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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. : 1421777

अभ्यर्थी का नाम/Name of Student : Keeti Tripathi

माध्यम: हिंदी/अंग्रेजी
Medium: Hindi/English

English

तारीख
Date

27.08.2023

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

केंद्र

Centre Varanasi

Reeta Chatterjee

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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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)					



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

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.

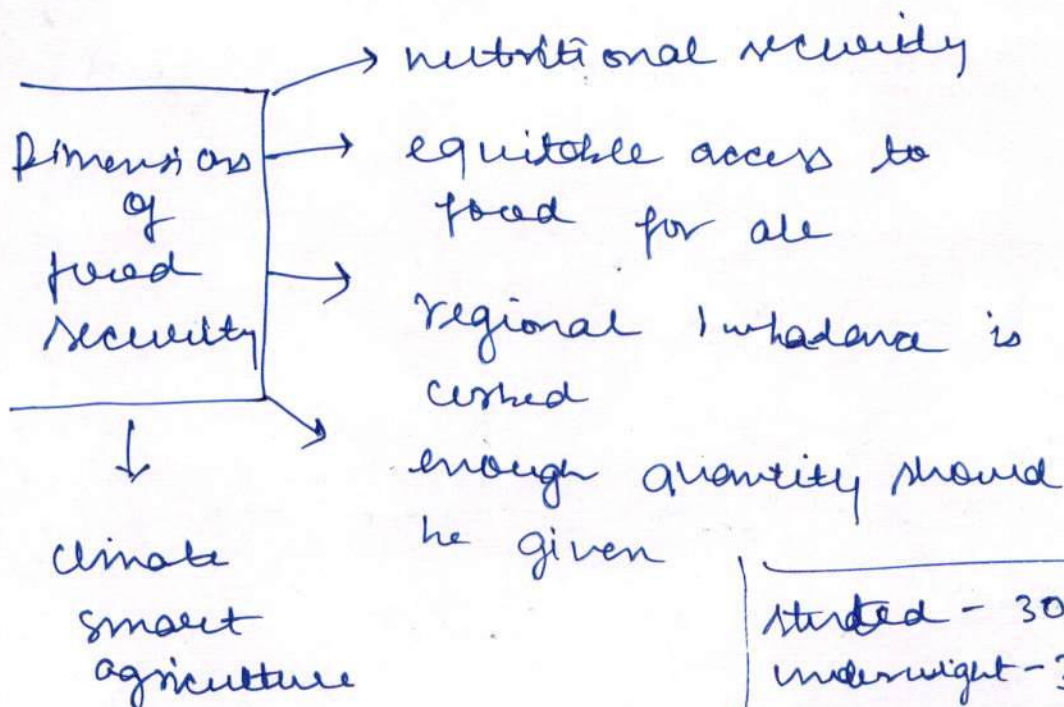
खाद्य सुरक्षा के विभिन्न आयाम क्या हैं? इन आयामों के मद्देनजर खाद्य सुरक्षा सुनिश्चित करने के संदर्भ में भारत की स्थिति का परीक्षण कीजिए। (उत्तर 150 शब्दों में दीजिए)

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 के इस कक्ष में नहीं लिखना चाहिए
Candidate must not write on this margin

Food security refers to provision of ample and enough food to the population so that they not only survive, but also grow.



India's Status

Stunted - 30%.
 Underweight - 32%.
 Anaemic - 60%.
 women
 NHFS-5

① Nutritional security - 19% children are wasted in India

② Equitable access - Rural areas have more poor and less food security

③ Regional imbalance - poverty in Jharkhand and Chhattisgarh is quite high than national average.

④ Availability of food - 40% of food is wasted in India - FAO

⑤ Agricultural rise - There is neglect of millets in food grain

Measures Needed

① Inclusion of Millets in food security scheme - NFSA, Midday Meal

② Policies - One nation one ration card

③ Roping in SHG - like Kudumbashree in Kerala.

④ Climate smart agriculture to improve production - PMISA

⑤ Making of population to increase income (PMKVY)

Food security needs

2.

ब्लॉकचेन और चैटजीपीटी जैसी आधुनिक प्रौद्योगिकियां कृषि को अधिक कुशल और संधारणीय क्षेत्र 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 कक्ष में नहीं लिखना चाहिए।
 Candidates must not write on this margin.

Modern tools have been used to revolutionise various sector. Agriculture is one of them. With the aid of technology, there could be the reworking of agriculture.

Transform agriculture into more efficient and sustainable sector

① Blockchain

- ↳ 1) Provide better land record system - giving of loans.
- 2) Maintain registry of beneficiary - timely payments @ under PMKISAN
- 3) transparency in PDS, forward, backward linkages
- 4) Livestock sector, dairy sector could get benefit

*) Proper precision inputs could be given - sustainability

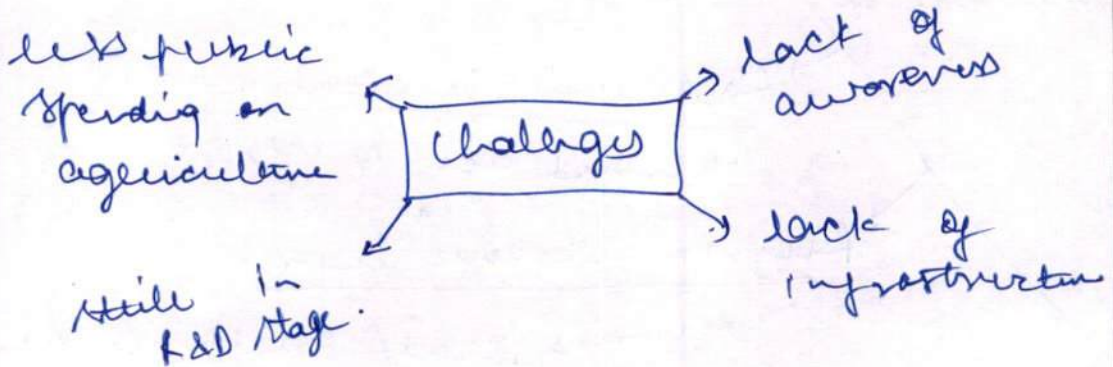
Chat GPT

*) Give information to farmers - help decision making - E-NAM

*) Create linkages with market - some intermediaries

*) Useful in contract farming

*) Better climate and weather advisory



Programmes like Kisan call Centre, Kisan Rakho app should be linked with these technologies. Later more awareness should be generated

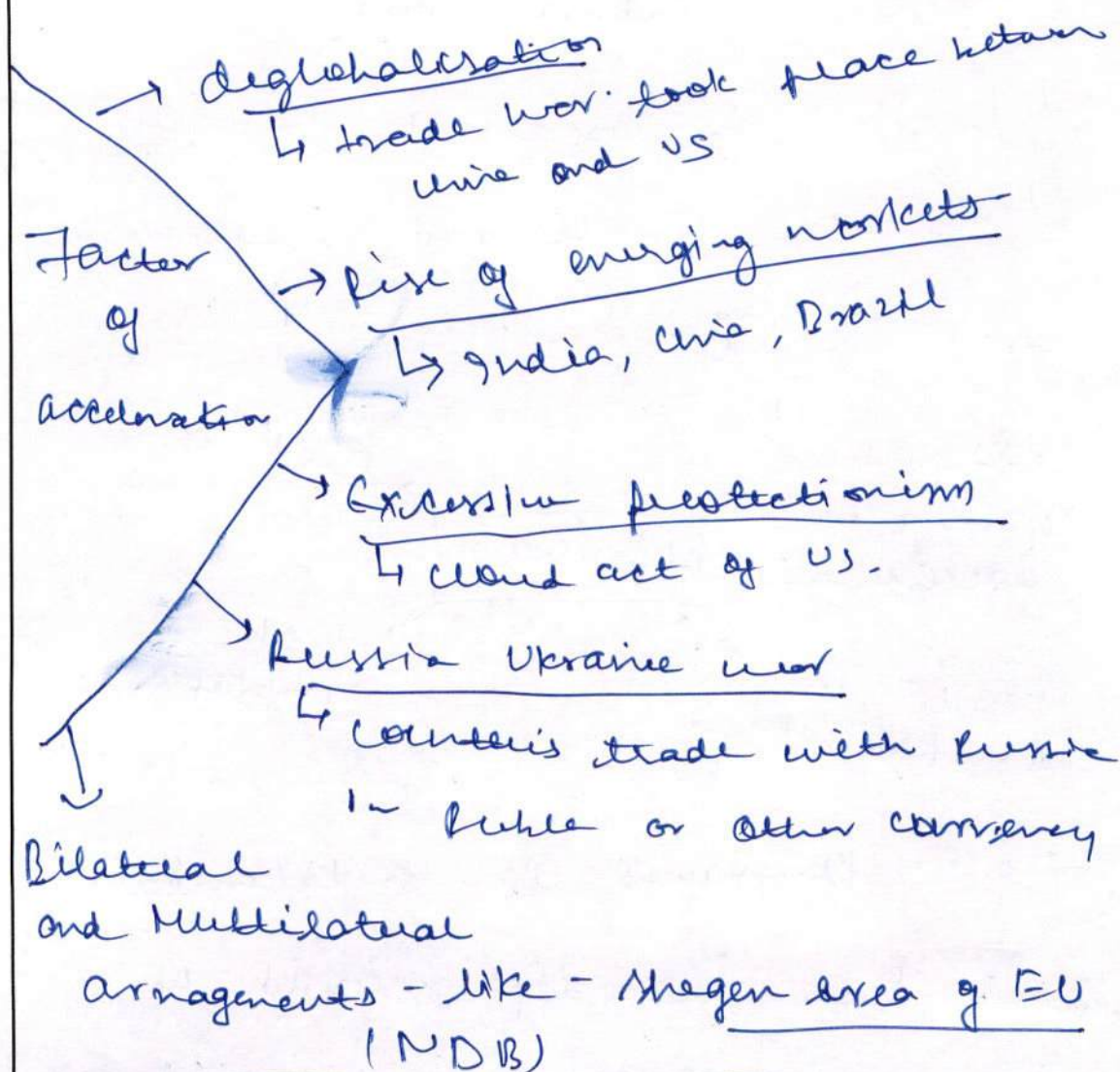
3.

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
Candidate must not write on this margin

De-dollarisation amounts to less of dollar as currency in foreign trade. Its place is taken by other currencies like Yuan, Ruble etc.



Yet, dollar will not lose its dominance soon as -

- 1) There is backlash from working-class communist organisation - WTO, IMF
- 2) No concrete mechanism of replacing dollar has come up.
- 3) Lack of credibility on other currencies to sustain long
- 4) Trade in dollar is still widely practised
- 5) Lack of institutional mechanism like WTO, IMF

These reasons show that dedollarisation may have long steps to take. Nevertheless, steps like trade in rupee with rupee and internationalisation of rupee by India are welcoming steps.

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

WTO has become hurdle ground for developed and developing countries.

Keeping food subsidy in ~~another~~
another box is the bone of contention

Issues of subsidy

1) Developed countries accuse developing countries of providing excessive subsidies - breaching of peace clause

But there is merit in retaining policy support to developing countries

① Large poverty in global south - 60% poor in Africa and Asia

② Food insecurity - Global south accounts for more population in

Hunger Index

- ③ Support to agriculture - As
large population depend on this
(45% people in agriculture
in India)
- ④ Economy is dependant on agriculture
 - ↳ North - less than 10% of GDP
 - ↳ South - India - 18% of GDP
- ⑤ Fair terms of development to
developing countries.

Needed Measures

- Peace clause should be secured
- Food subsidy should be
brought under green box
- Hto. & Employment of sober
development fund

Collaborative approach

with south south cooperation
will only benefit

5.

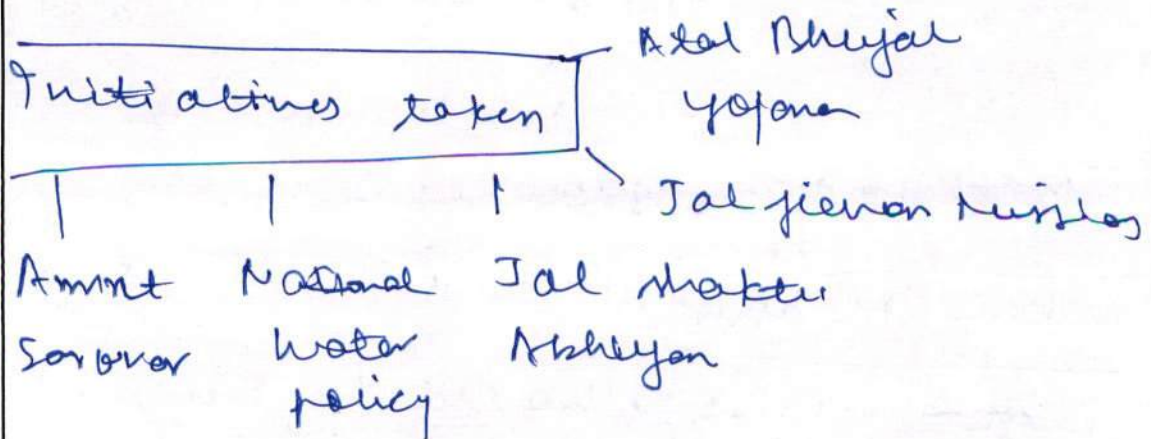
भारत की जल संबंधी जरूरतों को पूरा करने की दिशा में सरकार द्वारा कई पहलों की शुरुआत की गई है, परंतु जल की उपलब्धता और जल की गुणवत्ता जैसे मुद्दों पर अभी भी नीतिगत हस्तक्षेप की आवश्यकता है। विवेचना कीजिए। (उत्तर 150 शब्दों में दीजिए)

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)

10

उम्मीदवारों को इस हिसाब में नहीं लिखना चाहिए
Candidate must not write on this margin

India accounts for 17% of population but has only 4% of water resources. The changing climate and looming urbanisation creates more stress.



But the quality and availability issues remain

① High demand - 70% increase due to population rise

② Per capita availability has become ~~more~~ 60% down. (CPCB)

③ More than 70% water sources

are polluted

④ High groundwater extraction -
25% of all world

⑤ less availability - More than
80% of rural population lacks
tified drinking water

⑥ Climate crisis - flood, draughts
create problem

⑦ Very zero situation - 30% cities
will lose groundwater by 2035
(LWMI)

Measures Needed

→ behavioral
change

→ One water
approach

sustainable
agriculture
(LWMI/A)

Rain
water harvesting
(catch the rain
programme)

These methods will

fulfill SDG 6

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 दृष्टि में नहीं लिखना चाहिए
Candidate must not write on this margin

Glacial retreat in Arctic has presented one of the biggest challenges to humanity. The threat of climate change widens with this

Major drivers of Glacial retreat

- ① Climate change - temperature of Earth has already risen 1°C (IPCC)
- ② Reducing albedo effect - ~~creates~~ more black carbon exhaustion creates more melting
- ③ Industrial activity like mineral exploration in Siberia
 - ↳ 13% of oil
 - ↳ 22% of gas
- ④ Thinning ice is being reached

In Arctic

⑤ Deforestation at large scale
also leads to this

⑥ Potential Impact of Retreat

- ① Threat to biodiversity - like
polar bears, seals etc.
- ② More albedo reduction due
to more melting.
- ③ Regional weather change due
to moisture availability
- ④ More coastal erosion will take
place
- ⑤ Threat of sea level rise
- ⑥ Opening of new shipping routes
North sea routes.

More scientific research
and sustainable solutions via
Arctic Council is way forward

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

With the rise of space X, Blue origin and Virgin Galactic, the space tourism has taken new height

Challenges associated with it

- ① More space debris - risk to Kessler syndrome
- ② More GHG emission as use less of fossil fuel
- ③ Commodification of space means real
- ④ No regulatory architecture in case of any accidents and no responsibility mechanism

⑤ Give rise to militarisation of space as countries race to it

Following measures can be taken

- ① Use reusable rockets like Falcon X
- ② Provision of proper guidelines should be made.
- ③ Institutional mechanism should be in place to regulate it
(Outer Space Treaty)
- ④ Cleaning of debris should also be undertaken (Project Net)
- ⑤ Sustainable use of space should be done
- ⑥ International collaboration is needed

Artemis Accord and
Space tourism policy of ISRO should
be followed to secure global
common

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 is one where T cell are infused with antibodies that fight cancer cells

Gene changes in cancer — used only once

Tata Memorial Hospital Mumbai used high efficiency no side effect

Overcome limitation of CRISPR

- ① less costly
- ② less Bit easier to do
- ③ less chances of manipulation and high chances of corrections

④ No need to editing of genes

⑤ large scale availability.

Therefore CRISPR is a revolutionary technology. More R&D and funding will bolster it.

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 खंड में नहीं लिखना चाहिए
Candidate must not write on this margin

Rising and new emerging technology are those which have large potential and future applications

Ex IOT, Blockchain, 3D Printing etc.

Threat as used by violent extremist organisation

- ① Higher reach of propaganda
↳ Metaverse
- ② More lethal weapon are made -> 3D printing of gun
- ③ Anonymous Nature - use of driverless car
- ④ Chances of using fake identity
↳ using AI software
- ⑤ Carrying attack or providing drug income easy -> drones

- ③ Difficult to catch - One wolf
attacker are trained via Augmented
reality

These issues needs to be addressed
by global efforts

- ① To check their reach - ~~Ex~~ Delhi
decoration on
terrorism
- ② Use technology
to avert the attack
↳ ~~Ex~~ social media use by
US against Al Qaeda.
- ③ Make global consensus - ~~Ex~~ Church
to tackle this
call on
action
- ④ To secure lives, prosperity and
human rights of people
- ⑤ Peaceful use of technology
~~Ex~~ Conference on AI going
on

Only by concerted efforts
the extremists could be checked

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)

10

उम्मीदवारों को इस दृष्टिकोण से नहीं लिखना चाहिए
Candidate must not write on this margin

Ando That border police force is deployed in the conflict zone of India China border.

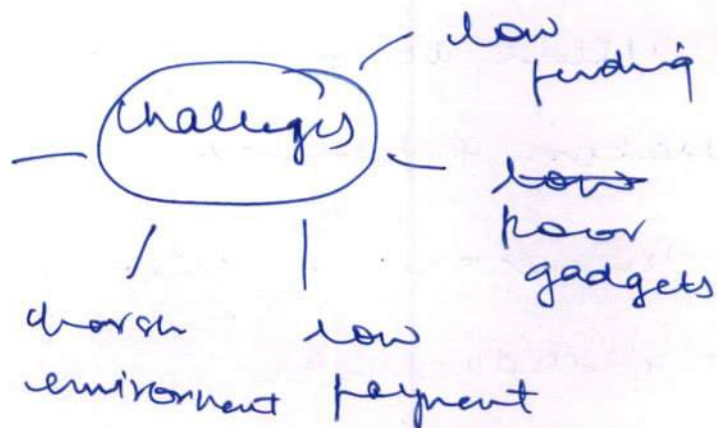
Role of ITBP

- ① Provide security to the region
- ② Provision of assisted help in policy making
- ③ Provide intelligence to the agencies
- ④ Collaborate with nearby population to generate chain of trust.
- ⑤ Making of infrastructure like small bridges.

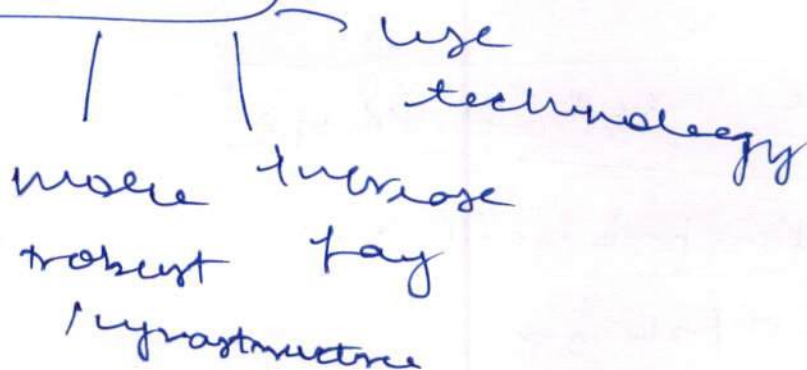
⑥ Helping during disasters

①

②



way forward



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

Agriculture accounts for 45% of population employed and 18% of GDP in economy. Shifting from land productivity to irrigation water productivity will make it viable and sustainable.

The need of shift

- ① low productivity - only 50% in comparison to china
- ② Non sustainable - Agriculture is source of climate pollution
(Koronina joint action)
- ③ Fragmented land - restrict the productivity of land
80% farmers - less than 1.2 ha.
- ④ monsoon dependency
- ⑤ Poor efficiency of resources
like fertiliser, herbicide.

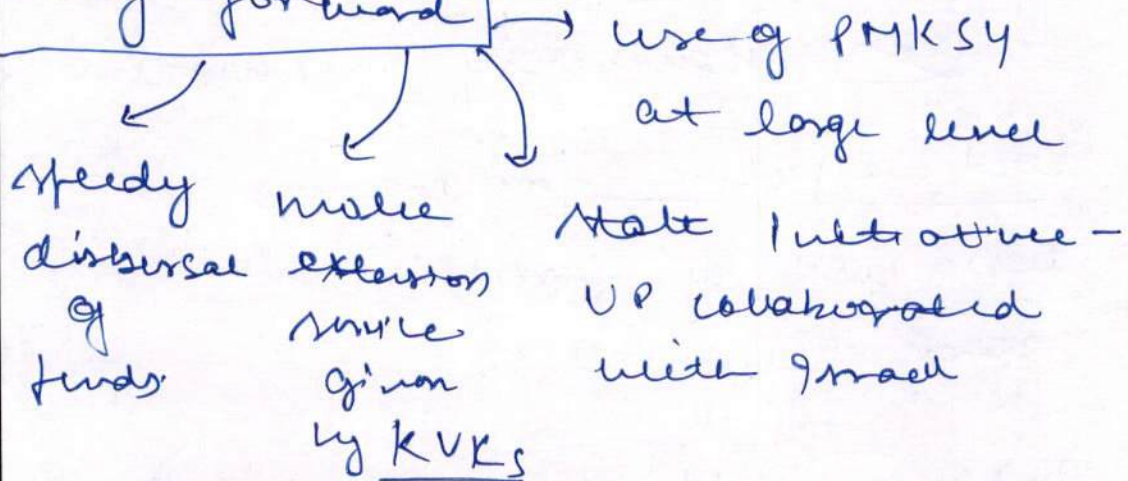
Irrigation water productivity
will support

- ① High water use efficiency - more than 80% than conventional method → less runoff
- ② High energy efficiency - as less use of water
- ③ Better use of fertilisers - as done in optimum and precise doses.
- ④ New crops could be grown
↳ ~~for~~ Strawberry in Rajasthan
- ⑤ Cost effective for farmers as less use of fertilisers and other inputs
- ⑥ Better yield as seen in Israel
- ⑦ Sustainable - less leaching of chemicals in soil.

Challenges in making shift

- ① Lack of awareness - due to low extension services
- ② High cost in the initial phase of deployment - 80% farmers are small and marginal
- ③ Low public spending - Govt only spend 2% on agriculture
- ④ Poor disbursement of funds - only 21% received PM KISAN funds

Way forward



Then only agriculturist could become sustainable agripreneurs

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 कक्ष में नहीं लिखना चाहिए
Candidates must not write on this margin

Green hydrogen is the hydrogen made using renewable energy. It is considered as the source fuel for the future

Unlocking energy security in India

- ① Clean source - could fulfill Panchamrit strategy - 50% non fossil energy
- ② Reduce dependence on import
↳ as India import 87% of its oil needs
- ③ Reduce Green House Gas Emission
↳ as hydrogen only releases ~~water~~ water as byproduct
- ④ could be used in H CNG buses - improve public transport

⑤ Improve economic position
by reducing current account
deficit

⑥ It is used in cooking fuel -
could support Ujjwala yojna

Green hydrogen mission help
India achieving the goal

① As it aims to produce 5 MMT
of green hydrogen.

② Catalyses research and development
in ~~the~~ this sector.

③ Could improve ~~not~~ production
as well as export at
later stage

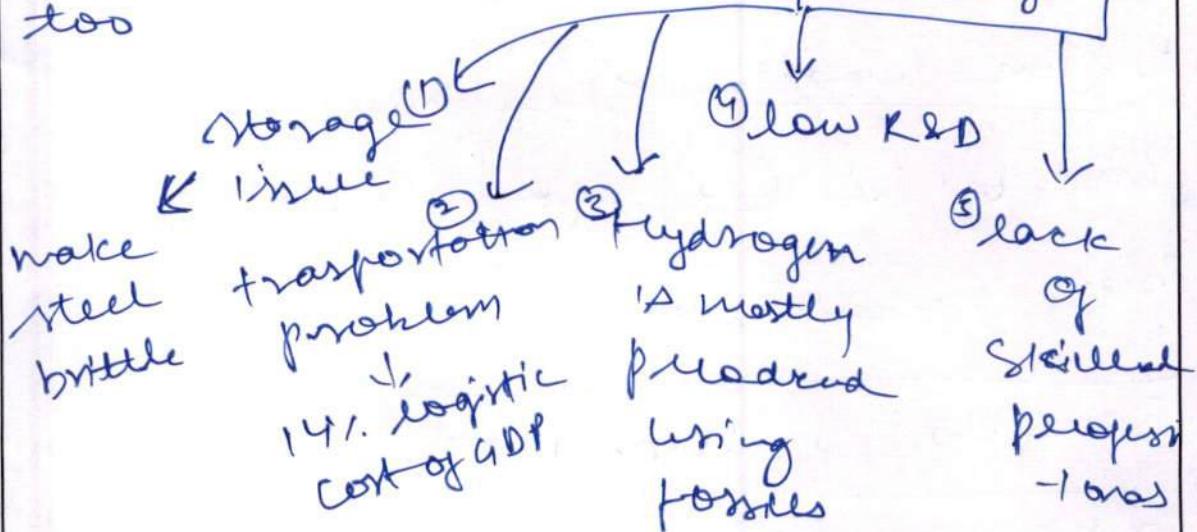
④ Enough funding will be
provided to develop

green hydrogen

⑤ Employment generation will take place

⑥ Private sector participation is needed - Interest rate subvention and tax waiving.

But there are some challenges too



Providing more support to private sector and more R&D could heat the sector of green hydrogen

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

उम्मीदवारों को इस कक्ष में नहीं लिखना चाहिए
Candidate must not write on this margin

Minimum and living wage are ~~the~~ two methods of remuneration to labour.

Minimum wage - the ceiling ^{under} ~~beyond~~ which no labour is paid.

Living wage - The minimum amount needed for fulfilling basic necessities

Benefits of transition

- ① Provide basic necessities - to the people working $\swarrow$ food house
(101st Hunger Index) $\searrow$ nutrition
- ② Check adverse impact of inflation on workers
- ③ improve capability of

Workers - better production will take place

④ Could reduce inequality - 1% uses 40% of GDP (Oxfam)

⑤ Better fulfilment of Constitutional mandate - Art 42 - better working and living conditions

⑥ Welfare of workers and less exploitation by industries

⑦ Help in tackling multidimensional poverty - 50% of India - less than ₹5000/month (Oxfam)

Constraints

① Industries may not be willing

② More litigation goes into the court

③ Encroachment on state subject - competitive federalism

- ④ State wise differences in the price of commodity hinders the Integrated formulation of policy
- ⑥ large Informal sector - 90%.
- ⑤ May hurt ease of doing business

Way forward

- ① Revise policy as per State Consultation
- ② Link it with Inflationary Index
- ③ More Stakeholder Consultation is needed
- ④ Formalise workers
- ⑤ Better skilling and use of technology will spur growth - (NIPUN)

Shifting to living wage needs more collaboration with states, industry and trade unions

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

Union budget is dealt with Art. 112 in the Constitution. It is the yearly exercise showing receipt and expenditure of government, with upcoming plans

Affects almost every sector

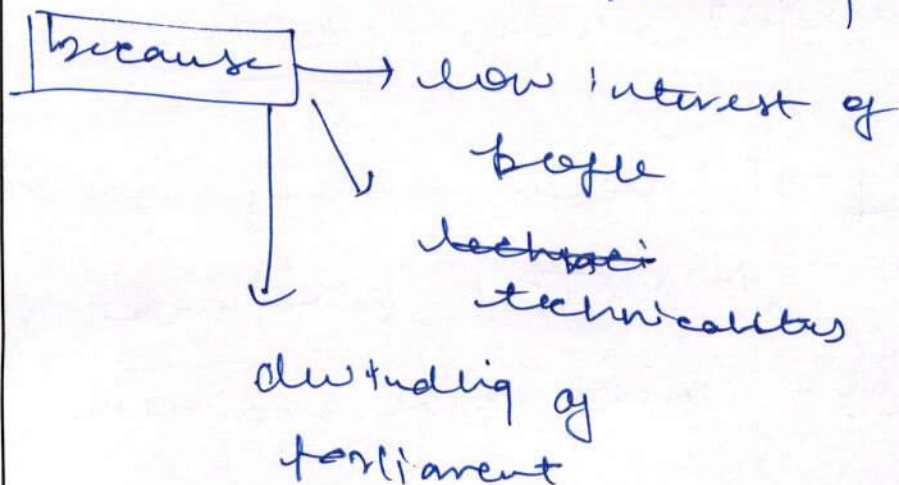
- economy - \$5 trillion economy
- social - NISHTHA programme
- political - Cooperative federalism
- technology - National mission on block chain
- defense - 74% FDI given
- balanced growth -

Economic sector

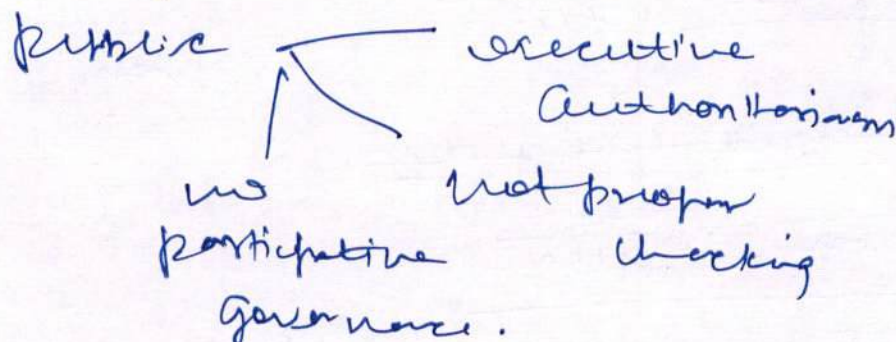
- ① Agriculture → Livestock (Rashtriya Gokul Mission)
Agri investment fund → farmers (Blue revolution)

- ② Industry - Manufacturing (Zero defect / zero effect scheme)
PLI
- ③ Services - Infrastructure / National Logistics policy
FDI → trade in services from India scheme

Budgetary powers comes under Parliament secretary but not the public secretary



issues of not coming in



Needed

- ① More public consultation
- ② More strengthening of parliamentary committees
- ③ Tech uses - My gov. to give feedback.
- ④ Use of NGOs, civil society should be made

By these, the budget process will become by the people, of the people, for the people

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

Today India is the largest producer of milk in the world. The dairy sector contributes 5% to GDP

Milk deficit country to biggest milk producer

- ① Dairy sector has 10% CAGR
- ② It employs 70% of women - social inclusiveness
- ③ Milk products account for exports ~~to~~ for AMUL
- ④ Food processing sector too has component of dairy - backward linkages

but productivity as Challenge

- ① low productivity - ~~45%~~ only 45% of world average
- ② lack of fodder - due to desertification
- ③ lack of per capita availability
- ④ Disease - FMD
- ⑤ Reason → poor Veterinary Services
- low technology
- market link - no liquid nitrogen to store semen
- Infrastructure
- Means → storage
- refrigerated van

Methods Needed

- ① Provide Infrastructure - National logistic policy
- storage facility - PEH chain

- ② Better livestock care
 - Veterinary services
 - Poultry
 - National livestock mission
- ③ Better funding via Agricultural Investment fund.
- ④ Market availability - via e-NAM NAFED.
- ⑤ Role in private sector and Cooperatives like AMUL
- ⑥ Treatment of diseases at fast pace - National Animal disease control programme.

These methods will help in improving productivity.

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)

15

Climate change and agriculture
and both are harming each
other. ICAR says 1°C rise in
temperature leads to 6% decrease
in income

Climate change responsible for
crop failures

- ① Floods - destroyed wheat crops
- ② Drought - decreased productivity of rice
- ③ ~~Unusually~~ Unusually ~~early~~ early caused inflation
↳ Export of rice was banned

- ④ Decreased productivity is witnessed among farmers.
- ⑤ 12% of rice production will decrease by 2050
18-20% maize will be decreased by 2030 - ICAR
- ⑥ Desertification has affected agriculture in Bundelkhand region

Agriculture responsible for extreme weather

- ① High GHG emission due to burning of stubble
- ② High methane release due to rice production, and ruminants
- ③ depleting groundwater - as agriculture uses 80% of it
- ④ soil pollution - due to

leaching of chemicals.

⑤ Clearing forest - slash and burn agriculture in North East

⑥ Water pollution - (70% ↓ decreased ~~from~~ CWM)

Biology under National Disaster Management Plan

① Climate smart agriculture like NMSA, NICRA

② Integrating agriculture in disaster risk reduction

③ Involving community in DRR.

④ Roping local levels like PRI's

⑤ Making awareness about climate change among people.

These will facilitate climate smart agriculture.

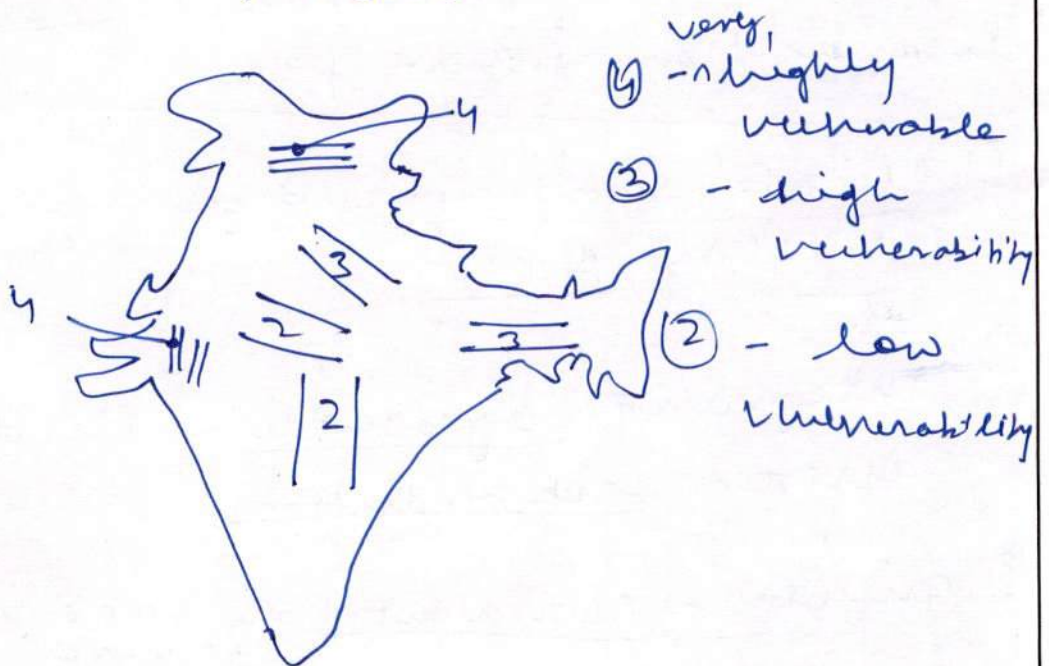
17.

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

The 59% area of India is prone to earthquake. I.S.Z has divided it into 4 zones.



Airport of Earthquake

- ① loss of life
- ② loss of property
- ③ infrastructural damage
 - ↳ power grids
 - ↳ schools etc.

- ① Damages $\left\{ \begin{array}{l} \text{Health} \\ \text{Agriculture} \\ \text{displacement of} \\ \text{population} \end{array} \right.$

Institutional Measures

- ① Mapping of hazard zone by GIS and ISO
- ② National disaster management plan - provides policy framework
- ③ National disaster response force - used in calamity.
- ④ National executive committee provide high level coordination and command
- ⑤ Early warning systems have developed

Gaps

- ① No inclusion of climate change in disaster risk reduction
- ② No collaboration with state level agencies
- ③ lack of community participation
- ④ lack of coordination due to multiplicity of agencies

Guidelines of Ministry of Panchayati Raj regarding using bottom up approach in ~~the~~ DRR should be followed.

8.

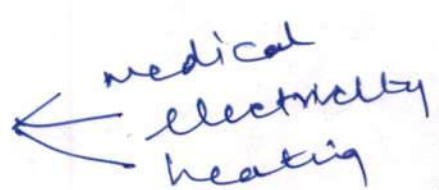
हाल ही में, वैज्ञानिकों ने परमाणु संलयन अभिक्रिया में निवल ऊर्जा लाभ की घोषणा की है, जिसे स्वच्छ ऊर्जा के भविष्य के लिए एक बड़ी वैज्ञानिक सफलता माना गया है। परमाणु संलयन आधारित विद्युत उत्पादन के क्या लाभ हैं? व्यावसायिक स्तर पर विद्युत उत्पन्न करने के लिए इसके उपयोग की क्या सीमाएं हैं? (उत्तर 250 शब्दों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

15

Nuclear ^{fusion} ~~fusion~~ is the technique
where energy where nuclear
atom are joined together to
produce energy

Major breakthrough for clean
energy

- ① less emission of fuels
- ② Could curtail GHG emission
and tackle climate change
- ③ Reliable and non intermittent
source of energy
- ④ highly efficient source of
energy
- ⑤ Varied application 

Advantages of Nuclear Fusion

- ① Not release radioactive material as in fission
- ② More efficient as no energy is destroyed or wasted
- ③ More secure - no radioactive release
- ④ Could help in understanding universe - as fusion takes place in stars too
- ⑤ More economic growth - due to less fossil use
- ⑥ Continuous supply
- ⑦ Could fulfill INDC goals.

Limitations

- ① Hard to achieve fusion
- ② R&D is low in other ~~see~~ global south countries

② Question of security is still
to be resolved

③ High cost ~~requirement~~ of
process

④ Lack of skilled professional
to carry out research

⑤ Not available for large
scale - Tokamak reactor created
electricity for few seconds only

Way forward

↓
Nuclear
hydrogen
could
be
used for while

↳ More R & D is needed
↳ More International
collaborations like ITER
More funding should be
given by countries

The fusion generated
energy is undoubtedly excellent, but
more time, funds, are need of
have.

19.

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)

15

उम्मीदवादी
इस हार्डि
नहीं लिखना
चाहिए
Candidate
must not
write on
this margin

Money laundering is the method of converting illegitimately ~~earned~~ earned money into legal system

India loses 2% of GDP to this, as per IO

Efficacy of PMLA

① Checking the usage of legal loopholes - like DTAA

② Strengthening surveillance of banking system

③ The counterfeiting of currency has come down by 20%.

(Parliament session 2023)

④ Busting of havas, have been done.

⑤ It checked money laundering
for organised crime

↳ ~~Act~~ Anti terror funding
Cells in Min. of home
affairs.

⑥ Vast measure of prosperity
took place

However there are some
challenges

① The act has been used for
political purpose. - alleges
Opposition

② The conviction rate has
been low - NCRB

③ Used to stifle liberty of
people

④ No mechanism to deal with
extraditions of criminals

⑤ Centre State collaborations
may get hurt

↳ higher jurisdiction of NIA

⑥ Lack of grievance redressal.

Thus the PMCA needs
to seen in wider light. More
concrete actions are required
like extradition powers and
~~visiting~~ ~~obs.~~ State should
support it

0.

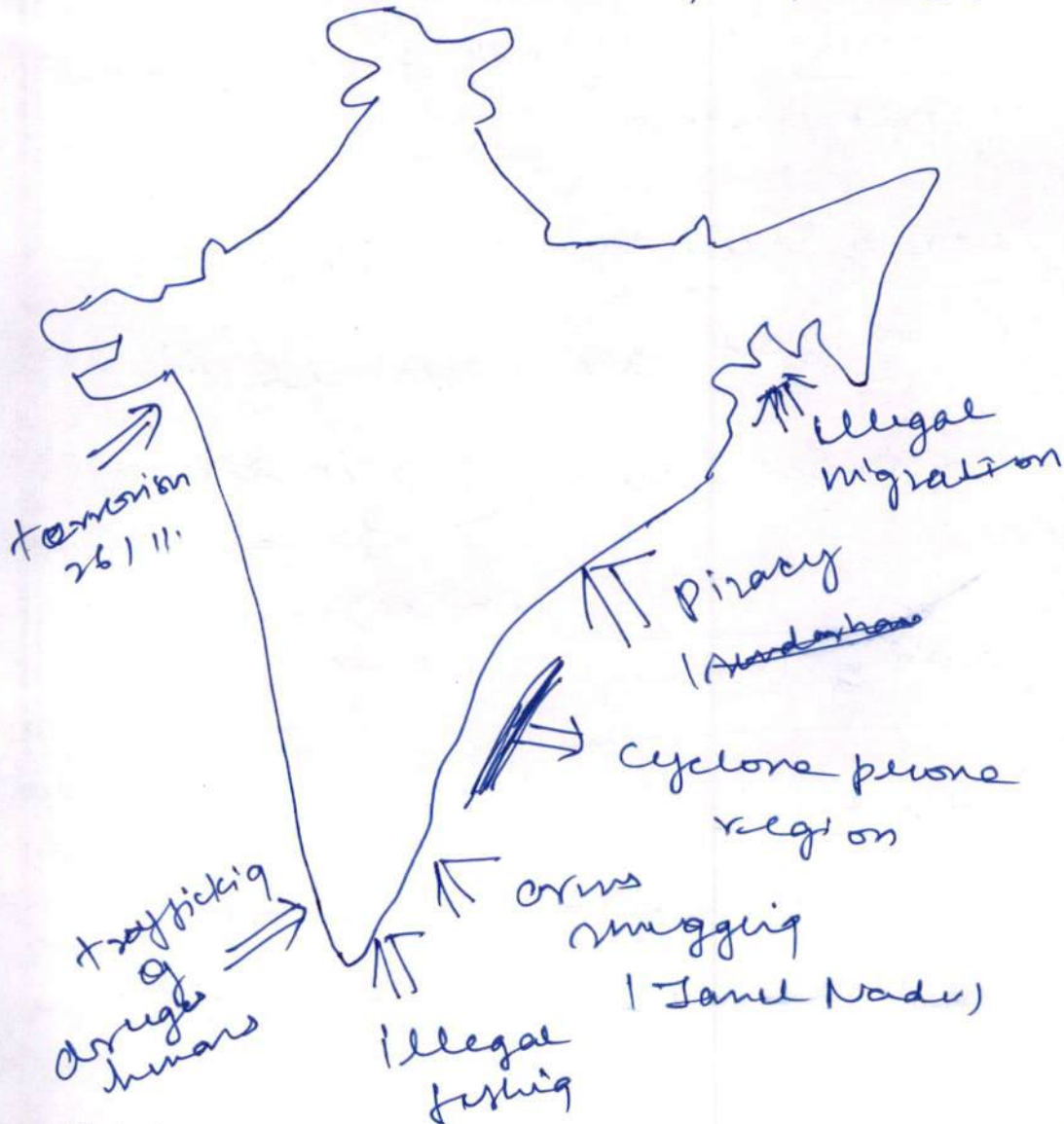
हिंद महासागर क्षेत्र (IOR) में मौजूद उन सुरक्षा खतरों पर चर्चा कीजिए, जिनका भारत के समुद्री सीमा संबंधी हितों पर सीधा असर पड़ता है। इन खतरों से निपटने के लिए एक मजबूत रणनीति सुझाइए। (उत्तर 250 शब्दों में दीजिए)

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)

15

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

India shares long border of 7500 km to the maritime large. It is surrounded by Indian Ocean by three sides that makes it vulnerable to security threats



Direct bearing on security of maritime borders

- ① AS — 27 million people are dependent on fishing
60% of trade takes place through this
Relation with countries are dependent (India - Sri Lanka) → dependent on resources

- ② Terrorism — 26/11 took place via Gujarat waters

- ③ lack of security — ID says 80% minor port are insecure

- ④ Organised crime —
→ Trafficking
→ Human
→ Narcotics

Relevant Strategy

① Institutional

- 1) Better coordination between Coast Guard, India Navy

- ② Use of technology like night vision goggles, Mapping by ISO
- ③ Actionable intelligence should be given
- ④ Securing the strategic AEN island
- ⑤ Collaborate with International regime like IORA, IONS
- ⑬ Community led efforts
 - 1) Provide economic security to near border population
 - 2) Community policing could be done
 - 3) Collaborate with nearby Panchayats

These methods will
secure 90%.

SPACE FOR ROUGH WORK