



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 उपरान्त 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. : 1199106

अभ्यर्थी का नाम/Name of Student : Aishwaryam Prajapati

माध्यम: हिंदी/अंग्रेजी
Medium: Hindi/English

ENGLISH

तारीख
Date

27/08/23

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

केंद्र

Centre

105E Lucknow, UP

निरीक्षक के हस्ताक्षर
Invigilator's Signature

	महत्वपूर्ण अनुदेश 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।	Important Instructions 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)					



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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 की 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 हिसाब में नहीं लिखना चाहिए
Candidates must not write on this margin

Food and Agriculture Organisation (FAO) defines food security as all time availability, affordability and accessibility to food to all people. Food security ensures a minimum level of nutrition among people.

Different dimension of food security are :-

1. Production

4. Affordability

2. Storage

5. Accessibility

3. Distribution

6. Availability

India's status on these dimensions

1. Production (a) India (2nd) largest producer of food grains after China

(b) horticulture production also one of highest (2nd in world)

2. Storage → Integrated cold chain availability program

APEDA and MPEDA State and central warehousing cooperation

ensure the efficient storage along with

(FCI) (Food Corporation of India)

3. Distribution - taken through PDS (Public Distribution)
I system by FCI
under Nation food safety act (NFSA)

4. Affordability $\Rightarrow$ PM garib kalyan Yojana
ensuring Affordability to poor section

- NFSA $\Rightarrow$ $\text{₹ } 3/2/1$ per kg Rice/wheat/courage grain
- Antyodaya Anna Scheme = 35 kg/Household

5. Accessibility - One nation one ration card
and interoperable Anna Urban Portal
help in accessibility

Concerns Associated :-

- 1) low per capita yield (garmented land - Reason)
- 2) low processing of texticulture and food grains
- 3) skewed Storage capacity, high wastage
- 4) high fiscal burden of PDS (~2 lakh crore)
- 5) exclusion error (~~only~~ 67% covered under NFSA) hinder accessibility

Thus a greater Overhaul of food
distribution, transportation, storage along
with climate resilient variety such as
Millets should be taken to accomplish

SDG 1, 2 ($\odot$ Hunger, poverty)

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)

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

10

Blockchain is a decentralised system of currency system/technology, and chatgpt is an artificial ~~program~~ program having perfect user interface through huge language training.

Potential in transforming Agriculture :-

1) CHATGPT → used for research and development
↓
in various climatic region
↓
huge data collection and processing
about new varieties

→ help farmers to have solutions to everyday farming problems eg: pesticide suitable for
pest infection

→ can be leverage to develop new climate resilient variety of crops through information about crop characteristics

→ global cooperation in developing SMART Agriculture

2) Blockchain →

- a) help in creating an efficient farm to fork model for food processing
- b) can be leverage to reduce middlemen from the supply chain through direct connection between farmer and procurement entities
- c) can be used to develop hub and spoke model of farming, pilot farming to test new crops through Internet of device
- d) It can be used to transform the remuneration to farmer for their produce reduce delays, cuts and pending arrears.

However concerns lie :-

- 1) Internet connectivity less and low penetration of digital services
- 2) low farmer capacity - digital education
- 3) major farmers are small farmers (< 0.5 hectare land SATS survey)

Thus greater capacity building should be undertaken to leverage the platforms for a 2nd green Revolution

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
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De-dollarisation refers to the reduction in use of dollar (\$) in international trade by countries, thereby reducing volume of \$ in international financial system.

Factors for increasing trend of de-dollarisation

1. USA's attempt to use it as a cost free trade weapon against countries

e.g. Sanctions on Iran, Russia affecting India's trade

2. To peg regional currency such as Yuan, rupee for more deep economical partnership

3. unexpected events like fed tapering affecting the world, global financial crisis

(de-dollarisation would reduce vulnerability to external shocks)

4. \$ manipulation (by USA) for its own benefit (makes export difficult)

5. To reduce dependency on foreign currency → Freedom from

maintaining ~~foren~~ reserve in \$

Will \$ loose significance :-

It is difficult as \$ has

- 1) high volume of trade in world (> 20% of trade in dollar)
- 2) America's credentials
 (no other country
 currency fulfils this)
 - open free markets
 - democratic rule
 - high trust in \$ in world
- 3) Ruppee 1% in global trade = 1%
 than 1% in global trade = 4%

When can \$ loose significance

① when any regional currency increases
 share in export-import or global supply chain

India has to thus focus on

1) increasing trade and mercantile activity
 around world, higher share in global value chain

Thus \$ has been a trustful currency, however
 due to various structural deficiencies it is

now moving towards idea of de-dollarisation

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

उम्मीदवारों को इस हिसाब में नहीं लिखना चाहिए
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Subsidy is form of benefit given to people in country. India gives subsidy on food to poor through schemes like Public distribution system (PDS). (Indirect subsidy ~ 2.0 lakh crore)

Pressure from developed countries :-

- 1) WTO's members demand reduction of subsidy on sugarcane (Brazil, Guatemala)
- 2) Fishing subsidy (India = \$15/fishermen developed = \$7500/fishermen country)
- 3) PDS and MSP include in Amber Box subsidy (i.e. trade distorting)

Significance of food subsidy regime

1. Huge poverty (381 million poor still left in India)
2. Covid-19 - caused deprivation
(per research = poverty doubled after Covid)

3. High incidence of anemia and non-communicable disease in India
(~~WHO~~ - 51% women anemia victim)
4. High instances of child wasting, child stunting, malnutrition
5. Huge hunger rate (Global Hunger Index - India > 107 position)

Thus food subsidy helps in :-

- 1) Maintaining minimum level of nutrition among people
- 2) accessible to poor and below poverty line population (NFSA > 67% people given Rice/wheat/coarse grain at ₹ 3/2/1 per kg)
- 3) Help farmers through MSP (Minimum Support Price) to achieve double income
- 4) subsidised distribution in Mid day meal has yielded positive results of high enrollment along with good nutrition
- 5) Is very useful for overall development (physical, mental, cognitive)

Thus in developing countries like India, food subsidy is very important to achieve

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 हार्शिए में नहीं लिखना चाहिए
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India depends on Monsoon for larger parts to attain water security. However unstable monsoon, depleting glaciers and falling down ground water level (>84% utilization for Rice/wheat crops), water insecurity threatens India.

Initiatives taken by government :-

1. Central ground water commission to map and conserve sources of ground water
2. National Rain water Harvesting program And "Catch the Rain" campaign to conserve and tap Rain water
3. Atal Bhujal Yojana - to maintain a good level of groundwater Aquifers
4. Laxmi Bani Sansad = Rejuvenation of Johad, kunda, Tanka (traditional storage structures)

quality of river ganges by abating pollution.

Issue still persistent: Reasons are:-

1. structural deficiencies - weak monitoring of Schemes and lesser accountability

2. limited community participation in schemes like Namami Gange

3. lack of Budget and financial resources

4. Issues like low operation capacity of common effluent treating system, not working efficiently

5. Natural and climatic factors

↓
Uneven Rainfall delay in Rainfall

↓
Natural disasters

(Storm surges
flash floods)

6. falling ground water level
↓
concentration deforestation

} = loss of Natural oxygen

7. despite NATs (National green tribunal) ban, illegal jeans manufacturing, textile industry surge in rivers

Schemes like Sujalam Campaign to make

sponge cities, Neer-Nesha Campaign and

community participation is the need of hour for sustainable water policy.

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
Candidates must not write on this margin

Arctic glacier is the ~~North~~ northernmost pole of earth and is source of water as well as Minerals. It consists of huge number of glaciers which are now affected due to climate change.

Major drivers of Arctic retreat :-

- 1) huge CO₂ emission → vehicular exhaust
→ industrial emission
- 2) increasing global warming = causing melting of arctic ice
- 3) The increases shipping activity has led to Negative feedback loop, Albedo feedback loop causing melting of glaciers
- 4) The arctic paradox - shorter routes and huge mineral/coal/natural gas deposits attract the pollution and oil spills etc.
- 5) Illegal fishing, mining, nuclear test in arctic biota

Potential impact on ecosystem) :-

- 1) Reduction in snow cover = reduce number of glacier = water insecurity / food insecurity
- 2) release of huge no of Bacteria trapped in glaciers — new diseases, alien species, invasive species, destroy biodiversity
- 3) Release of methane, trapped in glaciers would further contribute to global warming
- 4) Rapid ice melting = causes ocean level rise — high flood frequency
- 5) Reduction in Albedo of earth = more sunlight = more melting of glaciers
- 6) Arctic glacier retreat = disbalance in ocean circulation — also disturbs the general air circulation

Thus for a sustainable future, arctic region — the sentinels of climate change should be preserved. A global treaty similar to Antarctic Treaty and Madrid protocol is need of hour

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

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

Space tourism is defined as a flight to space by people who are not astronauts and for entertainment / leisure purpose

eg: spaceX = elon musk
Virgin Galactic by Richard Branson } = undertake
Roscosmos (Russian space agency) } space tourism

Challenges Associated are :-

1. Safety concerns of passengers on board in hostile space environment
2. No treaty covering non-astronaut passengers in space. All insurances only cover Astronauts
3. Effect of increasing space debris due to multiple space tourism missions
4. Environment affected, CO₂ emission if frequency increases in future
5. No treaty covering liability of launching nation towards space, low earth orbits etc.

Measures taken to address challenges :-

1. Remove debris = by British space agency (European space agency) to remove debris through net and harpoon method

2. UN COPUUS : UN Committee for peaceful use of outer space.

Moon convention
Liability convention
Registration convention } to ensure safety of space as well as passenger

3. Space situational Awareness by India to increase safer space flight

Other measures that can be taken :-

1) An international treaty to impose consensus on liability of landing organisation - to ensure safety of passengers

2) Awareness programs and Regions training to ensure safer space tourism

Thus increasing trend of space tourism needs to be regulated to avert disaster in space

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)

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

10

CAR-T cell therapy is used to manipulate genetic resources (genes in humans) to cure diseases such as Cancer, Leukemia, and AIDS.

CAR-T cell therapy :-

1) genetic modification $\left\{ \begin{array}{l} \text{variation} \\ \text{addition} \\ \text{deletion} \end{array} \right\}$ of genes

2) introduce the new genes to replace the faulty genes.

3) can be helpful to detect and cure foetus malformi,

Advantages of CAR-T cell therapy over

CRISPR-Cas9 :-

1) CRISPR-Cas9 requires special

"geni guides" or genetic protein
↳ (Cas-9)

to make genetic changes. This is not
Case with CAR-T

- 2) CAR-T cell therapy is easier and less
invasive to perform than CRISPR-CAS9
- 3) CAR-T cell therapy having higher
Success rate than CRISPR
- 4) CART-cell therapy can be used against
many diseases [cancer = Most
effective]

Thus CART-cell therapy has the potential
to revolutionise the disease treatment

- Reducing requirement of chemotherapy
- Reducing in cost
- Reduction in after effects of chemotherapy
- no use of Radiation as in chemotherapy

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 हाशिए में नहीं लिखना चाहिए
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Extremist organisations are those which propose violent ideology different from the rest of society. Rise of new & emerging

technologies like

Big data Artificial Intelligence metaverse

have increased their potential to disrupt peace in society through terrorism acts.

It demands concerted global efforts because:-

1. It leads to organised nature of crimes coupled with drug trafficking and human trafficking.
2. Piecemeal approach not enough due to advanced technologies use by these organisations for
 - recruitment
 - spreading propaganda of hate
3. Usage of social media for extremism is

very difficult to regulate alone

4. Technology from private open source sectors like 3D printing (for gun manufacture), Automated vehicles (for strikes) and Metaverse (for pre-emptive strikes) require coordinated approach

5. Usage of Blockchain for financial help increased the anonymity and difficulty in tracking their network

6. The Technologies like deep fakes have been used to spread false fake news to deter law and order condition

Thus it's not alone the potential of a single state to stop such globally connected extremism eg: ISI and ISIS connection

It requires :-

- 1) global support-between nations
- 2) Scientific and technological support

Thus need of the hour is to cooperate and coordinate efforts to save global order from extremism

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

10

ITBP (Indo-Tibetan Border Police) is the Border guarding force along China and Bhutan. It guards border against probable Chinese transgression.

Role of ITBP in Line of Actual Control :-

- 1) Ramps up border infrastructure
deployment of BOLD-RIT under comprehensive Border Infrastructure Management system (CBIMS)
- 2) increases vigilance along border with help of community engagement (Village defence guards)
- 3) installation of lood lightings all along border to curb illegal transgression
- 4) performs various Military drills with other border guarding

forces to keep detering aggression

5) partners with Border road organisation (BRO) to upgrade Road infrastructure in the region

6) Engages communities to gather local intelligence about the terrifying areas around border

7) Also cooperates with china/Blutem in event of clash for peaceful solution

8) ~~Pre~~ pre-emptive strike against any purported border aggression by china.

a) Also play role in training of Royal Blutem Army (a neutral Blutem is need of India seeing Doklam tension)

Thus ITBP is an important security agency enhancing India's Capabilities along

Sino - Indian border amidst

aggressive china's apprehensions

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)

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

15

Indian irrigation is mostly dependent on MONSOON and ground water which is uneven, untimely and also skewed availability.

land productivity in food grains is lower per hectare in India (Rice = 1091 kg/hectare)
chickpea = 2025 kg/hectare)

Why shift from land productivity to irrigation water productivity :-

- 1) land is a limited resource - however productivity can be increased through targetted interventions
- 2) declining per hectare ownership/availability of land (SAS survey $\Rightarrow$ 85% of farmers small and marginal having < 0.5 hectares)
- 3) Overuse of chemical fertilizers and pesticides have hardened and

degraded the soil

- 4) huge wastage in ground water resource
highest extraction in Punjab, Haryana
and green revolution areas
- 5) Water is a limited source (fresh water
non-renewable) dry areas like
Vidharbha - very low water availability
- 6) ~~faulty~~ to conserve water it is necessary
to ensure high water efficiency
- 7) food security guaranteed only when
water security is guaranteed

Challenges in Making this shift :-

- 1) Skewed and faulty policies
Minimum support price for Rice/wheat
(80% of ground water - used in Rice/wheat)
- 2) Subsidy regime - lower subsidy to
Agriculture - has led to inefficient water
usage - high extraction
- 3) Fertilizer subsidy has led to imbalanced
usage of fertilizer

W.P.P.K Ideal sation = 4:2:1

actual usage = 25:5:1

Increase the agricultural runoff

4) Chemical treatment of soil increased
(pesticides etc) = lesser water percolation

5) Natural Causes (a) Alien and Invasive
& Anthropogenic weeds (superweeds)
taking all water.

(b) Monsoon invariability

6) Insufficient and disatisfactory result of
water harvesting programs

7) high cost / high cost of Micro irrigation
equipments

Power availability / Require high maintenance
high training and skill

Thus need of hour is to introduce ONE-WATER
Policy and encourage farmers to
adopt Micro irrigation. Nabard's
Microirrigation fund should be leveraged and
Priority sector lending for it should be
extended to farmers.

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)

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

15

Green hydrogen is the ~~hydrogen~~ (H_2)

fuel generated through Renewable source

green H_2 $\Rightarrow$ through splitting of water into
(H_2) and (O_2) with help of solar
power

Role of Green H_2 in unlocking energy
security of India :-

1) low carbon carrier fuel = would help
reducing carbon intensity of Indian
economy (COP-26 goal = 45% less carbon
intensity)

2) inexhaustible - ~~it is~~ a renewable
energy and can be generated at
sustainable rate

3) Reduce import bills of coal/ Petroleum
Reduce energy import = enhance
fiscal space for other energy
infrastructure

4) Multiple uses of green hydrogen

fertilizer
manufacturing
(Urea manufacture) ↗ ↘
Pharmaceutical industry
(Active key ingredient)

5) viable for commercial operations
space fuel ↙ ↓
Aviation fuel

6) address increasing energy demand of
India (expected to be 200 GW by 2030)
from current ~400 GW)

7) help in reducing energy poverty,

8) Also as an indigenous fuel can be
exported to gain positive trade balance

National green hydrogen Mission :-

1) Aim = to achieve 100 Metric tonnes of
green hydrogen by 2030

2) It addresses the issue of electrolyser
technology required in electrolysis of
water

3) introduces ~~the~~ Participation of private
sector to help in Research, development
manufacturing, storage and

100% transportation

f) private energy companies can set up Bunkers near the green hydrogen production centre

5) The green hydrogen is under the ambit of Renewable energy certificate (RECs)

c) upgradation of storage and transportation infrastructure is given importance

however challenges such as :-

- 1) high flammability of hydrogen
- 2) storage challenges
- 3) safety concerns - leakage and explosions

4) low energy density = require frequent refuelling
(as a low carbon carrier fuel)

Thus a greater Research is required to attain the green energy infrastructure to remove energy poverty and attain efficient mix of energy resources

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)

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

15

Minimum wage under minimum wages

Act is defined as the wage which is required to sustain life i.e. affordability of basic needs of living (food, water and shelter)

living wage however means that not only basic minimum needs are satisfied but also certain other needs required to live a quality life are also fulfilled.

The transition from minimum wage to living wage has Benefits like :-

1) ensure high living standards among the population

2) would ensure more income as

(living wage > minimum wage)

- 3) Reduce incidence of poverty and help in increasing capacity of poor population
- 4) Bring fruitful change in consumption pattern - more healthy individuals
- 5) increase in demand - would increase manufacturing and spurs in economic growth $\Rightarrow$ also would generate employment.
- 6) Bring policy efficiency such as skilling and training programs.

However there are several constraints also :-

- 1) Methodology to align Minimum wages in proportion to living wages
- 2) differences across states regarding minimum wages
- 3) issue of cooperative federalism (labour = State list subject)
- 4) opposite to minimum wage which has a set methodology (calorie method, per capita income method) there is

no certain methodology for living wage

5) A higher wage (living wage) may negatively effect some labour intensive industries eg: construction cost escalation in infrastructure project

c) Minimum wages is a statutory requirement guaranteed under various codified labour laws and schemes like MNREGA and laws like Minimum wages Act. However living wage is not statutorily secured.

7) Concept of 'Relative affluence' i.e. what is a living wage $\Rightarrow$ Basic needs or Middle class needs or much higher needs poses difficulty in setting a benchmark living wage.

Thus it requires region and context specific policies and not ONE-SIZE FITS

All Approach along with Methodological refinement and activism to effect smooth transition

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 (Article-112) is the Annual fiscal statement of government. It consist of revenue and expenditures planned for next coming financial year to put India on path of economic growth and human capital development

Limitations of Budgetary process in light of public scrutiny :-

1. High end process - Onus of government ministries to frame budget executive and legislators prepare budget
 - Expert guidance not availed generally.
2. Despite presence of multiple channels of communication eg: Mygov app

People participation in budgetary process

nil

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

3) ~~Women~~ Gender Budgeting - still stagnated at 4% of total expenditure

- no public accountability to gender related data used in forming policy

4) Grants of various ministries scrutinised by PAE estimates committee

- People have no hind sight

eg: MNREYA grants reduced despite being life savious in Pandemic

5) lack of participation of scientific community and intellegentia to question government about slashing resources for Research and development

6) common man $\begin{matrix} \rightarrow \text{poor} \\ \text{female} \\ \rightarrow \text{transgender} \end{matrix} \left. \vphantom{\begin{matrix} \rightarrow \text{poor} \\ \text{female} \\ \rightarrow \text{transgender} \end{matrix}} \right\} \text{no knowledge about what is budget and how it affects them.}$

7) Even Budget at local level i.e. Municipality fails to encour citizen participation

Reasons for such declining participation!

- 1) lack of knowledge about budget and process
- 2) public apathy to issues of importance
like Reducing poverty
tax compliance and liability
- 3) technical nature of budgetary passing
along with lack of knowledge of
parliamentary procedure among
common man.
- 4) government fails to publicise budget
to larger mass of people. only
RSTV and LSTV show the parliamentary
budget session - have low viewership
- 5) lack of political will among individual
Parliamentarian for publicising
as well as eliciting opinion of the
constituency.

Thus a greater political will is
required to increase awareness
about government's plans and
Budgetary policies among people

उम्मीदवारों को
इस हाशिए में
नहीं लिखना
चाहिए
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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)

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

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India is the world's largest supplier of milk.
However its per capita productivity is lower

Indigenious Tharparkar breed = ~1000 kg/lactation
Hybrid (exotic) Jersey breed = ~2500 kg/lactation

Reason for declining productivity of dairy animals :-

- 1) small herd size of Indian farmers
- 2) low quality of todder and feed available
due to → agri expansion (food crops more)
↘ alternate industrial usage of todder
(paper making)
- 3) limited availability of quality breeder Bulls
- 4) high incidence of disease in Bovine species
(Brucellosis in Buffaloes)
- 5) lack of specialised veterinary care to
dairy animals (>85% herd in rural
areas) lack of veterinary hospitals

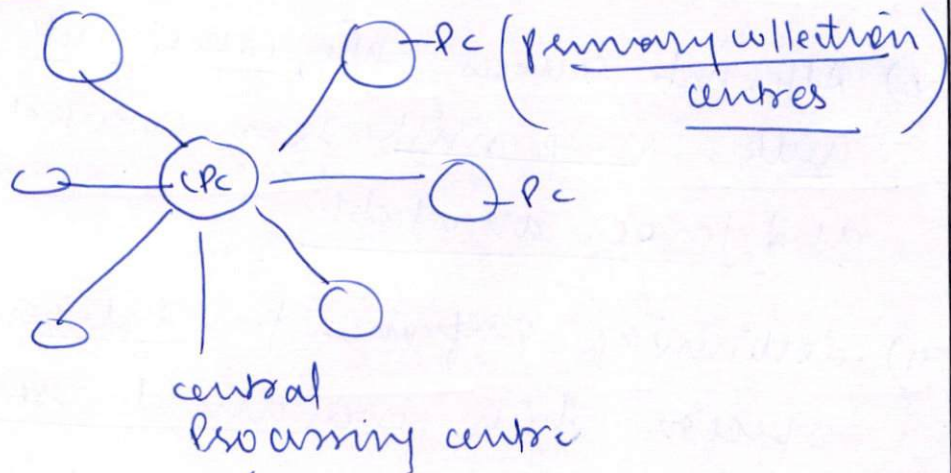
- 6) poor management practice for farm animals in India (limited extensional / credit facility) to invest in mechanised, specialised Buffaloes / cow centres. (Ranches)
- 7) low vaccines availability against disease high mortality due to absence of disease surveillance.
- 8) Alternate sources like camel milk, goat milk, sheep milk less marketed and lesser available.
- 9) declining preference for Indigenous species which are climate resilient survive even on low food / fodder and water (genetic purity erosion)
- 10) climatic changes - Heat strokes / stress causing lower production of milk
- 11) inefficient storage, processing causing huge wastage.
- 12) lack of enterprises like Amul in country to actively market and remunerate farmers acts as disincentive

ways to increase productivity of Milk Animals

1. indigenous vaccine manufacture e.g.:
UMPI-PRO for Umpivirus

2. efficient breeding forms connecting
breeders to farmers (e-Gopala)

3. Hub and Spoke model to actively
process store and market milk



Mechanised milking
quality fodder

4). Green fodder - HYV variety of fodder
e.g.: Kasitdhara by (ICAR)

5) Programs ^{like} national artificial insemination
program for preserving genetic purity

6) Mobile veterinary clinic (MVC) for
effective disease cure and surveillance

Thus India can come at par with

New Zealand, Australia in per capital

Yield of Milk through such intervention

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

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As per FAO, agriculture in India is responsible for (12-1) of greenhouse gas (GHG) emissions

Also climate change has caused stress on crop and farm (IMD $\pm 0.6^\circ\text{C}$ increase in average temperature of earth).

CLIMATE CHANGE AS A FACTOR FOR CROP FAILURE :-

- 1) Soil degradation - causing minerals requirement from outside
- 2) Heat stress = affecting standing crops
- 3) Alien species invasion - destroys crops
e.g. serpentine leaf mines
- 4) Uneven Monsoon and maldistribution of rain causing crop failures
- 5) occurrence of droughts and flash floods
in various regions affect crops

c) high instances of natural disasters like cyclone storm surges destroy farmland

eg: Phailin cyclone 2013 Odisha
destroyed (5601) of crops

7) high temperature make unfit cultivation of crops like cotton.

AGRICULTURE SECTOR AS A CULPRIT :-

- 1) excessive use of pesticide, fertilizer - causing soil degradation and desertification
- 2) high MSP on Rice/Wheat = leading to excessive underground water utilization
- 3) livestocks, paddy fields, stubble burning releasing GHGs and Methane causing global warming
- 4) power subsidy on irrigation - further depletion of ground water as well as emission
- 5) Agriculture at slopes causing landslides

Strategy undertaken by National Agriculture disaster management Plan:-

1. Bottom up approach through participation

of Ranchayati Raj and farmers

2) awareness about indigenous climate resilient crop of: sahbhagidhan (baddy in N-E suited to North-east (N-E))

3) Maintenance of famine reserves - Buffer stock at district level

4) Implementation of micro-irrigation techniques to reduce water stress

5) farmer training about causes and consequences of climate change on Agriculture

6) popularising the use of organic farming Natural farming and integrated farming to reduce vulnerability

7) limiting agriculture to plains, incentive for de-devising of irrigation etc.

Thus it requires cooperation of farmer community to prevent agriculture from climate extremes

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

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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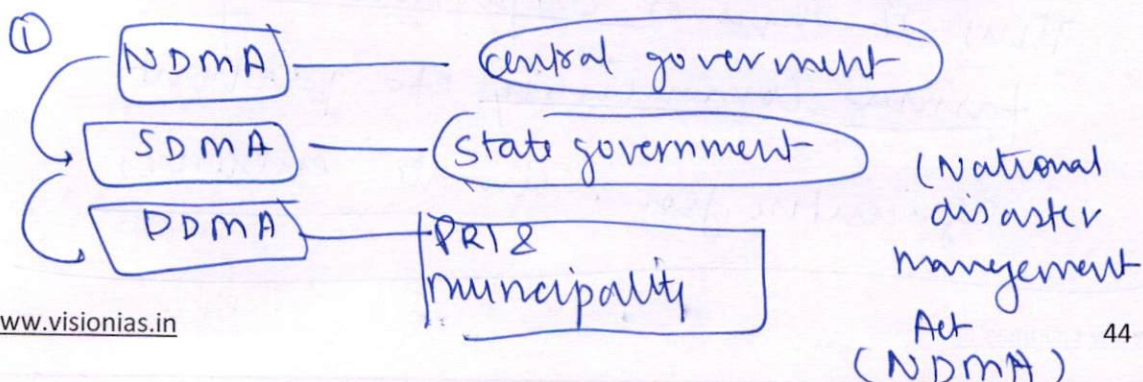
Earthquake is the shaking of earth surface. It occurs due to build up of energy and its release along a fault line causing tremors over earth surface.

earthquake in India affect 57% of the region.

Why Delhi and other region vulnerable to earthquake in Himalays :-

- 1) Proximity to Himalayan Region
- 2) Unconsolidated sediments of Himalays prone to highest degree of earthquake causing high intensity tremors

Institutional measures in India



- ② Medium, short and long range priorities
under NDMA, DDMA, SDMA
- ③ Under district disaster management Act
construction of shelter / relief centres
- ④ BMTPC Building material training and
promotion cell to align safety
features during Infrastructure construction
- ⑤ Climate Hazard and Vulnerability Index
by IMD (meteorological department)
for efficiently categorising the areas of
vulnerability into zones
- ⑥ National school safety programme to
address earthquake vulnerability to
schools in high intensity (zone-5) areas

There are however significant gaps left
which are:-

- ① guidelines under BMTPC not followed
- ② huge construction in Himalayas

Chandrasekhar
Project

Tapovan
Vishnagar
- ③ Urban population explosion in valley

causing stress on resources and fault lines
increases vulnerability.

④ early warning systems fail to give
signals and low research in
occurrence season behind earthquakes

⑤ low Rehabilitation and restoration
Policies post disaster

⑥ less budgetary resource to disaster
management cells in states.

⑦ disaster management cells yet not
formed in states

⑧ issues of cooperative federalism
(disaster = state subject)

Thus a centre-state partnership along
with high budgetary allocation
to support research and deployment
of life saving technologies is
required.

18.

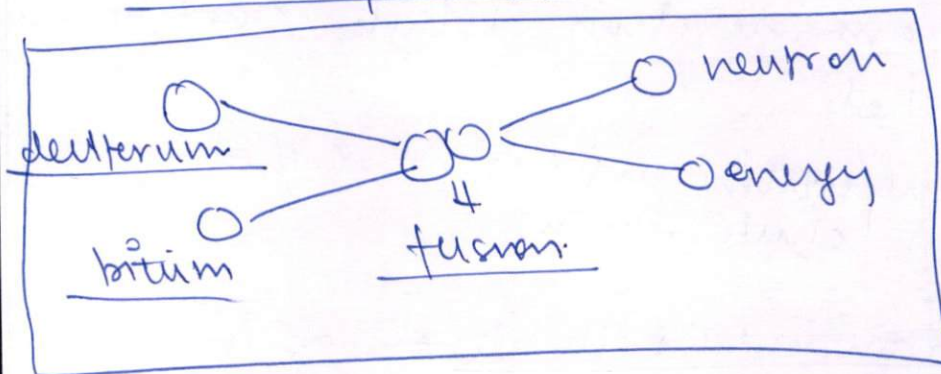
हाल ही में, वैज्ञानिकों ने परमाणु संलयन अभिक्रिया में निवल ऊर्जा लाभ की घोषणा की है, जिसे स्वच्छ ऊर्जा के भविष्य के लिए एक बड़ी वैज्ञानिक सफलता माना गया है। परमाणु संलयन आधारित विद्युत उत्पादन के क्या लाभ हैं? व्यावसायिक स्तर पर विद्युत उत्पन्न करने के लिए इसके उपयोग की क्या सीमाएं हैं? (उत्तर 250 शब्दों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

15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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Nuclear fusion is process where two light nuclei combine to form a heavy nuclei which release huge amount of energy



Advantages of nuclear fusion based power generation :-

1. easily available raw material -

deuterium and tritium are isotopes of hydrogen (deuterium = from any form of water, and tritium generated during the reaction)

2. Clean energy = nearly nil carbon-di-oxide emission (except during construction)

3. Reduce input dependency, greenhouse emission, help in energy selfance and self sufficiency

4. No risk of Proliferation - as not uses any radioactive fuel like uranium or plutonium

5. No danger of Melt away - as there is no chain reaction which can't be controlled.

(if temperature critical) not reached it shuts down)

6. no environmental pollution - as no radioactive waste hence also does not affects human health

7. huge amount of energy generated

- 4 times of nuclear fission
- million times of fossil fuel

Limitations in commercialisation of nuclear fusion :-

① Plasma state requirement for initiating reaction 2) Requires very high

energy (temperature)

- temperature required (10 times greater than on core of sun)
- ② danger of nuclear fusion based weapons could destroy mankind within a second
- ③ so much high temperature condition is not easy to attain at earth
- ④ requires immense expertise and skilled manpower
- ⑤ higher operation, construction and maintenance charge : huge capital intensity and higher gestation period.
- ⑥ transportation cost and storage challenges
- ⑦ high technology intensity project (requires superconductive materials, tokamak, to withstand such huge temperatures)

Thus, greater energy and research is required in Nuclear fusion Commercialisation

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

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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Money laundering is act of concealing the illegitimate money into the legal financial system through layering, placement and integration

The recent Money laundering amendment:-

1. gave power to Enforcement Directorate (ED) to arrest officials accused of money laundering
2. made it a non-cognisable offence
arrest without warrant
3. ED given bypassing powers to enforce evidence collection, enquiry
4. wider ambit of Money laundering definition by including organised crimes (drugs) in its definition
5. Onus lies on accused to produce himself as "Not guilty"

efficacy of PMLA (Prevention of money laundering Act) in tackling money laundering :-

1. Many corruption cases unearthed
(2G, Vyapam, Satyam scam etc)
2. confiscation of offender's assets
like Nijay Malys, etc
3. tough legislative mechanism to enforce compliance through suo moto compliance by CB and power to Raid and seizure
4. Reduction in volume of Black money and counterfeiting of currency operation

However there remains some shortcomings :-

1. Not able to stop new scams amid increasing use of technology
 - Blockchain
 - crypto currency
2. Ambiguity in definition of Money laundering

3. Inefficient in penalising and expatriation of fugitive economic offenders like Vijay Malhe, Nirav Modi

4. It has been accused to provide overriding powers to ED $\Rightarrow$ causing federalism challenge

5. often accused of using powers of (ED) against opposition leaders

6. The onus on accused to prove his acquittal is ill conceived

7. manpower deficiency and structural loopholes in FEMA act limit its efficacy.

Thus it needs to be aligned with other acts such as Black Money Act,

foreign exchange management Act

to bring out more efficiency in reducing money laundering

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)

15

The Indian Ocean region (IOR) extends from western Indian coast [coast of Africa] to Eastern Australian coast

It has a centre place in Indo-Pacific policy as well as India's domestic maritime security.

THREATS PRESENT IN IOR :-

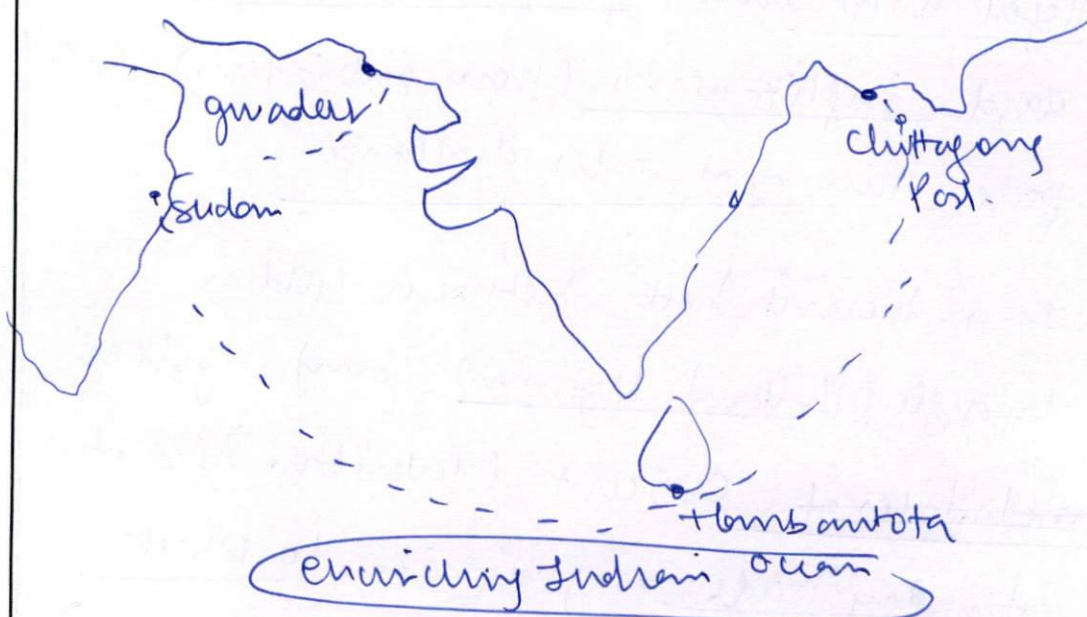
- 1) illegal migration (from Sri Lanka) and infiltration (from Pakistan) poses law and order challenges
- 2) Is a transit hub between Golden triangle (Thailand, Myanmar) and Golden quadrilateral Crescent (Pakistan, Afghanistan) for drug trade = give rise to Black money and organised crime
- 3) Illegal, unreported fishing and marine

Piracy threaten coastal security and trade

4) Human trafficking also done through the routes

5) China's strategy of "Malacca dilemma"
blocking of strategic sea lane of communication
(SLOCs) = threaten's India's trade interest

6) China's Maritime polar sea route as well as policy of enriching Indian ocean region affects India's Interest



7) Aukus = would increase presence of Submarines in Indian Ocean,
would lead crowding and increased
Chinese counter hostility in
IOR.

strategy to deal with it are:-

1) convergence of groups like National coastal guards, Marine police of states and Indian Navy for security drills

2) cooperation with neighbours (also one IOR stakeholders) like Bangladesh through forums like BIMSTEC with marine security as central agenda

3) cooperation with gulf countries to protect sea lanes of communication like

Strait of Hormuz, Bab Al mandeb

4) forums like ~~small~~ Indian Ocean naval symposium, Maritime security coordinator, coastal security scheme to be made efficient discussion platform.

5) greater vigil through technology - use of India's capacity (INS Vibrant) in IOR.

Thus a greater cooperation is required to effective guard our marine borders

SPACE FOR ROUGH WORK