



VISIONIAS
INSPIRING INNOVATION
ABHYAAS MAINS

सामान्य अध्ययन (प्रश्न पत्र-III)/GENERAL STUDIES (Paper-III) (2424)

निर्धारित समय: तीन घंटे
Time Allowed: **Three Hours**

अधिकतम अंक: 250
Maximum Marks: 250

सामान्य अनुदेश

इस प्रश्न-सह-उत्तर (क्यू.सी.ए.) पुस्तिका में 55+1 पृष्ठ हैं। प्रश्न-पत्र, क्यू.सी.ए. पुस्तिका के अंत में संलग्न है, जो अलग (वियोज्य) किया जा सकता है और उम्मीदवार परीक्षा के उपरांत अपने साथ ले जा सकते हैं।

रफ कार्य के लिए, इस पुस्तिका के अंत में खाली पृष्ठ दिया गया है।

पुस्तिका प्राप्त होने पर, कृपया यह जांच कर लें कि इस क्यू.सी.ए. पुस्तिका में कोई कमी न हो, फटा हुआ पृष्ठ न हो अथवा कोई पृष्ठ गायब न हो इत्यादि। यदि ऐसा हो, तो इसके बदले नई क्यू.सी.ए. पुस्तिका प्राप्त कर लें।

General Instructions

This Question-Cum-Answer (QCA) Booklet contains 55+1 pages. Question Paper in detachable form is available at the end of the QCA Booklet which can be taken away by the candidate after examination.

For rough work, blank page has been provided at the end of this Booklet.

On receipt of the Booklet, please check that this QCA Booklet does not have any shortcomings, torn or missing pages etc. If, so, get it replaced with a fresh QCA Booklet.

(उम्मीदवार द्वारा भरा जाएगा/To be filled by the Candidate)

पंजीकरण सं./Registration No. : 0551604

अभ्यर्थी का नाम/Name of Student : Mrinalika Rathore

माध्यम: हिंदी/अंग्रेजी
Medium: Hindi/English

English.

तारीख
Date

**सामान्य अध्ययन (प्रश्न पत्र-I)
GENERAL STUDIES (Paper I)**

केंद्र
Centre

JAIPUR

निरीक्षक के हस्ताक्षर
Invigilator's Signature

	महत्वपूर्ण अनुदेश	Important Instructions
	उम्मीदवारों को नीचे उल्लिखित निर्देश सावधानी से पढ़ लेने चाहिए। किसी भी निर्देश का उल्लंघन करने पर उम्मीदवारों को मिलने वाले अंकों में कटौती, उम्मीदवारी रद्द या आयोग के परवर्ती परीक्षाओं के लिए वर्जित करने इत्यादि के रूप में दण्डित किया जा सकता है।	Candidates should read the undermentioned instructions carefully. Violation of any of the following instructions may entail penalty in the form of deduction of marks, cancellation of candidature, debarment from further Examination of the Commission etc.
1	(क) अपना पंजीकरण सं. एवं अन्य विवरण केवल प्रश्न-सह-उत्तर पुस्तिका (क्यू.सी.ए.) में उम्मीदवार के लिए निर्धारित स्थान पर ही लिखें। (ख) इस पुस्तिका में अन्यत्र कहीं भी अपना नाम, पंजीकरण सं., मोबाइल नं., पता अथवा प्रश्न-सह-उत्तर पुस्तिका (क्यू.सी.ए.) संख्या न लिखें जिससे आपकी पहचान का खुलासा हो।	(a) Write your Registration Number and other details only in the space provided in the Question-Cum-Answer (QCA) Booklet for candidates. (b) Do not disclose your identity in any manner such as, by writing your Name, Registration number, Mobile number, Address, Question-Cum-Answer (QCA) Booklet No. etc. elsewhere in the Booklet
2	अपनी प्रश्न-सह-उत्तर पुस्तिका में कहीं भी प्रश्नों के वास्तविक उत्तर के अतिरिक्त कुछ न लिखें जैसे कि कोई कविता/दोहा, अभद्र या अपमानजनक अभिव्यक्ति इत्यादि और न ही कोई ऐसा चिन्ह/निशान बनाएं जिसका उत्तर से सम्बन्ध न हो।	Do not write in the QCA Booklet anything other than the actual answer such as couplet, obscene, abusive expression etc., nor put any sign/mark having no relevance to the answer.
3	परीक्षक को प्रत्यक्ष/अप्रत्यक्ष रूप से कोई भी प्रार्थना/धमकी भरी बातें न लिखें।	Do not make any direct/indirect appeal/threat to the examiner.
4	उत्तर अस्पष्ट अथवा गंदी लिखावट में न लिखें। इस प्रकार के उत्तर का मूल्यांकन नहीं भी किया जा सकता है।	Do not write answers in bad/illegible handwriting. Such answers may not be evaluated.
5	उत्तर स्याही में ही लिखें। उत्तर लिखने के लिए पेंसिल का उपयोग न करें, हालांकि आरेख, चित्र इत्यादि बनाने के लिए पेंसिल का उपयोग किया जा सकता है।	Write answers in ink only. Do not use pencil for writing the answers. However, pencil may be used for drawing diagrams, sketches, etc.
6	प्रवेश पत्र में उल्लेख किए गए माध्यम के अलावा अन्य किसी माध्यम में उत्तर न लिखें। अधिकृत और अनधिकृत की मिली जुली भाषा का भी उपयोग न करें।	Do not write answers in medium other than the authorized medium in the Admission Certificate. Do not use mixed language either i.e. authorize and unauthorized media together for writing answers.
7	प्रश्नों के उत्तर ठीक उसके नीचे दिए गए निर्धारित स्थान पर ही लिखें। निर्धारित स्थान के अलावा किसी अन्य स्थान पर लिखे गए उत्तर का मूल्यांकन नहीं किया जाएगा।	Write answer at the specific space (right below the question) only. Answers written elsewhere at unspecified places in the booklet shall not be evaluated.
8	यदि आप अपने किसी उत्तर को रद्द करना चाहते हैं तो उसे पेन से काट दें तथा उस पर "रद्द" लिख दें, अन्यथा उसका मूल्यांकन किया जा सकता है।	If you wish to cancel any work, draw your pen through it and write "Cancelled" across it, otherwise it may be valued.

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परीक्षक के हस्ताक्षर Signature of Examiner(s)	

प्राप्तांक के विवरण (परीक्षक द्वारा भरा जाए)/ Marks Details (To be filled by the Examiner(s))

प्रश्न सं. Q. No.	अंक Marks		प्रश्न सं. Q. No.	अंक Marks	
1			11		
2			12		
3			13		
4			14		
5			15		
6			16		
7			17		
8			18		
9			19		
10			20		
उप-योग (A) Subtotal (A)			उप-योग (B) Subtotal (B)		
सकल योग (A+B) / GRAND TOTAL (A+B)					



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निर्धारित समय: तीन घंटे
Time Allowed: **Three Hours**

अधिकतम अंक: **250**
Maximum Marks: **250**

प्रश्न-पत्र संबंधी विशेष अनुदेश

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

कुल बीस प्रश्न दिए गए हैं जो हिंदी और अंग्रेजी दोनों में छपे हैं।

सभी प्रश्न अनिवार्य हैं।

प्रत्येक प्रश्न/भाग के लिए नियत अंक उसके सामने दिए गए हैं।

प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए, 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 निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिखे गए उत्तर पर कोई अंक नहीं मिलेंगे।

प्रश्न संख्या 1 से 10 तक का उत्तर 150 शब्दों में तथा प्रश्न संख्या 11 से 20 तक का उत्तर 250 शब्दों में दीजिए।

प्रश्नों में इंगित शब्द सीमा को ध्यान में रखिए।

प्रश्न-सह-उत्तर पुस्तिका में खाली छोड़े गए कोई पृष्ठ अथवा पृष्ठ भाग को पूर्णतः काट दीजिए।

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instructions carefully before attempting questions.

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

All questions are compulsory.

The number of marks carried by a question/part 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.

Answers to Questions No. 1 to 10 should be in 150 words, whereas answers to Questions No. 11 to 20 should be in 250 words.

Keep the word limit indicated in the questions in mind.

Any page or portion of the page left blank in the Questions-cum-Answer Booklet must be clearly struck off.

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.

खाद्य सुरक्षा के विभिन्न आयाम क्या हैं? इन आयामों के मद्देनजर खाद्य सुरक्षा सुनिश्चित करने के संदर्भ में भारत की स्थिति का परीक्षण कीजिए। (उत्तर 150 शब्दों में दीजिए)

What are the different dimensions of food security? Examine India's status in terms of ensuring food security with regard to these dimensions. (Answer in 150 words)

10

उम्मीदवारों को इस हार्जिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Food security refers to a situation when an individual is having access to enough quantity and quality food as well as good health to absorb it.

Different dimensions of food security

① Economic dimension : Person should have enough economic bandwidth to afford food and it should be available at decent prices.

② Political dimension : Political ability to bargain for quality food

③ environmental dimension : Quality atmosphere, soil & water that can support food production. (c) Soil degradation due to fertilisers

④ Technological dimension : Ability

to use advanced technology for food production as well as access

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

⑤ Social dimension is Marginalised like SC, ST and women worst sufferers of food insecurity

(ex) Seen in Russia-Ukraine war.

(c) Healthy should be well to absorb nutritious food

⑥ Healthy & nutritious food: Food available with complete nutrition and not lopsided
(ex) overfocus on rice and wheat

India's status in food security

① 22% people below poverty line - impacting affordability dimension (Tendulkar Committee)

② 33% don't even vote - political dimension (ECI)

③ 6.5 lakh hectares of soil under salinity, 8:3:1 unbalanced use of fertilisers & 54% states under water stress - environmental

④ lopsided focus on wheat & rice over millets.

⑤ 45% mechanisation of agriculture v/o 95% US - technological dimension

Initiatives taken

→ NFS A
→ Mechanisation scheme
→ KVKs
→ Bonn challenge commitment

Focus on Natural & zero budget farming

Along with these initiatives, India must focus on holistic development to achieve goal of SDG 1 & SDG 2.

2.

ब्लॉकचेन और चैटजीपीटी जैसी आधुनिक प्रौद्योगिकियां कृषि को अधिक कुशल और संधारणीय क्षेत्रक में बदलने की अपार क्षमता वाले शक्तिशाली साधन हैं। भारत के संदर्भ में चर्चा कीजिए। (उत्तर 150 शब्दों में दीजिए)
Modern technologies such as blockchain and ChatGPT are powerful tools with immense potential to transform agriculture into a more efficient and sustainable sector. Discuss in the context of India. (Answer in 150 words)

10

उम्मीदवारों को इस प्रश्न में नहीं लिखना चाहिए
Candidates must not write on this margin

Agri Tech penetration as per government estimates is only 47% in India in contrast to US where over 90% agriculture is technology driven.

In this context, blockchain & ChatGPT can play a transformative role in agriculture supporting 50% of Indian population.

Role of Blockchain & ChatGPT

- ① Can ensure secure & easy supply chain.
(cy) Blockchain based transactions
- ② Can provide information on weather.
(cy) ChatGPT can be used for weather forecast
- ③ Learning best practices across world.
(cy) use of ChatGPT for the same.
- ④ Attract investments including those based on digital currency.
(cy) Government trying CBDC on blockchain.

⑤ Help in maintaining records of production, supply chain and thus reducing wastage at farm gate. (c) Ledger based technology in Blockchain.

उम्मीदवारों को इस हशिप में नहीं लिखना चाहिए
Candidates must not write on this margin

⑥ enable backward and forward linkages in food processing sector

⑦ Help in price discovery for farmers and reducing middle men
(c) As seen in APMCs currently.

However, there are Issues:

① Issue of privacy of data & data breach

② Challenge of digital divide
(c) Oxjam highlights 31% likely use internet in urban v/s 33% in rural.

③ Digital literacy as well as access to internet
(c) only 33% penetration in India.

④ Lack of skilled labour to work on this
(c) severe crunch of cyber security professionals in India.

Way forward → Accelerate missions like NDPM
→ Pass Data Privacy Bill, 2023
→ Use bottom up approach

Thus, technology can play a crucial role in doubling 'farmers' income' and adequate steps must be taken.

3.

वैश्विक अर्थव्यवस्था में वि-डॉलरीकरण की प्रवृत्ति में हालिया तेजी के लिए कौन-से कारक उत्तरदायी हैं? क्या आपको लगता है कि डॉलर का प्रभुत्व जल्द ही समाप्त हो जाएगा? (उत्तर 150 शब्दों में दीजिए)

What factors have led to the recent acceleration in the trend towards de-dollarization of the global economy? Do you think the dollar will lose its dominance anytime soon? (Answer in 150 words)

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates are not to write on this margin

De dollarization of economy refers to increased focus on alternate currency exchanges and reducing use of dollar in global transactions.

Acceleration in
De-dollarization

→ Russia-China collaboration to shift from SWIFT

→ Currency swap arrangements at local level like BRICS, SABRA

→ Steps like Special Vostro account.

Factors leading to de-dollarization

- ① Global financial crisis
(ca) 2008 crisis, challenging dollar's hegemony.
- ② COVID-19 induced focus on self reliance
(ca) Aatma Nirbhar - Bharat
- ③ Aggressive policies of US
(ca) US sanction on Iran, Russia under CAATSA
- ④ Synchronised monetary tightening in

- US affecting internal monetary policies in countries
- (c) Economic Survey highlights capital flight from India.
 - (5) Weakening multilateralism and Washington Consensus
 - (c) Based policies at IMF, WTO in debate.

However, despite visible signals, dollar will take time before losing dominance:

- (1) No strong alternatives to dollar
 - (a) Chinese Yuan affected by China's pressure cooker syndrome
- (2) Global economic institutes continue to be guided by US influence
 - (c) US influence at IMF, WB
- (3) US coming back in the game with change in ruling dispensation.
- (4) High dependence on US dollar
 - (a) largest foreign currency reserves in India in USD.

Way forward → Gradually diversify instead of drastic change
→ Build resilience through USD+1 strategy

Thus, while there are steps towards dollarization, adequate steps must be taken towards gradual shift to sustain growth.

4.

विकसित देशों द्वारा भारत पर खाद्य सब्सिडी व्यवस्था में बदलाव करने के अत्यधिक दबाव के बावजूद, भारत के लिए निर्धन व्यक्तियों हेतु अपना नीतिगत समर्थन बनाए रखना एक उचित कदम होगा। विवेचना कीजिए। (उत्तर 150 शब्दों में दीजिए)

Despite significant pressure from the developed countries to alter its food subsidy regime, there is merit in India trying to retain its policy support for the poor in the country. Discuss. (Answer in 150 words)

10

India spends near to 30% of its revenue on food subsidy as per recent budget estimates.

In this context, countries like US on global platforms have mentioned concerns on India's food security regime.

Pressure from developed countries to alter food subsidy regime

① At WTO it is highlighted majority subsidies given by India are Amber Box . i.e trade distorting

② Highlighted that this regime impacts quality of food produced due to lack of competitiveness

③ Reduced quality invites sanitary

and phytosanitary measures.

④ India's internal challenges of low tax-GDP ratio and high social expenditure burden

However, despite external and internal pressure; India has pushed for continuing 'food security clause' at WTO due to its merits :

- ① India has huge poverty burden (221 poor-Tendulkar Comm.)
- ② Widespread inequality (Oxfam)
- ③ High dependence on agriculture (50% population directly employed)
- ④ Water stress but high dependence on monsoon which is unpredictable
- ⑤ Majority females employed in agriculture
- ⑥ Huge requirement of food (largest world population: UNFPA)

Thus, while internal & external pressure raise questions on India's food security regime, India is already rationalizing it. But this shift has to be gradual as highlighted by Amartya Sen.

5.

भारत की जल संबंधी जरूरतों को पूरा करने की दिशा में सरकार द्वारा कई पहलों की शुरुआत की गई है, परंतु जल की उपलब्धता और जल की गुणवत्ता जैसे मुद्दों पर अभी भी नीतिगत हस्तक्षेप की आवश्यकता है। विवेचना कीजिए। (उत्तर 150 शब्दों में दीजिए)

Several initiatives have been taken by the government towards addressing India's water needs, but the issues of water availability and water quality still warrant prioritised intervention. Discuss. (Answer in 150 words)

उम्मीदवारों को इस क्राशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

10

India has 171% of world population but 4% of world's water resources thus exerting pressure on existing resource.

In this context, Government is taking several steps:

- ① Jal Jeevan Mission - provide household water connection to all rural by 2024.
- ② PM Krishi Sinchayi Yojana - To encourage drop irrigation in agriculture.
- ③ Atal Bhujal Yojana - for efficient usage of ground water (India largest users for ground water).

However, despite these steps, water availability & water quality is a challenge in India.

Issues of water availability & quality

उम्मीदवारों को इस हार्शिए में नहीं लिखना चाहिए
Candidates must not write on this margin

- ① 54% of states in India are water stressed ~~as per~~ ~~UNDA~~
(Composite Water Management Index - NITI Aayog)
- ② High exploitation of water in agriculture due to unmetered connections
- ③ ~~As per~~ poor quality of water
(Lot of water is of poor quality)
- ④ major stretches of rivers polluted
(cy) Yamuna completely destroyed due to sewage waste

Steps taken → National Ganga Mission
→ Atal Bhujal Yojna

Way forward

- ① Convergence of schemes of Ministry of Environment, rural areas & Sol Shakti
- ② Bottom-up approach through community based initiatives (Kerala using it)
- ③ Planned urbanisation
Thus, adequate steps must be taken to ensure water security in order to sustain & grow in AMRIT KAN

6.

आर्कटिक में हिमनदों के पिघल कर संकुचित होने के लिए उत्तरदायी कारक क्या हैं? पारिस्थितिकी तंत्र पर आर्कटिक हिमनदों के पिघलने के संभावित प्रभाव का वर्णन कीजिए। (उत्तर 150 शब्दों में दीजिए)
What are the major drivers of glacial retreat in the Arctic? Describe the potential impact of the retreat of Arctic glaciers on the ecosystem. (Answer in 150 words)

10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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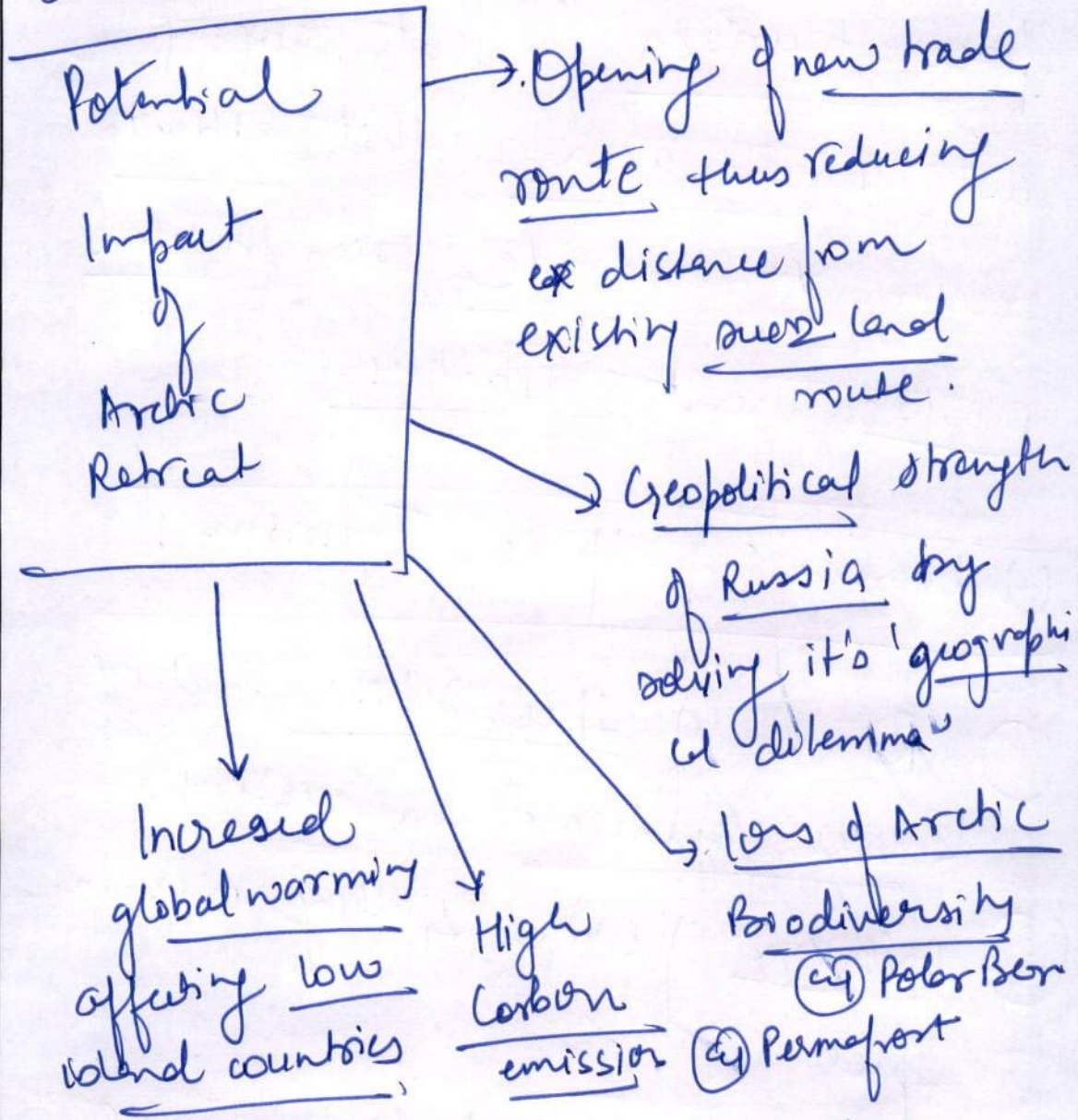
Arctic region forms the global common which is fast melting as a 'global tipping point'.

Major drivers of Glacier retreat in Arctic region

- ① Arctic Amplification due to reduced albedo & due to global warming
 - (a) Arctic ice melting twice as fast as others
- ② High pollution due to industrialisation around Arctic region
 - (a) Russia's focus on nuclear region ECF.
- ③ Race to take advantage of melting for global trade

(4) Weakening ocean currents - reduced thermohaline circulation - reducing overall carbon sequestration.

उम्मीदवारों को इस हिसाब में नहीं लिखना चाहिए
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Countries have collaborated at Arctic Council and India too is an observer there but further steps are needed to save Arctic as 'global common'

7.

अंतरिक्ष पर्यटन, जिसे सीधे तौर पर एक साइंस फिक्शन फिल्म के रूप में देखा जाता था, अब बिना किसी बाधा के वास्तविकता बन रहा है। अंतरिक्ष पर्यटन से संबंधित चुनौतियां क्या हैं? इन चुनौतियों से निपटने के लिए क्या उपाय किए जा सकते हैं? (उत्तर 150 शब्दों में दीजिए)

Space tourism, which was viewed as something straight out of a science fiction movie, is now becoming a reality albeit not without hindrances. What are the challenges associated with space tourism? What measures can be taken to address these challenges? (Answer in 150 words) 10

Space tourism is fast emerging
as a new area that attracts
excitement worldwide seen in Elon
Musk's recent initiative

Challenges of Space Tourism

- ① Risk of 'Space Debris' making Kessler Syndrome a reality.
- ② Pollution of earth spilling over in space.
- ③ Endless race leading to 'space warfare'
- ④ Disturbance to space infrastructure like space satellite and thus.

Impacting communications infrastructure

- (5) Inadequate institutional measures
(c) Outer space treaty not equipped to deal with ill effects.

Measures to be taken to address challenges

- (1) International collaboration for ~~sustainable~~ sustainable space tourism
- (2) Research and development for environment friendly fuel.
- (3) Treaties to be reformulated to deal with challenges.
- (4) Sharing of risks with most affected underdeveloped countries.

Thus! space tourism can take us to the heights we always dreamt of but steps must be taken so that we don't fall from high cliffs.

8.

वैश्विक स्वास्थ्य विशेषज्ञ व्यापक रूप से मानते हैं कि CAR-T सेल थेरेपी का विकास कैंसर के उपचार में एक बड़ी सफलता हो सकता है। CAR-T सेल थेरेपी, CRISPR-Cas9 तकनीक में व्याप्त कमियों को कैसे दूर कर सकती है? (उत्तर 150 शब्दों में दीजिए)

Global health experts widely believe that the development of CAR-T cell therapy can be a game changer in the treatment of cancer. How can CAR-T cell therapy overcome the limitations of CRISPR-Cas9 technology? (Answer in 150 words)

10

CAR-T cell therapy helps in dealing with cancer cells by genetically reforming immunity T-cells

CRISPR-Cas9 technology

① used for stem cell therapy and doing genetic editing using Cas9 scissors

② But limitation, due to limited success & outside genes introduced in body

CAR-T addressed limitations of CRISPR-9

② Addresses T-cells of the patient's body itself thus no outside element introduced in body

However, further research needed and need to make technology affordable for all so that transformatory role of CAR-T cell therapy can be used for compt betterment of ALL In line with SDG-4.

9.

चर्चा कीजिए कि प्रमुख हिंसक चरमपंथी संगठनों द्वारा नई और उभरती प्रौद्योगिकियों के बढ़ते इस्तेमाल के विरुद्ध संगठित एवं ठोस वैश्विक प्रयासों की आवश्यकता क्यों है। (उत्तर 150 शब्दों में दीजिए)

Discuss why the rising deployment of new and emerging technologies by prominent violent extremist organizations demand concerted global efforts. (Answer in 150 words)

10

उम्मीदवारों को इस हशिग में नहीं लिखना चाहिए
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New and emerging technologies
like Artificial Intelligence,
Block chain are fast becoming a
double edged sword prone to misuse
by extremist organizations.

Risk of rising use of technology

(1) Increases the secrecy & sinister motives (ii) Blockchain & cryptocurrency used in money laundering.

(2) Industrialization 4.0 driven by Web 2.0 increasing potential
misuse to radicalize youth
internationally (iii) IS recruiting from India using Twitter

③ Artificial Intelligence can be used to manipulate youth.

उम्मीदवारों को
इस हिसाब में
नहीं लिखना
चाहिए
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Global collaborations needed

① Internet & globalisation making world interconnected

(a) Terrorist from outside coordinating Pulwama attack

② Money laundering using crypto mixers
encouraged by tax havens

(a) Cayman Island, Panama, Papua

③ Terrorist organizations having global presence

Already countries are collaborating at organizations like KATRA & G20, India

also has NIST department at MoH
Further steps must be taken to

achieve Indian vision of VASUDHAIVA KUTUMBHAM.

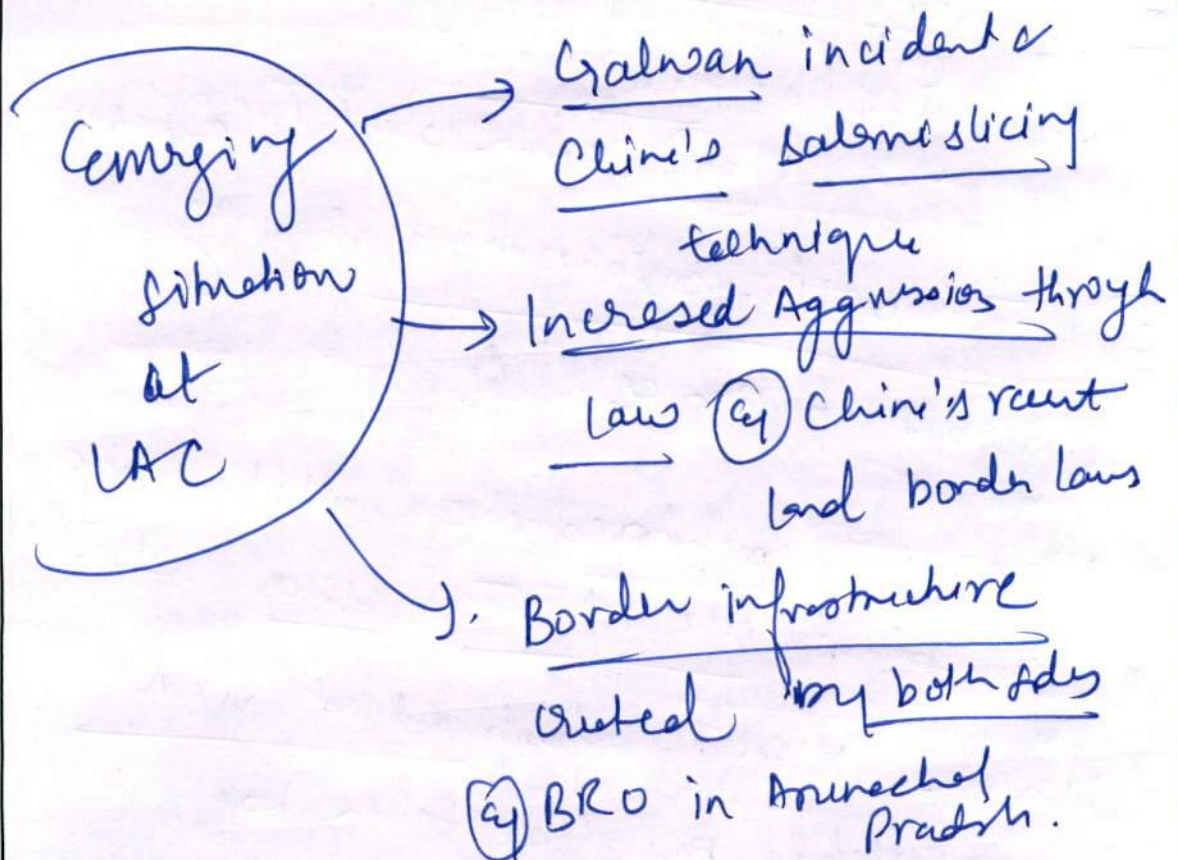
10.

गलवान और यांगस्ते की घटनाओं के बाद वास्तविक नियंत्रण रेखा (LAC) पर तनाव बना हुआ है तथा भारत एवं चीन दोनों सीमावर्ती क्षेत्रों में अपने बुनियादी ढांचों को सुदृढ़ कर रहे हैं। इस क्षेत्र में ITBP द्वारा निभाई जाने वाली भूमिका पर चर्चा कीजिए। (उत्तर 150 शब्दों में दीजिए)

With the Line of Actual Control (LAC) remaining tense after the Galwan and Yangste incidents and both India and China ramping up infrastructure in the border areas, discuss the role that ITBP plays in the region. (Answer in 150 words)

उम्मीदवारों को इस हशिफ में नहीं लिखना चाहिए
Candidates must not write on this margin

India shares a border of around 3400 km with China and troubling factor is that most of the border is disputed.



Role of ITBP

उम्मीदवारों को इस हाथिए में नहीं लिखना चाहिए
Candidates must not write on this margin

- ① Deployed at LAC in North — secures border region in difficult terrain
- ② Enhances community engagement
- ③ Can help in implementation of programmes like Vibrant Village Programme

However, Issues → Poor mental health
→ Gap with community (language)
→ Lack of technical back. → Limited security on borders.

Thus, need to address these issues in order to secure borders and

ensure a united India.

~~Recent~~ Recent Agniveer Scheme is a step in the right direction

11.

क्या आपको लगता है कि भारत को 'भूमि उत्पादकता' के सिद्धांत को छोड़कर 'सिंचाई जल उत्पादकता' के सिद्धांत को अपनाने की आवश्यकता है? अपने उत्तर का औचित्य सिद्ध कीजिए। यह बदलाव करने में कौन-सी चुनौतियां विद्यमान हैं? व्याख्या कीजिए। (उत्तर 250 शब्दों में दीजिए)

Do you think there is a need for a shift from 'land productivity' to 'irrigation water productivity' in India? Justify your answer. What are the challenges in making this shift? Explain. (Answer in 250 words)

15

As per Falkenmark indication, with around 1500/m³ water availability India is a water stressed country.

In this context, discussion is on for shifting from 'land productivity' approach to 'irrigation water productivity'

Land Productivity Approach $\Rightarrow$ Irrigation water Productivity

① Earlier focus on producing more from limited land (2x) using fertiliser leading to land degradation

② Focus on land productivity led to severe ground water depletion (India largest user)

① Efficient usage of water will reduce land degradation by reducing salinization (e.g. alkali land impacted).

② Efficient usage of water will help 'save water' (141. resources overexploited (GWA))

③ Over focus on 'water intensive' products like rice, sugarcane due to MSP impacting holistic nutrition

④ 'Water Intensive' approach led to high poverty and inequality (Punjab & North West)

③ 'Water Productivity' approach to focus on nutri-cereal, Millet providing better health indicators (High glycemic index)

④ 'Irrigation water Productivity' - will focus on development of all regions.

Thus, a shift from 'land productivity' approach to 'water productivity' will help in holistic agriculture growth and help in saving water for 140 crore population. But there are:

Challenges in shift

①. High dependence on water and vested interests in keeping water subsidies on
(a) rich farmers from Punjab & Haryana.

② 'Land Productivity' equally important
since land is also limited

③- Fertiliser imbalance & lack of awareness
in farmers difficult to bridge.

④ Bureaucratic hurdles & corruption in
regime (India 8th on Corruption
Perception Index)

⑤ Lack of efficient technology & skilled
labour in rural areas for this shift.

Way forward

① Accelerate efforts under Drip Irrigation
Programme & other schemes

② Shift to providing cap on water usage
(Tried in some areas - Punjab)

③ Induce Behavioural change
(Approach of Namami Gange Programme)

④ Learn from international examples - (Israel)

Thus, given India's water stressed
condition, India has to take adequate
steps to ensure long term food
& water security as per Vision 2030

12.

भारत की ऊर्जा सुरक्षा प्राप्त करने में हरित हाइड्रोजन की भूमिका का परीक्षण कीजिए। राष्ट्रीय हरित हाइड्रोजन मिशन, भारत की अपने ऊर्जा लक्ष्यों को प्राप्त करने में किस प्रकार मदद कर सकता है? (उत्तर 250 शब्दों में दीजिए)

Examine the role that green hydrogen can play in unlocking the energy security of India. How can the National Green Hydrogen Mission help India in achieving its energy goals? (Answer in 250 words)

15

उम्मीदवारों को इस दृष्टि में नहीं लिखना चाहिए
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India is the third largest emitter of carbon dioxide in the world and one of the largest energy users with half energy coming from non-renewable fossil fuels.

In this context,

Role of Green Hydrogen in unlocking energy security

- ① ensure easy availability in abundance (Hydrogen available in abundance)
- ② Support transition from fossil fuels to green resources (currently only 18% energy from renewable sources)
- ③ Generate green jobs in economy.
- ④ Accelerate efforts at ensuring 'Har Ghar Bijli' (electricity for all)

⑤ Non polluting resource in vehicles

Role of National Green Hydrogen Mission (NGHM)

- ① Aim for 5 MMT production of green hydrogen by 2030 - will ensure availability in good amount
- ② Transition from gray hydrogen to green hydrogen - will ensure non polluting resource.
- ③ Investment in green technology - will generate jobs.
- ④ Hydrogen available everywhere - this will reduce regional inequality in hydrogen access

However, there are challenges before we can make transition to Green Hydrogen Regime.

Limitations & challenges to NDM

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

- ① Hydrogen is challenging to transfer & transport - ~~thus~~ due to its sensitive nature.
- ② Lack of research & development in technology for transition
(existing approaches focussed on green hydrogen)
- ③ Availability of skilled manpower.
- ④ Regulatory challenge & bureaucratic hurdles.
- ⑤ Well acquainted with coal - thus transition challenging.
- ⑥ Multiple ways to produce hydrogen creates confusion (a) Blue, Pink, Grey, Green etc.

Way forward

- ~~use~~ Increase investment & raise funds via green bonds
- Focus on green skills under NSDM
- Coordination among various agencies & EODB.

Thus, hydrogen can play a 'crucial role' in India's vision of energy for all & commitments under INDCs.

13.

हाल के दिनों में, सरकार न्यूनतम पारिश्रमिक की जगह जीवन निर्वाह पारिश्रमिक को अपनाने पर विचार कर रही है। भारत में जीवन निर्वाह पारिश्रमिक को अपनाने के लाभ और इसमें विद्यमान बाधाएं कौन-सी हैं? (उत्तर 250 शब्दों में दीजिए)

The government has been weighing a transition from minimum wage to living wage in recent times. What are the benefits and constraints in the adoption of living wage in India? (Answer in 250 words)

15

Living wage in contrast to minimum wage refers to wage that allows dignified and better living conditions instead of bare minimum.

Benefits of adoption of living wage

- ① ensure better quality of life and human development indicators
(India ranks 132 in HDI index)
- ② Provide access to health & education facilities for all in good quality.
- ③ Reduce inequality (Oxfam - top 1% own 77% wealth)
- ④ Reduce security threats
(increasing radicalisation due to poverty)

⑤ Better living conditions for vulnerable & marginalized like SCs STs, women & disabled
(977. manual scavengers: SCs)

⑥ Encourage scientific development and innovation beyond bare minimum, - people able to think

Constraints in adoption of living wage

- ① limited fiscal space with government (around 47. tax-GDP ratio)
- ② High fiscal deficit & borrowings of government (6.47. fiscal deficit: Budget 2023)
- ③ Lack of skilled population to utilise living wage (only 5.77. skilled formally: India Skills Report)
- ④ High dependence on agriculture which is outside tax purview (501.)
- ⑤ Merely living wage will not resolve issues of low unemployment (417.) & informalization (901.).

- ⑥ Operationalization & implementation is challenging due to bureaucratic hurdles (Minimum wage itself not ensured).

Way forward & suggestions

- ① Consensus orientation & bottom-up approach by involving affected population in policy making.
- ② Reduce red tapism & ensure implementation of 'minimum wage' first.
- ③ Steps to be taken to reduce informalisation & unemployment.
(e-shram, Mission for formalisation, MGNREGS)
- ④ Collaborate with private stakeholders & civil society organizations.

Thus, the idea itself isn't wrong and will help India achieve its goal of "Sarvodaya through Ambedkar" but first adequate steps must be taken to address constraints.

14.

केंद्रीय बजट भारतीय अर्थव्यवस्था के लगभग हर क्षेत्र को प्रभावित करता है, फिर भी न तो बजटीय प्रक्रियाएं पर्याप्त सार्वजनिक जांच के दायरे में आती हैं और न ही बजट नीतियां। क्या आप इस कथन से सहमत हैं? अपने उत्तर का औचित्य सिद्ध कीजिए। (उत्तर 250 शब्दों में दीजिए)

The Union Budget affects almost every sector of the Indian economy, yet neither the budgetary processes nor the budget policies come under substantial public scrutiny. Do you agree? Justify your answer. (Answer in 250 words)

15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Union Budget called as Annual Financial Statement under Article 112 of Constitution is a crucial document for understanding past & future economy of country.

Impacts every sector - 'Saptarishi'

- ① Focus on agriculture
(C) Agriculture Accelerator Fund
- ② Increased focus on marginalised
(C) Akhya Schools
- ③ ~~law~~ Taxation reforms undertaken.
(C) Nivarte Vishwas
- ④ Environmental focus visible
(C) MISHU, Amrit Dharohar
- ⑤ Skilling & education given attention
(C) Increased expenditure on social justice ministry
① Industrialisation reforms (C) MSME

Thus, the focus of budget is multidimensional & multifaceted.

However, highlighted issue is lack of scrutiny.

Lack of public scrutiny of Budgetary Processes & Policies

① Limited Parliamentary scrutiny

(a) ① Rajya Sabha - limited role

② Absolute majority ruling party

③ limited committee scrutiny

④ Guillotine.

② Limited public feedback

(a) ① Lack of awareness & literacy (more than 20% population illiterate)

② Financial literacy limited to understand economics technicality.

③ ^{Ud.} ~~100~~ involvement of public expert groups. post budget

Although steps have been taken in recent times to involve public;

- ① Inviting opinions and inputs through mygov.in.
- ② Government having meeting with business groups & expert groups before finalizing budget focus.
- ③ Media scrutiny during budget session.

However, despite these steps, overall public opinion is limited both in terms of availability as well as effectiveness since budget is passed despite feedbacks.

Way forward

- can have mandatory public consultations
- involve committees effectively
- improve Parliamentary efficiency to reduce quillotine.

Budget is the key to unlock lines of 140 crore citizens of India and thus must be scrutinised well.

15.

भारत स्वयं को दूध की कमी वाले देश से दुनिया के सबसे बड़े दूध उत्पादक देश के रूप में बदलने में सक्षम हो गया है, लेकिन देश में डेयरी पशुओं की उत्पादकता चिंता का विषय बनी हुई है। विवेचना कीजिए। (उत्तर 250 शब्दों में दीजिए)

India has been able to transform itself from a milk deficit country to the world's biggest milk producer, but the productivity of dairy animals in the country remains a concern. Discuss. (Answer in 250 words)

15

Through India's 'operation flood', India has been able to become the largest producer of milk worldwide

However, the challenges in the dairy sector remain a concern.

Concern on Productivity of dairy Animals

- ① Indigenous ~~tribes~~ ^{breeds} like Gir, Sahiwal facing climate effects & bovine disease
- ② Mixing of breeds - hybrid breeds playing with productivity of dairy animals.
- ③ High usage of antibiotics

to increase milk production leading to
a AMR and declining health,

④ Lack of adequate research & development
to increase productivity

⑤ Technology advancement limited
with heavy focus on traditional
approaches.

Government has taken steps in this
direction:

① National Dairy Development
Board

② Rashtriya Gokul Mission

③ Investment on removing Bovine
diseases (Budget 2021)

④ National Dairy Husbandry fund is
created.

⑤ Encouraging research through
agricultural universities and kisan
vikas kendras.

Suggestions

① International collaborations and learning from countries like New Zealand →

② Encourage farmers to undertake investment in livestock -

③ Reduce usage of antibiotics through implementation of initiatives like 'Red line campaign'

④ Invest in technology & focus on indigenous breeds -

→ Dairy sectors & animals must be preserved and supported in line with Article 47 of Indian Constitution.

16.

जहां एक तरफ जलवायु परिवर्तन, फसल की विफलता के लिए जिम्मेदार है, वहीं दूसरी तरफ चरम मौसमी घटनाओं के लिए कृषि क्षेत्रक स्वयं आंशिक रूप से जिम्मेदार है। विवेचना कीजिए। भारत में कृषक समुदाय की प्रत्यास्थता को सुदृढ़ करने के लिए राष्ट्रीय कृषि आपदा प्रबंधन योजना के तहत क्या रणनीति अपनाई गई है? (उत्तर 250 शब्दों में दीजिए)

While climate change is responsible for crop failures, the agricultural sector itself is partly responsible for extreme weather events. Discuss. What strategy has been adopted under National Agriculture Disaster Management Plan to strengthen the resilience of the farming community in India? (Answer in 250 words)

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

15

Agriculture is responsible for around 20-30% increase in temperatures worldwide (UN) and thus establishing importance of agriculture in climate change.

Climate change responsible for crop failures

① Disturbed monsoon & droughts leading to crop failure (60% agriculture rainfall)

② Disturbing local biodiversity responsible for ecosystem engineering (e.g. earthquakes)

However, agriculture sector itself feeds back in climate change & thus exacerbates own problem.

Agriculture leading to Climate Change

- ① Over use of nitrogenous fertilisers leading to NO_x emissions
- ② Increased land degradation through soil acidity / soil alienization leading to limited carbon sequestration.
(eg Black soil sequesters lot. carbon)
- ③ Carbon intensive crops grown
(eg ~~wheat~~ rice, wheat)
- ④ Mechanization fuelled by fossil fuels generating harmful emissions.
- ⑤ Farm gate losses & storage losses leading to food spoilage & thus - low emission generation
- ⑥ Nitrogenous fertilisers further going to water bodies which

leads to eutrophication & thus limited
carbon sequestration by rivers.

उम्मीदवारों को
इस हार्शिए में
नहीं लिखना
चाहिए
Candidates
must not
write on
this margin

Strategy of National Agriculture Draster Management Plan (NADMP)

- ① Making farmers resilient to climate
change vagaries by adaptive farming
techniques.
- ② Reduce vulnerability through horad
zoning and targeted attention to at
risk farmers
- ③ Supporting eco-friendly farming
practices to reduce emissions from
agriculture
- ④ Additional focus on 2BNF.

Thus, NADMP will play a
critical role in increasing resilience of
farmers and thus ensuring food
security as well as income security
in line with "SABKA SAATH SABKA VIKAS"
(Development for all)

17.

दिल्ली सहित भारत के कुछ क्षेत्र हिमालय में आने वाले भूकंपों के प्रभाव के प्रति अत्यधिक संवेदनशील हैं। विवेचना कीजिए। भारत में भूकंप से होने वाली हानि को कम करने के लिए कौन-से संस्थागत उपाय किए गए हैं? क्या आपको लगता है कि कुछ उल्लेखनीय कमियां अभी भी मौजूद हैं? (उत्तर 250 शब्दों में दीजिए)

Some regions in India, including Delhi, are highly vulnerable to the impact of earthquakes originating in the Himalayas. Discuss. What institutional measures have been taken to mitigate earthquake losses in India? Do you think there are significant gaps that still exist? (Answer in 250 words)

15

Around 58% of India comes under risk of earthquake and thus it becomes critical to deal with these tremors which have ability to destroy life & livelihood of millions.

Vulnerability of regions around Himalayas including Delhi

- ① Seismic Gap in Himalayas affects the regions around including Delhi (increasing number of earthquakes seen in Delhi)
- ② High rate of urbanisation and development increases the vulnerability.
- ③ Heavy at risk construction in

Himalayan region

(4) Increased ground water extraction
around Himalayas (e) Punjab, Haryana

(5) Climate change impact
and heavy rainfall increase
vulnerability

(6) High number of poors
& lack of adequate
construction - increases risk.



Major
Earthquake
Prone Region

Institutional Measures taken in this regard

(1) National Disaster Management
Authority & State DMA.

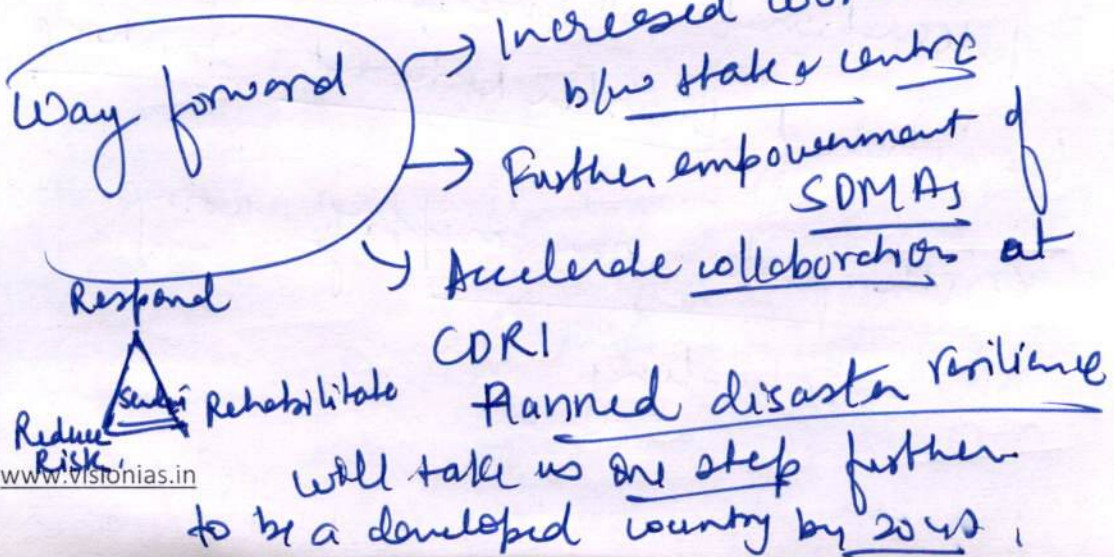
(2) International collaboration through
evolution of Disaster Resilient Structure

(3) Earthquake zone mapping using
GPS technology

- ① signing sender framework and
not working towards 7 goals set
by it.

Significant Gaps

- ①. lack of Adequate funding &
fund release to state
- ②. limited technology usage &
update of data on earthquake zones
- ③. Overexploitation & continued
urbanization in these regions
- ④. Lack of urban planning integrated
with disaster resilience
- (c) Recent urban floods - Delhi



18.

हाल ही में, वैज्ञानिकों ने परमाणु संलयन अभिक्रिया में निवल ऊर्जा लाभ की घोषणा की है, जिसे स्वच्छ ऊर्जा के भविष्य के लिए एक बड़ी वैज्ञानिक सफलता माना गया है। परमाणु संलयन आधारित विद्युत उत्पादन के क्या लाभ हैं? व्यावसायिक स्तर पर विद्युत उत्पन्न करने के लिए इसके उपयोग की क्या सीमाएं हैं? (उत्तर 250 शब्दों में दीजिए)

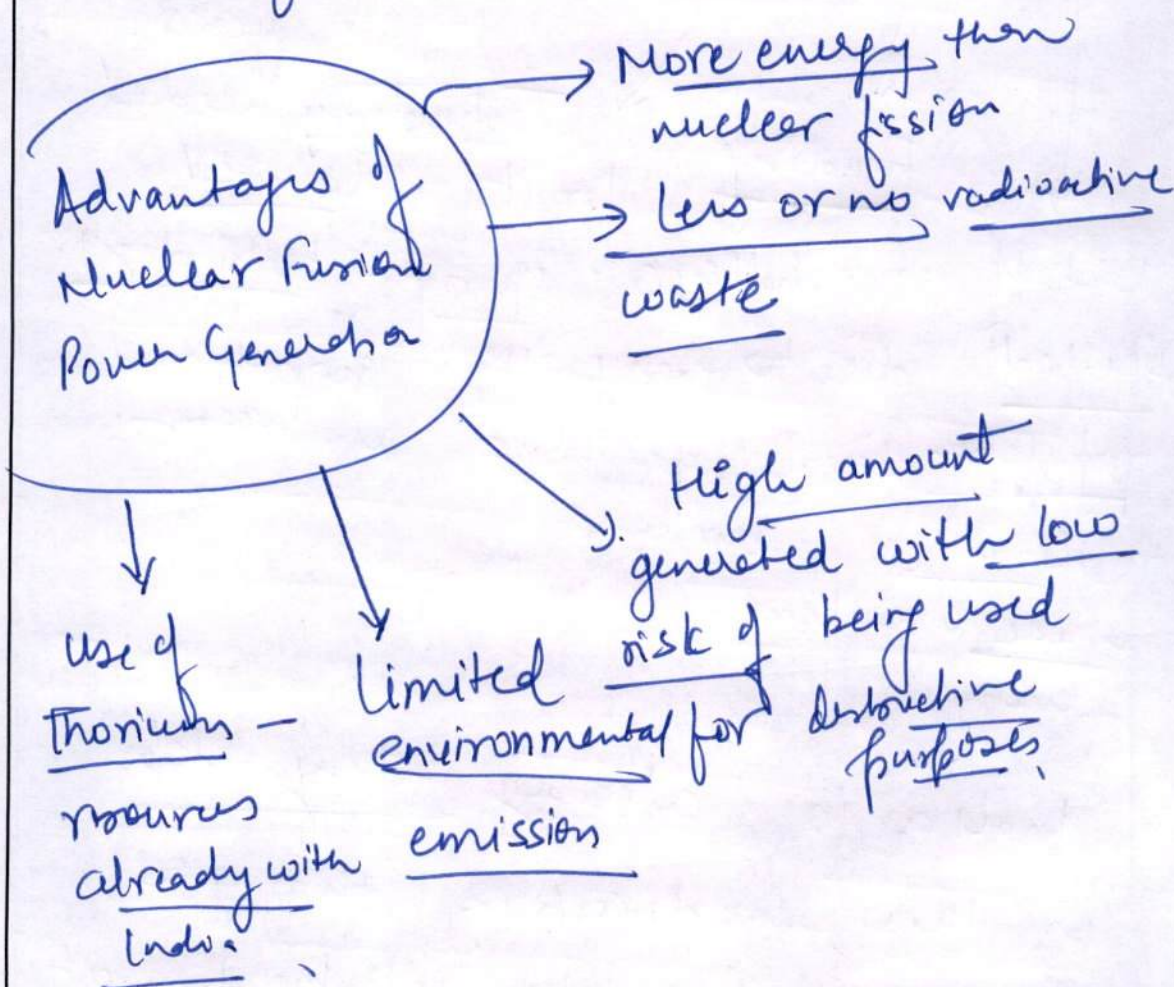
Recently, scientists announced net energy gain in nuclear fusion reaction, which is considered as a major scientific breakthrough for the future of clean energy. What are the advantages of nuclear fusion based power generation? What are the limitations in using it to generate electricity at a commercial scale? (Answer in 250 words)

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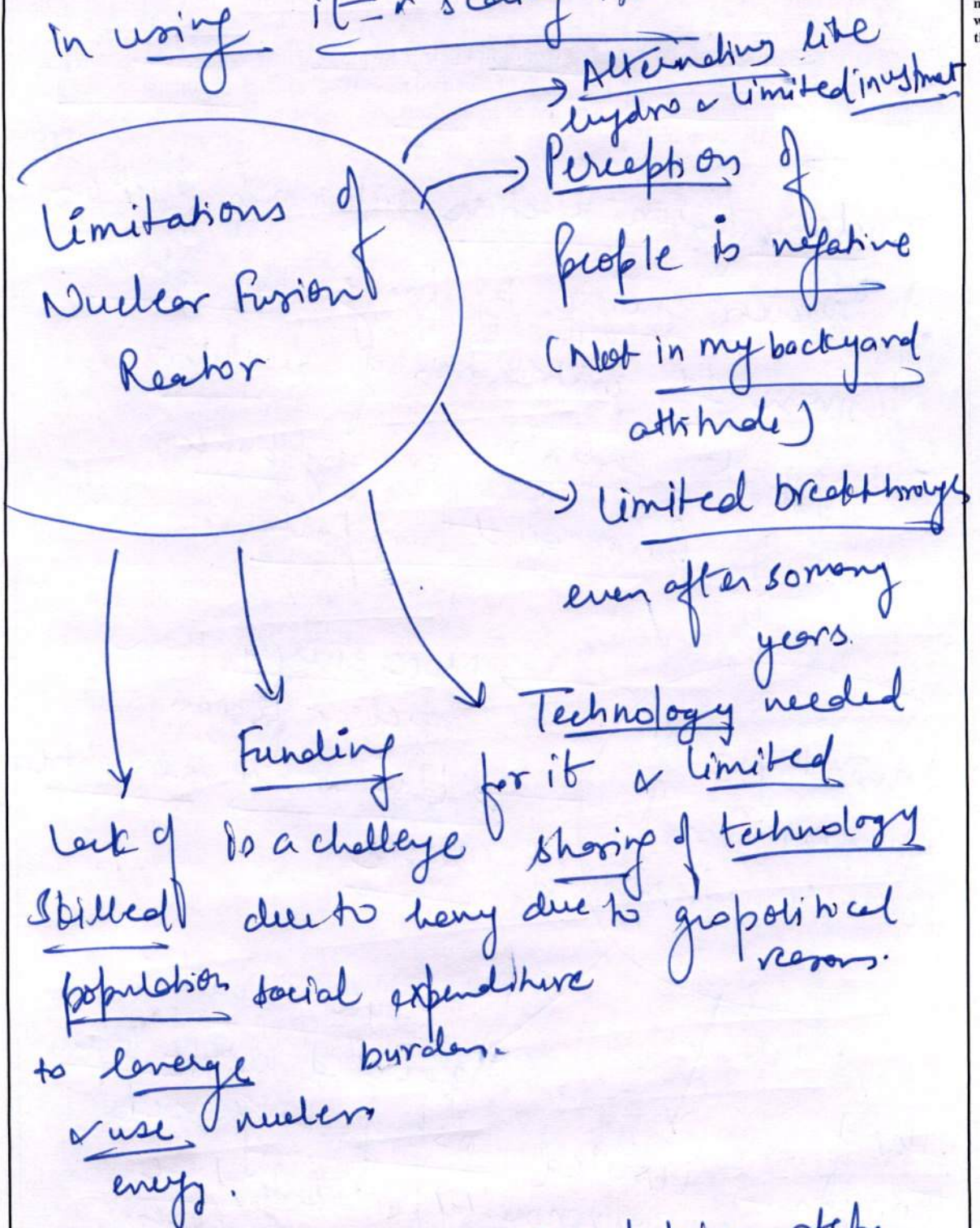
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Nuclear fusion reaction refers to production of nuclear energy by fusing two atoms.

Given 11. contribution of nuclear energy to India's energy bank, it is of paramount importance.



However, there are limitations
in using it or scaling it



India is already taking steps
in this direction through
initiatives like collaborations at

ITER and with US on nuclear energy.

[Further suggestions to leverage]

- ① Integrate nuclear energy holistically in renewable energy policy.
- ② encourage further research & development - (only 0.7% spent on R&D)
- ③ Accelerate collaboration at international level
- ④ Sensitise people on benefits of nuclear energy through IBC campaigns

Nuclear fusion energy can play an instrumental role in India's aim to be carbon neutral by 2070 (Panchamrit) and thus adequate steps must be taken.

हालिया संशोधन को ध्यान में रखते हुए, भारत में धन शोधन (मनी लॉन्ड्रिंग) के खतरे से निपटने में धन शोधन रोकथाम अधिनियम, 2002 की प्रभावकारिता का परीक्षण कीजिए। (उत्तर 250 शब्दों में दीजिए)

Keeping in view the recent amendment, examine the efficacy of the Prevention of Money Laundering Act, 2002, in tackling the menace of money laundering in India. (Answer in 250 words)

Money laundering in laymen terms is the process used to make dirty money clean.

India loses significant amount to black money & organised crimes induced via money laundering (PMLA).

Recent amendments in Prevention of Money Laundering Act (PMLA)

- ① ~~Revis~~ Defines people who are politically exposed & expands KYC Banks
- ② empowers ED to take strict measures against money laundering offences. - (retrospective crimes)
- ③ No need for ED to share ECR with the convict.

Utility of PMLA

- ① Compowers GO to take adequate & fast steps to deal with money laundering.
- ② Allows attachment of property.
- ③ ~~Compowers~~ Allows arrest even for crimes outside country.
- ④ Reduced linkage with terrorism & organised crime.

Limited efficacy of PMLA

- ① Seen as authoritarianism and government cribbing discouraging free business (eg) Recent case in SC
- ② Low conviction rate of PMLA
(Below 10%)
- ③ Difficult to operationalise and implement in interconnected world

④ Global tax Havens like Havens, Cayman Islands restricting.

⑤ Issues like Roundtripping

⑥ Weak enforcement at international

level (c) Pakistan no more in

⑦ No less gray list of FATF collaboration by banks (KYC)

Suggestions

① Increase conviction rate by enhancing number of manpower to ED.

② Aggressively collaborate at international level (FATF, G20, G7)

③ Reduce faulty uses by increasing prior investigation

" PMIA play a huge role in curbing black money and ensuring security of nation & thus must be implemented effectively to reach closer to \$5 trillion economy.

20.

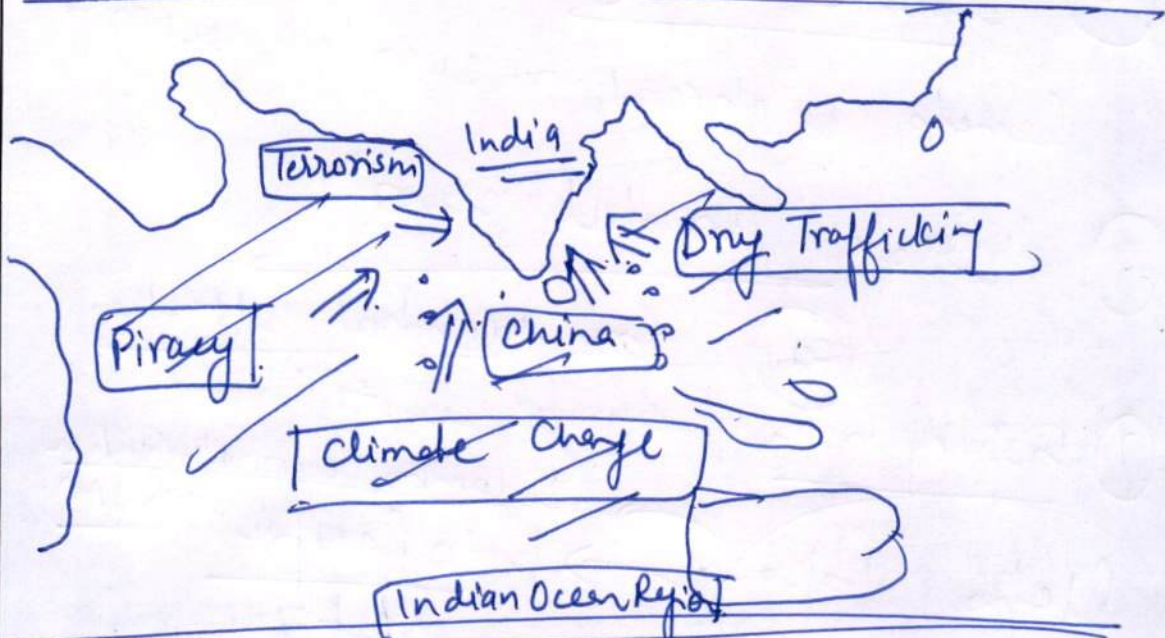
हिंद महासागर क्षेत्र (IOR) में मौजूद उन सुरक्षा खतरों पर चर्चा कीजिए, जिनका भारत के समुद्री सीमा संबंधी हितों पर सीधा असर पड़ता है। इन खतरों से निपटने के लिए एक मजबूत रणनीति सुझाइए। (उत्तर 250 शब्दों में दीजिए)

Discuss the security threats present in the Indian Ocean Region (IOR), which have a direct bearing on India's maritime border interests. Suggest a robust strategy to deal with these threats. (Answer in 250 words)

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Indian Ocean region is of immense importance to India with over 70% of trade passing through it.



Security threats in Indian Ocean Region (IOR)

- ① Piracy in IOR (B31. Gulf of Aden)
- ② Terrorist threats
 - ③ Organisations like Boko Haram Al Qaeda

③ Drug Trafficking - proximity
to Golden Triangle & Golden

Crescent

④ Aggressive China - BRI strategy,
String of Pearls, Hambantota lease

⑤ Climate change - rising sea
levels & threat to coastal security

① Weak coastal security

⑦ Rising risks (a) 2008 Mumbai attack
through coast.

Colombo Security Initiative & QUAD
Indo Pacific strategy

Steps taken already → Anti Piracy Act

→ Indian Coast Guard
→ SARAK

→ Strategic Command - Andaman & Nicobar
→ INS Vikramaditya

Further strategy to deal with threat

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इस कॉलम में
नहीं लिखना
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- ① Collaboration with like minded countries like Japan, Australia, Africa
- ② Role of Net Security Provider in the region
- ③ Enhance community participation
(eg) ICCh initiative for
- ④ Collaboration on fishing issues
(eg) with Sri Lanka
- ⑤ Aggressive naval power with theaterisation of forces (eg Kargil communities)

Thus adequate steps must be taken so that India can not only play its own role for self security but also as NET SECURITY PROVIDER in the region..

SPACE FOR ROUGH WORK

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