

VISIONIAS
INSPIRING INNOVATION
ABHYAAS MAINS

सामान्य अध्ययन (प्रश्न पत्र-III)/GENERAL STUDIES (Paper-III) (2023)

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. : 680214

अभ्यर्थी का नाम/Name of Student : AKSHAY PILLAY

माध्यम: हिंदी/अंग्रेजी
Medium: Hindi/English

ENGLISH

तारीख
Date

19-12-2021

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

केंद्र
Centre

RAIPUR

निरीक्षक के हस्ताक्षर
Invigilator's Signature

M. Sahu

	<p style="text-align: center;">महत्वपूर्ण अनुदेश</p> <p>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।</p>	<p style="text-align: center;">Important Instructions</p> <p>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.</p>
1	<p>(क) अपना पंजीकरण सं. एवं अन्य विवरण केवल प्रश्न-सह-उत्तर पुस्तिका में उम्मीदवार के लिए निर्धारित स्थान पर ही लिखें।</p> <p>(ख) इस पुस्तिका में अन्यत्र कहीं भी अपना नाम, पंजीकरण सं., मोबाइल नं., पता अथवा प्रश्न-सह-उत्तर पुस्तिका संख्या न लिखें जिससे आपकी पहचान का खुलासा हो।</p>	<p>(a) Write your Registration Number and other details only in the space provided in the Question-Cum-Answer (QCA) Booklet for candidates.</p> <p>(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</p>
2	<p>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।</p>	<p>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.</p>
3	<p>परीक्षक को प्रत्यक्ष/अप्रत्यक्ष रूप से कोई भी प्रार्थना/धमकी भरी बातें न लिखें।</p>	<p>Do not make any direct/indirect appeal/threat to the examiner.</p>
4	<p>उत्तर अस्पष्ट अथवा गंदी लिखावट में न लिखें। इस प्रकार के उत्तर का मूल्यांकन नहीं भी किया जा सकता है।</p>	<p>Do not write answers in bad/illegible handwriting. Such answers may not be evaluated.</p>
5	<p>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।</p>	<p>Write answers in ink only. Do not use pencil for writing the answers. However, pencil may be used for drawing diagrams, sketches, etc.</p>
6	<p>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।</p>	<p>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.</p>
7	<p>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।</p>	<p>Write answer at the specific space (right below the question) only. Answers written elsewhere at unspecified places in the booklet shall not be evaluated.</p>
8	<p>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।</p>	<p>If you wish to cancel any work, draw your pen through it and write "Cancelled" across it, otherwise it may be valued.</p>

कार्यालय के प्रयोग हेतु For Official Use	कार्यालय के प्रयोग हेतु For Official Use
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.

भारत में कृषि प्रसार से सम्बद्ध मुद्दों का उल्लेख करते हुए, राष्ट्रीय कृषि अनुसंधान प्रसार प्रणाली को सुदृढ़ बनाने में कृषि विज्ञान केंद्रों (KVKs) की भूमिका पर चर्चा कीजिए। (उत्तर 150 शब्दों में दें)

Stating the issues associated with agricultural extension in India, discuss the role of Krishi Vigyan Kendras (KVKs) in strengthening the national agricultural research extension system. (Answer in 150 words)

10

Agricultural extension is the process of providing informal advice to farmers so they can improve the cropping pattern, farming methods and input usage.

Problems with agricultural extension

1. Reach - Only 60% farmers have access to extension services.

2. Quality of extension services provided is an issue.

3. Shortage of extension workers in rural areas and remote regions.

4. Lack of go district level weather forecasts to supplement advise given by extension workers.

उम्मीदवारों को इस हिसाब में नहीं लिखना चाहिए
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Role of Krishi Vigyan Kendras

1. They have agricultural scientists who directly reach out to farmers.
2. KVKs provide bulletins to farmers, for making informed decisions on crop selection.
3. KVKs are playing a key role in implementing Soil Health Card scheme to correct imbalance in fertilizer usage in India.

40% of Indian ^{workforce} population is engaged in agriculture. It is necessary to streamline delivery of extension services to uplift farmers.

2.

भारत में, खाद्य प्रसंस्करण क्षेत्रक मूल्य संबर्द्धन की अपार संभावनाओं के कारण एक उच्च संवृद्धि और उच्च लाभ के क्षेत्रक के रूप में उभर रहा है। चर्चा कीजिए। (उत्तर 150 शब्दों में दें)

In India, the food processing sector is emerging as a high-growth and high-profit sector due to its immense potential for value addition. Discuss. (Answer in 150 words)

10

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

Food processing is the process of turning raw food material into food products for through mechanical and chemical means.

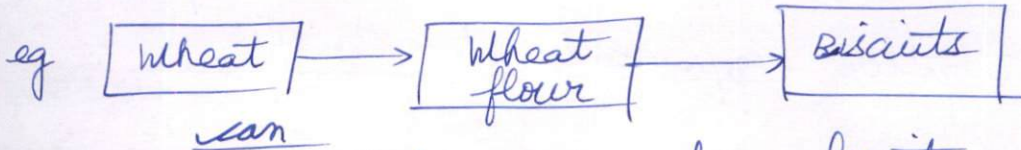
~~Hi~~ ~~It is a high growth and~~ ~~to see~~
high-growth in food processing sector is due to:

- 1) Availability of raw material - India is a large producer of fruits and vegetables, cereals, oilseeds and pulses.
- 2) Domestic Demand - India has an expanding middle class with high purchasing power.
- 3) Export to Nuclear families where both parents work have increased demand for processed food.
- 4) Export potential - Foreign, to Health conscious foreigners desire healthy products.

Food processing is a high profit sector

because of :

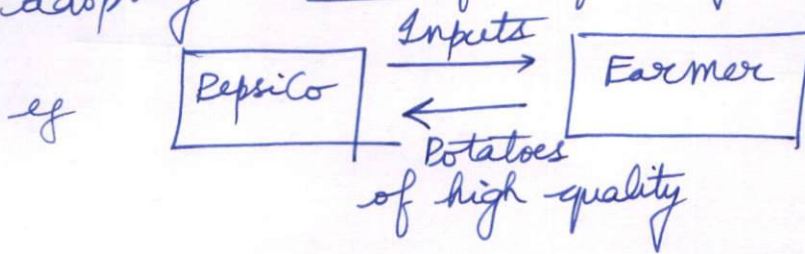
1) Significant value addition at every stage



2) Farmers ^{can} get higher prices for fruits and vegetables than cereals.

3) Foreigners and Indians are willing to pay premium prices for certain products eg gluten free.

4) There is scope for eliminating middlemen by adopting contract farming.



India targets doubling farmers

income by 2022. Food processing can help achieve this, and create enough jobs to end poverty (Sustainable Development Goal).

3.

पशुधन आधारित एकीकृत कृषि प्रणाली (IFS) की अवधारणा की व्याख्या करते हुए, इसके लाभों पर चर्चा कीजिए। (उत्तर 150 शब्दों में दें)

Explaining the concept of livestock-based Integrated Farming System (IFS), discuss its benefits. (Answer in 150 words)

10

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

Integrated Farming System
brings together crop cultivation, fisheries, livestock rearing and agroforestry to benefit farmer.

Livestock based IFS

1. Farmer cultivates crop and raises livestock simultaneously.
2. Livestock provide manure (cow dung) for farm.
3. Livestock ~~production~~ rearing ~~cultivates~~ complements agricultural activity.

Benefits of livestock based IFS

1. Diversification of farmer income of selling milk to dairy cooperative.
2. It is an insurance against failure

of crop failure eg. during drought.

3. Availability of milk increases nutritional security for families of small and medium farmers.

4. Use of organic fertilizer reduces adverse impact of farming on soil, water and crop quality.

5. Livestock based IFS can be used to switch to Zero Budget Natural Farming.

6. Livestock used as draught animals.

According to NABARD All India Rural Financial Inclusion Survey, average income of an agricultural household is 'barely ₹9000 per month. Livestock based IFS can provide income security to farmers.

4.

जहाँ भारतीय मूल के व्यक्ति (PIO) विश्व भर में उद्यमिता का नेतृत्व कर रहे हैं, वहीं भारत में अभी भी उद्यमिता दर सबसे कम है। चर्चा कीजिए। साथ ही, भारत में उद्यमिता की गति को बढ़ाने के लिए उठाए गए नीतिगत उपायों का भी उल्लेख कीजिए। (उत्तर 150 शब्दों में दें)

While Persons of Indian Origin (PIO) are spearheading entrepreneurship across the world, India still has one of the lowest entrepreneurship rates. Discuss. Also, state the policy measures that have been taken to increase the pace of entrepreneurship in India. (Answer in 150 words) 10

Several Indian origin persons are now CEOs of global technology giants like Satya Nadella and Sundar Pichai. However India lags in entrepreneurship rates due to several reasons like:

1. Low literacy eg in Eastern India, where new firm creation rate is also lowest.
2. Lack of ease of doing business eg registering a firm, enforcing contracts.
3. Over-regulation - It requires 4 licenses to start a restaurant in Singapore, against 20 in India.
4. Startups are questioned once angel funding provided by angel investors. Angel tax was imposed earlier.
5. Lack of ~~availability~~ good transport connectivity

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

that can reduce logistics cost.

Policy measures taken to correct this are:

1. Startup India scheme offering numerous benefits eg ~~ex~~ 100% exemption from income tax and corporation tax for 3 of the first 10 years a firm is operational.
2. Revised definition of startup to one with turnover below ₹100 crore and incorporated for less than 10 years.
3. Easier exit - startup can be wound up in 90 days.
4. Augmenting incubator network by introducing Atal Innovation Mission.
5. Technical relaxations to startups regarding
 - 1) Angel tax
 - 2) Use of ESOPs to attract employees.

Startups are growth engines of economy. They help youth become job givers and thus governments' efforts to help them are much needed.

5.

'भूमि बैंक' अर्थव्यवस्था को प्रोत्साहन देने और भारत में व्यापार सुगमता (ईज ऑफ डूइंग बिज़नेस) को बढ़ावा देने में महत्वपूर्ण भूमिका निभा सकते हैं। चर्चा कीजिए। (उत्तर 150 शब्दों में दें)

'Land banks' can play a critical role in boosting the economy and promoting ease of doing business in India. Discuss. (Answer in 150 words)

10

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

Land banks are blocks of lands that are accumulated by the centre or state government. They are used to allot land to industry later.

Land banks and economic growth

1. Delayed land acquisition is a key hurdle to ease of doing business in India.
2. Disputes occur over displacement of people and compensation payable.
3. Niyamgiric hills - Vedanta struggled to acquire this land since it was in a Fifth Schedule Area and local community opposed it.



Thus ~~spot~~ land banks can resolve the Twin Balance Sheet crisis and unleash animal spirits in economy.

5. Land banks will help India attract firms relocating from China. This will aid the V shaped recovery from COVID.

6. Land banks can help in case of transformative projects eg Mumbai-Ahmedabad High Speed Rail.

Therefore creation of land banks will remove a bottleneck to industrial growth. Make in India will receive a boost. Urgent steps are needed to create land banks.

6.

वन संरक्षण अधिनियम (FCA) में प्रस्तावित संशोधन, न केवल वन अधिकार अधिनियम (FRA) के विपरीत हैं, बल्कि इनके कारण भारत को जलवायु परिवर्तन पर अपनी प्रतिबद्धताओं को प्राप्त करने में देरी होने की भी संभावना है। चर्चा कीजिए। (उत्तर 150 शब्दों में दें)

The proposed amendments to the Forest Conservation Act (FCA) are not only antithetical to the Forest Rights Act (FRA), but are also likely to delay India achieving its commitments on climate change. Discuss. (Answer in 150 words)

10

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

The Forest Conservation

Act, 1980 aimed to increase forest cover of the nation and ~~parents~~ imposes restrictions on diversion of forest land for non forest use.

Proposed amendments to FCA are:

1. Liberalized acquisition of forest land for development purpose.
2. Forest guards ^{officials} will be given greater powers, including sight to use firearms.
3. Arrest of any forest dweller suspected of committing or abetting any crime.
4. Private sector will play an enhanced role in afforestation.

These amendments lead to ~~the~~

following concerns:

1. Violation of rights granted under Forest Rights Act eg right to land title (for personally cultivated land) that is permanent and inheritable.

2. It affects the ability of tribal communities to ~~do~~ conserve and manage forest resources.

3. Threat to life of forest dwellers, if firearms are used.

4. Forest cover may fall. It will affect the ^{Indian} Intended Nationally Determined ~~and~~ Commitment (INDC) of creating carbon sink (2.5-3 billion tons of CO_2) through afforestation.

Forest cover is vital for the livelihood, as well as cultural heritage of tribal forest dwellers. It is also linked to international commitments. Thus the proposed amendments should be discussed exhaustively with sufficient public participation.

7.

शहरी क्षेत्रों में बाढ़ की समस्या न केवल नदियों के उफान के कारण है, बल्कि उन अनियोजित तरीकों के कारण भी है जो हमारे नगर, शहरीकरण की प्रक्रिया में अपना रहे हैं। चर्चा कीजिए। इस संदर्भ में, शहरी बाढ़ पर राष्ट्रीय आपदा प्रबंधन प्राधिकरण के दिशा-निर्देशों का उल्लेख कीजिए। (उत्तर 150 शब्दों में दें)

The problem of flooding in urban areas is not only due to overflowing rivers, but also the uninformed ways in which our cities are coping with urbanisation. Discuss. In this context, mention the National Disaster Management Authority guidelines on urban floods. (Answer in 150 words)

उम्मीदवारों को इस हिसाब में नहीं लिखना चाहिए
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10

33% of Indian population

lives in urban cities. Of late, the mega cities are more vulnerable to floods of

Chennai (2015), Hyderabad (2019).

Urban floods and unplanned urbanisation

1. Urbanisation is neglecting natural contours of the land. It is difficult for water to drain away easily.
2. Stormwater drainage infrastructure is weak due to lack of funds.
3. Encroachment on wetlands is depriving cities of buffer against floods.
4. Concretisation of cities reduces infiltration of water into ground.

NDMA guidelines on urban floods

1. Early Warning System must be strengthened, by increasing lead time and utilizing latest technology $\begin{matrix} \nearrow \text{satellites} \\ \searrow \text{Artificial Intelligence} \end{matrix}$.
2. Implementing zoning regulations sincerely. No construction should be permitted in flood prone areas.
3. Amending model building bye laws to ensure flood resistant houses are built.
4. Capacity building of local community so they manage flood shelters.
5. Raising and training State Disaster Response Force battalions for effective rescue.

Natural disasters rob the poor of their assets and savings. Governments bear burden of rehabilitation. Therefore, urban floods should be addressed on war footing.

8.

इसरो अब केवल उपग्रहों के प्रक्षेपण तक ही सीमित नहीं है, बल्कि यह वर्षों से विकास गतिविधियों में अपनी भूमिका को लगातार बढ़ा रहा है। विवेचना कीजिए। (उत्तर 150 शब्दों में दें)

ISRO is no longer confined only to the launching of satellites, but it has been constantly enlarging its role in development activities over the years. Discuss. (Answer in 150 words)

10

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

ISRO was established in the 1950s as the spearhead of the Indian space program. In recent years, it has played a multifaceted role for development.

1. ~~Telecom~~ Providing broadband connectivity to remote areas eg J&K, North East.
• This spurs economic growth.
2. Increasing access to tele-education and tele-medicine. eg through GSAT II.
3. Agriculture - ISRO satellites provide more accurate weather forecasts at block level.
• Project CHAMAN utilizes remote sensing to increase productivity of horticulture.
4. Disaster Management - ISRO satellites enable monitoring of floods and cyclones to provide early warning.

5. IRNSS NAVIC system deployed by ISRO to aid aerial, terrestrial and marine navigation and tourism.

6. Effective development relies on conserving natural resources. Thus ISRO has launched IRS series of satellites to map forests, water and wetlands.

7. ISRO has enabled continuation of education during pandemic by providing Direct to Home (DTH) services of SWAYAM PRABHA educational program.

ISRO is renowned for innovation and efficiency. It has demonstrated that the Indian space program focuses on human development, and not military superiority.

9.

राज्य और गैर-राज्य अभिकर्ताओं द्वारा महत्वपूर्ण सूचना अवसंरचना (CII) को लक्षित करने के पीछे उत्तरदायी कारणों को बताइए। साथ ही, भारत सरकार द्वारा अपने CII को सुरक्षित करने के लिए उठाए गए कदमों पर भी चर्चा कीजिए। (उत्तर 150 शब्दों में दें)

State the reasons behind targeting of Critical Information Infrastructure (CII) by state and non-state actors. Also, discuss the steps taken by the Indian government to secure its CII. (Answer in 150 words)

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

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Critical Information Infrastructure is that which is vital for the domestic economy and national security.

Reasons for targeting CII

1. It is more cost effective than conventional war.
2. Affected nation may not be able to identify culprit.
3. Terrorist groups can impact a much larger number of people, than by one ~~suicide~~ suicide bomber/lone wolf attack.
eg. disrupting banking system, hijacking electricity grid.

Steps taken by government.

1. Creation of National Critical ^{Information} Infrastructure Protection Centre

2. Establishing Computer Emergency Response Team - India (CERT-In) for rapid response to cyber attacks.

3. Coordinating activities of different bodies through National Cyber Crime Coordination Centre (NCCC)

4. Mandating cybersecurity audits of critical infrastructure.

5. Indigenisation of telecom equipment eg Chinese equipment has been banned.

critical infrastructure like financial system, transport and defence systems ^{is} vital for the integrity of the nation. Thus the steps taken by government are commendable.

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

10.

पूर्वोत्तर भारत के रणनीतिक महत्व के बावजूद, इस क्षेत्र को कई सुरक्षा खतरों का सामना करना पड़ता है। चर्चा कीजिए। साथ ही, क्षेत्र में शांति और स्थिरता सुनिश्चित करने के लिए सरकार द्वारा उठाए गए कदमों का भी उल्लेख कीजिए। (उत्तर 150 शब्दों में दें)

Despite the strategic significance of North-East India, the region faces several security threats. Discuss. Also, state the measures taken by the government to ensure peace and stability in the region. (Answer in 150 words)

10

North East India due to its historical background and geographical location faces a variety of security threats. These threats have existed, in varying forms, since independence.

Security threats in Northeast India

1. Insurgency - Insurgent groups are active in Assam, Manipur, Nagaland. They ~~have~~ have varying demands, from autonomy to secession.
2. Drug trafficking - This region is close to Golden Triangle of Southeast Asia.
3. Arms trafficking - Insurgent groups profit from gun running.
4. Extortion & kidnapping for ransom and killing government servants/politicians are common.

उम्मीदवारों को इस हार्शिए में नहीं लिखना चाहिए
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eg Assam Rifles Convoy ambushed in Manipur

(2021).

Government of India has taken following steps :

1) Security front

- Precise operations against insurgents ~~etc~~ with well trained troops and credible inputs.
- Cooperating with Myanmar and Bangladesh
- Training troops in jungle warfare.

2) Development front

- Infrastructure creation eg SARDP NE for road construction in North East Region (NER)
- Special Fund for NER, to create social and physical infrastructure.
- Northeast Industrial Development Scheme - Incentives are offered to industry.
- Northeast BPO scheme for job creation.

The efforts to sign peace deals with insurgents in Nagaland and Tripura show government is committed to peace in Northeast India.

11.

भारतीय रेलवे को लंबे समय से अल्प निवेश की समस्या का सामना करना पड़ा है, जिसने इसके परिचालन के प्रमुख क्षेत्रों पर प्रतिकूल प्रभाव डाला है। इस संदर्भ में, बुनियादी ढांचे के तीव्र निर्माण में रेलवे के समक्ष आने वाली चुनौतियों पर चर्चा कीजिए। साथ ही, इस संबंध में सरकार द्वारा उठाए गए कदमों का भी उल्लेख कीजिए। (उत्तर 250 शब्दों में दें)

Indian Railways has suffered from chronic under-investment, which has adversely impacted key areas of its operations. In this context, discuss the challenges faced by the railways in speedy creation of infrastructure. Also, mention the steps taken by the government in this regard. (Answer in 250 words)

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

15

Indian Railways is a lifeline of the nation. It provides affordable transport to poor passengers and carries 40% of freight traffic.

Challenges in infrastructure creation

1. Lack of budgetary support - Government is facing fiscal deficit constraints. Railways is thus suffering from shortage of funds ~~of annually~~ ~~₹ 1.6 crore sanctioned, while lakhs of crores are needed.~~
2. Low profitability - Operating ratio is 98%. - Railways loses 96 paise for every rupee earned, due to operating expenses.
It cannot self finance infrastructure building.

3. Hurdles to land acquisition - Due to environmental activism and fear of displacement, Mumbai - Ahmedabad

High Speed Rail is held up.

4. Delayed approval of infrastructure projects.
5. Owing to social welfare role of Railways, scope for private investment is limited.

Steps taken by government

1. Monetisation of railway assets like vacant land, to raise funds.
2. National Infrastructure Pipeline will mobilize investments of ₹111 lakh crore (2019-2024).
Railways will get a significant chunk of this.
3. Disinvestment of non profitable railway PSUs eg RA IRCON, Railtel. It will augment funding for infrastructure creation.
4. ~~Reforms to~~ Eastern and Western Dedicated Freight corridors are being funded partly by ~~for~~ Japan and

Multilateral development banks like World Bank.

5. Reforms to make Railways more profitable

1) Restructuring Railway Board into functional areas

[→ Finance
	→ operations
	→ Human Resource.

• This enables efficient functioning.

2) Allowing private train operators on selected routes. with ~~state~~ Railways receiving a fee.

A well developed railway network is crucial for economic growth. The steps taken by Government of India in this regard are praiseworthy.

उम्मीदवारों को इस दृष्टि में नहीं लिखना चाहिए
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12.

किसानों की आय को दोगुना करने के भारत के उद्देश्य को साकार करने हेतु कृषि प्रणाली के अंतिम बिंदु तक के दायित्वों पर ध्यान देने के साथ अनुसंधान और विकास (R&D) के लिए एक परिवर्तनकारी दृष्टिकोण आवश्यक है। विवेचना कीजिए। (उत्तर 250 शब्दों में दें)

A disruptive approach to research & development (R&D), with a focus on last mile obligations of the agricultural system is necessary to realize India's objective of doubling farmer's income. Discuss. (Answer in 250 words)

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

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Agriculture sector requires robust R&D to improve livelihoods, by raising yields and quality. Therefore there is a need for the following measures:

1. Liberalising salary structures and promotion criteria of research institutions like Indian Council for Agricultural Research.
2. Performance based promotion and competitive pay packages will help reverse brain drain of agricultural scientists.
3. Increasing funding for agro R&D.
4. Involving private sector in agricultural research through collaborations and joint projects.

5. Agricultural universities have mushroomed recently, but quality has declined.

• So instead of approving new institutions, infrastructure and pedagogy in existing colleges should be improved.

6. Two agricultural universities should be given sufficient funding to become world class, with high research output.

7. Focus of agro R&D needs to shift:

1) From cereals to fruits, vegetables, pulses and oilseeds.

2) From purely increasing yields to improving shelf life, texture and taste.

3) Ensuring drought, heat and salinity resistance to address the impact of climate change.

8. India has comparatively few agro R&D startups. Thus more incubators,

mentoring and handholding are needed to reverse this trend.

Sustainable Development Goal

2 ~~calls~~ mandates doubling income of smallholder farmers by 2030. Agri R&D is a viable tool to achieve the same. Thus reforming R&D in this sector should be taken up on priority basis.

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

13.

भारत की विद्युत वितरण कंपनियों और विद्युत ग्रिड को जीवाश्म ईंधन से अक्षय ऊर्जा के अधिक संधारणीय रूपों में संक्रमण हेतु सुधारों से गुजरना होगा। चर्चा कीजिए। (उत्तर 250 शब्दों में दें)

India's power distribution companies and electrical grids must undergo reforms to transition from fossil fuels to more sustainable forms of renewable energy. Discuss. (Answer in 250 words) 15

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

India has an energy mix that is heavily tilted towards fossil fuels. Due to the threat of climate change and international obligations, India is moving towards renewable energy (RE).

India is adopting RE in order to :

1) Meet commitments made under Paris Agreement.

2) Fulfil obligations made at Glasgow COP of UNFCCC eg. 50% of installed energy capacity will be from renewables, by 2030.

500 GW of renewable energy capacity by 2030.

3) Reduce global warming and climate change, that are adversely impacting Indian populace.

4) Removing burden of coal import and

associated risk of high Current Account Deficit.

5) Addressing negative externalities of fossil fuel use like air pollution.

Reforms needed in power companies and electrical grids are:

1) Research and Development (R&D) to develop storage capacity for intermittent sources of energy (solar and wind).

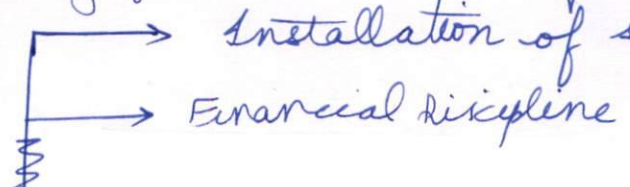
2) Technological upgradation of grids to address stability issues.
• Further integration of renewables with thermal power is needed.

3) Integration of all five regional grids to address scarcity of power in any region.

4) DISCOMs must implement net metering (to tap renewable energy generated by

consumers).

5) Increasing financial viability of DISCOMs through



Installation of smart meters
Financial Discipline

6) Privatisation of DISCOMs can be tried as a pilot measure to ensure increased efficiency and professionalism.

7) DISCOMs should be incentivized to invest in strengthening distribution infrastructure to reduce losses.

Access to electricity is a prerequisite for human development. SDG-7 seeks universal access to affordable and sustainable energy. Reforming DISCOMs and power grids will help significantly.

14.

भारत में आगत-सघन (इनपुट इंटेंसिव) कृषि की प्रथा में, इसकी अस्थिरता और नकारात्मक परिणामों के कारण, बृहद पैमाने पर बदलाव की आवश्यकता है। इस संदर्भ में, निम्न बाह्य आगत संधारणीय कृषि (LEISA) के महत्व पर चर्चा कीजिए। (उत्तर 250 शब्दों में दें)

The practice of input-intensive agriculture in India needs a massive overhaul due to its unsustainability and negative consequences. In this context, discuss the significance of Low External Input Sustainable Agriculture (LEISA). (Answer in 250 words)

15

The Green Revolution

catalyzed heavy use of chemical fertilizers, pesticides, herbicides, as well as water.

Indian food security improved, yet there has been degradation of ecology and increasing indebtedness of farmers.

Low External Input Sustainable Agriculture minimises use of inputs, while aiming for higher yields.

1. Increasing water use efficiency is one means.
2. Some states have adopted Organic Farming eg Sikkim.
3. Maharashtra and Karnataka have encouraged Zero Budget Natural Farming relying on organic fertilisers and pesticides.

• Cow dung is used to prepare many inputs.

• Microbial solutions help get rid of pests.

The cumulative benefits of these methods are:

① Water use reduced due to micro-irrigation
& Systemic Rice Intensification etc.

It will help deal with impending water scarcity. By 2050, India will be water stressed.

② Lower use of chemical fertilizers help in

1) preserving soil fertility over longer periods.

2) Protecting Reducing soil and water pollution. Earlier agricultural runoff led to eutrophication in lakes.

③ Using biopesticides helps preserve soil biodiversity and microbes that are useful to man.

• Food web can be safeguarded. Risk of pesticide residue accumulating in food

products is lower.

④ Low input use protects farmer from indebtedness, and farmer suicides are reduced.

⑤ Export potential - Agricultural produce with low pesticide/fertiliser residue can meet stringent quality norms of USA and European Unions.

• Improving agricultural exports will help improve farmer income.

~~Food~~ is a Food security is a key goal for India. Simultaneously ^{SDG 2} calls for adopting agricultural practices that preserve soil, water and local biodiversity. Thus LEISA should be used without endangering food security.

15.

हाल ही में जारी IPCC की छठी आकलन रिपोर्ट (AR6) - 2021 को मानवता के लिए 'कोड रेड' माना गया है। इस संदर्भ में, भारत पर विशेष ध्यान देते हुए इस रिपोर्ट में उजागर की गई विभिन्न चिंताओं की विवेचना कीजिए। साथ ही, इस रिपोर्ट द्वारा प्रदत्त उपचारात्मक उपायों को भी सूचीबद्ध कीजिए। (उत्तर 250 शब्दों में दें)

The recently released IPCC Sixth Assessment Report (AR6) - 2021 has been deemed as 'code red' for humanity. In this context, discuss the various concerns raised in the report with special focus on India. Also, enlist the remedial measures given by the report. (Answer in 250 words) 15

The Intergovernmental Panel on climate change (IPCC) is a body of scientists reviewing latest research on climate change. Thereafter different assessment reports (ARs) have been published at different points in time.

Concerns raised in AR 6

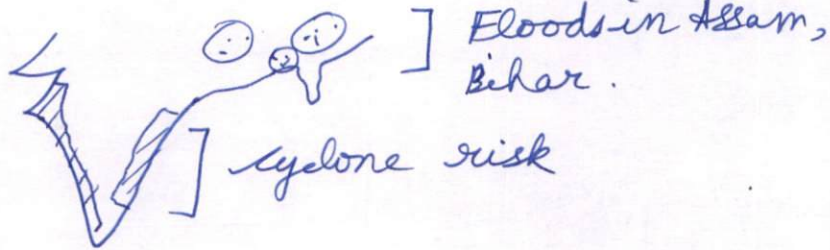
1. Increasing variability of monsoonal rain. Indian agriculture will be adversely affected. El Niño Modoki.
2. Increase in El Niño and ~~La Niña~~ [^] Thus droughts will be more frequent, impacting food security of India.

Average
3. Rise in global temperatures can

• exceed 2°C by 2100.

• This will reduce yields of Indian farms.

4. Increase in frequency and intensity of natural disasters like floods and cyclones.



5. Economic losses due to higher temperatures that reduce productivity of construction sector workers.

6. Glacier melting will accelerate, thus there could be scarcity of water in perennial rivers of Hindu Kush Himalayan region.

7. Sea level rise will impact low lying coastal cities like Mumbai, Chennai and Kolkata.

Remedial measures recommended are:

1. Transitioning to less carbon intensive

economies by investing in renewable energy, public transport, electric vehicles etc.

2. Developed nations to provide climate finance including \$ 100 billion pledged in previous round of negotiations.

3. More ambitious climate change mitigation targets should be set.

4. Climate proofing vulnerable sectors of economy of agriculture - developing drought and heat resistant varieties.

5. Citizens should buy climate insurance to protect against risk of natural disasters.

Climate change ~~from~~ presents an existential threat to mankind. IPCC 6th AR provides the evidence for the same. India has rightly demonstrated leadership for climate action through 'Panchamrit' pledge at COP26,

Glasgow.

16.

भोपाल गैस त्रासदी से लेकर विशाखापत्तनम में गैस रिसाव तक कई रासायनिक आपदाओं ने भारत में खतरनाक रसायनों (HAZCHEM) द्वारा उत्पन्न जोखिमों को ध्यान में लाया है। इसके दृष्टिगत, भारत में रासायनिक आपदा प्रबंधन (CDM) की तैयारियों के साथ-साथ इसमें व्याप्त कमियों की भी विवेचना कीजिए। (उत्तर 250 शब्दों में दें)

Multiple chemical disasters from the Bhopal gas tragedy to gas leak in Visakhapatnam have brought into focus the risks posed by hazardous chemicals (HAZCHEM) in India. In view of this, discuss the preparedness as well as gaps in Chemical Disaster Management (CDM) in India. (Answer in 250 words)

15

उम्मीदवारों को इस दृष्टिगत में नहीं लिखना चाहिए
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India has a thriving chemical industry, as well as other heavy industries that are reliant on chemical engineering operations. Iron and steel, thermal power, refrigeration plants ~~are~~ and fertilizer industries are among these.

Preparedness in Chemical Disaster Management

1. National Disaster Management Authority has released guidelines.
2. Nodal ministry has been designated for chemical disaster management.
3. Standard Operating Procedures have been designed for processes involving chemical

reactions .

4. District Disaster Management Authorities have prepared early warning protocols as well as evacuation plans .

5. National Disaster Response Force has been trained to and equipped to respond to chemical disasters .

6. Different government authorities of Customs Department oversee import of hazardous chemicals .

However there are some gaps in COM such as :

1. Lack of regular factory inspections to ensure adherence to safety norms .

2. Sometimes SOPs are violated and key chemical units started without qualified personnel being present eg. Ujjain disaster .

3. Regulatory framework governing the import of chemicals is complex .

4. Post Disaster and Relief related issues

- 1) NDRF may not be able to respond in time. SDRF (State Disaster Response Force) should be trained too.
- 2) Holding the plant operator liable, to recover damages and thus compensate victims.
- 3) Health infrastructure may not be able to cope with large number of victims requiring specialized care.

Chemical disasters are a threat to life and health of individuals. They also affect public faith in ~~chem~~ safety of chemical industries. therefore it is necessary to streamline management of such disasters speedily.

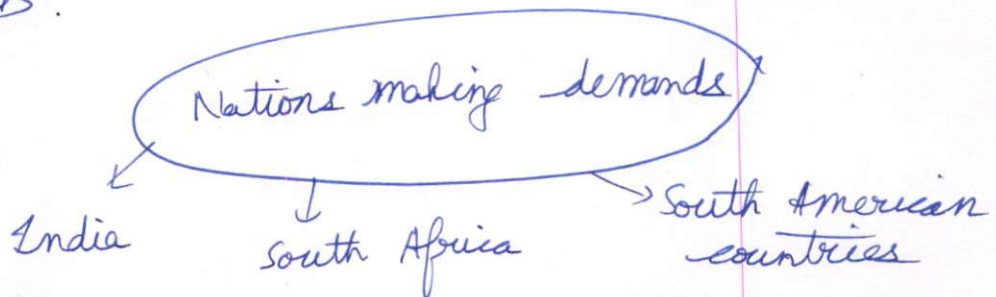
17.

महामारी के समय सार्वजनिक स्वास्थ्य से संबंधित वस्तुओं और सेवाओं के उदारीकरण की बढ़ती मांग ने वर्तमान बौद्धिक संपदा व्यवस्था के संबंध में महत्वपूर्ण मुद्दों को उठाया है। विवेचना कीजिए। (उत्तर 250 शब्दों में दें)
 The growing demand for liberalisation of public health-related goods and services amidst the pandemic has raised critical issues with regard to the current intellectual property regime.
 Discuss. (Answer in 250 words)

15

उम्मीदवारों को इस शीट में नहीं लिखना चाहिए
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After COVID, different nations, non state groups and citizens have sought affordable access to patented vaccines and medicines developed to treat COVID.



Issues raised regarding Intellectual Property Rights (IPR) are:

1. These drugs are often patented for 20 years or more.
2. Thus no other manufacturer can produce them, and they are often unaffordable for the common man.
3. Patent evergreening also occurs. The life span period of patent rights is

extended by making superficial changes to drug/vaccine design.

4. ~~See~~ There is considerable vaccine inequity if many African nations have not yet vaccinated 50% of population. European nations have begun giving booster doses.

Thus there is a demand to utilize tools like:

1. Patent waiver for COVID vaccines - India sought this, so vaccines could be mass produced, to meet needs of all nations.

2. Patent pooling - Two or more companies pool their patent rights. These are sold to other producers, in return for royalty.

- Access to necessary medicines will rise.

3. Compulsory licensing - Indian government can order patent holder to provide production rights to another company, in exchange for royalty.

4. Voluntary Licensing - Patent holder itself authorizes other companies to produce COVID vaccine/drug.

The above measures can discourage innovation by the patent holders. There is a need to balance the risks and benefits, while dealing with IPR regime underpinning these public ~~to~~ health goods.

8.

भारत में रक्षा प्रौद्योगिकियों के स्वदेशीकरण में उप-इष्टतम परिणामों के लिए उत्तरदायी कारणों पर प्रकाश डालते हुए, उन उपायों का सुझाव दीजिए जो रक्षा क्षेत्र में स्वदेशीकरण की गति को तीव्र कर सकते हैं। (उत्तर 250 शब्दों में दें)

Highlighting the reasons behind suboptimal results in indigenization of defence technologies in India, suggest measures which can accelerate the pace of indigenization in the defence sector. (Answer in 250 words)

15

उम्मीदवारों को इस हिसाब में नहीं लिखना चाहिए
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The defence sector is an essential for upholding national security. Indigenization of the defence sector helps reduce reliance on foreign powers, and bolster military capabilities whenever needed. For long, defence indigenization suffered due to

- 1) Lack of level playing field for defence Public sector ~~and~~ Undertakings (PSUs) and private sector.
- 2) Inadequate participation of Indian MSMEs.
- 3) Stringent Foreign Direct Investment norms that ~~were~~ have been relaxed only lately.
- 4) Freedom to import defence equipment, dismantled domestic companies from innovating to produce same equipment.

5. Lack of ease of doing business — Defence procurement was delayed and prospective suppliers became discouraged.

6. + The steps that can improve indigenisation are:

1. Level playing field — No preference to defence PSUs in procurement.
2. Corporatization of Ordnance Factories to increase professionalism, innovation and investment in Research and development (R&D).
3. Adding more defence items to negative import list, creating opportunities for domestic producers.
4. Streamlining defence procurement procedures to reduce delays.

5. Minimum indigenous content ^(IC) in different categories of defence equipment should be linked to at least 50%.

उम्मीदवारों को इस हिसाब में नहीं लिखना चाहिए
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60% IC can be stipulated for some categories.

6. Encouraging joint ventures leading to technology transfer from foreign to Indian defence producers.

7. ~~But~~ Joint development of BrahMos ^{missile} with Russia will aid indigenisation. Similar initiatives are required with Israel, France and USA.

India faces security threats from its neighbours. An indigenous defence sector will bolster capabilities in ~~count~~ to counter threats. Therefore requisite reforms should be implemented on war footing.

19.

अंतर्राष्ट्रीय सीमाओं की रक्षा के लिए विभिन्न केंद्रीय सशस्त्र पुलिस बलों की अवधारणा के पीछे के कारकों पर चर्चा कीजिए। साथ ही, भारत की सुरक्षा सुनिश्चित करने में इन बलों के योगदान पर भी प्रकाश डालिए। (उत्तर 250 शब्दों में दें)

Discuss the factors behind conceptualization of different Central Armed Police Forces for guarding the international borders. Also, highlight the contribution of these forces in ensuring security of India. (Answer in 250 words)

15

Central Armed Police Forces are largely under operational control of Ministry of Home Affairs (MHA). Assam Rifles is under dual control. These forces were raised at different times, to achieve specific objectives like :

1. Addressing security concerns along Nepal border — Sashastra Seema Bal.
2. Tackling the concerns posed by China — Indo Tibetan Border Police.
3. Improving border security along Pakistan border — Border Security Force.

These forces were raised since :

- 1) ~~Specialised~~ Specialised specially trained and equipped personnel could guard borders better.

2) Relieving burden on army to guard borders.

3) Providing a deterrent effect against aggressive hostile actions at the border.

4) Acting as first line of defence in case of war.

Contribution to Indian security

1. They have helped guard sensitive borders shared with China and Pakistan.

2. These forces have fought made sacrifices in line of duty eg CRPF patrol main personnel martyred in Ladakh in 1959.

3. BSF has effectively countered cross border terrorism (Pakistan border) as well as drug trafficking, illegal migration and currency smuggling (Bangladesh border).

4. ITBP has deterred Chinese

intrusions into Indian Territory eg in Lhasan valley.

5. Assam Rifles has helped curb threat posed by ULFA, National ~~soon~~ Socialist Council of Nagaland etc.

6. During various disasters, they have been first responder.

7. The National Security Guard draws troops from CAPFs and Army. It helped quell 26/11 attack.

CAPFs are thus indispensable for internal and external security of the nation. Strengthening them further in terms of personnel, training and jurisdiction is required.

धन शोधन (मनी लॉन्ड्रिंग) गतिविधियों के लिए आभासी परिसंपत्तियों के दुरुपयोग के संदर्भ में, उनकी सुभेद्यता पर चर्चा कीजिए। साथ ही, उन सुधारात्मक उपायों का भी उल्लेख कीजिए, जो आभासी परिसंपत्तियों के उपयोग से उत्पन्न जोखिमों को कम करने के लिए अपनाए जा सकते हैं। (उत्तर 250 शब्दों में दें)

Discuss the vulnerability of virtual assets in terms of their misuse for money laundering activities. Also, state corrective measures that can be taken to mitigate the risks posed by the use of virtual assets. (Answer in 250 words)

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उम्मीदवारों को इस हिसाब में नहीं लिखना चाहिए
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Virtual assets are those created and stored using blockchain technology of cryptocurrency like Bitcoin. They have been criticised for their ability to aid money laundering in following ways:

1. Virtual assets offer their users anonymity.

It is easy to carry out financial transactions to disguise the identity of owner and source of funds.

2. Law enforcement agencies have struggled to curb this type of money laundering.

3. While virtual assets are largely not authorized in most nations, criminals

still flout the rules and secure access to them.

4. There is no global regulatory regime governing use of these virtual assets.

Corrective actions that can be taken are:

1. Virtual assets should not be made legal tender, else their they will be misused.

2. A Central Bank Digital Currency can be explored to address mass hysteria surrounding bitcoins.

• This digital currency will be used instead of other virtual assets.

3. CBCD will be traceable by Reserve Bank of India. Then scope for money laundering will fall.

4. India, along with other like minded

nations should push for robust regulation of these virtual assets.

5. Financial information exchange agreements should be made more comprehensive to deter misuse of these assets for money laundering.

Money laundering indicates prevalence of crime, weakens rule of law and deprives government of revenue. It must be urgently addressed through adequate regulation of virtual assets.

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