



VISIONIAS

INSPIRING INNOVATION

ABHYAAS MAINS

सामान्य अध्ययन (प्रश्न पत्र-III)/GENERAL STUDIES (Paper-III) (2033)

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. : 154283

अभ्यर्थी का नाम/Name of Student : Shashvat Sangwan

माध्यम: हिंदी/अंग्रेजी
Medium: Hindi/English

English

तारीख
Date

19.12.2021

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

केंद्र
Centre

ORW

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 परबर्ती 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 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 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.

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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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.

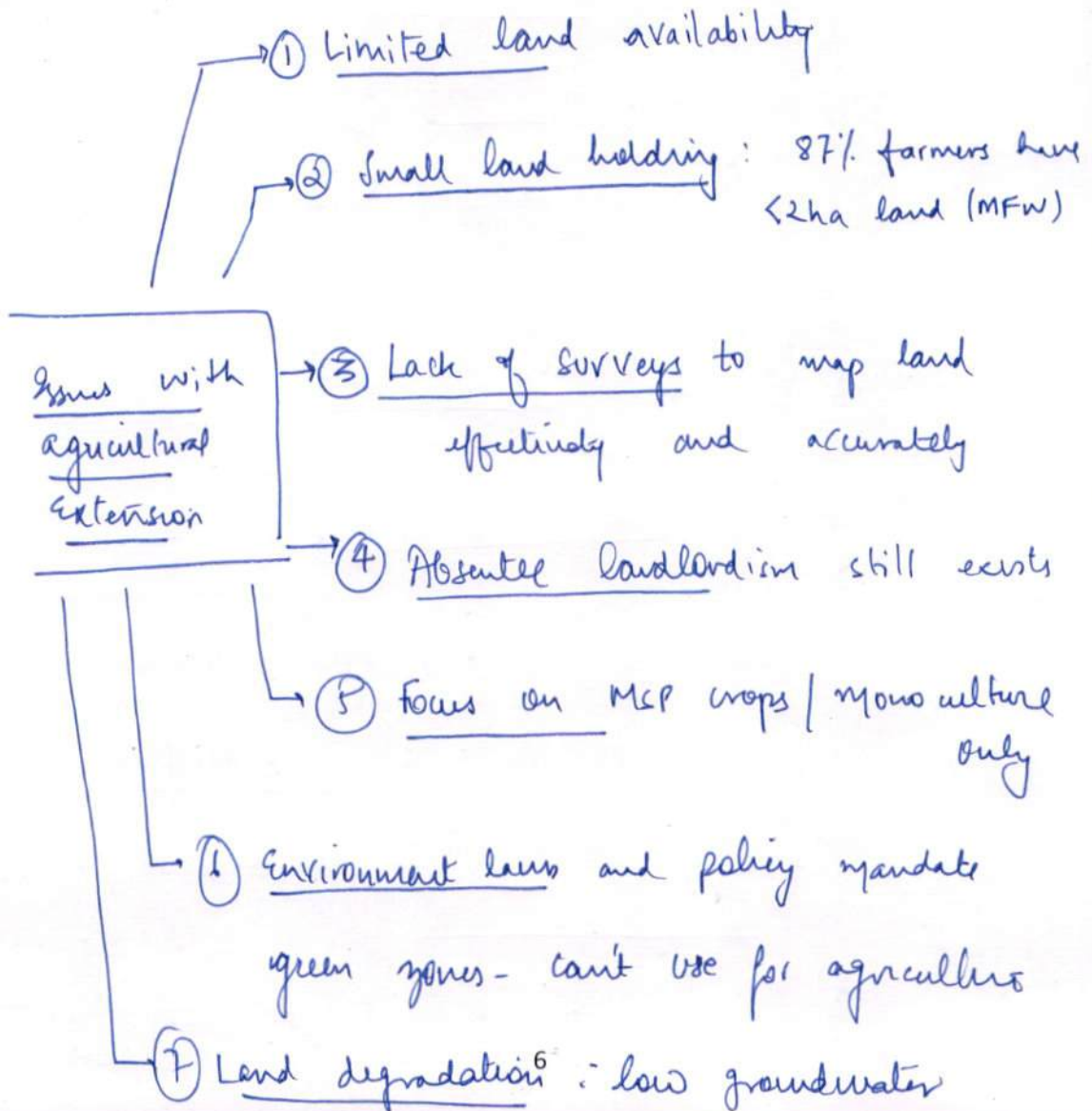
भारत में कृषि प्रसार से सम्बद्ध मुद्दों का उल्लेख करते हुए, राष्ट्रीय कृषि अनुसंधान प्रसार प्रणाली को सुदृढ़ बनाने में कृषि विज्ञान केंद्रों (KVKs) की भूमिका पर चर्चा कीजिए। (उत्तर 150 शब्दों में दें)

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)

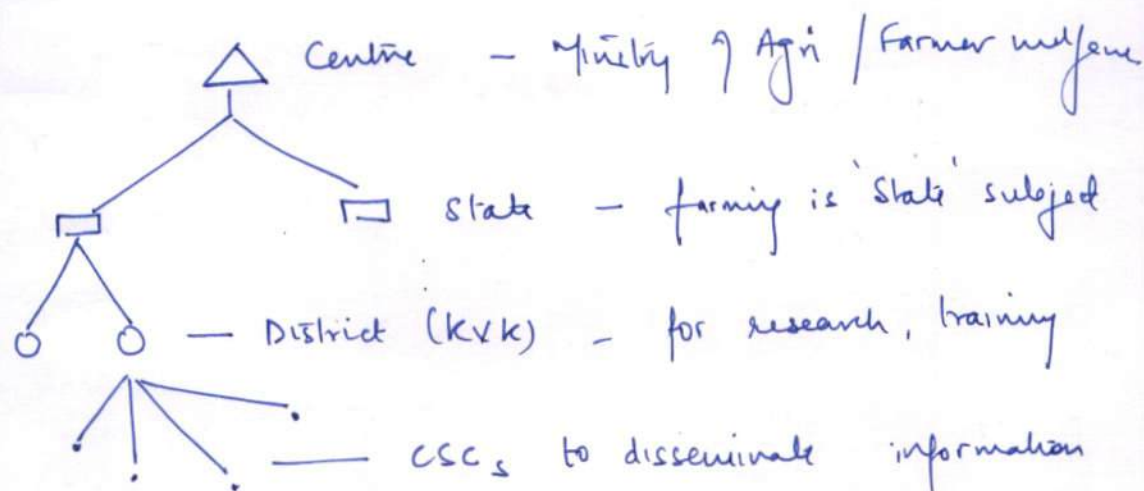
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उम्मीदवारों को इस दृष्टि में नहीं लिखना चाहिए
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Article 48 - DPSP mandates the state to organise agriculture along modern and scientific lines and Kisan Vigyan Kendra (KVK) is a step in that direction



Role of KRISHI Vikas Kendra (KVK)



- 1) Training farmers in scientific farming practices
- 2) Agro smart practices : such as fertilizer levels, appropriate crops
- 3) Formal credit extension to farmers
- 4) Link and nodal point for farmer welfare schemes - PM KSY, Kisan credit card

These KVKs are steps to realise the mission of doubling farmer income as envisaged by Ashok Dalwai committee.

2.

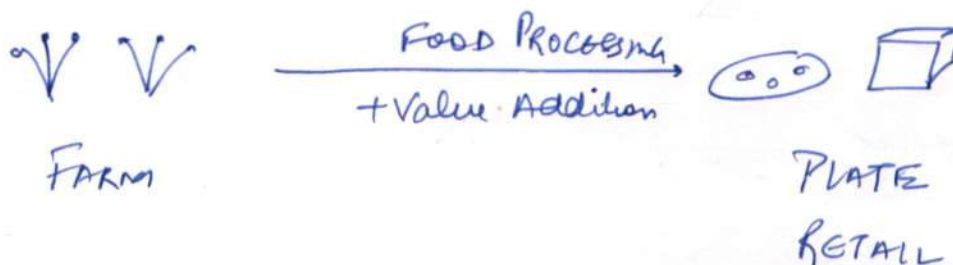
भारत में, खाद्य प्रसंस्करण क्षेत्रक मूल्य संबर्द्धन की अपार संभावनाओं के कारण एक उच्च संवृद्धि और उच्च लाभ के क्षेत्रक के रूप में उभर रहा है। चर्चा कीजिए। (उत्तर 150 शब्दों में दें)

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)

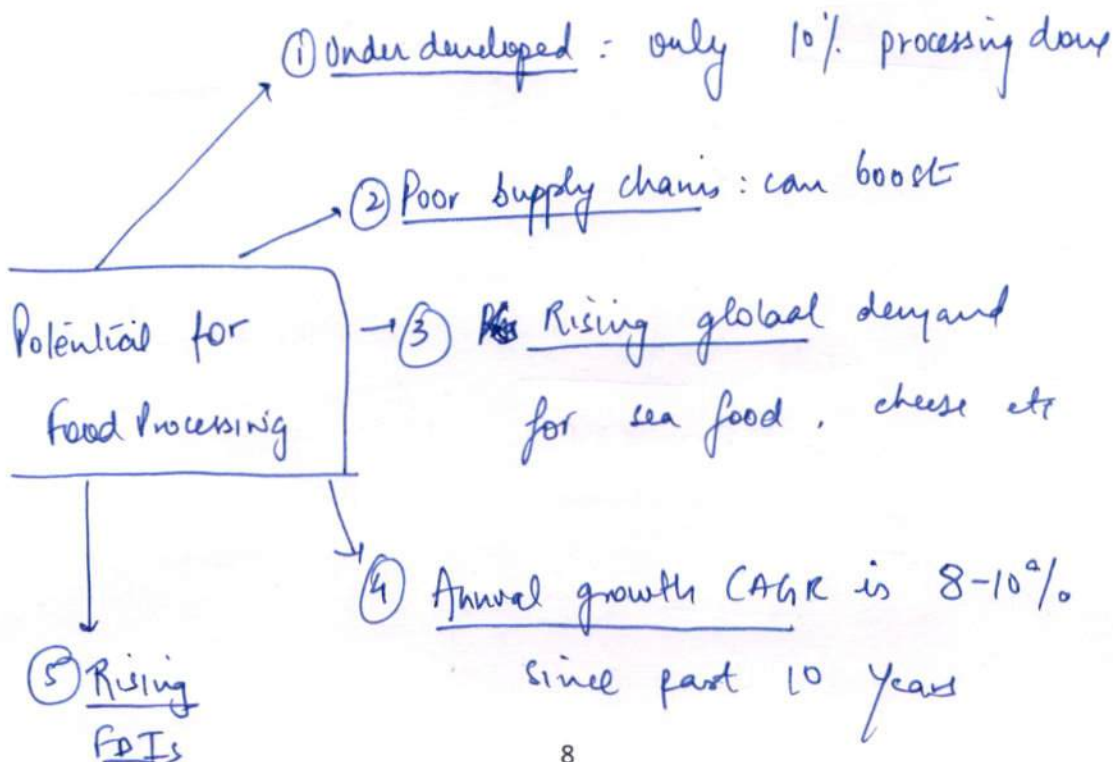
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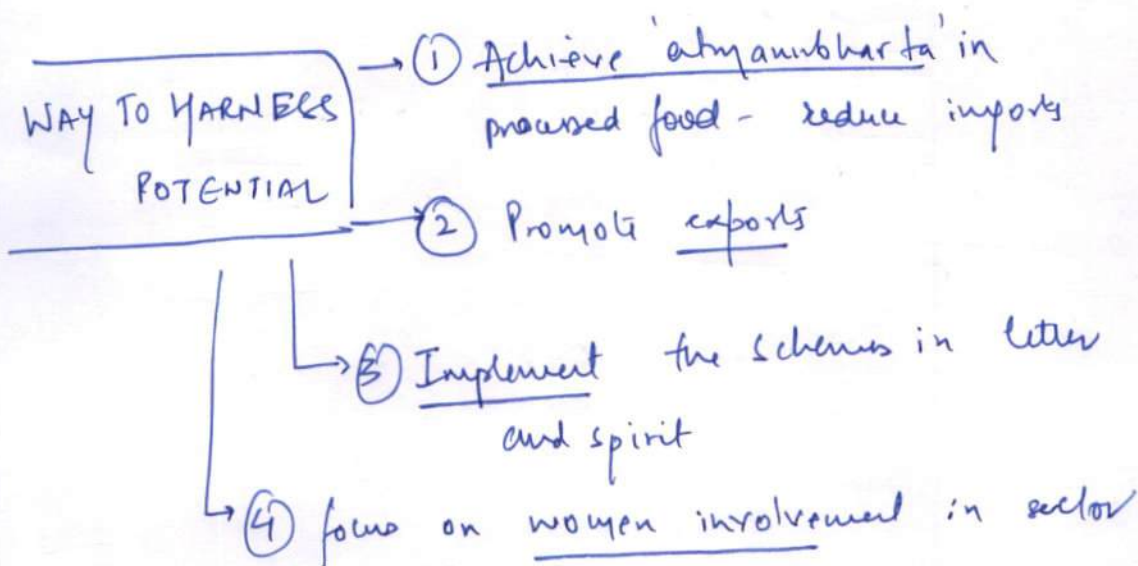
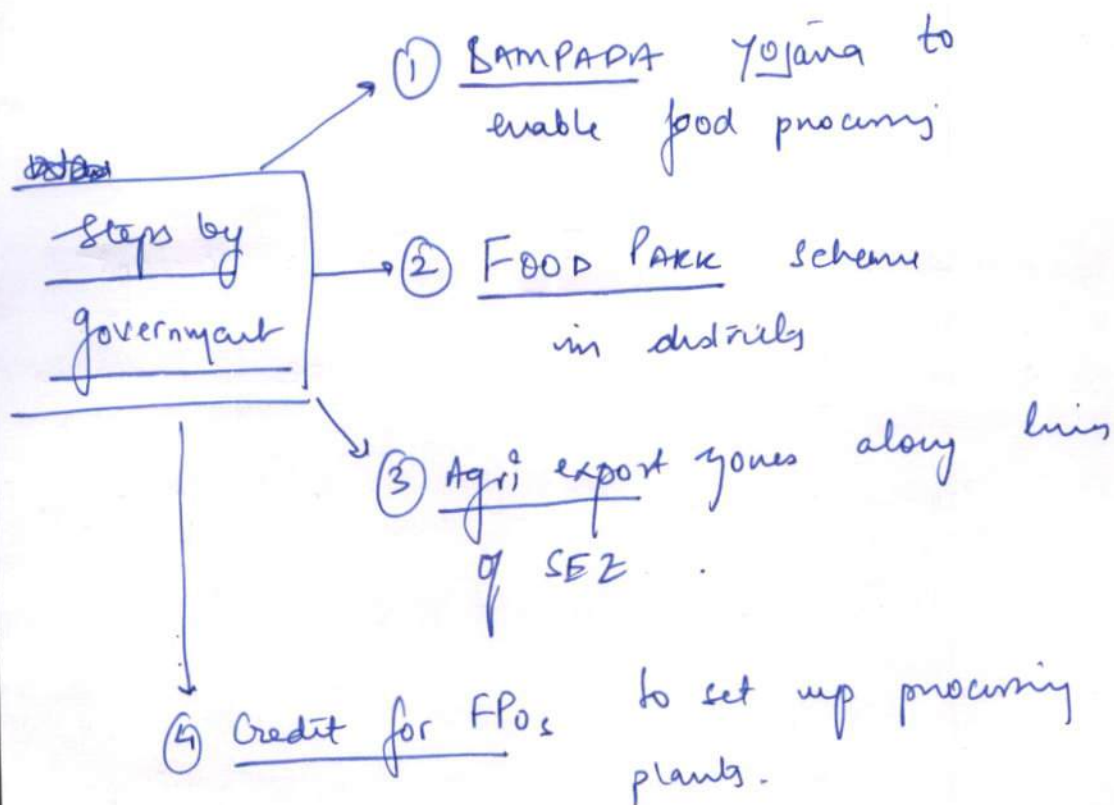
उम्मीदवारों को इस भाग में नहीं लिखना चाहिए
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Food Processing



Process of Value addition to raw food stuff. Eg. Animal processes milk to make cheese, ghee etc.





Thus, food processing is key to increase farmer income, diversification, and reduce imports.

Example is FPO: Jammu Oriental - set up cold processing of goat cheese, and exports them to USA.

3.

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

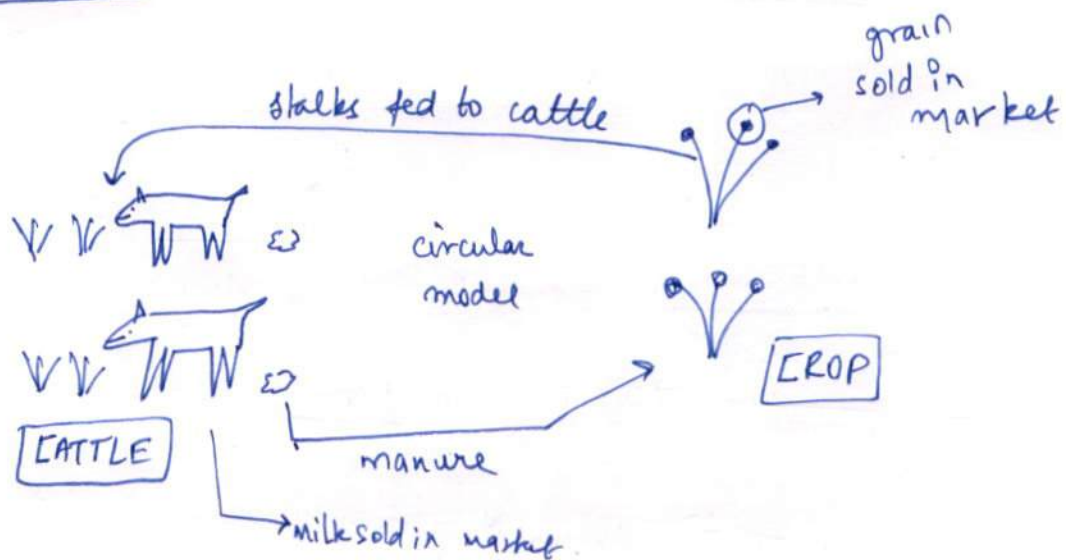
Explaining the concept of livestock-based Integrated Farming System (IFS), discuss its benefits. (Answer in 150 words)

10

उम्मीदवारों को इस दृष्टिकोण में नहीं लिखना चाहिए
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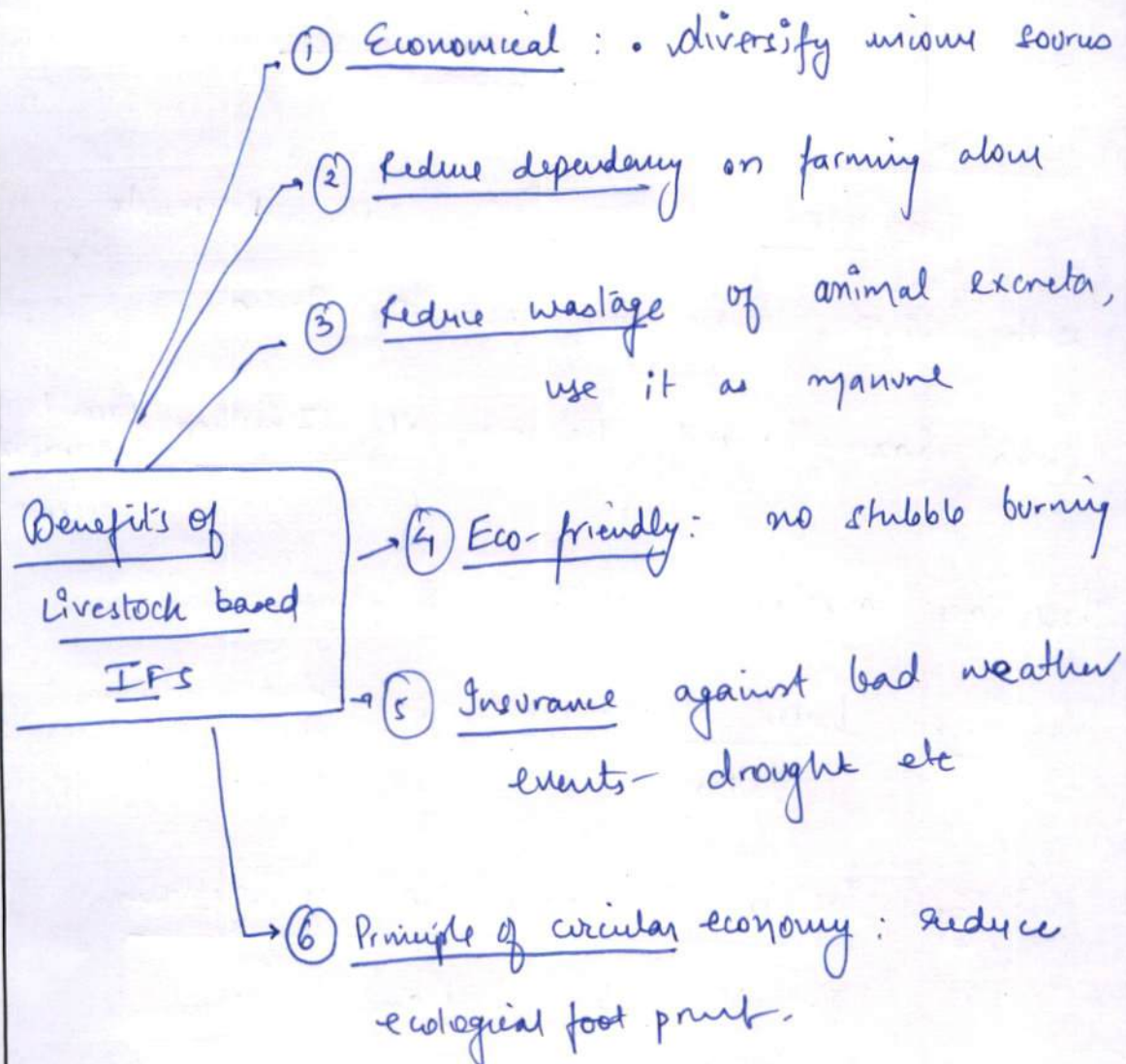
Livestock based IFS is a concept based on 'Mixed Farming' where farming and non-farming activities support each other.

EXAMPLE:



Some models are

- 1) cattle-crop model
- 2) poultry-crop model
- 3) poultry-fishery-crop model.



The government's report on doubling
farming income features schemes such as
IFS, PM-KVSUM, and food park scheme
these multi products are used and processed in
a sustainable way.

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

The MEA defines PIOs as emigrants with some ancestral ties to India.

India has largest diaspora at 17 million. (world migration report)

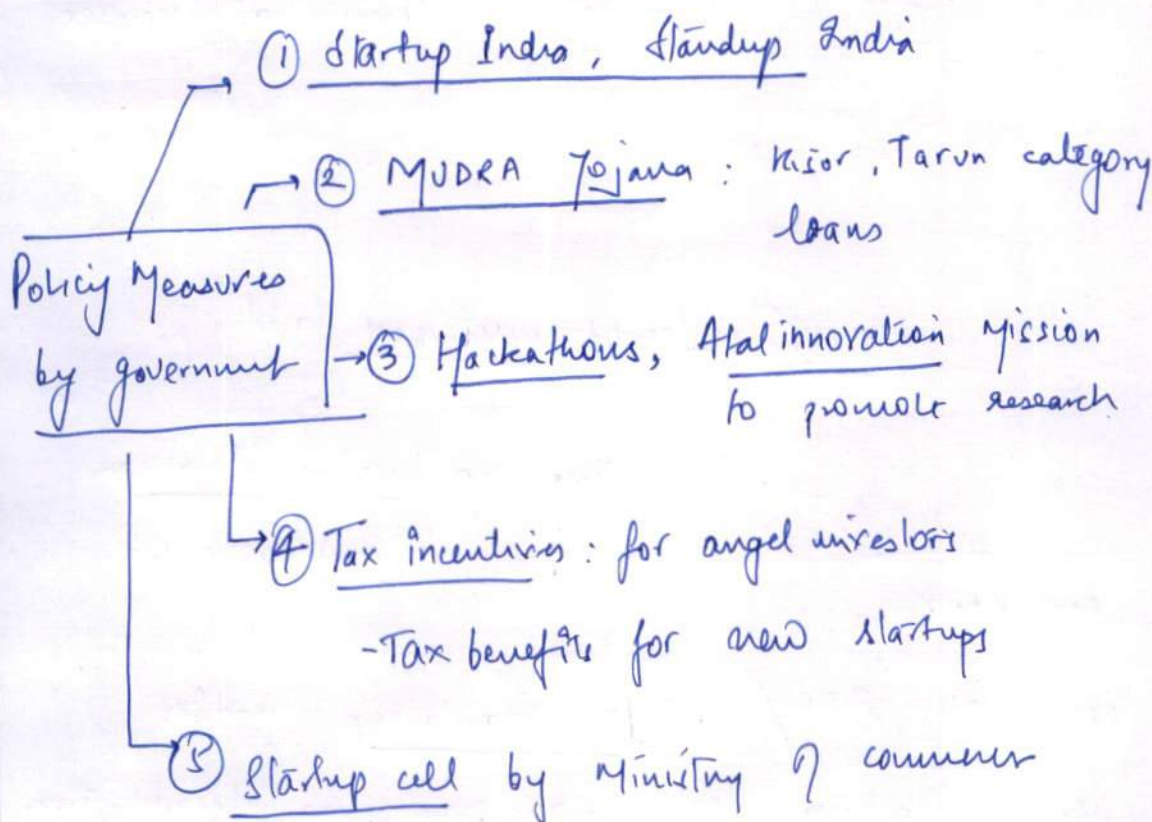
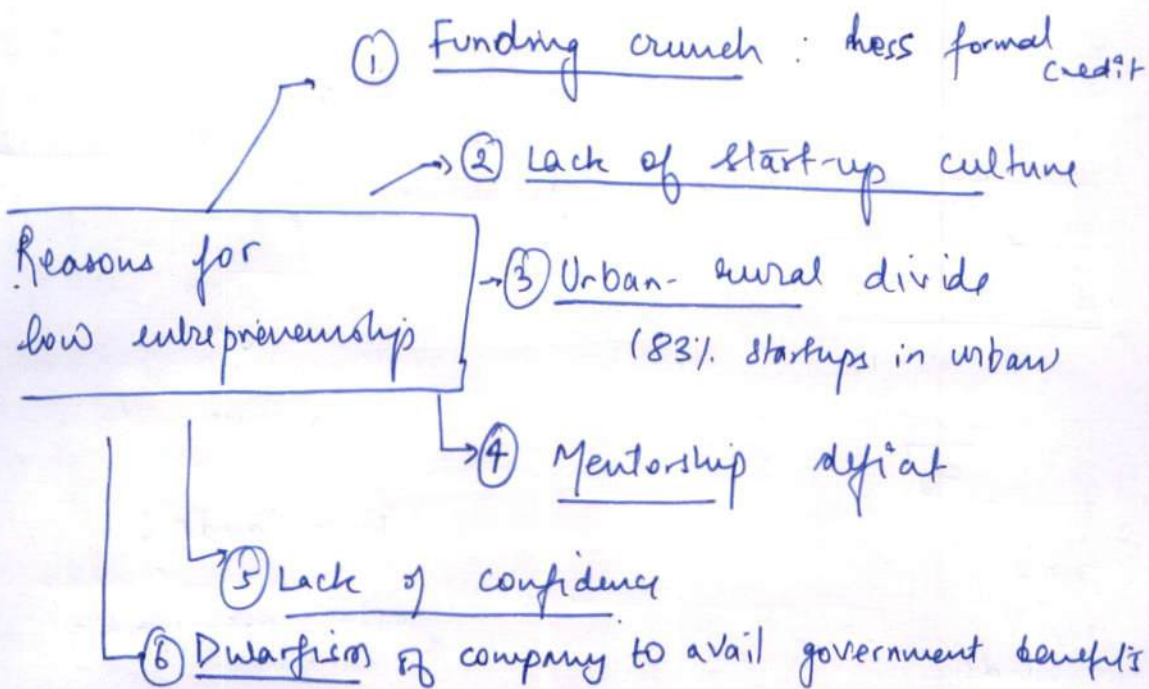
These are largely successful entrepreneurs

Eg. Lulu Supermarket in Gulf by Indian.

Eg software company sun microsystems in USA by Indian.

India however has one of the lowest per-capita entrepreneurship rates as highlighted by the economic survey 2019.

उम्मीदवारों को इस कक्ष में नहीं लिखना चाहिए
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Entrepreneurship is about 'atmanirbharata', or quality self employment. Flipkart, oYO, and bookmyshow are some successful examples, which can be used as models ¹³ to incubate others.

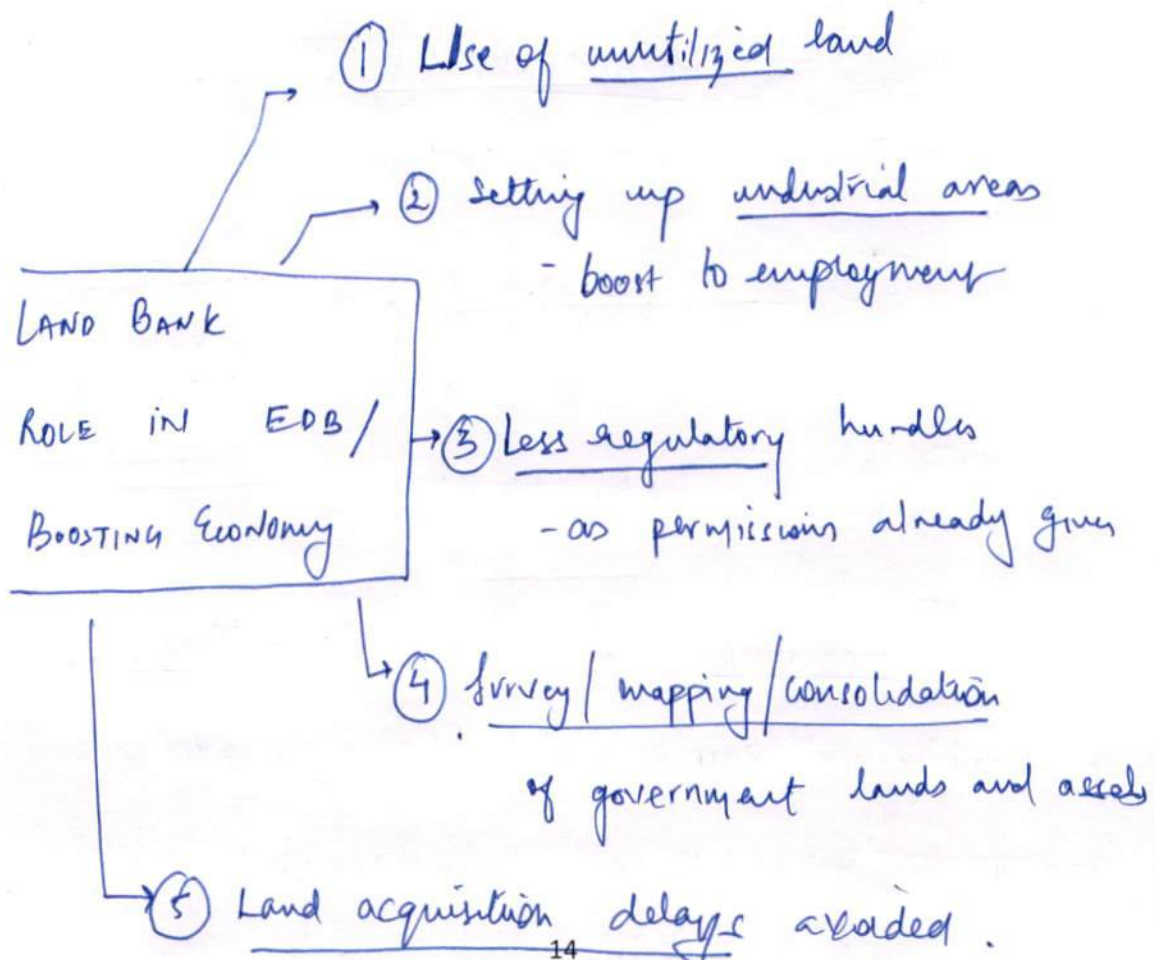
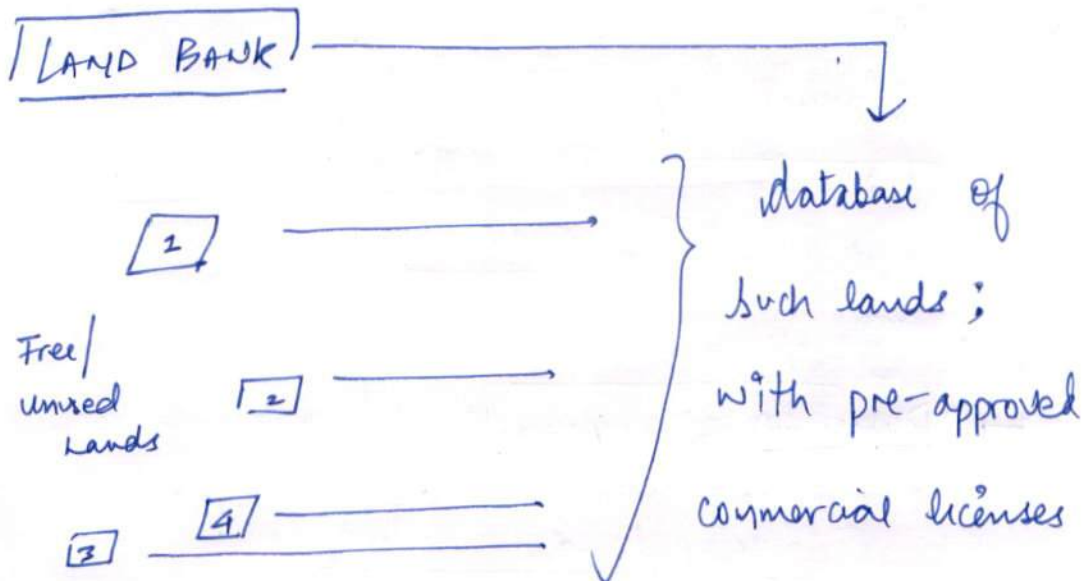
5.

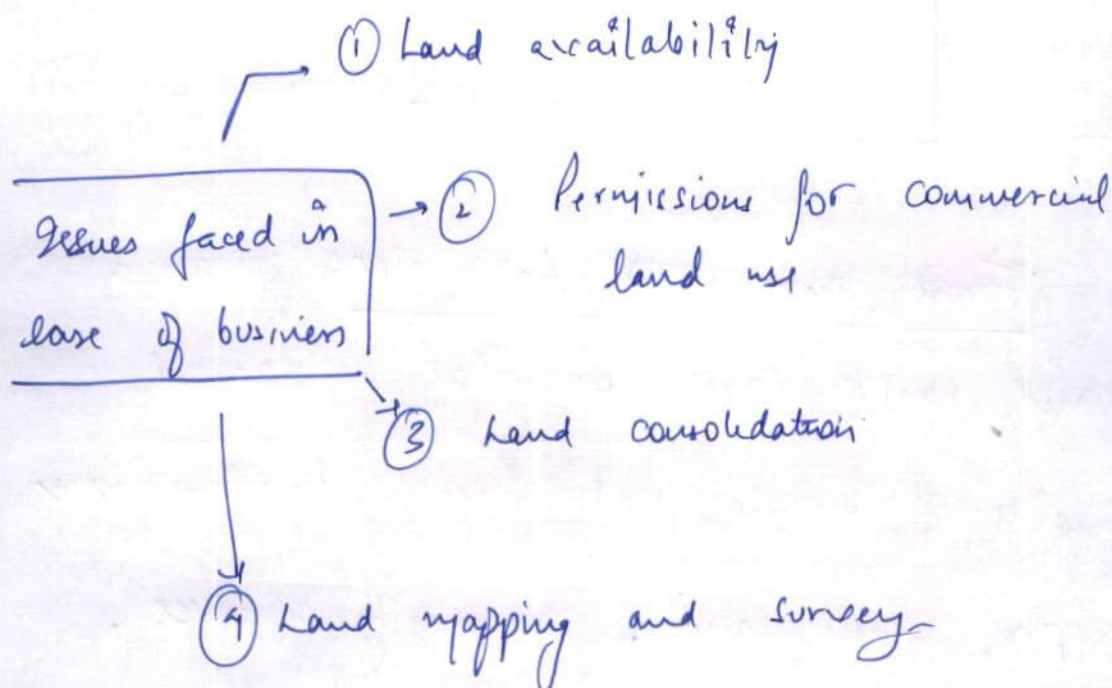
'भूमि बैंक' अर्थव्यवस्था को प्रोत्साहन देने और भारत में व्यापार सुगमता (ईज ऑफ डूइंग बिज़नेस) को बढ़ावा देने में महत्वपूर्ण भूमिका निभा सकते हैं। चर्चा कीजिए। (उत्तर 150 शब्दों में दें)

'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 खण्ड में नहीं लिखना चाहिए
Candidates must not write on this margin





In this context 'Land bank' scheme
can be launched jointly by ministries of
Commerce, home, and technology.

Use of drone technology, digitization
of land records, and online land-bank
portal such as GEMS-like portal can
further boost India's FDI inflow and
entrepreneurship.

6.

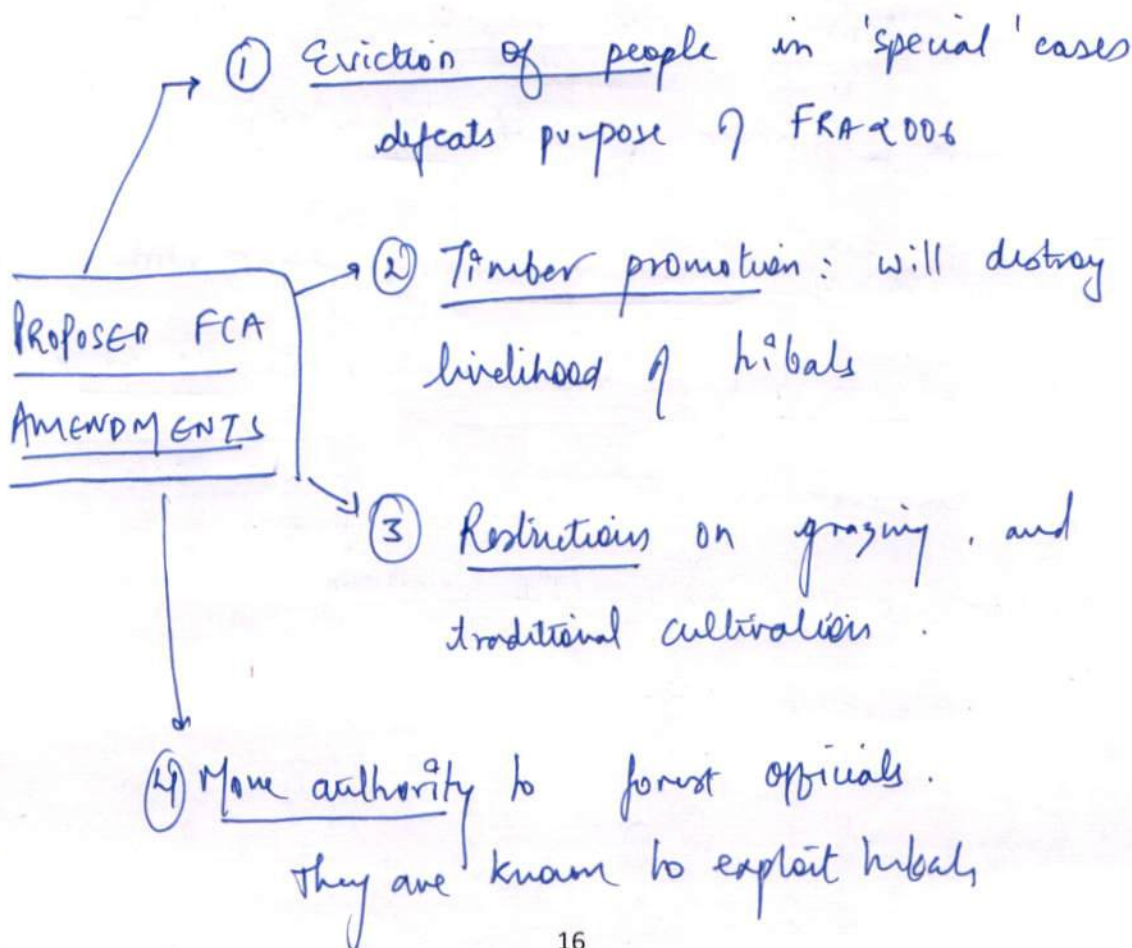
वन संरक्षण अधिनियम (FCA) में प्रस्तावित संशोधन, न केवल वन अधिकार अधिनियम (FRA) के विपरीत हैं, बल्कि इनके कारण भारत को जलवायु परिवर्तन पर अपनी प्रतिबद्धताओं को प्राप्त करने में देरी होने की भी संभावना है। चर्चा कीजिए। (उत्तर 150 शब्दों में दें)

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
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Rights
Forest Conservation Act 2006 was a
land mark legislation that recognised
rights of tribals and forest dwellers over
MFP, forest land, community reserves,
and protection against forced displacement.



→ ① Climate, emissions net zero by 2070

India's Climate

Commitments

(COP 26,
2021)

→ ② 500 GW solar by 2030

→ ③ 50% renewable by 2030

→ ④ 45% emission intensity reduced
by 2030

⑤

21 m hectare of forest by 2030
(New York declaration)

The FCA proposed amendment will legalise felling
and replanting timber and wood-sourcing trees.
Further, this will increase emissions and
reduce forest's capacity to recover.

The forest communities maintain harmonious balance
with nature - they'll be disturbed too

Thus, for success in SDG #13 combating
climate change, the proposed amendment in FCA
should be reviewed.

7.

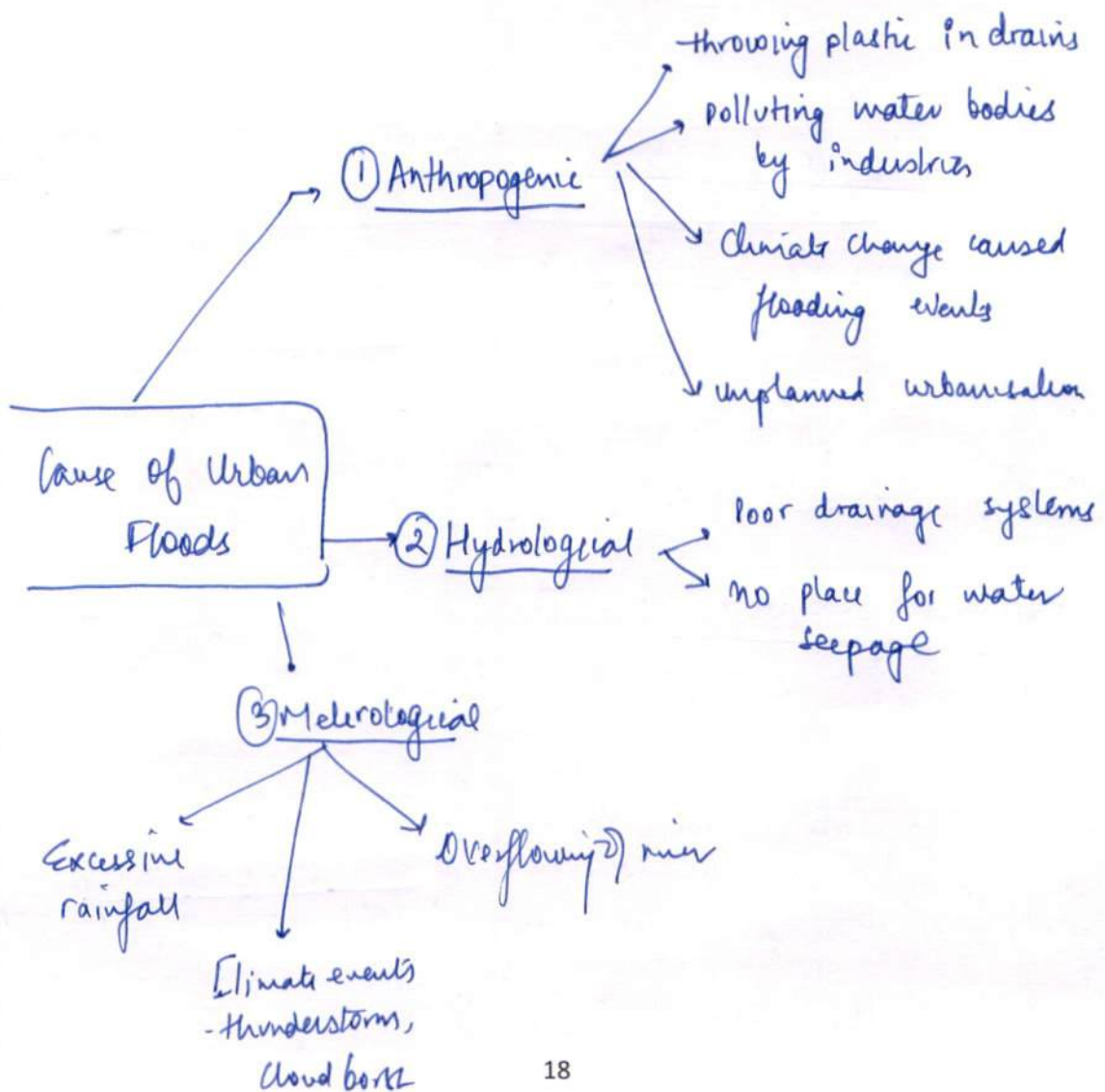
शहरी क्षेत्रों में बाढ़ की समस्या न केवल नदियों के उफान के कारण है, बल्कि उन अनियोजित तरीकों के कारण भी है जो हमारे नगर, शहरीकरण की प्रक्रिया में अपना रहे हैं। चर्चा कीजिए। इस संदर्भ में, शहरी बाढ़ पर राष्ट्रीय आपदा प्रबंधन प्राधिकरण के दिशा-निर्देशों का उल्लेख कीजिए। (उत्तर 150 शब्दों में दें)

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)

10

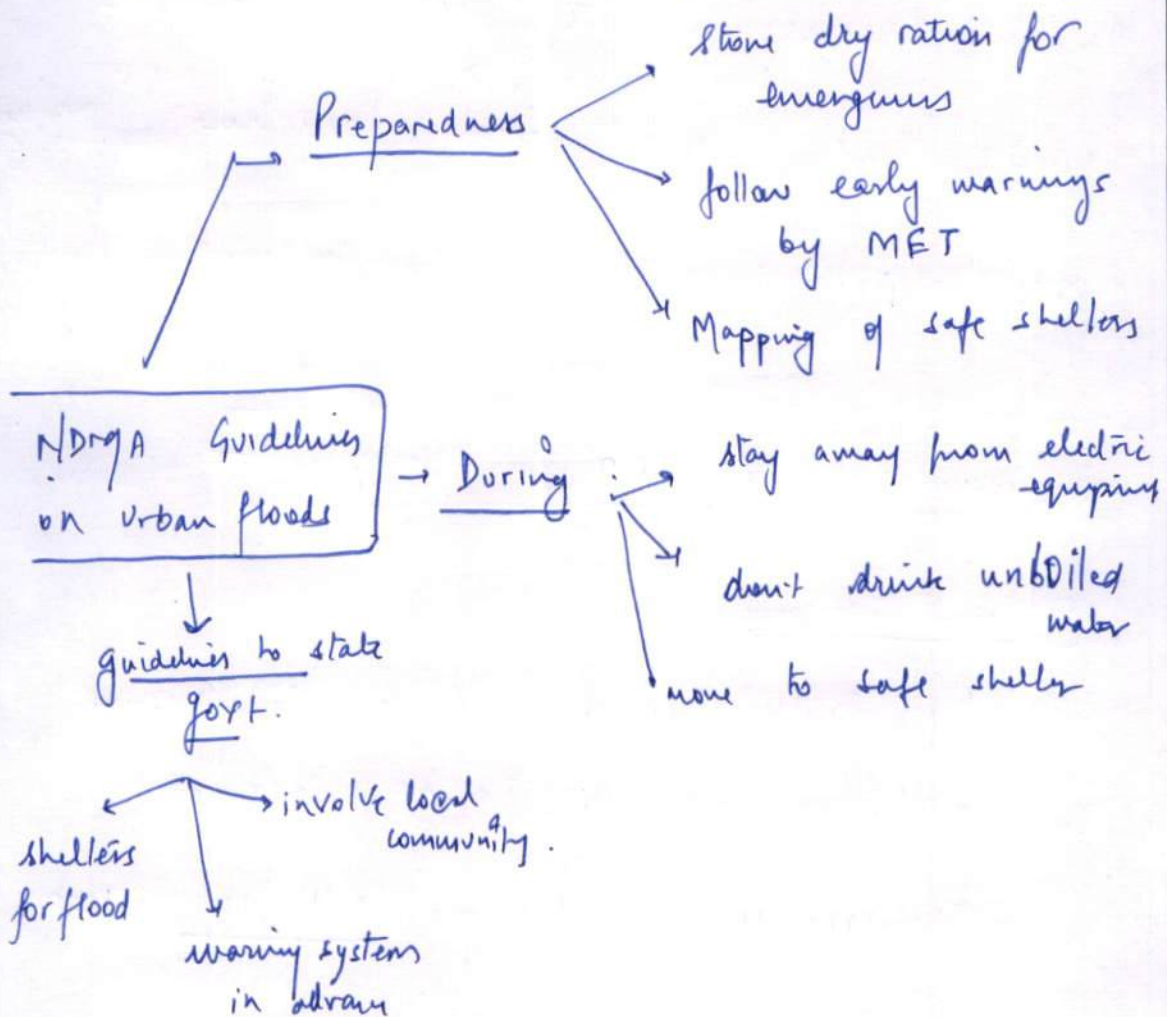
Flooding simply refers to rising of water level above normal levels.

When the same happens in urban areas, it's called urban flooding.



Thus, overflowing rivers is just one of many causes of urban floods. 2015 Chennai, and 2019 Mumbai are some examples.

The anthropogenic causes - how we cope with urbanisation is the primary cause.



Urban flooding is a challenge to SDG 9 - resilient infrastructure and SDG 15 - sustainable cities. May forward is preparedness, and planned urbanisation.

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 क्राफ में नहीं लिखना चाहिए
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Indian Space Research Organisation is a 'national asset', as PM recently said. It is because of its contribution to many fields, apart from launching many Satellites: Mangalyaan, INSAT, Cartosat ---

Enlarging Role of ISRO in Development

① Land surveys

- by earth mapping and remote sensing Satellites such as INSAT, CARTOSAT-
- Advantage is identifying land-use pattern, mapping desertification etc-

② Resource mapping

- Hydrological groundwater levels, Uranium mapping and oil/gas exploration.

③ Boost revenue - through offering commercial services by ANTRIX: commercial arm.

④ Boost Research in space and science.

→ through projects such as Gaganyaan, Chandrayaan.

⑤ Academics - school linkage: through outreach programmes such as GAGANOL.

⑥ Boost to make in India

- component sourcing is increasingly Indian sourced and manufactured.

Eg. Pragyan Rover for Mangalyaan was Indian.

Iso has proven time and again India's scientific vigour and spirit of innovation worldwide. Much lesser ^{costing} and effective technologies than NASA/ESA and they serve developmental causes too.

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)

10

Recently, USA warned India about possible chinese hackers targeting Power Grid of India.

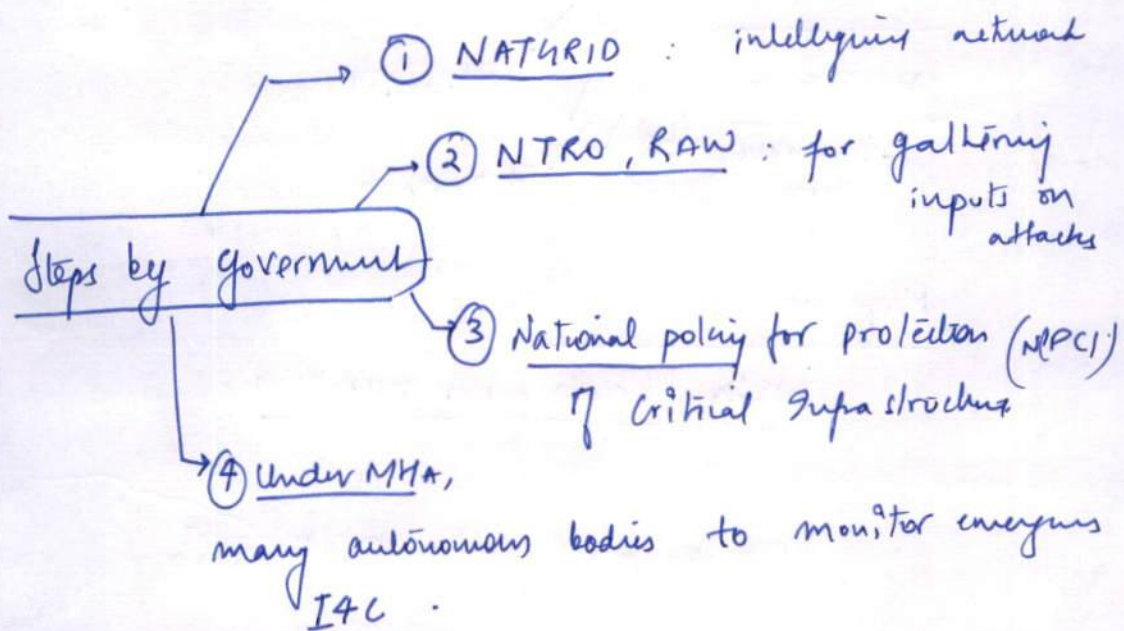
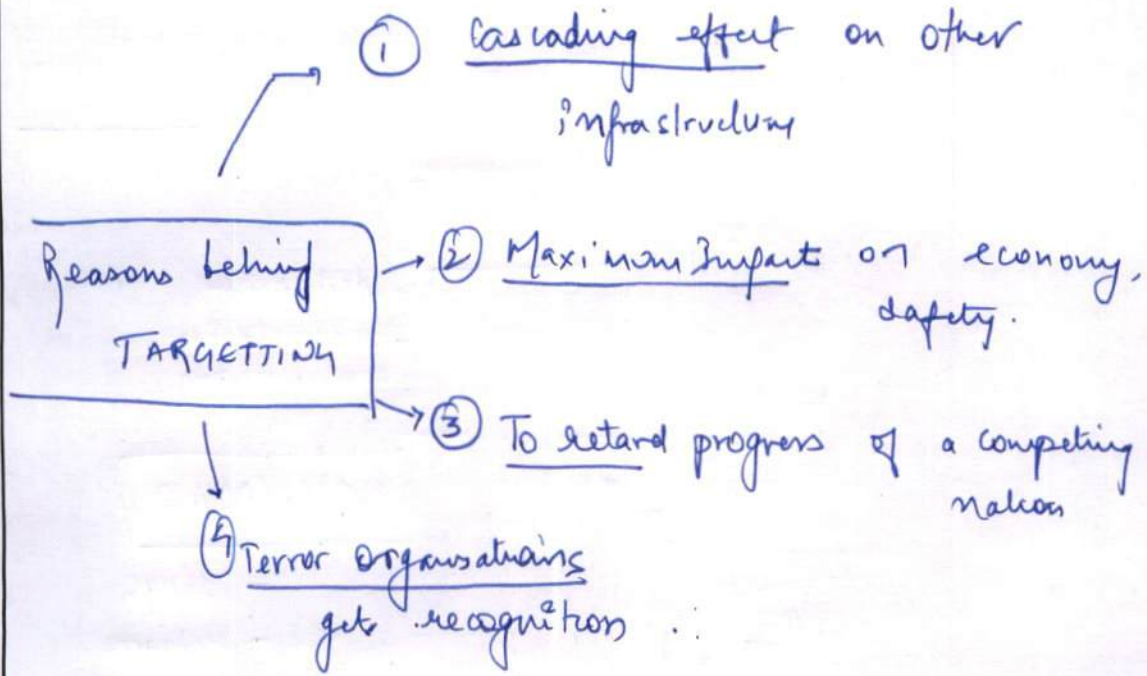
CRITICAL Information Infrastructure refers to the absolutely essential 'lifelines' of information and communication - whose malfunctioning has crippling impact on safety, economy, security, and transport.

Eg. Power grids, Eg. Nuclear weaponry.

Eg. Core banking system of RBI (Kuber).

State Actors : Include recognised political entities such as ISI, China

Non-State Actors : include terror outfits, liberation groups - eg. JEM, Taliban.



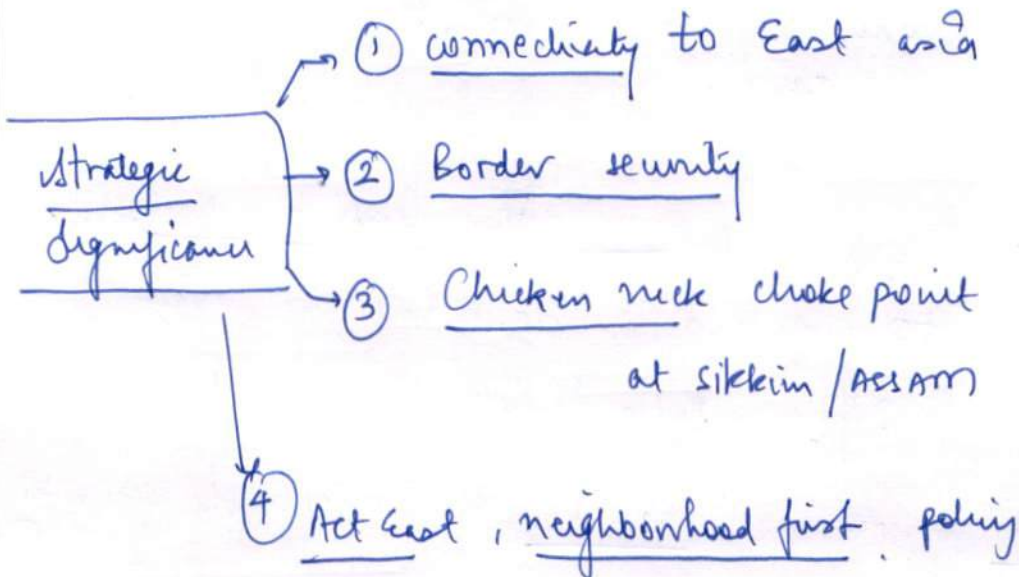
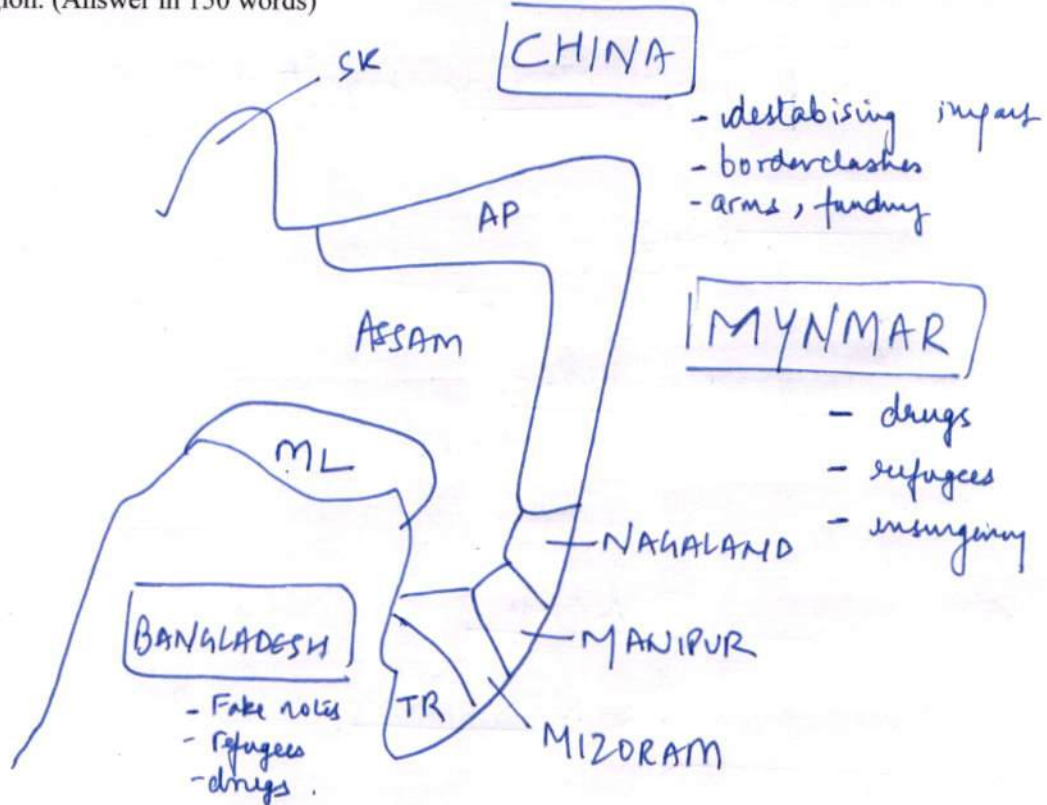
With increasing digitization and globalisation, threats to critical infrastructure are ever increasing. Digital India must have a dedicated Security component. Robustness in information security is a non-negotiable aspect of policy today.

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



① Insurgency: by organisations such as NSCN-IM, ABSU, Liberation of Tripura Tiger

Security Threats Faced

→ ② fake currency: through Bangladesh

→ ③ Drugs, Organised crime: golden triangle of Myanmar, Thailand, Laos

→ ④ Border clashes with china eg. Doklam standoff (2017).

→ ⑤ Refugee influx

eg. Rohingyas (40,000) have no documents.

Technology: Smart fences, LiDAR sensors

Steps by government for peace, security

→ Perception Management and local community engagement.

→ BSF, ITBP, Assam Rifles are guarding frontiers.

→ weapon modernisation.

→ Development schemes → connectivity schemes.

→ Ministry of NER development: Integration schemes

They are helping realise ²⁵ National security goal!

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)

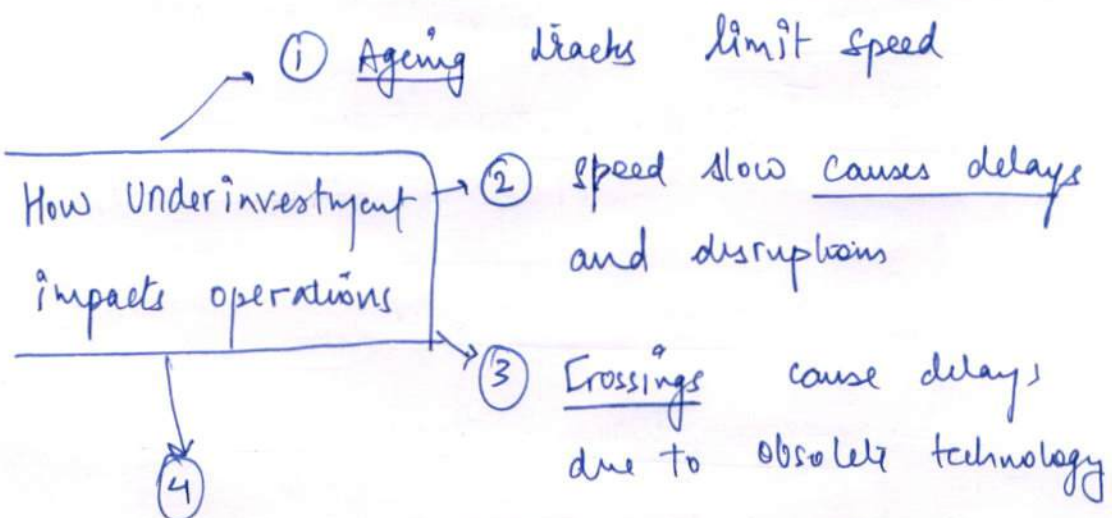
Indian Railways has suffered from chronic under-investment, which has adversely impacted key areas of its operations. In this context, discuss the challenges faced by the railways in speedy creation of infrastructure. Also, mention the steps taken by the government in this regard. (Answer in 250 words)

15

Indian Railways is severely under-funded, as per Bibek Debroy Committee report.

The Khanna committee on operations and safety highlighted over 95% tracks are over-used and due for replacement.

Furthermore, over 110 accidents are reported annually on average (2010-2019).



Excessive reliance on human-less automation.

- ① Funding issue: Railways subsidises
over 53% ticket cost for common
man - less money left for
upgrading technology

Challenges faced by
railways in creating
infrastructure

- ② Delays in decision making
- bureaucratic delays

- ③ Lack of effective private
sector involvement.
- only limited (IRCTC
PSU, IRCON)

- ④: Poor skilling of
railway staff to adjust to new technology

- ⑤ Land acquisition delays and hurdles.
- to expand stations, lines, crossings

Steps By government for boosting infrastructure for railways

① Involving PPP / private sector

- * Tejas trains
- * Catering in trains
- * Railnet with google

② Increased budgetary funding

③ Optimising expenses

- * Manpower rationalisation

④ Digital infrastructure

- + Modernising IRCTC website for
faster, digital access.

⑤ New Coaches (HAF)

- * Which are spacious, safe, and
energy efficient.

Railways is a national asset. It employs
1.3 million people and 1.3 crore people travel daily.

Modernisation is way forward.

12.

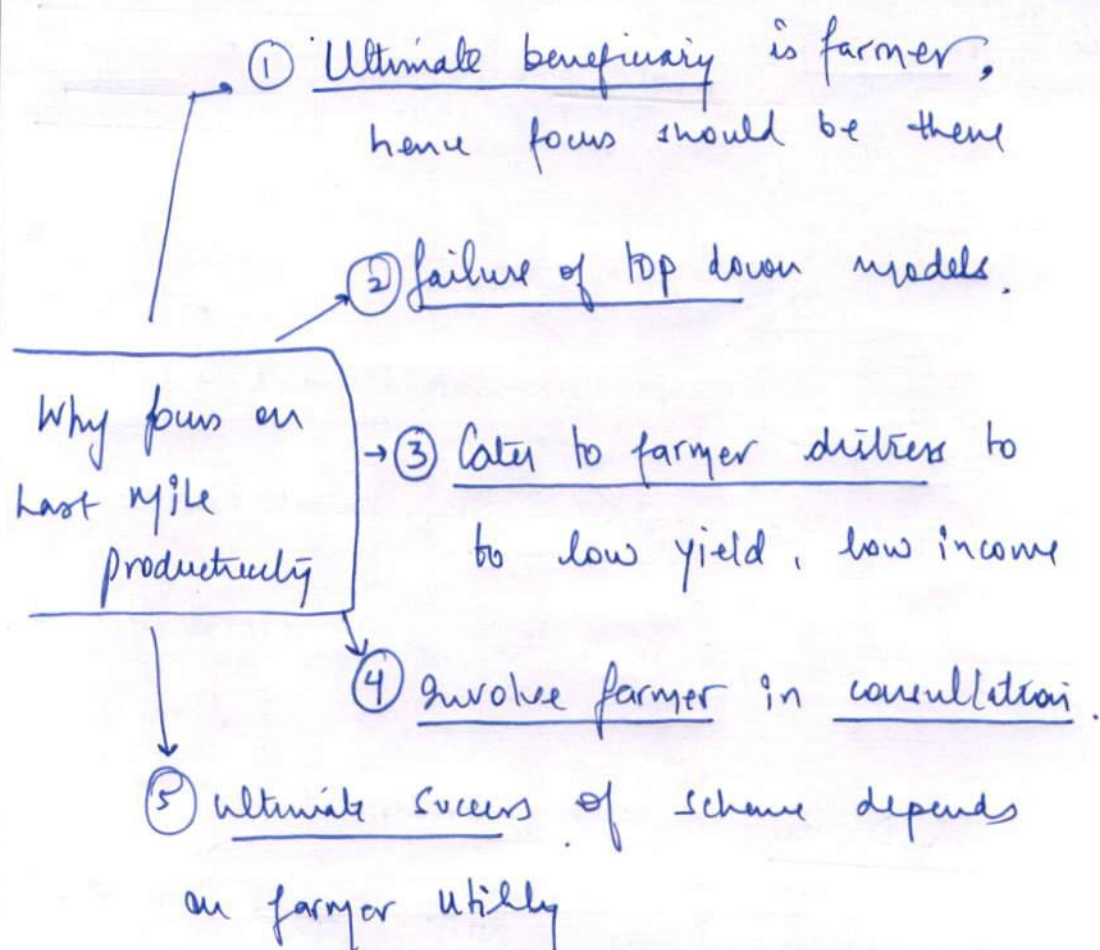
किसानों की आय को दोगुना करने के भारत के उद्देश्य को साकार करने हेतु कृषि प्रणाली के अंतिम बिंदु तक के दायित्वों पर ध्यान देने के साथ अनुसंधान और विकास (R&D) के लिए एक परिवर्तनकारी दृष्टिकोण आवश्यक है। विवेचना कीजिए। (उत्तर 250 शब्दों में दें)

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) 15

Indian agricultural system employs over 55% population directly and indirectly (PLFs). With less than 20% GDP contribution, it is clear that productivity is extremely low.

Ashok Dalwai committee highlighted ways to double farmer income with special emphasis on R&D areas. for the following reasons.

- ① with land being limited, more productivity is way forward
- ② Proven benefits of R&D - eg. soil health card scheme.
- ③ Boost to agricultural research. IOSA institute Rice - Drought resistant led to saving of crops in Vidarbha (2018)



Disruptive approach is necessary now because
traditional schemes such as Krishi Vikas
Kendras, etc are not very successful.

An overhaul of agricultural research is
necessary.

WAY FORWARD

- ① Promote research through institutions
- ② Promote industry - academia collaboration
- ③ Learn from other nations
eg. Israel re-uses 90% water and uses for irrigation system to address water issue.
- ④ Sustainable development models such as
eco-forestry, Zero budget natural farming and organic farming can only be developed through extensive research

Thus our late ExPM Lal Bahadur Shastri's vision of 'Jai Kisan Jai Jawan' must be supported by PM Vajpayee - 'Jai Vigyan' (science)

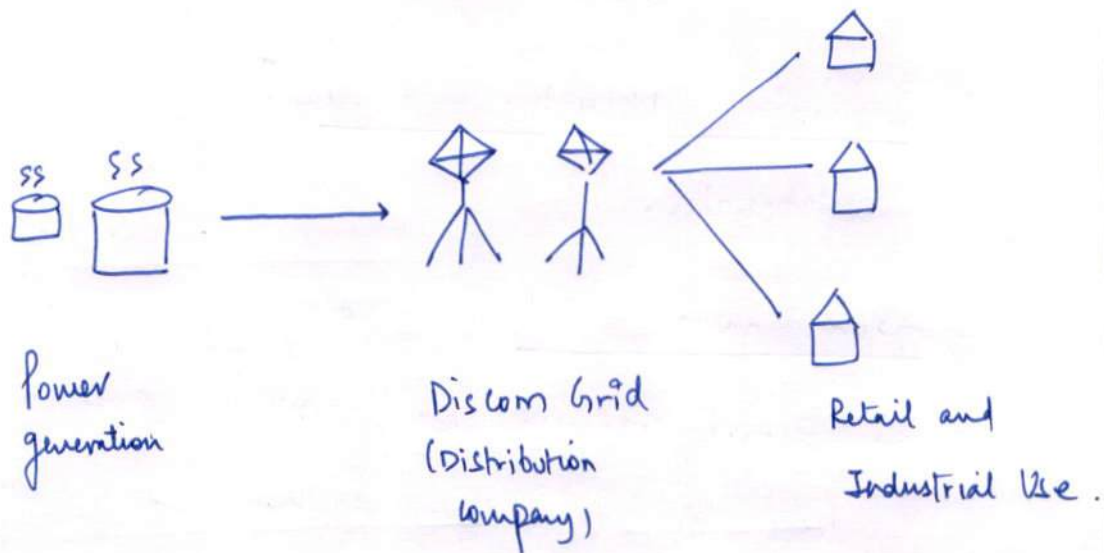
To quickly realise vision of doubling farmer income.

13.

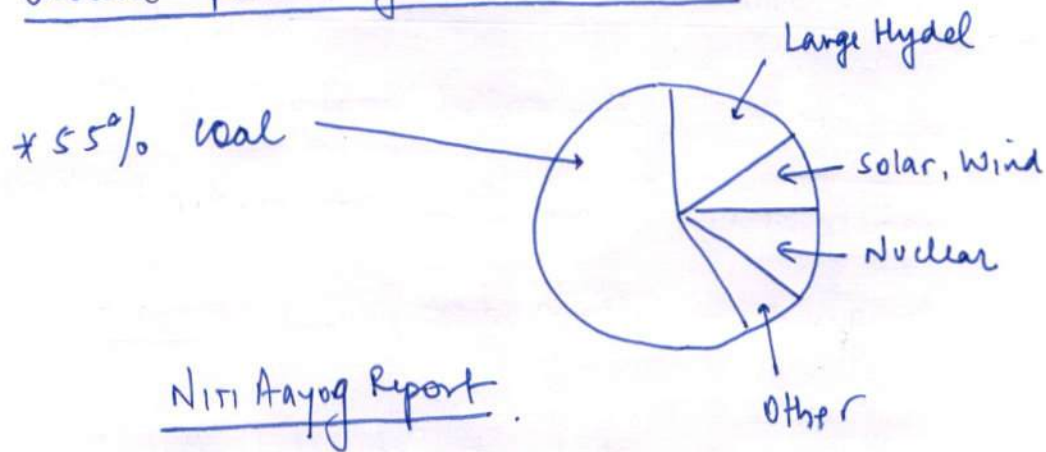
भारत की विद्युत वितरण कंपनियों और विद्युत ग्रिड को जीवाश्म ईंधन से अक्षय ऊर्जा के अधिक संधारणीय रूपों में संक्रमण हेतु सुधारों से गुजरना होगा। चर्चा कीजिए। (उत्तर 250 शब्दों में दें)

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 क्वेश्चन में नहीं लिखना चाहिए
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Current power generation structure



There is a growing demand to transition to renewables worldwide to achieve SDG 13- global climate change preparedness

WHY ARE DISCOM & GRID MODERNISATION NECESSARY

① Current programming

based on fossil fuel based
energy.

② Inability to store renewable energy

in grids. eg. Solar energy only created
during day but must be available
24 hours for dependable solutions

③ Losses in transmission : because of

inefficient grids - up to one fourth losses.

④ Pricing Reforms

a) Declining solar rates per units are
hurting finances of discoms

b) State government has put obligation to
buy fixed units of renewable energy.

c) Issue of surplus renewable in some
states while deficit in other.

⑤ Shortage of raw material

- Silicon semiconductor

- Lithium for battery

STEPS TAKEN

- ① RECs : Renewable energy certificates to address supply - demand - feasibility and policy issues.
- ② UPAY scheme : to aid discoms of legacy losses (over 1 L - crore (2019))
- ③ Boosting rooftop solar, solar pump (PMKUSUM)
- ④ International commitment at COP26 to achieve 50% renewable power by 2030
- Also International solar alliance (ISA)

Way forward is boosting solar grid network along lines of 'one nation - one grid' gas pipeline.

Further, policy reforms such as PAT, REC, gas exchange are positive steps.

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

उम्मीदवारों को इस कक्ष में नहीं लिखना चाहिए
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Article 48 mandates Indian state to enable 'organising agriculture on modern and scientific lines'. The current input-intensive - water, fertilizer, pesticide model is unsustainable.

Some Issues → ① Depleting water level

- over 37% of ground water sources are severely stressed.
- Especially Punjab, Haryana.

② Bio accumulation, due to pesticide use

- harmful for human, animal health

③ Increased cost of input for farmer

④ Subsidy burden for exchequer.

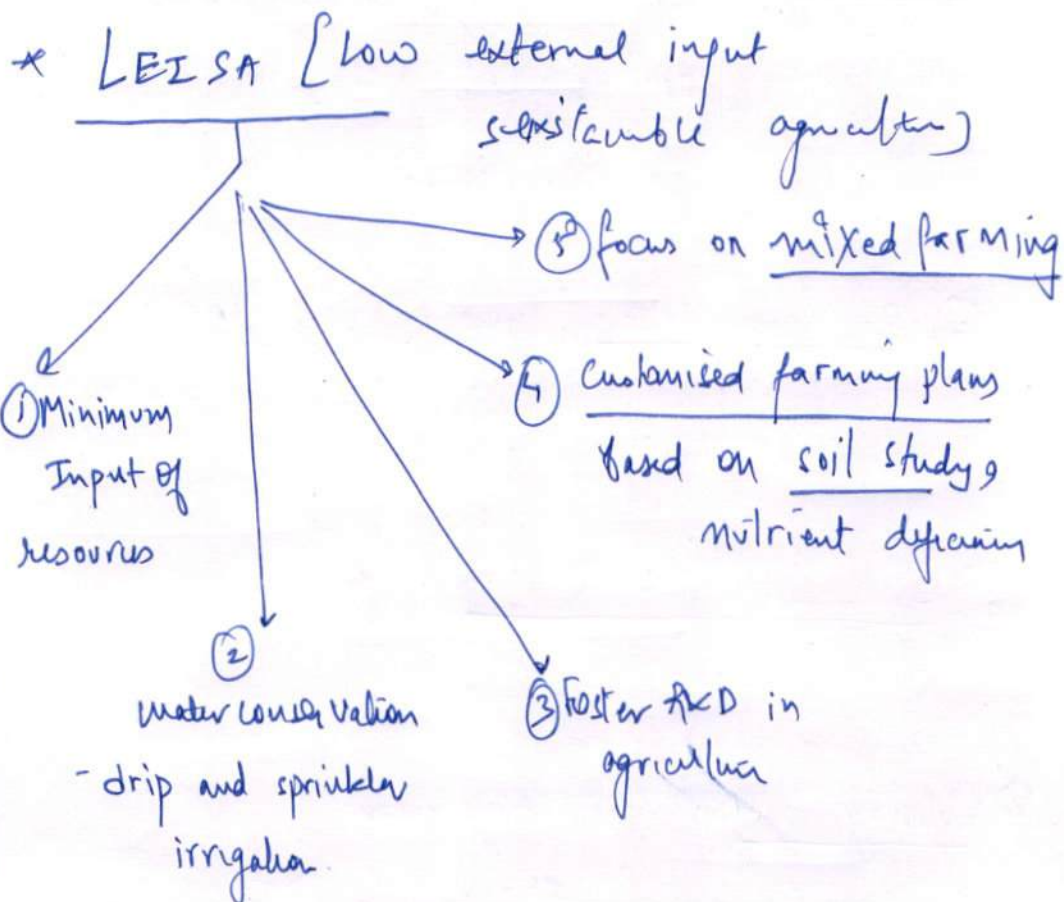
Eg. Fertilizer subsidy is > \$10 Billion annually.

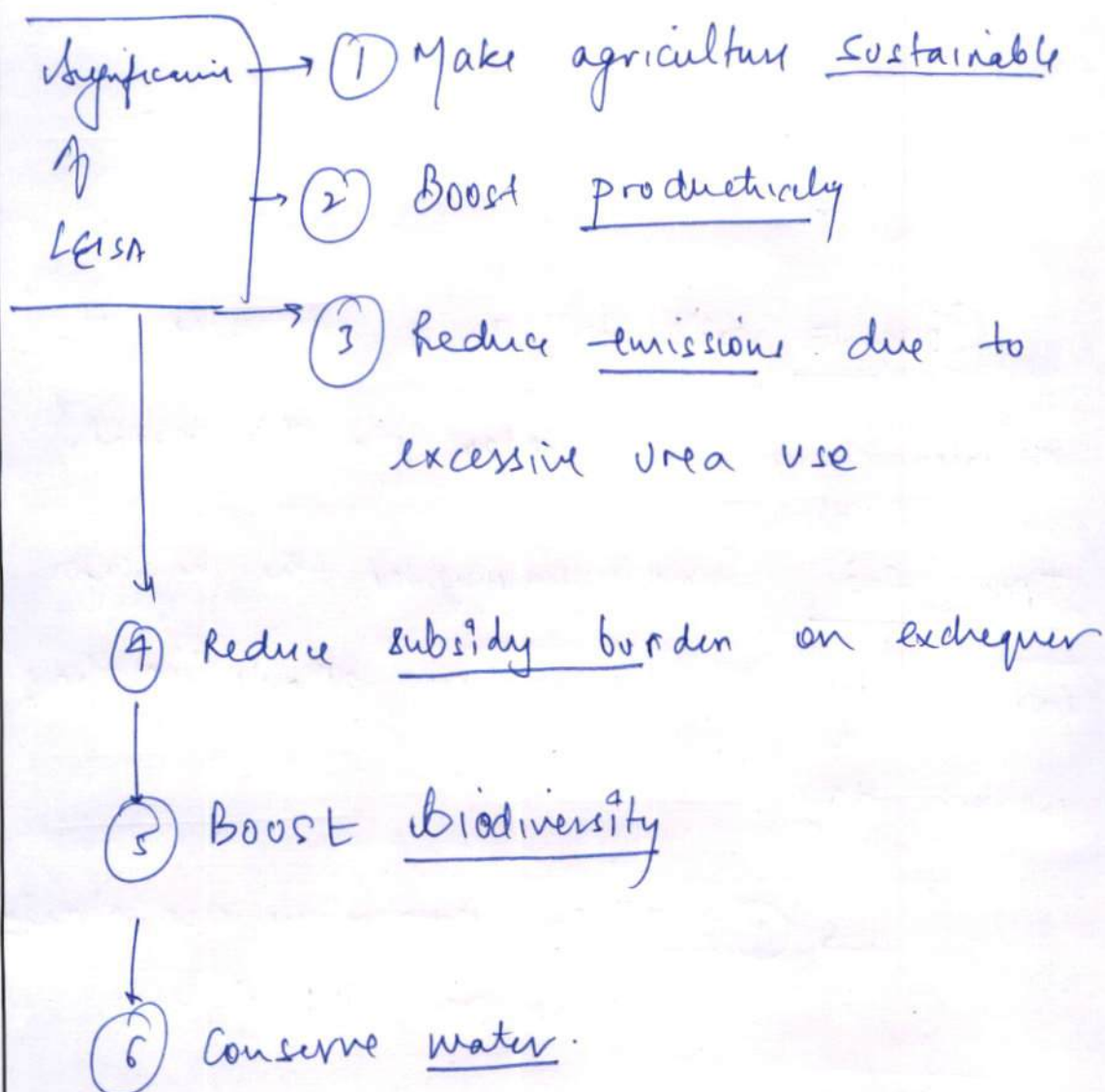
⑤ Biodegradation

- of soil, of water quality,
- and death of useful bacteria, micro-organisms.

⑥ Organic farming, and sustainable farming cannot happen.

The input intensive farming is clearly unsustainable.





Thus LEISA offers many benefits.
Countries such as Israel have effectively
used LEISA to address resource
constraints by rationalising input level parameters.

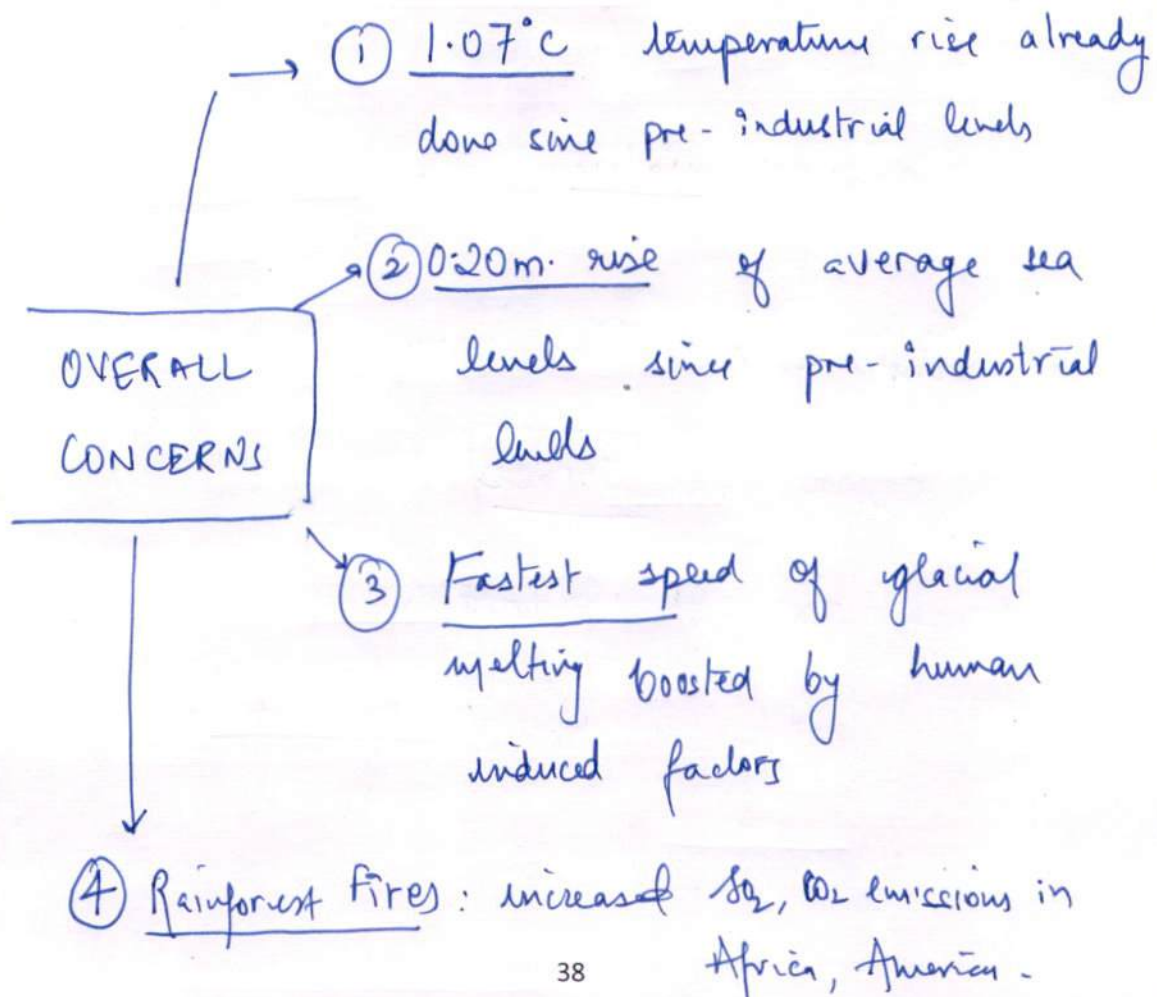
15.

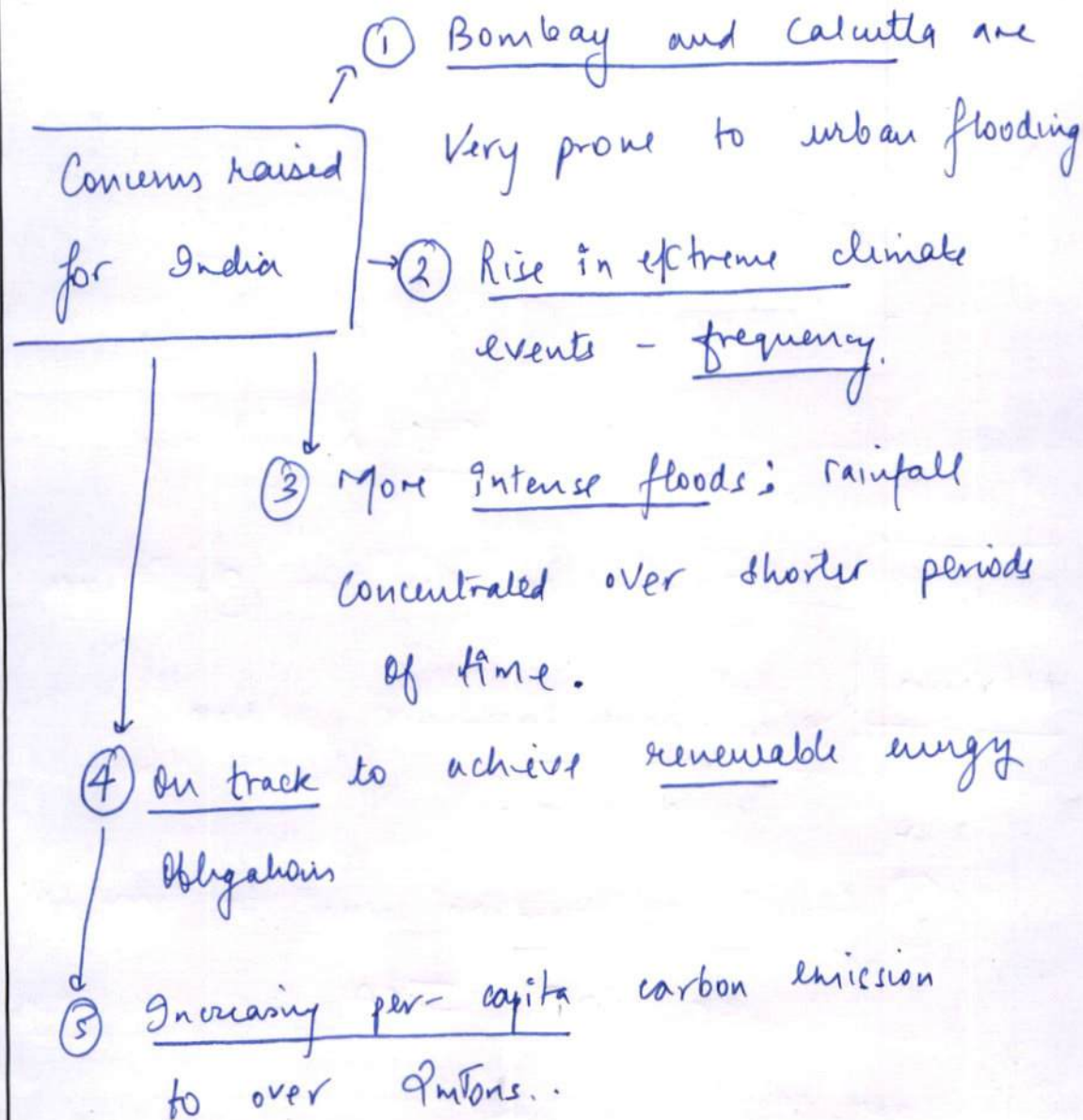
हाल ही में जारी IPCC की छठी आकलन रिपोर्ट (AR6) - 2021 को मानवता के लिए 'कोड रेड' माना गया है। इस संदर्भ में, भारत पर विशेष ध्यान देते हुए इस रिपोर्ट में उजागर की गई विभिन्न चिंताओं की विवेचना कीजिए। साथ ही, इस रिपोर्ट द्वारा प्रदत्त उपचारात्मक उपायों को भी सूचीबद्ध कीजिए। (उत्तर 250 शब्दों में दें)

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

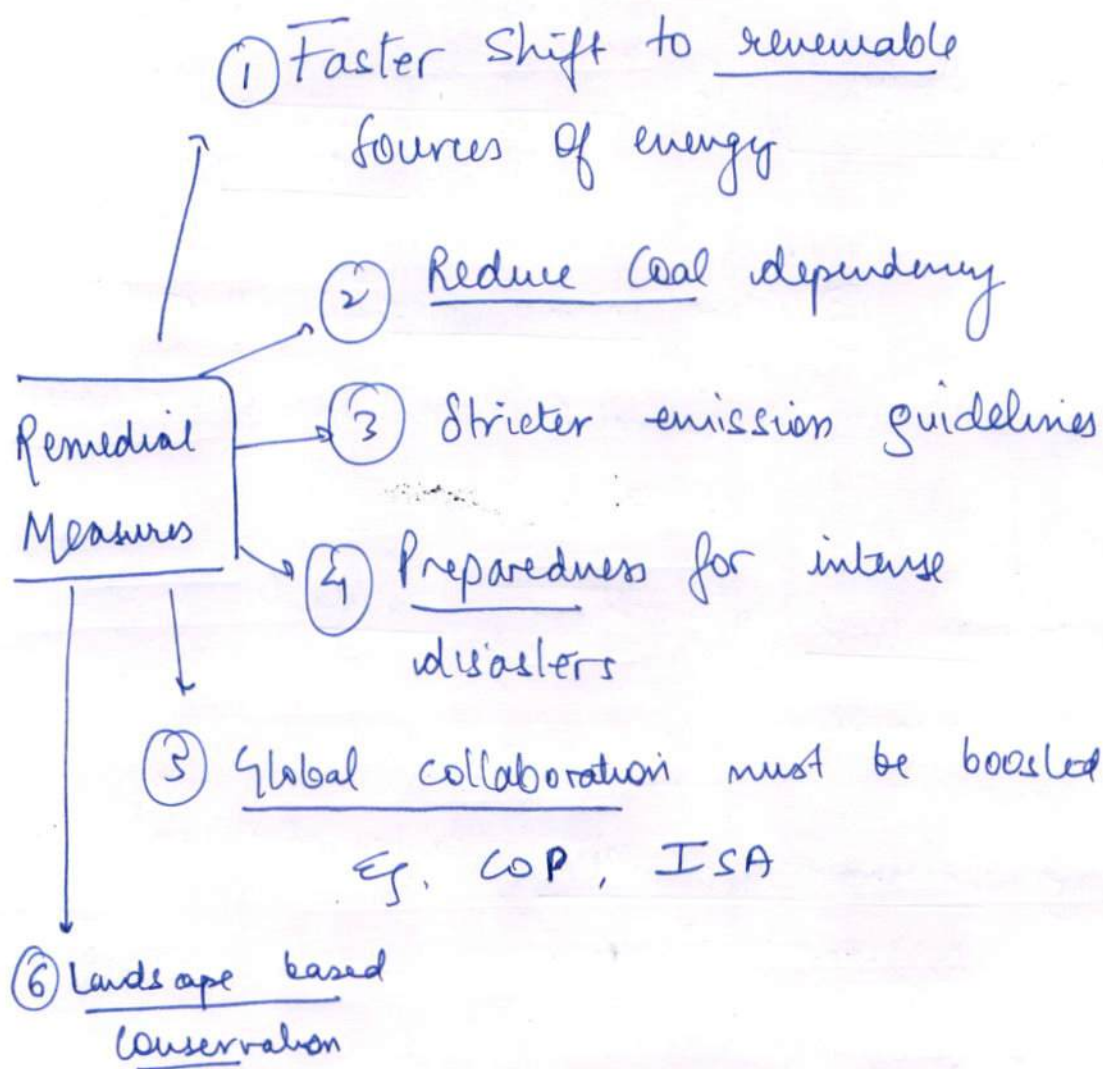
उम्मीदवारों को इस क्वेश्चन में नहीं लिखना चाहिए
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SDG - 13 calls for quick addressing of climate change issue today. In this regard, IPCC 2021 report highlighted the challenges and reality of conservation efforts in the present day.





These shocking findings highlight how the efforts need to be boosted before situation gets out of hand.



In this regard Indian government is taking pro-active steps - COP26 declaration to achieve 50% renewable energy, boost to e-vehicles, guidelines for coal ash plants and so on. It is a collective fight for humanity.

16.

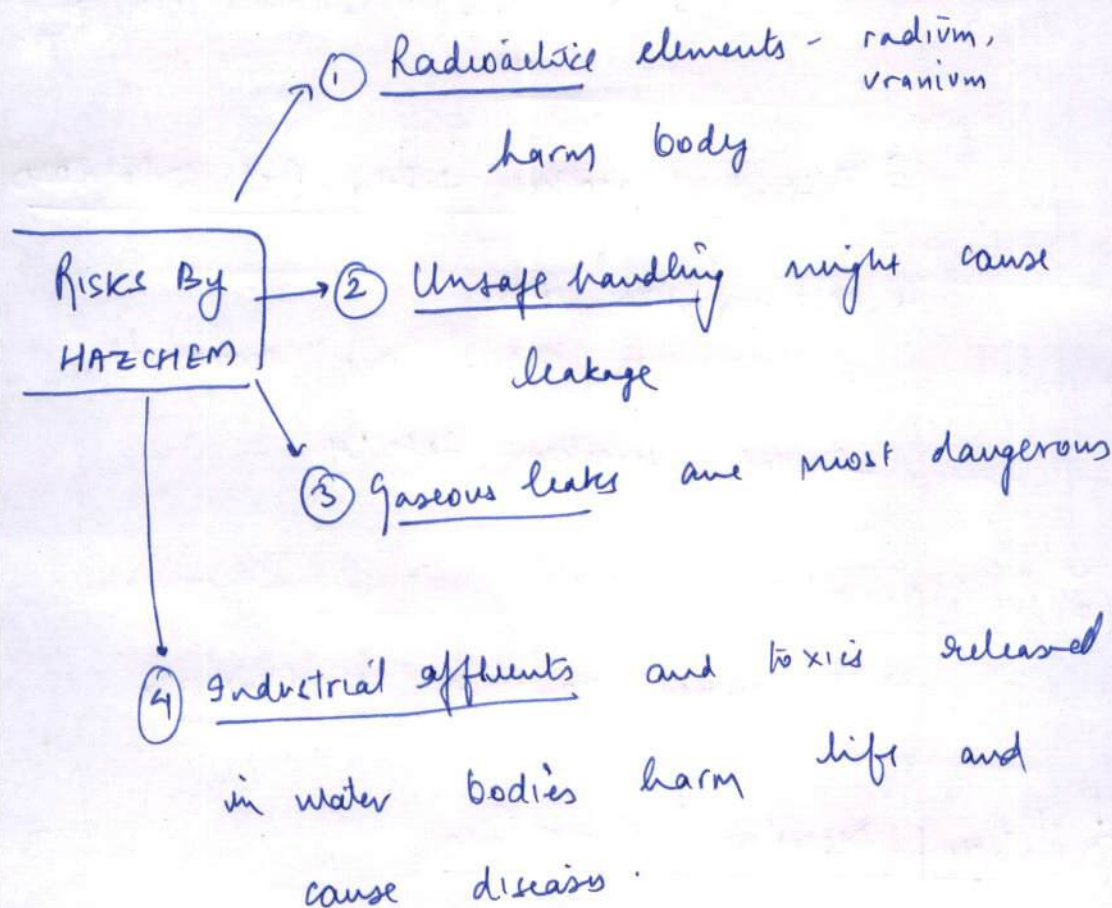
भोपाल गैस त्रासदी से लेकर विशाखापत्तनम में गैस रिसाव तक कई रासायनिक आपदाओं ने भारत में खतरनाक रसायनों (HAZCHEM) द्वारा उत्पन्न जोखिमों को ध्यान में लाया है। इसके दृष्टिगत, भारत में रासायनिक आपदा प्रबंधन (CDM) की तैयारियों के साथ-साथ इसमें व्याप्त कमियों की भी विवेचना कीजिए। (उत्तर 250 शब्दों में दें)

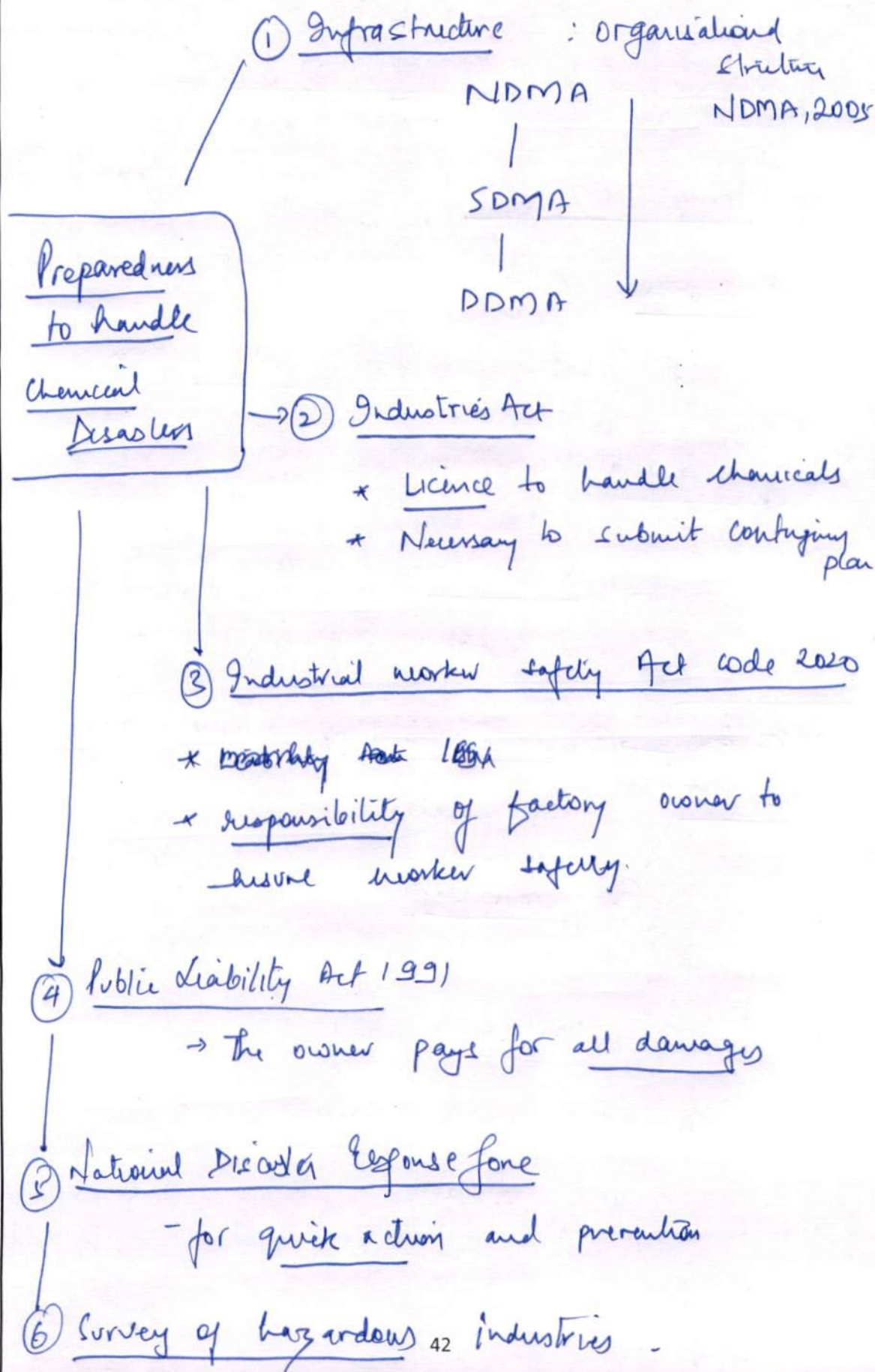
Multiple chemical disasters from the Bhopal gas tragedy to gas leak in Visakhapatnam have brought into focus the risks posed by hazardous chemicals (HAZCHEM) in India. In view of this, discuss the preparedness as well as gaps in Chemical Disaster Management (CDM) in India. (Answer in 250 words)

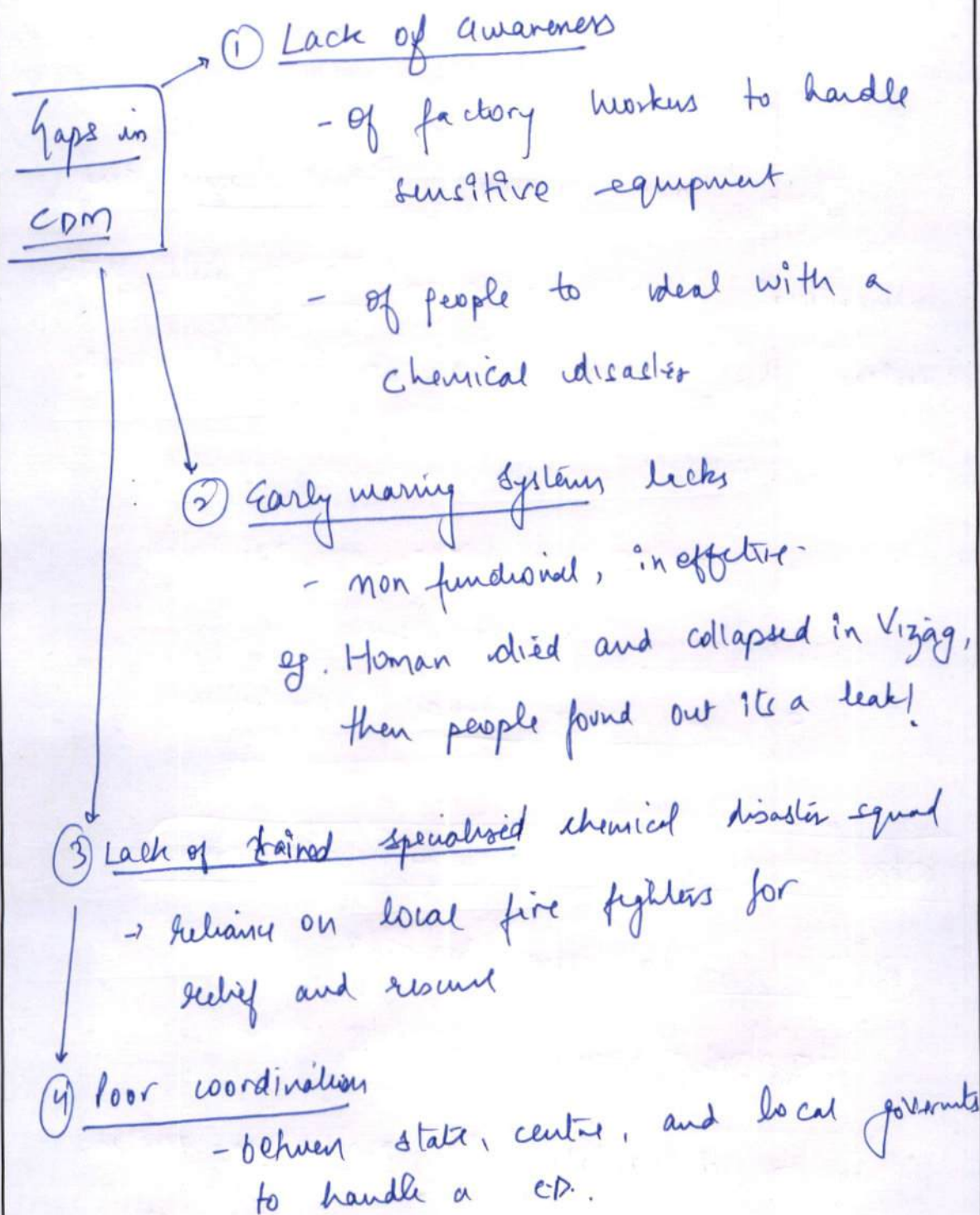
उम्मीदवारों को इस हार्शिए में नहीं लिखना चाहिए
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15

Methyl iso cyanide (Bhopal) and Poly styrene (Vizag) leaks claimed many lives and have cascading effects on future generations.







Way forward is following the sundai-framework 2015-30 on chemical disasters. Furthermore, coalition for Disaster Resilient Infrastructure (CDRI) will boost resilience and future⁴³ readiness.

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 हफ्ते में नहीं लिखना चाहिए
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There are many Patent Laws and international treaties such as TRIPS and WTO rules that focus on a strict intellectual property regime.

Some examples in case of pandemic

- 1) Vaccine development
- 2) Life saving drugs - Remdesivir.

~~Key~~ [demand for liberalising goods/services]

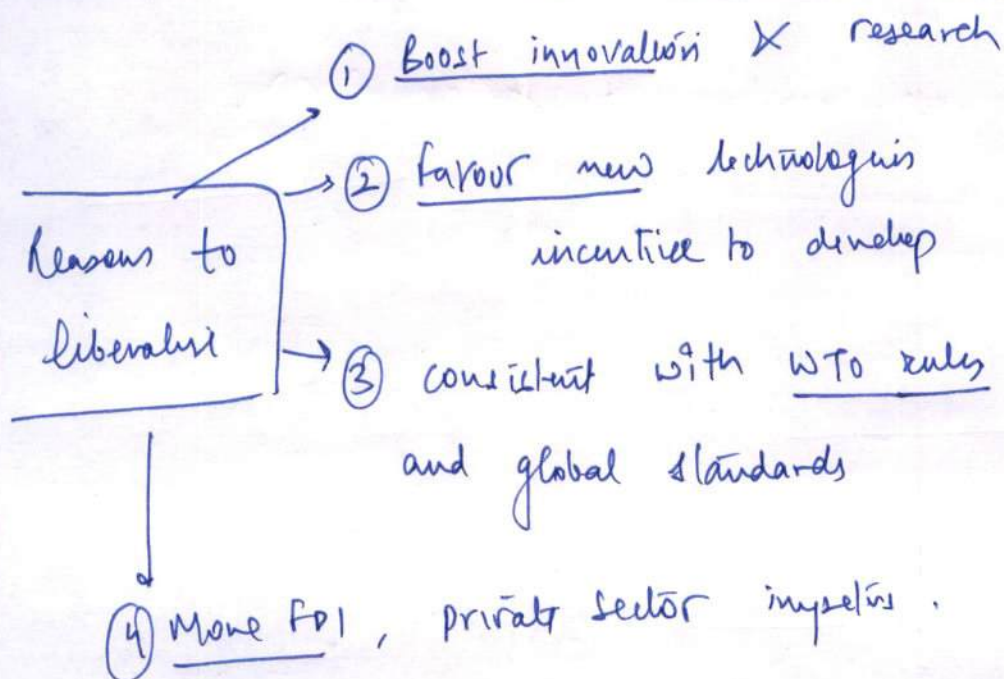
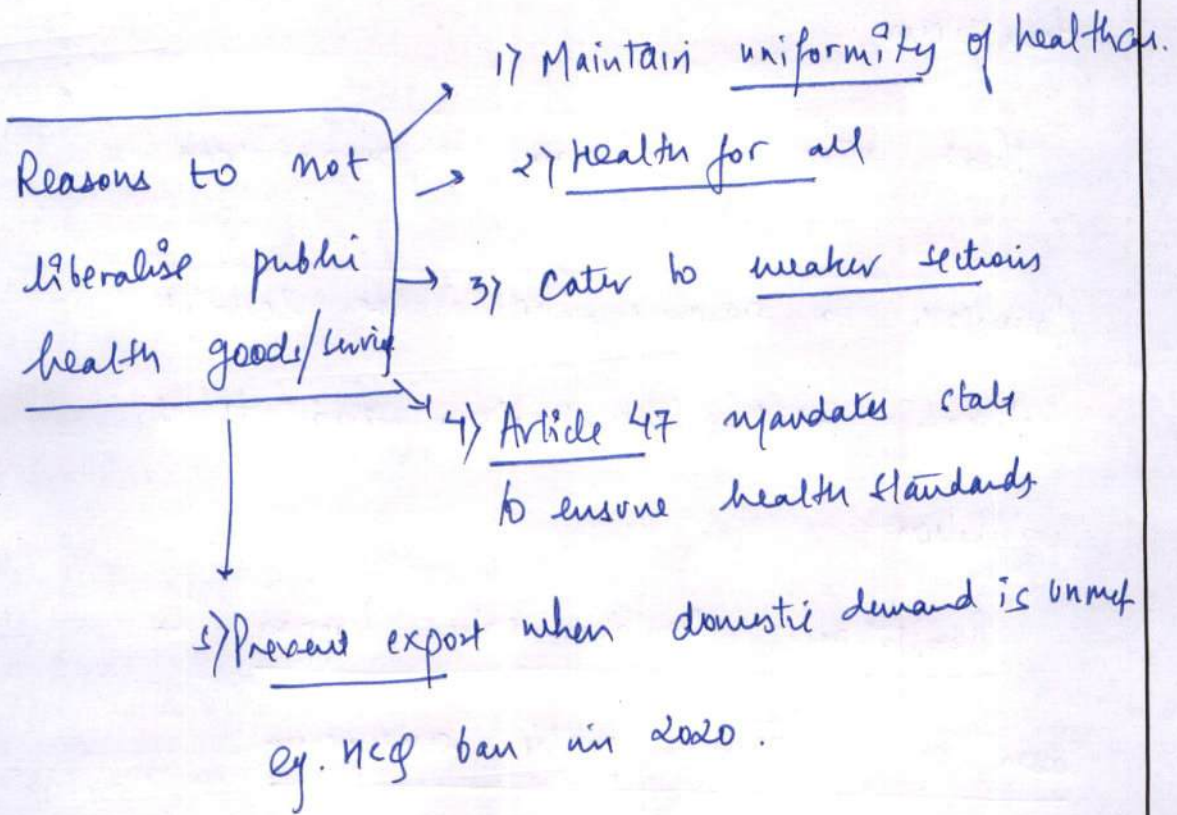
~~Key~~ [demand for liberalising goods/services]

~~Key~~ [demand for liberalising goods/services]

is to deregulate the production quotas, export - import restrictions and let

forces of market decide prices, availability, and accessibility of these.

Current IPR consist of Rules, regulations
such as drug control act.



WAY FORWARD

Public health is a grave issue based on which the entire economy functions.

That should always be prioritised.

However, a balance should be sought between total liberalisation and total regulation.

Regulation should only happen in cases of extreme public emergency.

Other wise, the private sector will lose incentives to foster R&D.

18.

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 शीट में नहीं लिखना चाहिए
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India, spends over 3% GDP in defence related expenses and second largest spender in importing arms after Saudi Arabia, according to SIPRI report.

This highlights a worrying trend of 'import dependence' in defense technologies. Some recent acquisitions - Rafale jets from France, S400 defense system from Russia.

Results behind sub-optimal Indigenization

(i) Dependence on foreign imports

* Historically, Russia provided equipment

* Now, USA / Israel / France are emerging contributors

② Low levels of Research

- at DRDO, academic institutions.

③ Low budgetary allocation to research

④ Brain drain of prospective researchers.

⑤ Policy : depends heavily on imports -
the DPP 2020 recognizes this.

⑥ Emerging threats are very fast
at borders for India to keep up with
technology upgradation.

⑦ Redundant PSU's in defense sector

- Ordnance factories

- DRDO

- HAL

⑧ PPP models

- Lack of exploring.

① Increase R&D spending

② Promote academia linkages
with defence manufacturing

Measures to

Accelerate Indigenisation

③ Defence industrial
corridors

④ DAP 2021

→ buy global make Indian

→ 30% domestic procurement

are eight policy measures that must be
implemented correctly.

Thus as per Shekhawatkar committed,

the best way to deal with evolving
defence challenges is 'rapid, and technology
based indigenisation'. It must reflect in
policy and execution -

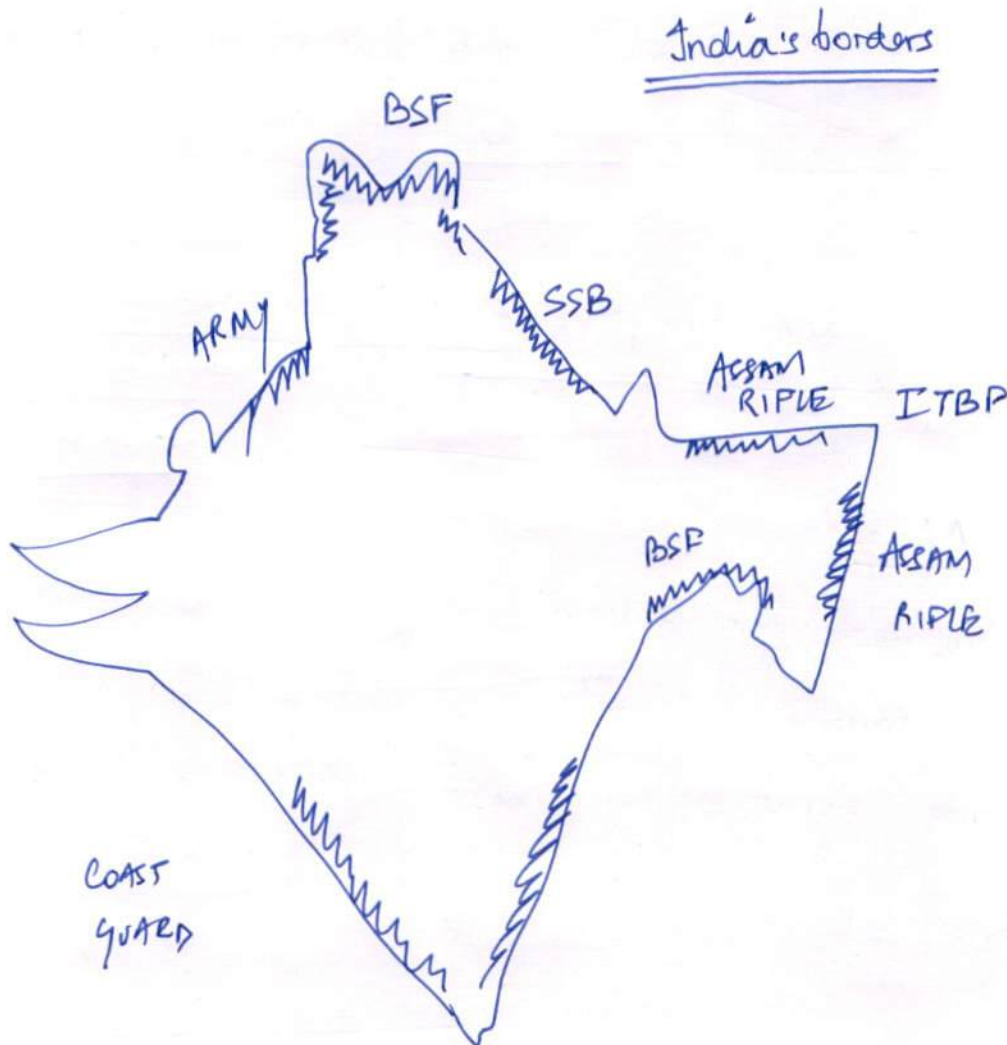
19.

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

उम्मीदवारों को इस स्थिति में नहीं लिखना चाहिए
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There are many CAPFs such as CIBF / CRPF as well but they ensure homeland security.

Other CAPFs - BSF / ITBP / SSB guard our international borders.

Why different
CAPFs

① Specialisation in terrain,
habitat and local conditions.

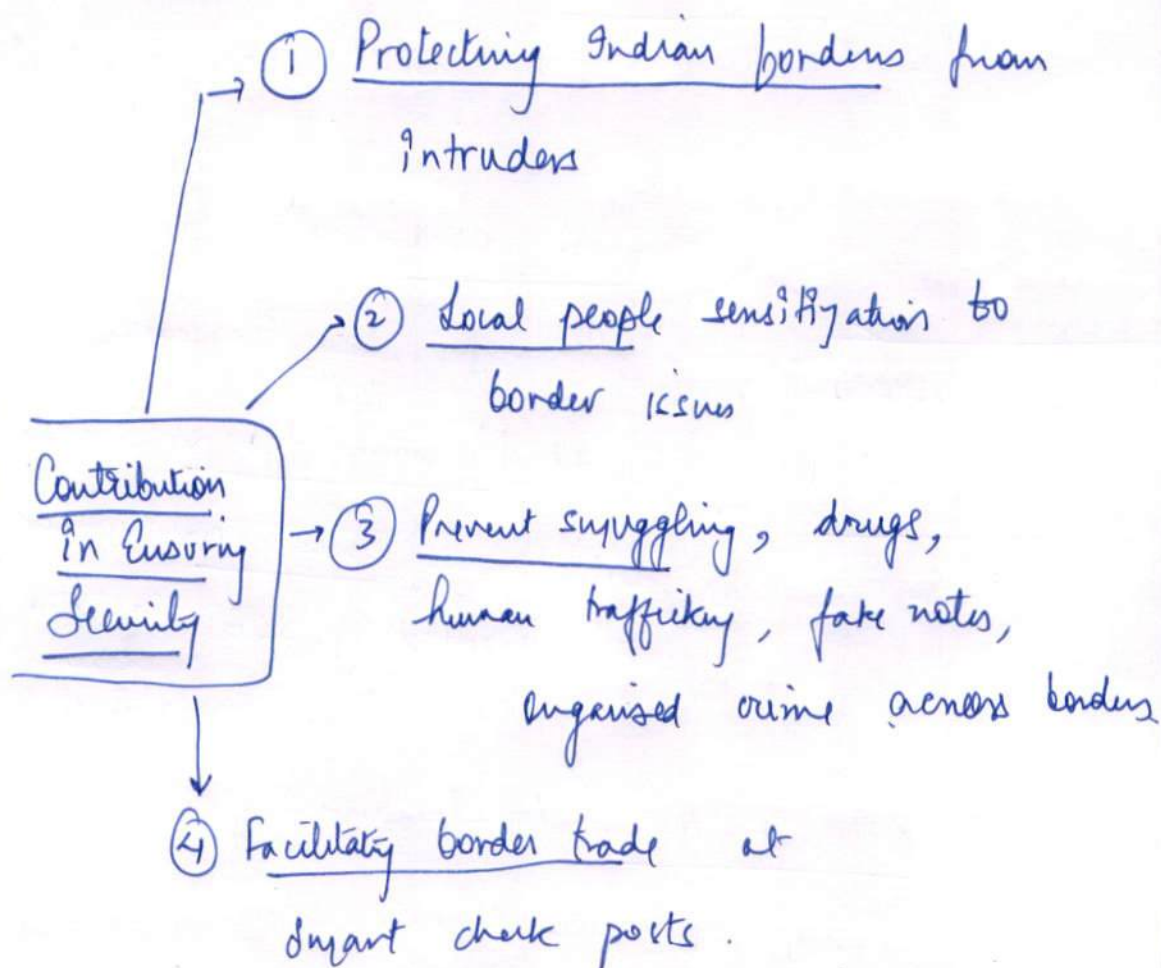
② Every border has unique
challenges : eg. Insurgency
at Myanmar - Manipur border
but porous India - Nepal border
guarded by SSB - Sashakt
Bar

③ Different command structures

* MHA has control over some
while Army has operational command
for administrative reasons.

④ Historical reasons

→ These are legacy of British rule
eg. Assam Rifles are 1800s inception.



The government realises multiplicity of CAPFs and there is a discussion on 'One Border One force' as proposed by many policy think tanks. This will ensure better resource utilization, uniformity in service conditions and so on.

20.

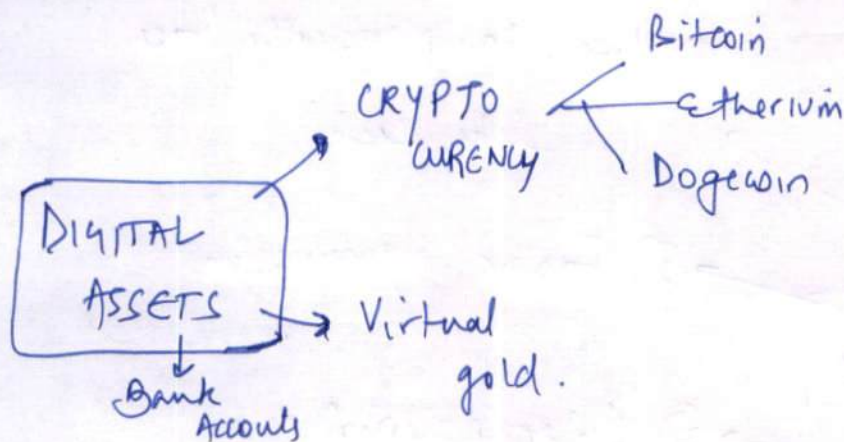
धन शोधन (मनी लॉन्ड्रिंग) गतिविधियों के लिए आभासी परिसंपत्तियों के दुरुपयोग के संदर्भ में, उनकी सुभेद्यता पर चर्चा कीजिए। साथ ही, उन सुधारात्मक उपायों का भी उल्लेख कीजिए, जो आभासी परिसंपत्तियों के उपयोग से उत्पन्न जोखिमों को कम करने के लिए अपनाए जा सकते हैं। (उत्तर 250 शब्दों में दें)

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)

उम्मीदवारों को इस क्राशिए में नहीं लिखना चाहिए
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Recently FATF highlighted in its report the cases of crypto currency being used to launder money.



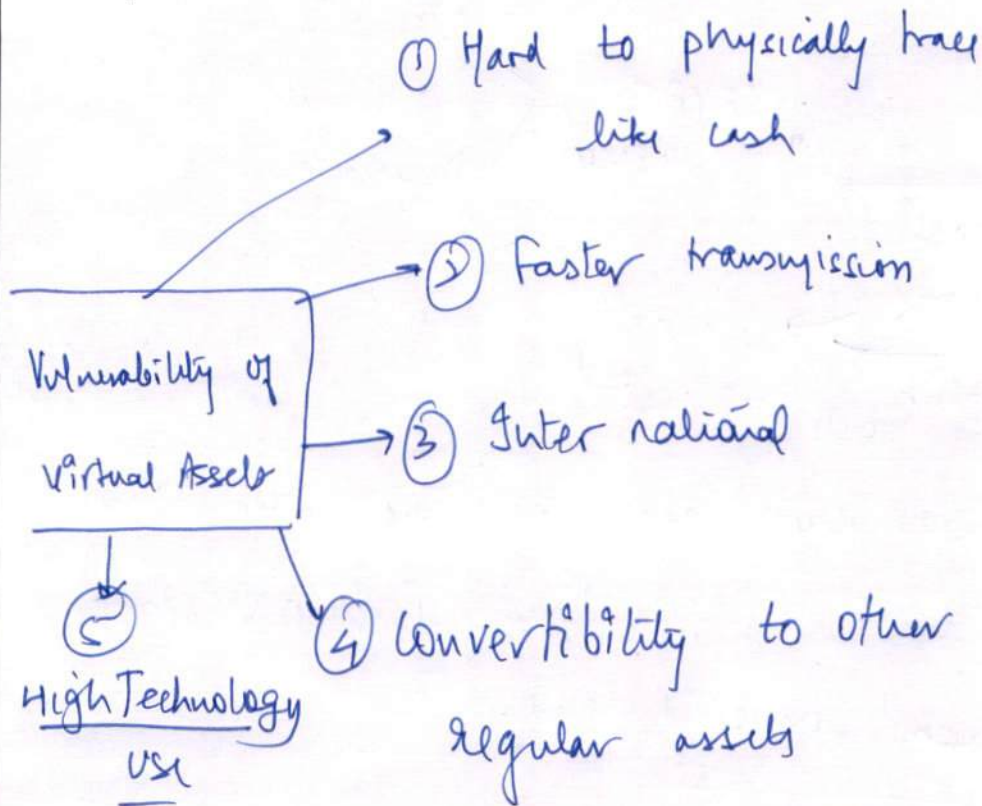
- basically value containing commodities that don't exist in physical form such as cash, physical gold.

(Money Laundering)

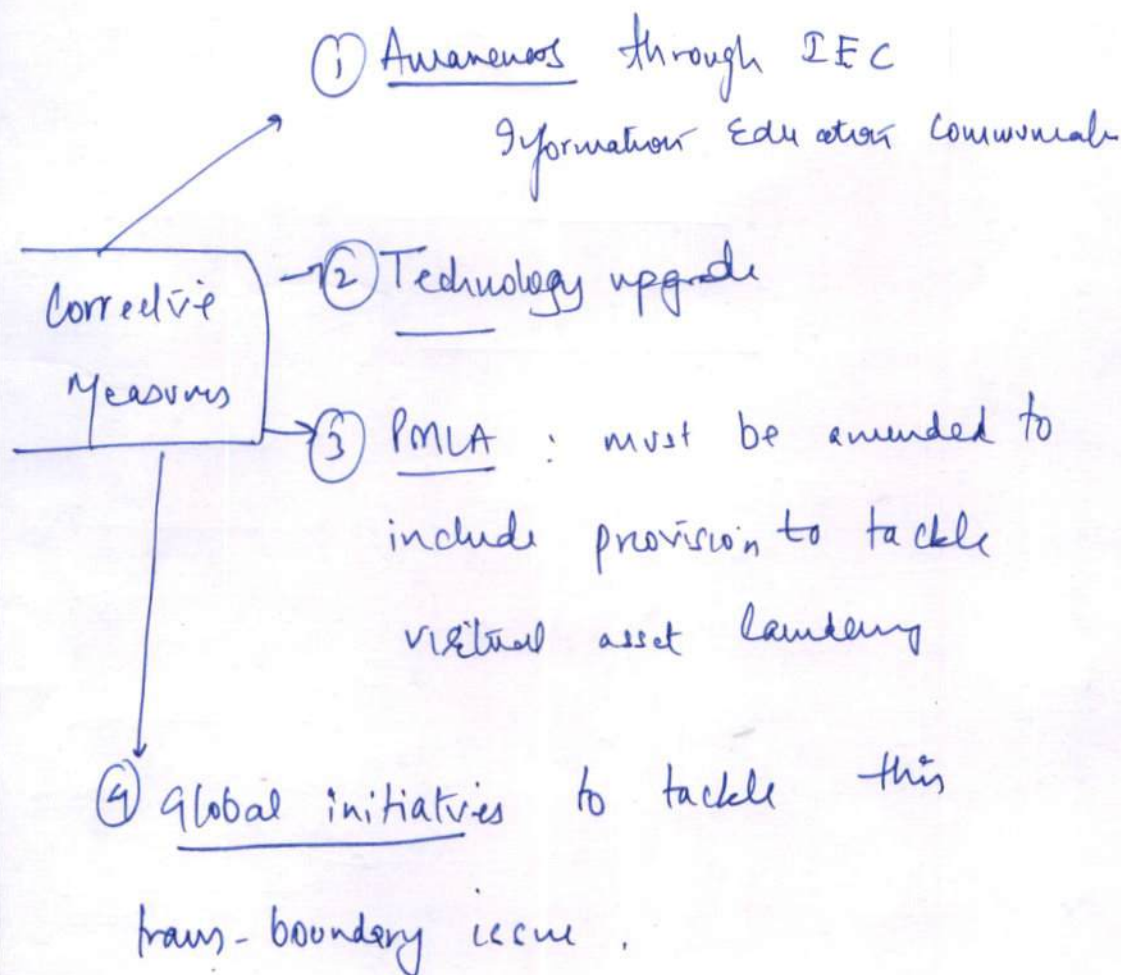
use of proceeds of illegally or undeclared income source by wilfully concealing it.

It consists of three steps.

- ① Placement : hiding source
- ② Layering : mixing with regular money
- ③ Integration : using through shell company, luxury purchase etc.



Recent reports of HAMAS accepting Bitcoin donations through anonymous accounts highlighted the vulnerability



Thus, money laundering is an
evolving threat. Must be addressed
at the earliest.

SPACE FOR ROUGH WORK

EAL