



GENERAL STUDIES (Test-23)

निर्धारित समय: तीन घंटे
Time allowed: Three Hours

GSM (M-I)-2423

अधिकतम अंक: 250
Maximum Marks: 250

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Mobile Number: [REDACTED]

Medium (English/Hindi): English

Reg. Number: 3423

Center & Date: Katol Bugh

UPSC Roll No. (If allotted): 0833621

प्रश्न-पत्र के लिये विशिष्ट अनुदेश

कृपया प्रश्नों का उत्तर देने से पूर्व निम्नलिखित प्रत्येक अनुदेश को ध्यानपूर्वक पढ़ें:

इसमें बीस प्रश्न हैं तथा हिन्दी और अंग्रेजी दोनों में छपे हैं।

सभी प्रश्न अनिवार्य हैं।

प्रत्येक प्रश्न के अंक उसके सामने दिये गए हैं।

प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहियें जिसका उल्लेख आपके प्रवेश-पत्र में किया गया है, और इस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यू.सी.ए.) पुस्तिका के मुख-पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिये। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिखे गए उत्तर पर कोई अंक नहीं मिलेंगे।

प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिये।

प्रश्न-सह-उत्तर-पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिये।

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instruction carefully before attempting questions:

There are **TWENTY** questions printed both in **HINDI** and **ENGLISH**.

All the questions are compulsory.

The number of marks carried by a question is indicated against it.

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 a medium other than the authorized one.

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.

केवल मूल्यांकनकर्ता द्वारा भरा जाए (To be filled by Evaluator only)

Question Number	Marks	Question Number	Marks
1.		11.	
2.		12.	
3.		13.	
4.		14.	
5.		15.	
6.		16.	
7.		17.	
8.		18.	
9.		19.	
10.		20.	
Grand Total (सकल योग)			

मूल्यांकनकर्ता (हस्ताक्षर)
Evaluator (Signature)

पुनरीक्षणकर्ता (हस्ताक्षर)
Reviewer (Signature)





Feedback

- | | |
|---|--|
| 1. Context Proficiency (संदर्भ दक्षता) | 2. Introduction Proficiency (परिचय दक्षता) |
| 3. Content Proficiency (विषय-वस्तु दक्षता) | 4. Language/Flow (भाषा/प्रवाह) |
| 5. Conclusion Proficiency (निष्कर्ष दक्षता) | 6. Presentation Proficiency (प्रस्तुति दक्षता) |
-

1. भारत उच्च व्यापार घाटे की चुनौती का सामना कर रहा है। भारतीय अर्थव्यवस्था पर इसके प्रभाव का विश्लेषण कीजिये।

(150 शब्द) 10

The challenge of a high trade deficit haunts India. Analyze its impact on the Indian economy. (150 words) 10

उम्मीदवार को इस
हाशिये में नहीं
लिखना चाहिये।
(Candidate must
not write on this
margin)

In FY 2023-24, India exported goods and services worth \$778 bn while imports were about \$836 billion showing significant trade deficit.

Challenges of high trade deficit

- devaluation and depreciation of currency
- imported inflation
- Vulnerability to supply chain shocks.
- ↓
- less jobs and industries in India.

Impact of high trade deficit:

- 1) It leads to devaluation of currency making imports further expensive.
- 2) India's credit rating is impacted.

- 3) Dependence on imports for basic needs like palm oil and pulses leads to inflation.
- 4) Cheap imports stifle innovation in Indian economy.
- 5) Fiscal planning becomes difficult. Government can earn more by increasing exports.

Way Forward

- 1) Primary Sector: Focus on food processing and tackling sanitary and phytosanitary measures.
- 2) Secondary Sector: Import substitution and become part of global value chains.
- 3) Service Sector: Global Capability Centers to prevent shift of industry to other countries.

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2. अनुसंधान नेशनल रिसर्च फाउंडेशन की स्थापना ने भारतीय विश्वविद्यालयों में अनुसंधान, नवाचार और उद्यमिता के क्षेत्र में कार्याकल्प की संभावना को प्रकट किया था; हालाँकि वास्तविक तस्वीर निराशाजनक दिखती है। टिप्पणी कीजिये।

(150 शब्द) 10

The foundation of Anusandhan National Research Foundation promised an overhaul in the field of research, innovation and entrepreneurship in Indian universities; however, the real picture looks gloomy. Comment.

(150 words) 10

India currently spends only about 0.7% of GDP on Research and Development with only a quarter expenditure by private sector calling for increased expenditure on same.

National Research Foundation

- 1) Increase expenditure on R&D to atleast 2% of GDP.
- 2) Promote investment by private sector.
- 3) Investment not only on science but arts, history, social sciences as well.

Current Challenges

- 1) Primacy of research by few institutions like DRDO, ISRO etc.

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not write on this
margin)

2) The department of science and technology is unable to utilize completely their existing budget.

3) Red tapism leading to delay in release of funds.

4) Less prevalence of women in research.
42% STEM women graduates but only 27% in jobs and about 12% in research.

Way Forward

1) Promote research as viable career field by incentivising higher studies.

2) Private sector to take charge. Can be achieved by strict IPR laws, technology transfer etc.

3) Adequate infrastructure: labs, machines etc.

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3. राष्ट्रीय हरित हाइड्रोजन मिशन के प्रमुख उद्देश्य क्या हैं और इससे भारत के निम्न-कार्बन अर्थव्यवस्था की ओर संक्रमण पर किस प्रकार का प्रभाव प्रत्याशित है? (150 शब्द) 10

What are the key objectives of the National Green Hydrogen Mission, and how is it expected to impact India's transition to a low-carbon economy? (150 words) 10

उम्मीदवार को इस हाशिये में नहीं लिखना चाहिये।
(Candidate must not write on this margin)

Green hydrogen is created by electrolysis of water, the energy for which is obtained from renewable sources like solar, wind energy etc.

Objectives of National Hydrogen Mission

- 1) 5MMT of green hydrogen production by 2030.
- 2) Promoting domestic manufacturing of electrolysers.
- 3) Reduce imports of fuel and oil and generate substantial employment.
- 4) SIGHT and SHIP components to encourage domestic manufacturing and working in PPP mode.

Green hydrogen for low carbon economy

- 1) Decarbonize hard to abate sector like iron and steel, cement etc.
- 2) Using it as fuel in vehicles. E-g. hydrogen powered buses.
- 3) Replace black and brown hydrogen in fertiliser industries.
- 4) Promote renewable energy development.

Way Forward

- 1) Aim to reduce cost of generation of green hydrogen.
- 2) International and public-private cooperation for sharing of best practices and research.

4. भारत में कोयला क्षेत्र में व्यापक सुधार हुआ है परंतु यह अभी भी सभी समस्याओं से मुक्त नहीं है। टिप्पणी कीजिये।

(150 शब्द) 10

Coal sector in India has shown great improvements but it is still not free from all problems. Comment.

(150 words) 10

In India, 55% of electricity is generated by using coal. With sufficient reserves in central and eastern India, we still import coking coal from countries like Australia.

Improvement
in coal
sector.

→ Transparency in coal block allotments.

Khaniy Kalyan Kshetra Yojana for development of affected population

Use of flue gas desulphurisers and electrostatic precipitators.

Problems

- 1) Inefficient supply chains leading to coal shortages during monsoons.

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लिखना चाहिये।
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margin)

2) Less bidders in auctions and incomplete utilisation of the estimated potential.

3) In India, coal is of low grade and there is less facilities of coal washing etc. leading to air pollution.

4) Rights of people especially tribes impacted by coal mining operations and improper rehabilitation -

5) Lack of use of critical and super critical reactors

Way Forward

1) Retrofitting old reactors for better output.

2) Use of flyash for road construction

3) Expanding use of renewable energy to achieve NDCs.

5. कारखानों में दुर्घटनाओं में वृद्धि गंभीर चिंता का विषय है। स्पष्ट कीजिये कि निरीक्षण से संबंधित मुद्दों ने किस प्रकार इस समस्या को बढ़ाया है एवं स्थिति से निपटने के लिये कुछ प्रभावी उपाय संबंधी सुझाव प्रदान कीजिये। (150 शब्द) 10

The increase in the incidence of factory accidents raises serious concerns. Explain how issues related to inspection have contributed to the problem and suggest some effective measures to handle the situation.

(150 words) 10

उम्मीदवार को इस हाशिये में नहीं लिखना चाहिये।

(Candidate must not write on this margin)

Factory based accidents occur due to a number of causes like human error, lack of safety measures, untrained workers etc.

Concern related to increase in accidents

→ reduces manufacturing productivity

→ loss of human lives and property.

→ disincentivises investment.

Issues related to inspection

1) Irregular inspections due to lack of manpower.

2) Many factories operate in clandestine ways and not registered with authorities.

3) Overlap of regulations and ambiguity.

Regarding central and state laws.

- 4) Corruption and less transparency
regarding audit reports.

Measures to handle situation

- 1) Periodic assessment which can be done by using technologies like AI and internet of things to determine fitness of machines.
- 2) Training of inspection officers.
- 3) Enforcement of code on occupational health and safety (2019)
- 4) Uniform rules and regulations.
- 5) Shifting hazardous industries away from populated areas.

Factories are the future growth engine and will help India in becoming a \$5 trillion economy.

6. सीमित संसाधनों वाले विश्व में वैश्वीकरण और उभरती हुई प्रौद्योगिकी परस्पर संबंधित हैं। भारत के विशेष संदर्भ में स्पष्ट कीजिये। (150 शब्द) 10

Globalization and emerging technology are interconnected in a resource-limited world. Elucidate with special reference to India. (150 words) 10

उम्मीदवार को इस हाशिये में नहीं लिखना चाहिये।

(Candidate must not write on this margin)

Globalization has led to interconnectness and interdependence across the social, economic and technological spheres.

Interconnectedness between technology and globalisation

- 1) Increasing technology transfer agreements and R & D initiatives. e.g. ICET between India and USA.
- 2) While countries like Taiwan are developers of modern semiconductors, the R & D is done in USA and many design engineers are Indians.
- 3) India has offered to share its Digital

Public Infrastructure with other developing and undeveloped countries like Africa.

4) Green technology require critical inputs like lithium, cadmium etc., the distribution of same is not uniform worldwide.

5) Emergence of space technology has seen collaborations between countries. e-g:
LOPEX mission by India and Japan.

Moving forward, India should use expertise in DPI and talent regarding design engineers.

Also, recent initiatives like National Quantum mission, India AI mission will further increase collaboration between countries.

7. भारत में कृषि वस्तुओं का एक बड़ा वैश्विक निर्यातक बनने की अपार संभावनाएँ हैं। चर्चा कीजिये।

(150 शब्द) 10

India has tremendous potential in becoming a large global exporter in agricultural commodities. Discuss.

(150 words) 10

उम्मीदवार को इस
हाशिये में नहीं
लिखना चाहिये।
(Candidate must
not write on this
margin)

With about 339 million tonnes of agriculture produce and being largest producer of spices, pulses etc, the export opportunities are high for India. e.g. largest exporter of rice.

Factors favouring export growth

- 1) Boost to food processing: Accounting for about 12% of total exports of India. Initiatives like PM-FME, PLI scheme, Kisan Sampada Yojana promote same.
- 2) India has highest number of organic farmers, the demand of which is high in developed countries.
- 3) Recent conflicts like Russia - Ukraine conflict disturbed supply chains. e.g. wheat

4) Allied sector growth is faster than cultivation. e.g. India is largest producer of milk and major exporter.

5) Trade agreements like ECTA with Australia also includes disputes regarding sanitary and phytosanitary measures.

Impediments

1) with 85% small and marginal farmers, technology uptake is high.

2) WTO issues regarding subsidies.

3) Dominance of few crops like wheat and rice.

4) Reservations regarding use of GM crops.

Increased exports will help in doubling farmers' income as well.

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लिखना चाहिये।
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8. संवहनीय कृषि पद्धतियों के संदर्भ में मृदा स्वास्थ्य के महत्त्व पर चर्चा कीजिये।

(150 शब्द) 10

Discuss the significance of soil health in the context of sustainable agricultural practices.

(150 words) 10

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हाशिये में नहीं
लिखना चाहिये।
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margin)

In India, 30% of land is degraded and 25% is under desertification as per data by National Remote Sensing Centre.

Significance of soil health:

- 1) Adequate nutrients promote plant growth and thereby yield.
- 2) Less use of chemical fertilisers thereby reducing biomagnification and bioaccumulation
- 3) Less soil erosion, adequate soil microbiota etc.

Sustainable Agricultural Practices and Soil Health

- 1) Less use of chemical fertilisers like Urea, DAP maintain soil fertility.
- 2) Crop rotation replenishes soil fertility naturally.

3) Micro irrigation and crop cover reduces water wastage while preventing soil salination.

4) Techniques like ZBNF and organic/Natural farming also reduces cost of cultivation.

Ensuring soil health

- 1) Agriculture as per agro-ecological zones
- 2) Controlling subsidy on water extraction and urea
- 3) Crop rotation and allelopathy to maintain soil health.

Initiatives like Sahi Fasal Campaign and Paramparagat Krishi Yojana will help in maintaining soil fertility.

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लिखना चाहिये।
(Candidate must
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margin)

9. लाभों, चुनौतियों एवं पर्यावरणीय प्रभावों के संदर्भ में अपतटीय और तटीय पवन ऊर्जा की तुलना कीजिये। (150 शब्द) 10
Compare and contrast offshore and onshore wind energy in terms of their benefits, challenges, and environmental impacts. (150 words) 10

उम्मीदवार को इस
हाशिये में नहीं
लिखना चाहिये।
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not write on this
margin)

In terms of installed capacity, India is 4th largest wind energy producer in world. 7500+ km of coastline provides avenue for off shore wind energy.

Benefits

- 1) offshore: Increased power generation
- No land acquisition issues.
 - no/less impact on nearby people due to noise etc.

Onshore: 1) Easy maintenance.

- 2) Less cost of development.
- 3) Enhanced technology compared to off shore.
- 4) Less transmission losses.

Challenges

Offshore : High cost of development,
nascent technology, increasing cyclones,
damage to biodiversity like coral reefs.

Onshore : land acquisition challenges, limited
viable area, intermittent energy generation.

Environmental Impact

Offshore : Impact on coral reefs, fishes,
ocean acidification, marine pollution, plastic
pollution.

Onshore : Land degradation, impact on birds
like Siberian Crane, land use change.

The pros and cons must be equally
weighed before initiating any project.

10. एक सुपरिभाषित राष्ट्रीय सुरक्षा कार्यनीति (NSS) समकालीन सुरक्षा चुनौतियों से निपटने में किस प्रकार योगदान दे सकती है? भारत के लिये एक व्यापक राष्ट्रीय सुरक्षा कार्यनीति के महत्त्व पर चर्चा कीजिये। (150 शब्द) 10

How can a well-defined National Security Strategy (NSS) contribute to addressing contemporary security challenges? Discuss the significance of having a comprehensive National Security Strategy (NSS) for India. (150 words) 10

उम्मीदवार को इस हाशिये में नहीं लिखना चाहिये।
(Candidate must not write on this margin)

The government has been working on a national security strategy which aims to set India's priorities, identify challenges and standardize response.

NSS and contemporary security challenges

- 1) Terrorism: Defined and explained procedure against infiltration, demarcate responsibilities of the different agencies etc.
- 2) Cyber warfare: Protect critical assets of national importance, prevent spying, capability to respond adequately.
- 3) Organised crime and other issues like insurgency can be tackled efficiently.

Significance of a comprehensive NSS

- 1) Delineate the priorities regarding natural security.
- 2) Define the threats being faced, and future strategy for same.
- 3) Like USA, will help to reflect the priority of India in global affairs.
- 4) Tackle new age challenges like drones, cyberattacks, lone wolf attacks etc.

The National Security Strategy will also enable coordination among different forces. It will complement reforms like theaterisation and joint forces operations.

11. विश्व के सबसे बड़े कृषि उत्पादक देशों में से एक होने के बावजूद, कृषि निर्यात के मामले में भारत का श्रेणीक्रम निम्न है। इस संदर्भ में, भारत में फसलोपरांत हानियों की समस्या पर विशेष ध्यान केंद्रित करते हुए कृषि विकास के समक्ष विद्यमान समस्याओं पर चर्चा कीजिये। (250 शब्द) 15

Despite being one of the largest agricultural producers in the world, India ranks much lower in terms of agricultural exports. In this context, address the issues faced in agricultural growth with special focus on the problem of post-harvest losses in India. (250 words) 15

उम्मीदवार को इस हाशिये में नहीं लिखना चाहिये।
(Candidate must not write on this margin)

India's share in agricultural exports is only 2.4% of GDP compared to Brazil's 7%.
despite being a major producer of agri-commodities.

Issues in Agricultural Growth

- 1) 85% farmers are small and marginal.

This reduces avenue for commercial farming and technology adoption.

- 2) Tilt towards certain crops like rice and wheat due to MSP policy, subsidies etc.

- 3) Rainfed agriculture (about 55%) vulnerable to extreme weather events due to climate

change.

- 4) Marketing and further processing of some commodities is less ($< 10\%$ of total produce is processed).

Post Harvest losses

As per NITI Aayog, there are losses to tune of ₹ 90,000 crore every year due to post harvest losses impacting agricultural growth and exports.

Reasons for post harvest losses:

- 1) Lack of cold chain logistics and deficiencies in supply chain.
- 2) Less scientific storage of food (~ 140 million tonnes against production of ~ 340 million tonnes).

3) Procurement of FCI beyond the buffer stock and PDS requirements.

4) Due to non- remunerative prices, farmers sometimes just dispose off entire produce.

Way Forward

1) Increase food processing especially by MSMEs.

2) Diversify agriculture produce.

3) Use technology like AI, IoT, Blockchain etc.

4) Post harvest losses:

↳ Subsidize cold storage and logistics sector.

• Food processing.

• Scientific storage facilities.

Recent initiatives like the World's largest grain storage plan in cooperative sector is ambitious initiative.

12. वंचित आबादी तक डिजिटल भुगतान सेवाओं के विस्तार से संबद्ध चुनौतियों का परीक्षण कीजिये और डिजिटलीकरण के माध्यम से वित्तीय समावेशन के संवर्द्धन हेतु कार्यनीतियाँ प्रस्तावित कीजिये। (250 शब्द) 15
- Examine the challenges of extending digital payment services to underserved populations and propose strategies to enhance financial inclusion through digitization. (250 words) 15

उम्मीदवार को इस हाशिये में नहीं लिखना चाहिये।
(Candidate must not write on this margin)

According to Kantar, only 38% of the country's population is digitally literate with majority in rural areas. While internet penetration has increased to 52%, many people still remain underserved.

challenges of extending digital payments to underserved population

- 1) Lack of infrastructure including mobile and fibre optic connectivity in tough geographies like forests and mountains.
- 2) Lack of proper documents for opening accounts or enroll for digital services.
- 3) High cost of mobile equipment like data enabled smartphone.

- 4) Lack of awareness and knowledge regarding use of digital payments.
- 5) Issue of frauds and cybercrimes further disincentivising uptake of these services.
- 6) Seeding leakage of aadhar details with bank accounts.
- 7) Lack of disaggregated data based on caste, religion, region etc. regarding internet use.

Enhancing financial inclusion through digitisation

- 1) Training of local people which will enhance trust of people in adopting new technology.
- 2) More number of Bank Sathis (correspondent) for providing services.

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(Candidate must
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margin)

- 3) No frills account for less burden on poor people by private banks.
- 4) e-KYC for easy verification using recorded biometrics.
- 5) Raising awareness of schemes like Tan Dhan Accounts.

The success of Tan Dhan accounts which has made 78% of population to have a bank account is remarkable. 67% of these accounts have been opened in rural and semi-urban areas reflecting on potential of digitalisation in financial inclusion.

उम्मीदवार को इस
हाशिये में नहीं
लिखना चाहिये।
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13. हाल में प्रवाल विरंजन की परिघटनाएँ चिंताजनक स्थिति का संकेत हैं। प्रवाल विरंजन की परिघटना के पश्च में निहित कारणों की व्याख्या कीजिये। इस समस्या से निपटने के क्या उपाय हैं? (250 शब्द) 15
The recent episodes of coral bleaching are signs of an alarming situation. Explain the reasons behind the phenomenon of coral bleaching. What are the ways to tackle this problem? (250 words) 15

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As per US-NOAA, currently, we are witnessing the fourth mass coral bleaching event impacting coral reefs worldwide.

Reasons for coral bleaching

- 1) Rising sea temperature and marine heat waves: Corals thrive in the limited temperature range of 27°C - 32°C beyond which the algae gets expelled.
- 2) Ocean Acidification: It reduces the amount of carbonate ions required by coral for shell formation and reef formation.

3) Increasing water pollution: Plastics can block passage of nutrients through corals. Corals are indicator species of clean water.

4) El-Nino: The increase in temperature in the eastern pacific and reduction in western pacific cause disturbance in sea conditions.

5) Over exploitation for construction material, tourism industry etc.

6) Epizootics: Bleaching due to diseases.

Tackling Coral Bleaching

1) Strict enforcement of regulations under convention like London Convention and

MARPOL convention to control water pollution

- 2) Preventing heating of water by techniques like marine cloud brightening used by Australia.
- 3) Sustainable tourism with strict adherence to rules. e.g. CRZ rules in India.
- 4) Using technologies like bioreock to prevent loss of corals by providing platform for growth.
- 5) Ultimately, controlling GHG emissions to reduce events like marine heat waves and melting of polar ice.

Corals are rainforests of oceans supporting a vast biodiversity. Hence, protection of same is necessary to achieve SDG-14 (life under water)

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14. जलवायु परिवर्तन के कारण लगातार खतरे का सामना कर रहे मैंग्रोव पारिस्थितिकी तंत्र की रक्षा के लिये हम क्या कदम उठा सकते हैं? इनके संरक्षण के लिये राष्ट्रीय एवं अंतर्राष्ट्रीय स्तर पर आरंभ की गई कुछ पहलों का भी उल्लेख कीजिये?

(250 शब्द) 15

What steps can we take to protect mangrove ecosystems, which are increasingly threatened by climate change. Also mention some initiatives at national and international level to support their conservation?

(250 words) 15

India has about 0.17% of land area under mangroves. Sunderbans is largest mangrove patch in world and is under severe threat of ecosystem damage.

Factors impacting mangroves

- 1) Climate change: Leading to sea level rise, groundwater intrusion, increase in cyclones etc.
- 2) Land use change: For cultivation like shrimp cultivation.
- 3) Mangroves are ecotones with less tolerance to changes in environmental conditions.

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Steps for mangrove conservation

- 1) Firstly, any deforestation should be strictly prohibited.
- 2) Community participation in mangrove conservation. e.g. Taint Forest Management
- 3) Using traditional knowledge of tribal people in preserving mangrove ecosystem.
- 4) International collaboration for sharing best practices and conservation efforts.
- 5) Sustainable use in lines with UN-CBD.

National Initiatives

- 1) Wetland Rules, 2017: For wise use of wetlands which include mangrove forests.

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- 2) CRZ Rules: To regulate activities along coastal regions.
- 3) MISHTI: For growing canals along the entire coastline.
- 4) Statutory initiatives like Environment Protection Act (1986); Forest Conservation Act (1980) etc.

International Initiatives

- 1) Ramsar Convention for protection of wetlands.
- 2) Mangrove Initiative (UAE): India is a member
- 3) Kunming-Montreal Global Biodiversity Framework to restore 30% degraded ecosystems by 2030.

The benefits by mangroves like shoreline protectors and waste absorbers call for increased conservation efforts.

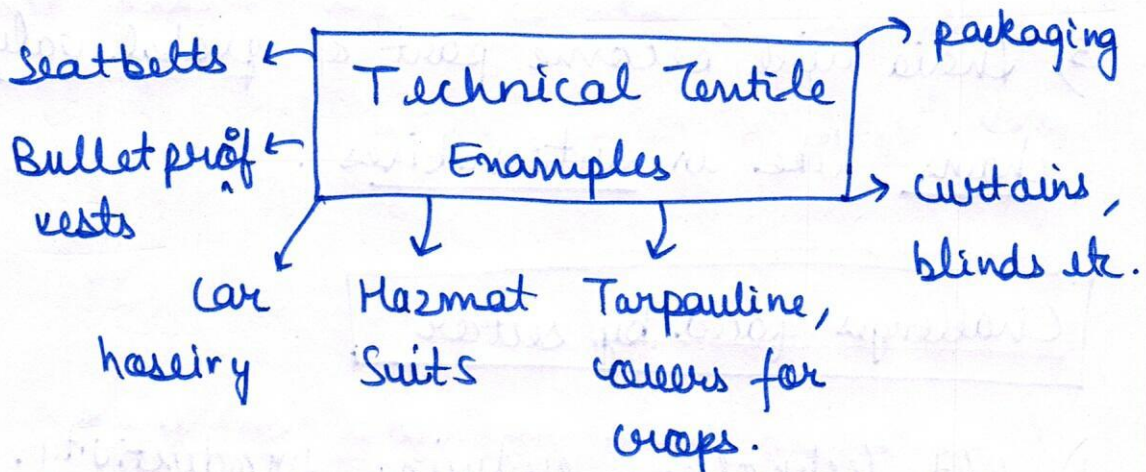
15. तकनीकी वस्त्र बाजार में भारत की वैश्विक स्थिति को सुदृढ़ करने में राष्ट्रीय तकनीकी वस्त्र मिशन के महत्व पर चर्चा कीजिये। भारत में इस क्षेत्र के समक्ष कौन-सी प्रमुख चुनौतियाँ विद्यमान हैं? (250 शब्द) 15

Discuss the significance of the National Technical Textiles Mission in enhancing India's global position in the technical textiles market. What are the key challenges faced by this sector in India? (250 words) 15

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National Technical Textiles Mission aim to make India a global producer of various textiles like agro-textiles, defence-textiles, packaging-textiles, defence-textiles etc.



Significance of Technical Textiles Mission

- 1) Textiles is the second largest employer after agriculture and can help boost employment as it's labour intensive industry.

- 2) Increased exports.
- 3) Increased value addition of textiles allowing for better pricing.
- 4) Encourage small and medium industry in development of technical textiles.
- 5) India will become part of global value chains like in automobiles.

Challenges faced by sector

- 1) Old Technology reducing productivity.
- 2) Lack of credit facility for upgradation of facilities.
- 3) less trained workers.
- 4) Specific inputs like Coal is being imported.

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5) High competition from countries like China in the sector.

6) Cost intensive and capital intensive industry.

Way Forward

- 1) Credit for MSMEs.
- 2) Proper training for workers.
- 3) Engagement in plug and play mode like PM-MITRA parks.
- 4) Increasing competitiveness by strategies like Zero Defect Zero Reject.

Increased revenue for exports and rise of sector like automobiles etc. will provide further push to the sector.

16. ट्रांस-फैट क्या हैं? इनसे संबंधित स्वास्थ्य संबंधी चिंताओं पर चर्चा कीजिये और बताइये कि इनके उपभोग को सीमित करने के लिये कौन-से कदम उठाए जा रहे हैं? (250 शब्द) 15

What are Trans-fats? Discuss the health concerns associated with them and what steps are being taken to limit their consumption? (250 words) 15

उम्मीदवार को इस हाशिये में नहीं लिखना चाहिये।

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Transfats refers to unsaturated fats which due to processes like continued heating and cooling lose their properties and behave as saturated fats which are harmful for human body.

Health Concerns

- 1) They can lead to cardiovascular and other diseases.
- 2) Due to deposition on blood vessels, they prevent smooth flow of blood.
- 3) Can lead to artery blockages and heart attacks.

- 4) Increased obesity and hypertension.
- 5) Digestive problems.

Steps taken at national level

- 1) ROCO by FSSAI: Reprocessing of used cooking oil for creating biofuel. It collects used fuel/oil from hotels, restaurants etc.
- 2) FSSAI guidelines reducing amount of trans-fats to <3% in food.
- 3) Eat Fit Campaign and Heart Attack Ruind to discourage consumption of trans fats.

International Level

WHO has given the REPLACE guidelines

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to reduce use of trans-fats and encourage countries to:

- 1) Reduce use of trans fats.
- 2) Higher taxes.
- 3) Alternatives for trans fats etc.

The health disorders can lead to increased deaths due to non-communicable diseases which is already 65% of total deaths.

Along with raising awareness, tax on HFSS (High in fat, sugar and salt) food can nudge people away from consumption of trans fats.

17. भारत में खाद्य प्रसंस्करण उद्योग की व्यापकता एवं महत्व पर विस्तृत चर्चा कीजिये। खाद्य प्रसंस्करण क्षेत्र की चुनौतियों को संबोधित करने के लिये भारत सरकार द्वारा कौन-से नीतिगत उपाय किये गए हैं? (250 शब्द) 15

Elaborate the scope and significance of the food processing industry in India. What are the policy measures taken by the government of India to meet the challenges of the food processing sector. (250 words) 15

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India produces about 339 million tonnes of foodgrain but only <10% is processed.

Moreover, the post harvest losses of ₹90,000 crore can be controlled via food processing.

Scope of food processing

- 1) It already accounts for 12% exports and 12.06% of total employment in factories as per Economic-Survey, 2024.
- 2) India has variety of agro-climatic zones which produce diverse fruits, vegetables, pulses, animal products etc.

3) 45.5% workforce is engaged in agriculture providing opportunity for structural transformation.

Significance

- 1) Increasing farmers' income.
- 2) Controlling food inflation.
- 3) Crop diversification promotion.
- 4) Reducing post harvest losses.
- 5) Increase exports and foreign.

Policy Measures

- 1) PSSAI Notification (2016) to streamline process regarding clearances.
- 2) PLI scheme : For increased investments

and technology transfer in the sector.

3) PM-FME (Formalisation of Micro Food Enterprises) for proper organisation of micro enterprises, training, expert help, one district, one product etc.

4) PM-KISAN Sampada Yojana for credit facility and development of cold storage and supply chain streamlining.

Way Forward

- 1) Training regarding marketing and exports.
- 2) Formalisation of sector for safe food.
- 3) International collaboration to tackle issue of sanitary and phytosanitary measures.

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18. हिमालयी क्षेत्र में भूस्खलन की बढ़ती घटनाओं के पश्च में निहित कारणों और उनके संभावित प्रभावों पर विचार कीजिये। इस बढ़ती समस्या से निपटने के लिये अपनाई जा सकने वाली संवहनीय शमन कार्यनीतियों के सुझाव प्रदान कीजिये।

(250 शब्द) 15

Examine the reasons behind the rising occurrence of landslides in the Himalayan region and their potential impacts. Suggest sustainable mitigation strategies that could be adopted to tackle this escalating issue.

(250 words) 15

Landslides occur when the gravitational force acting on the rocks overcomes the frictional force holding them together.

Reasons for landslides in Himalayas

- 1) Tectonic Instability: The Himalayas are still under process of formation and are in Seismic Zone-V.
- 2) Sedimentary and loose deposits along with steep terrains.
- 3) Events like cloudbursts and extreme rainfall making soil loose.

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- 4) Construction activity like widening of roads and mining activity.

Impacts of Landslides

- 1) It leads to loss of life in low lying areas and for infrastructure constructed on the slope.
- 2) It can trigger glacial lake outburst floods.
- 3) Hinders connectivity to sensitive border areas.
- 4) Biodiversity is also impacted.
- 5) Disturbs flow of river and water availability.

Mitigation Strategies

- 1) NDMA Guidelines: No construction on slopes greater than 30 degree incline and

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- retrofitting of existing infrastructure.
- 2) Early warning system to detect occurrence based on certain ground parameters.
 - 3) Hazard Mapping: e.g. Landslide Atlas of ISRO.
 - 4) Community Training so that people can help themselves and others during disaster event and reduce vulnerability.
 - 5) A proper committee for studying landslide vulnerability in Himalayas like Gadgil and Kasturirangan committees.

Mitigating landslides will reduce loss of life and property and enhance disaster resilience in line with Sendai framework.

19. सीमा-पार घुसपैठ के प्रति सुभेद्यता को भारत के पूर्वोत्तर क्षेत्र में विद्रोह की लगातार घटनाओं के पश्च में निहित प्राथमिक कारण माना जा सकता है। टिप्पणी कीजिये। (250 शब्द) 15

Vulnerability to cross border infiltration can be termed as the primary reason behind frequent insurgencies in North-eastern region of India. Comment. (250 words) 15

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Insurgencies in North-East Indian region has been a recurrent event since independence and is due to interplay of wide number of factors.

Cross border infiltration as primary reason

- 1) Porous borders with Bhutan, Bangladesh and Myanmar allows for easy movement.
- 2) The insurgent groups like NSCN-IM has established their camps in these countries disallowing action by Indian agencies.
- 3) The erstwhile free movement regime with Myanmar was cause of insurgency

especially after takeover by Junta in Myanmar.

Other Reasons

1) Economic:

- a) The NE region is underdeveloped due to geographical factor as well as lack of industries.
- b) Basic facilities like water, health and education are not available fully.

2) Ethnic:

- a) Ethno-centrism has led to conflicts between groups. e.g: Demand of greater Nagalim by Nagas.
- b) Recent clashes in Manipur between Kukis and Meiteis.

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3) Political-administrative:

- a) Improper implementation of legislations like forest rights act (2006) and PESA Act (1996)
- b) less devolution of powers rather what envisaged in 5th and 6th schedule of the Constitution.

Way Forward

- 1) Fencing of Indo-Myanmar border.
- 2) Technology like CIBMS across the entire border stretch.
- 3) Collaboration with neighbouring countries.
e.g: operation all clear with Bhutan.

while, cross border infiltration is a reason, a holistic strategy is necessary to solve this long standing issue.

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20.

वित्तीय कार्रवाई कार्य बल (FATF) धनशोधन और आतंकवादी वित्तपोषण से निपटने के लिये वैश्विक मानकों के निर्माण को किस प्रकार आकार प्रदान करता है? इसके कार्यकरण को सुदृढ़ करने के उपाय संबंधी सुझाव प्रदान कीजिये।

(250 शब्द) 15

In what ways does the Financial Action Task Force (FATF) shape the creation of global standards for combating money laundering and terrorist financing? Suggest measures to strengthen its functioning.

(250 words) 15

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The FATF was created by initiative of G7 countries to achieve the two major objectives of preventing money laundering and terror financing.

Role played by FATF

1) Designation of countries into categories:

e-g: Grey list refers to increased monitoring. e-g. OAE

Black list refers to non cooperating States and territories. e-g. North Korea

Countries in black list are unable to access global financial institutions and

find no investments.

- 2) FATF regular brings guidelines regarding money laundering which serves as guide to members to incorporate.
- 3) Regular reviews by FATF of member countries ensures adherence to guidelines.
- 4) Partnership with groups like GCC and EU for enhanced effectiveness.

India, being a member, has implemented initiatives like PMLA, Financial Intelligence Unit and has also partnered with groups like Eurasian group.

Strengthening FATF

- 1) Expanding membership to more countries for better adherence to guidelines.

2) Enforcement Mechanism for violation of norms.

3) Providing support to countries lacking in preventing money laundering by partnering with developed countries.

4) Consensus orientation.

5) Using platforms like G20 for raising issue of money laundering.

6) Transparency in measures regarding audits and reviews.

Money laundering has varied impacts spanning not only economic but social and political spheres as well. Being trans-national in nature, it is imperative for use of organisations like FATF to tackle the same.

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