कीजिए।

India's policy of 'masterly inactivity and benign neglect' of Andaman & Nicobar (A&N) Islands has been upgraded to policy of proactive vigilance considering its strategic significance.



Significance underplayed

↳ No coordinated policy with respect to

A&N

↳ Lack of infrastructure support ^{eg jetties,} ~~airstrip~~

↳ Connectivity issues with Indian mainland

↳ Prone to disaster, however no significant measure to curb adopted

↳ Smuggling, piracy in Indian Ocean can be tracked

↳ Can be used to deter China's expansionism in Indo-Pacific.

Significance not underplayed

↳ Proactive contact maintained

↳ Recent NAVAR exercises held to bolster

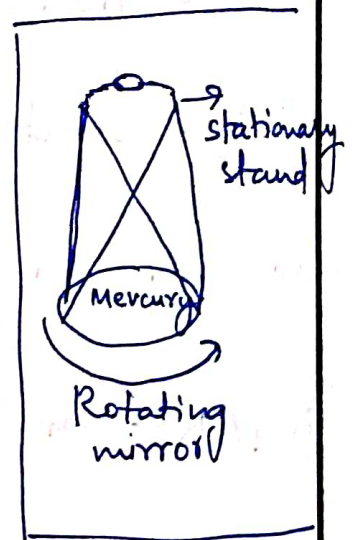
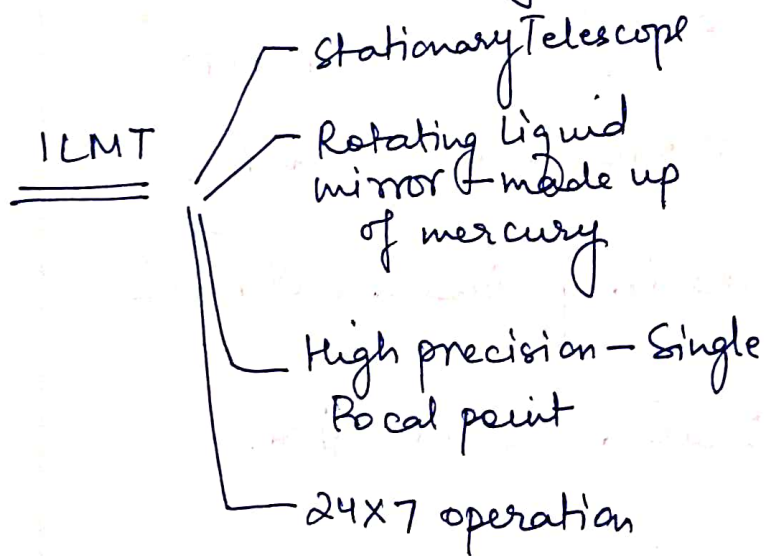
capacity in A&N eg MILAN

- ↳ Adequate Naval & Coast Guard presence
- ↳ Covered under several disaster resilience initiatives (though slow implementation)
- ↳ Financial devolution to develop robust administration
- ↳ Surveillance operation to curb piracy

Hence A&N occupies a significant position and more focussed policy will help in realising India's Vision of SAGAR - in Indian Ocean region.

20. India has recently commissioned the world's first large International Liquid-Mirror Telescope (ILMT). How will the newly commissioned telescope aid in India's astronomical observations and research? (250 words) 15
- हाल ही में, भारत ने विश्व का पहला विशाल इंटरनेशनल लिक्विड-मिरर टेलीस्कोप (ILMT) स्थापित किया है। यह नवनिर्मित टेलीस्कोप खगोलीय पर्यवेक्षणों और अनुसंधान में भारत की किस प्रकार सहायता करेगा?

India has recently commissioned
Liquid Mirror Telescope (ILMT) at the
Deoathali observatory in Nainital.



Aid in astronomical observations

→ By creating high precision images of celestial objects, gravitational waves, asteroids etc.

- ↳ Utility in all weather, day & night operation — capture diverse data
- ↳ Mercury mirror helps create stable and high pixel images
- ↳ Nearly all astronomical phenomenon can be captured
- ↳ Increase predictability of phenomenon
- ↳ Garner foreign collaboration for research

Hence ILMT will help leverage Indian potential in space sector and help in gathering information on undiscovered phenomenon.

