



VISIONIAS
INSPIRING INNOVATION
ABHYAAS MAINS

सामान्य अध्ययन (प्रश्न पत्र-III)/GENERAL STUDIES (Paper-III) (2930)

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. : 01347890

अभ्यर्थी का नाम/Name of Student : Zinnia Aurora

माध्यम: हिंदी/अंग्रेजी
Medium: Hindi/English

तारीख
Date

25/8/24

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

केंद्र
Centre

Delhi

निरीक्षक के हस्ताक्षर
Invigilator's Signature

	<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 (क्यू.सी.ए.) 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 (क्यू.सी.ए.) 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 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 प्रसंस्करण उद्योग का तीव्र विकास किस प्रकार भारत में खाद्य सुरक्षा संबंधी चुनौतियां उत्पन्न कर रहा है? (उत्तर 150 शब्दों में दीजिए)
How is the rapid growth of the food processing industry leading to food safety challenges in India? (Answer in 150 words)

10

The Food processing industry, sunrise sector of the Indian economy, is crucial to food sufficiency, security and export resilience. It is, however, impeded in its upward and backward linkages.

Rapid growth challenges

- 1) Informalised sector
→ ~90% FPI enterprises under informal economy.
- 2) Lack of regulatory tenor
→ regulatory uniformisation amiss. (e.g. Rhodamine exposure in Tamil Nadu)
- 3) 'Inspector - Raj' cholera
→ leading to corruption and condensed checks.
- 4) Quantity over quality
→ turbulent trough of quality maintenance.

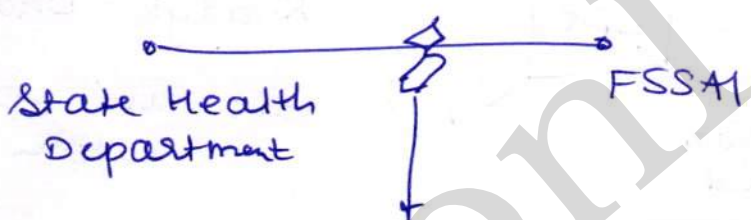
5) 'Household Industry'

→ preference to instant sale boom over qualitatively enhanced production

6) Non-'economies of scale'

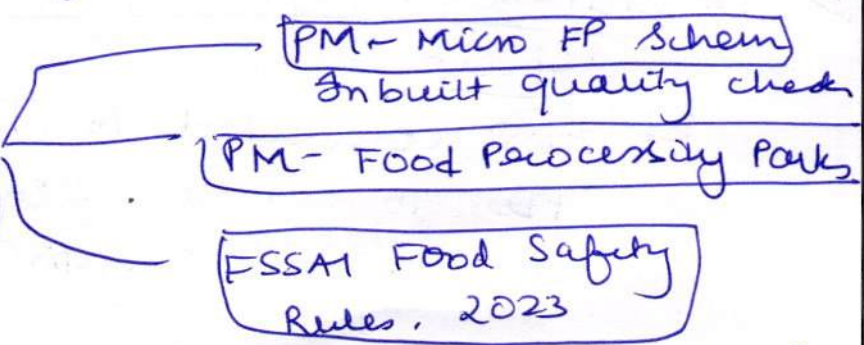
→ micro production with lower productivity

7) FSSAI Structuring



- ⊛ Non uniform, bindingy regulation
- ⊛ Inefficient gradation / categorisation of enterprises
- ⊛ FSSAI guidelines implementation left to decentralized CoGs.

Schemes for food safety



Thus, while a hue of structural and administrative challenges are abound,

food safety assurance lies at the centre of effective food processing industrialisation.

2.

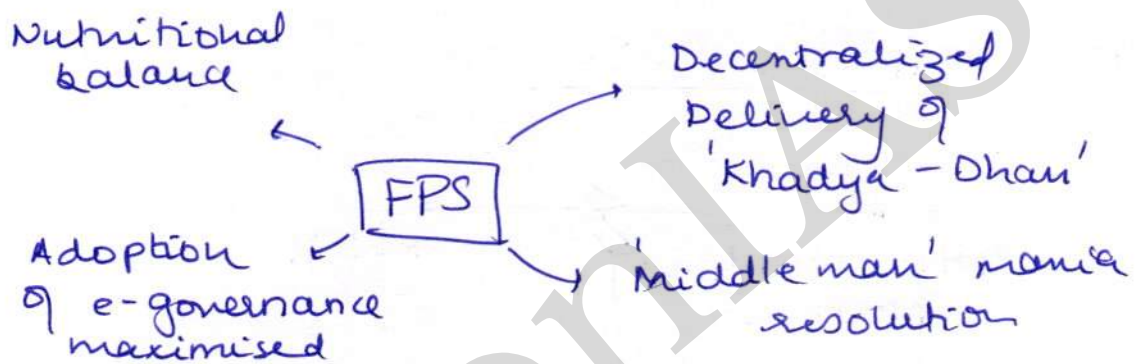
भारत की सार्वजनिक वितरण प्रणाली के अंतर्गत उचित मूल्य की दुकान (FPS) का प्रारंभ एक विकासशील प्रक्रिया है। विवेचना कीजिए। (उत्तर 150 शब्दों में दीजिए)

Under the Public Distribution System of India, the Fair Price Shop (FPS) transformation is an evolving process. Discuss. (Answer in 150 words)

10

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

The Targeted - Public Distribution system, a revolutionary food security scheme, has been evolving into a transformative step towards nutritional security via decentralized access.



Evolving process

Issues faced & Solutions therein

1) Decentralized dens of governance deficit

↳ PDS converted to Targeted PDS to ensure right beneficiary identification

2) 'Middle man mania'

→ Enhanced collusive corruption and off-selling of grains

without 'redistributive' aid.

↳ Introduction of E-Ration card to ensure biometric-baseline delivery of food

3) Eligibility limited by geography

- lack of interoperability of FPS access in different states

↳ 'One nation, one ration card' scheme introduced for grain access everywhere.

4) Universal access denied

↳ More than 90% rural and 50% of urban demography eligible now.

However, issues remain

→ Collusive corruption still at heart of scheme

→ Centre-state duty distribution not well crafted in National Food Security Act

→ Adoption of ICT tools needs to be absorbed fully.

→ 'Targeted' a misnomer - too many beneficiaries seek the boon.

Thus, the FPS mileu remains one in transformation, but with

'access to nutrition' as a Fundamental Right (Art 21), revolutionary are mandated.

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

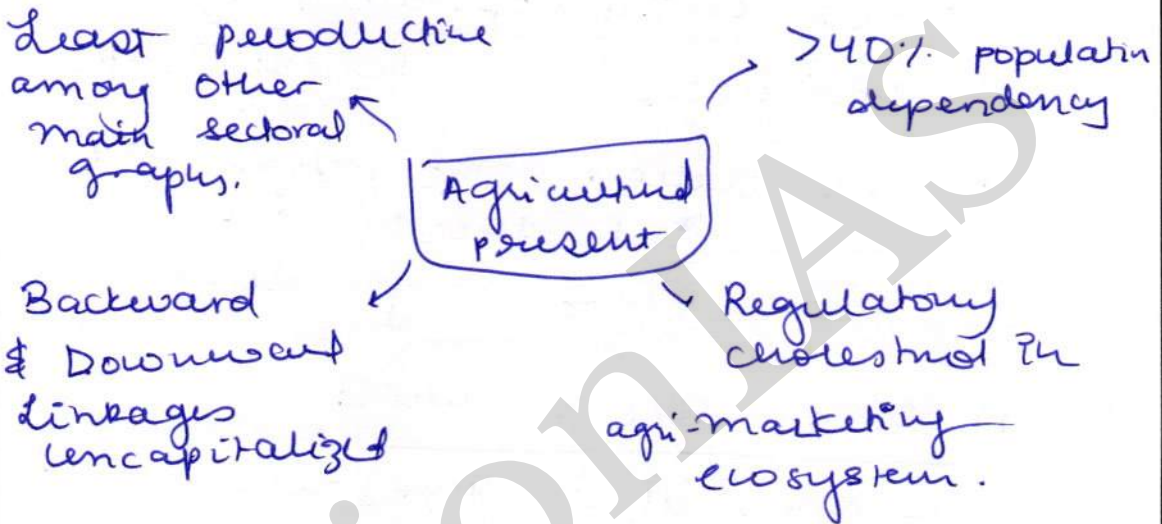
3. भारत में एग्रीटेक स्टार्ट-अप्स किसानों की कृषि उत्पादकता एवं बाजार पहुंच बढ़ाने में किस प्रकार मदद कर रहे हैं? (उत्तर 150 शब्दों में दीजिए)

How are agri-tech startups in India helping farmers in enhancing farm productivity and market access? (Answer in 150 words)

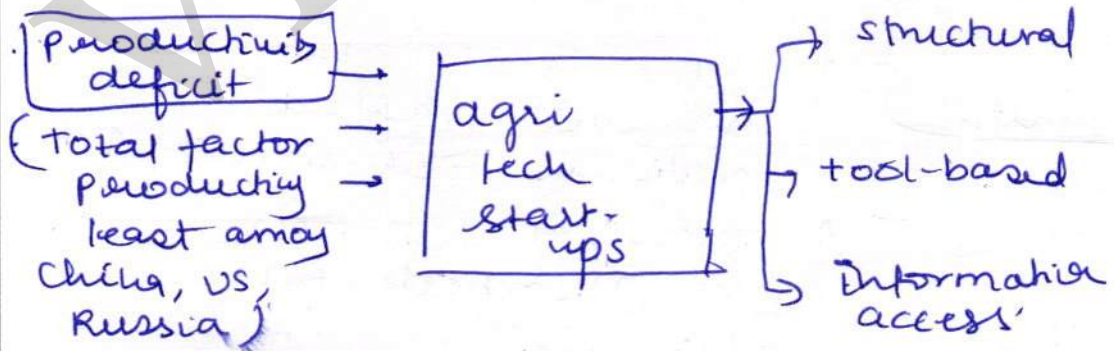
10

उम्मीदवारों को इस कक्ष में नमूने लिखना चाहिए
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Agricultural sector, with key challenges of productivity and market access, is being revolutionised via 'technological entrepreneurship'.



Enablers of Agri



D) Demand assessment

→ identification of localised tribulations

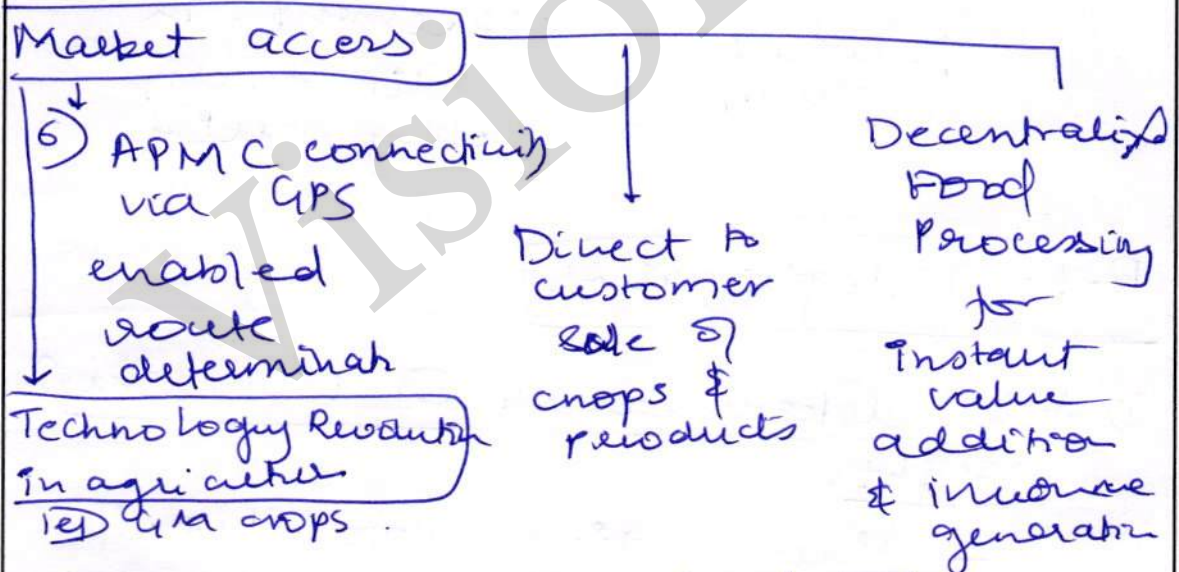
↳ region specific intralocal mapping of water availability

3) Pre-sowing activity charter
enabling access to Soil Health Card diagnosis and suggesting prescriptions for productive output.

3) Diversification of crops - transgenic development
- to enable livelihood security
- maximisation of food potential

1) Pomegranate farms in arid Rajasthan

4) Fertilizer frugality
- precision fertilization
- drone-based fertilizer delivery for farmer safety.



Thus, the agri tech start-ups, though faced with ISSUES of scaling, funding and decentralized reach to farmers, are bringing about revolutions in bionic,

4.

भारत में भूमि सुधारों के प्रभावी कार्यान्वयन में भूमि अभिलेखों के डिजिटलीकरण की भूमिका पर चर्चा कीजिए। (उत्तर 150 शब्दों में दीजिए)

Discuss the role of digitization of land records in the effective implementation of land reforms in India. (Answer in 150 words)

10

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

Impetus on land records digitization, via schemes like DLLRMP, has been accorded priority under 'Saptarishi' budgetary determination in (2023-24)

Inheritance
frimically
enhance

Eased access
to services

financial
security

Need

Land disputes
make up
over 40% of
all court
pendency

bureaucratic
casement in
credit access,
policy making

Role of digitization

1) Aids determination of ownership
rights

→ thus aiding resolution of
inheritance issues

2) second generation land reforms

→ builds upon redistribution
by resilience of ownership

- 3) Provision of land - parcel ID
Bhu-aadhar as revolution
of landed accen.
- 4) Transforming inequality diagnosis
thru enabling furtherance
of land consolidation,
tenancy reforms and more.
- 5) Easier identification of beneficiaries
via centralized MIS building.
- 6) Policy making coherence with
data driven decision making
- 7) Vernacular veracity
- translation of land records,
with digitisation
- 8) Addresses 'credit access' facilitation
- easier mortgage for land
available → employment
enables

Thus, with schemes like DILRMP,
Bhu-aadhar, Self Help Groups'
pooling of land - for - credit,
a revolution in agriculture, apart
from entirety of urban-rural
paradigm awaits for
'Zameen-Dhan' realisation

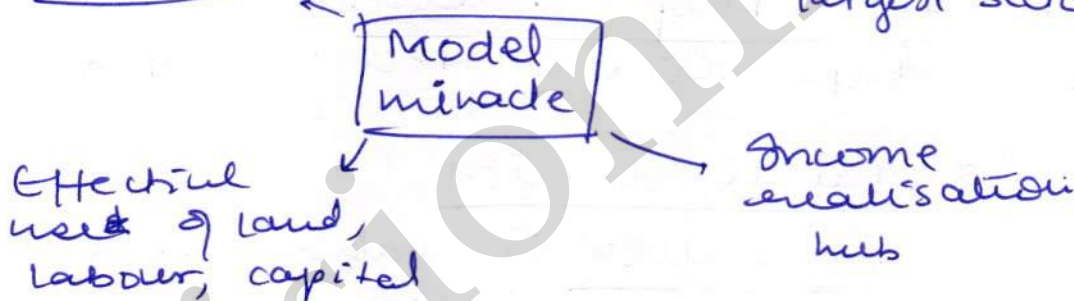
5. भारत को अपने जनसांख्यिकीय लाभांश का पूर्ण उपयोग करने और आर्थिक विकास में तेजी लाने के लिए एक विनिर्माण-केंद्रित विकास मॉडल को अपनाने की आवश्यकता है। विवेचना कीजिए। (उत्तर 150 शब्दों में दीजिए)

To fully exploit its demographic dividend and accelerate economic growth, India needs to adopt a manufacturing-led growth model. Discuss. (Answer in 150 words) 10

India's emphasis on a manufacturing led model has been a vehement dream - with a key focus on realisation of demographic dividend and productivity maximisation.

Aids value addition

manufacturing, still #3 largest sector



Why model adoption is needed

1) Growing working age population
→ 'Make in India' facilitated by PM - Kaushalya Vikas Yojna

2) Livelihood security to unemployed
Unemployment rate of 6.5% (UMIE) can be tamed via effective job creation

3) Value addition value

- aids creation of 'differentiated capital' with enhanced high-end manufacturing
- eg Foxconn in India.

4) Export orientation

- Realisation of '\$5 trillion' dream possible with export growth. Manufacturing important for it.

5) Deficits of other sectors

(Agriculture) → productivity guzzler

(services)

↳ 60% share (GDP)

↳ ~5% Labour

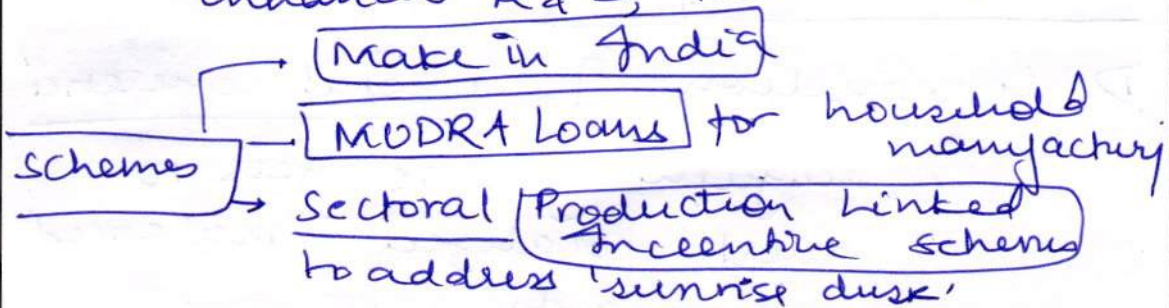
Manufacturing as mass livelihood provider.

6) Realisation of economic capital

- Resource tapping → aided by technology

7) Brings investment capital

enhances R&D, tech adoption



Thus, manufacturing-led growth model can aid in economic

transformation on lines of China and
Vikram Bhasrat - 2017

6.

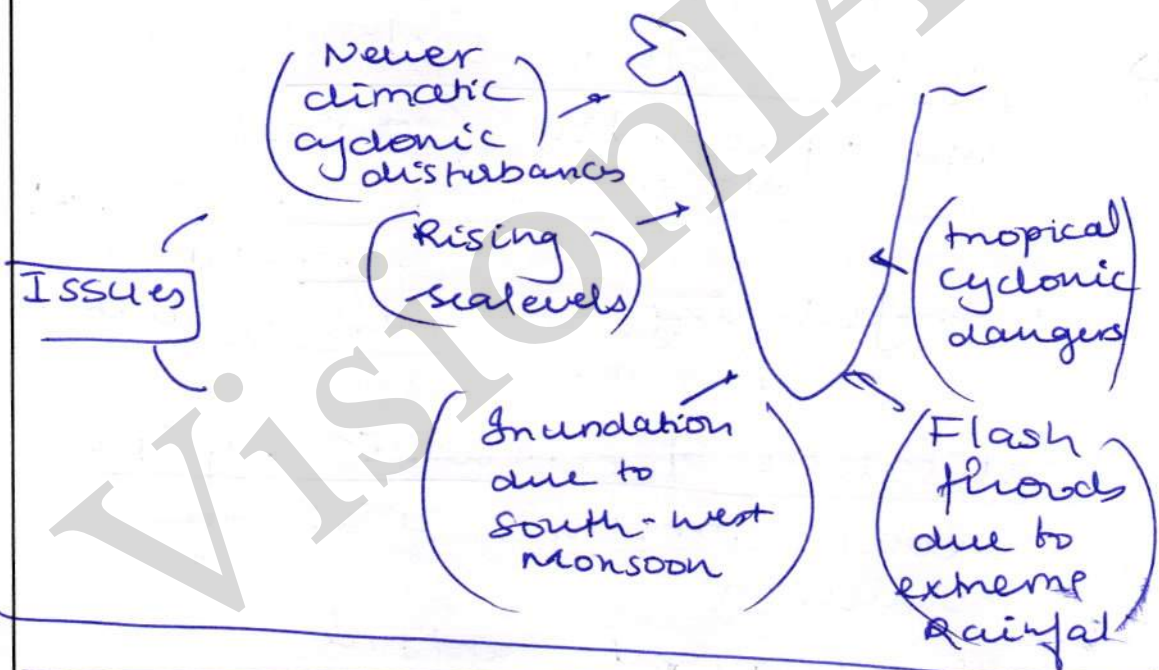
जलवायु परिवर्तन के परिणामस्वरूप बढ़ते प्राकृतिक खतरों से निपटने के लिए भारतीय तटीय समुदायों की प्रत्यास्थता को किस प्रकार मजबूत किया जा सकता है? (उत्तर 150 शब्दों में दीजिए)

How can the resilience of Indian coastal communities be strengthened to tackle the growing natural hazards resulting from climate change? (Answer in 150 words)

10

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

With a 7,500 km long coastline and 15 states and Union territories of littoral character, India has potential to turn 'vulnerable coast' to 'resilient coast'



Resilience capital

- 1) Construction of 'coastal coherence'
 - regulatory one-ness to avert localized 'imbalanced' safeguards.
- 2) Efficient adoption of early warning systems

14) Doppler radars under PRITHVI by Ministry of Earth Sciences

3) NDRF - SDRF training modules in disaster mitigation and adaptation.

Mitigation

4) Actionability awareness to population

14) Kerala's citizen-centric mitigation model.

5) Coastal Regulation Zones reframing based on newer disaster implications

6) Embankment creation with special focus on river belts
14) stone embankments of Alapuzha.

Adaptation

7) Building codes for material determination

8) Tidal line-based construction permits.

9) International best practices exchange based on issue-relevant country.

14) sea level rise - Thailand.

Thus, resilience of coastal communities, strengthened in 'material' and 'psychology' can aid minimisation of destruction.

7.

भारत में अधिक संधारणीय पर्यावरण को बढ़ावा देने के लिए ग्रीन क्रेडिट प्रोग्राम किस प्रकार कार्बन प्रबंधन से कहीं अधिक विस्तृत है? इसके कार्यान्वयन के संबंध में विभिन्न चिंताएं क्या हैं? (उत्तर 150 शब्दों में दीजिए)

How does the Green Credit Programme extend beyond carbon management to promote a more sustainable environment in India? What are the various concerns about its implementation? (Answer in 150 words)

10

~~Green~~ Green Credit Programme, launched by India at CoP 28, facilitates carbon management, green economy proliferation and a consumer mindset reset.

Facilitation

- 1) Credits for green work earned for all activities that aid sustainability.
- 2) Citizen participation ↓ from tree planting to tetra-pack production
- 3) Carbon economy capitalisation carbon flux enhancing economic activities as credit generation keys.
- 4) Integrationist economic model Assimilates creation of

infrastructure, development and climate change management all into one

2) World-wide inclusion of beneficiaries for economic redating

Carbon management

Incentive for greener lifestyle

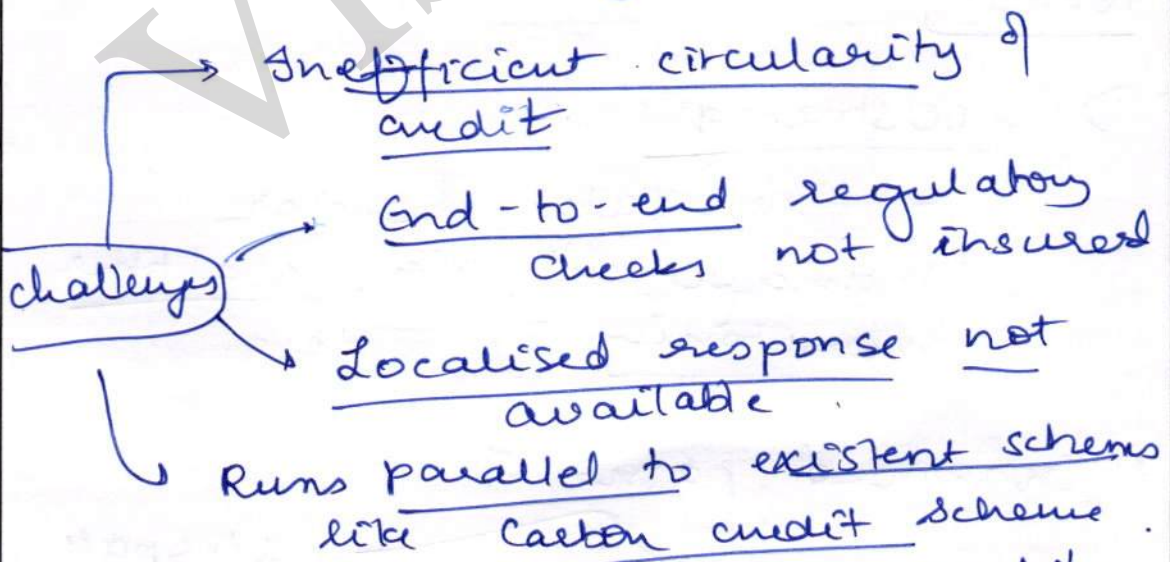
money for mindful working

Other Benefits

Industrial participation

Capital for climate resilience and mitigation

Indian leadership of fight against climate change



Therefore, with a tweak of ambit, the UCF holds potential to transform the green credit economy with incubation.

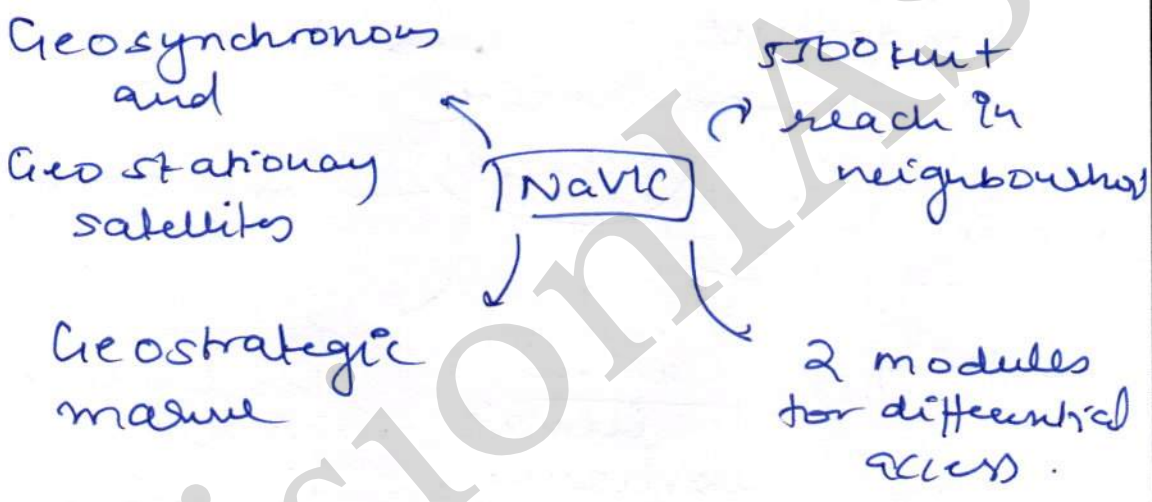
8. जब पहले से ही अन्य उपग्रह नेविगेशन सिस्टम उपलब्ध हैं, तो NavIC की आवश्यकता क्यों है? (उत्तर 150 शब्दों में दीजिए)

What is the need for NavIC when existing satellite navigation systems are already available? (Answer in 150 words)

10

उम्मीदवारों को इस कक्ष में नहीं लिखना चाहिए
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NavIC, a navigation ~~new~~, is much more than existing systems, with enhanced outreach and intensive transformative capital.

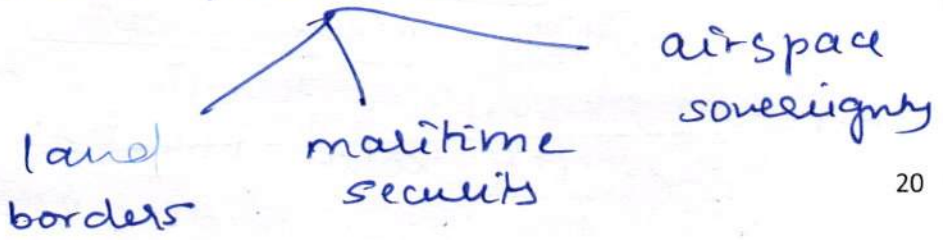


Need

1) Geostatic

→ facilitates border management via realtime monitoring of borders.

2) Enhanced patrol of



3) Economic security

→ navigational access to regional shipping - eased route determination.

4) Real time access to sensitive information on troop movement and precision of upto 5m.

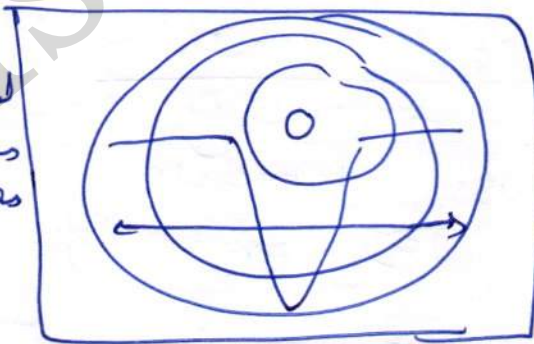
5) Citizen centric navigation

- separate module for citizens' use for navigation like GPS systems.

6) Data sovereignty

no more reliance on other countries for own needs.

7) Climatological responsiveness to disasters



Thus, NAVIC counters the expanse, intensity and independence deficit of previous systems, ~~is~~ ~~is~~ thus ushering an era of 'free navigation' for South Asia.

9.

साइबर-सक्षम वित्तीय अपराध वैश्विक धन शोधन (मनी लॉन्ड्रिंग) के नए क्षेत्र के रूप में उभरा है। चर्चा कीजिए। सरकार इस मुद्दे का समाधान किस प्रकार कर सकती है? (उत्तर 150 शब्दों में दीजिए)

Cyber-enabled financial crime has emerged as the new frontier of global money laundering. Discuss. How can the government address this issue? (Answer in 150 words)

10

उम्मीदवारों को इस हिसाब में नहीं लिखना चाहिए
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Cyber crime is said to affect India maximally, with CERT-in blocking 1L attacks in 2023.



New frontier

1) Political security threatened via financing exchanges across borders.

eg) Cambridge Analytica

2) Cryptocurrency hawala

eg) used zakat donations by ISIS-Khorasan for terror financing.

3) Enhanced illegal remittances

eg) Saudi-Kerala racket

expose by CBI

4) Infestation of stock markets

⇒ SIMI outfits in Indian sharemarkets

(Packaging) - (Layering)

5) Citizen bank frauds

West Asian and Cambodia
cases of money laundering
fronts operating across border

6) DTAA capitalisation

⇒ Panama papers.

Govt addressal

↓
MAC
Multi
Agency
coordinable

↓
Centre
for
Financial
Terror
tracking
(CFT)

↓
Surveillance
and
servicing
of systems
enhancement
of CERT-in,
Cyber financial
literacy.

Thus, India has been moving
steadfastly in addressing these issues,
from joining Global Internet Forum
of Combating Terrorism, strict implementation
of PMLA, 2002 and other
such measures for financial security.

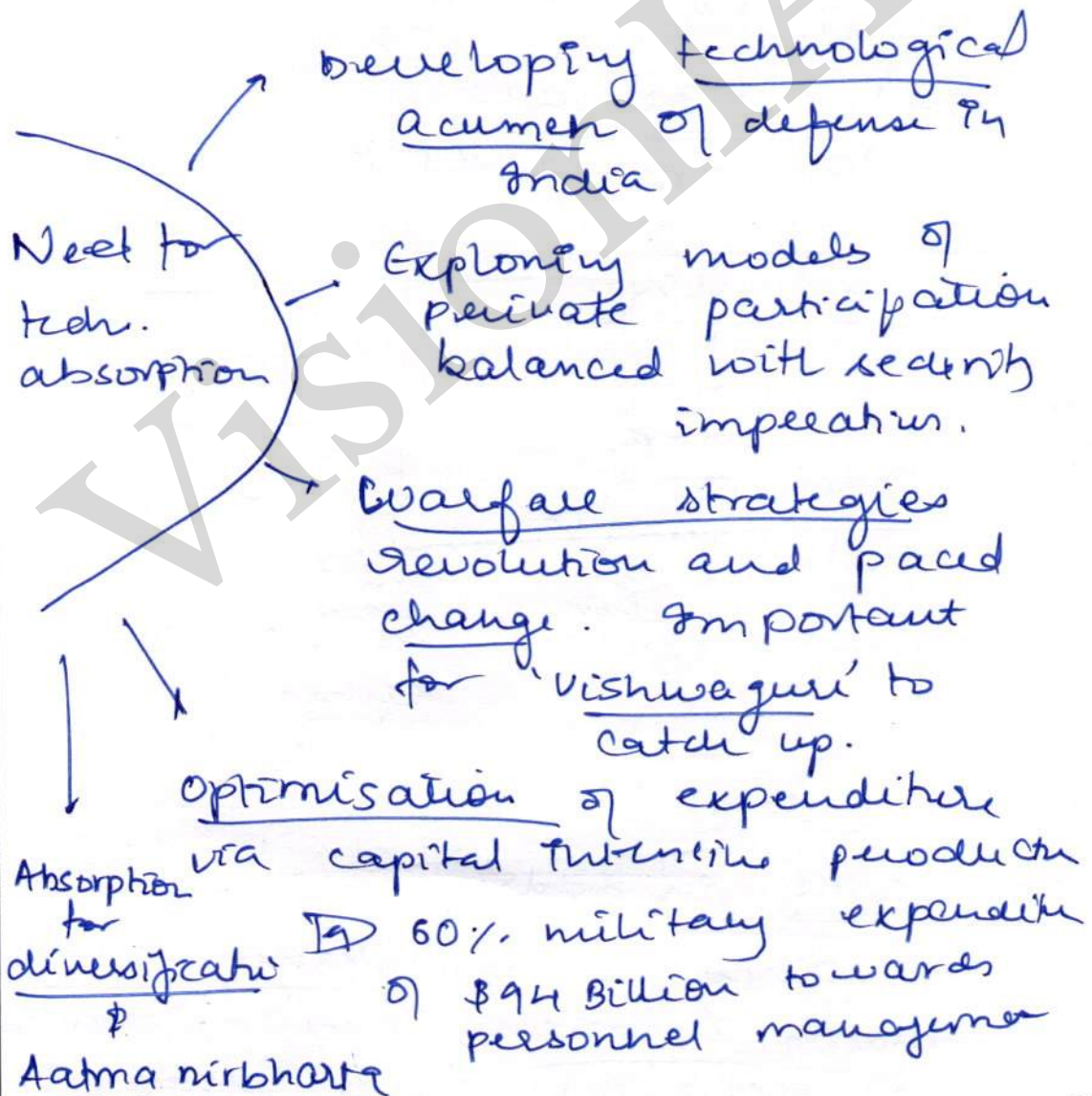
10.

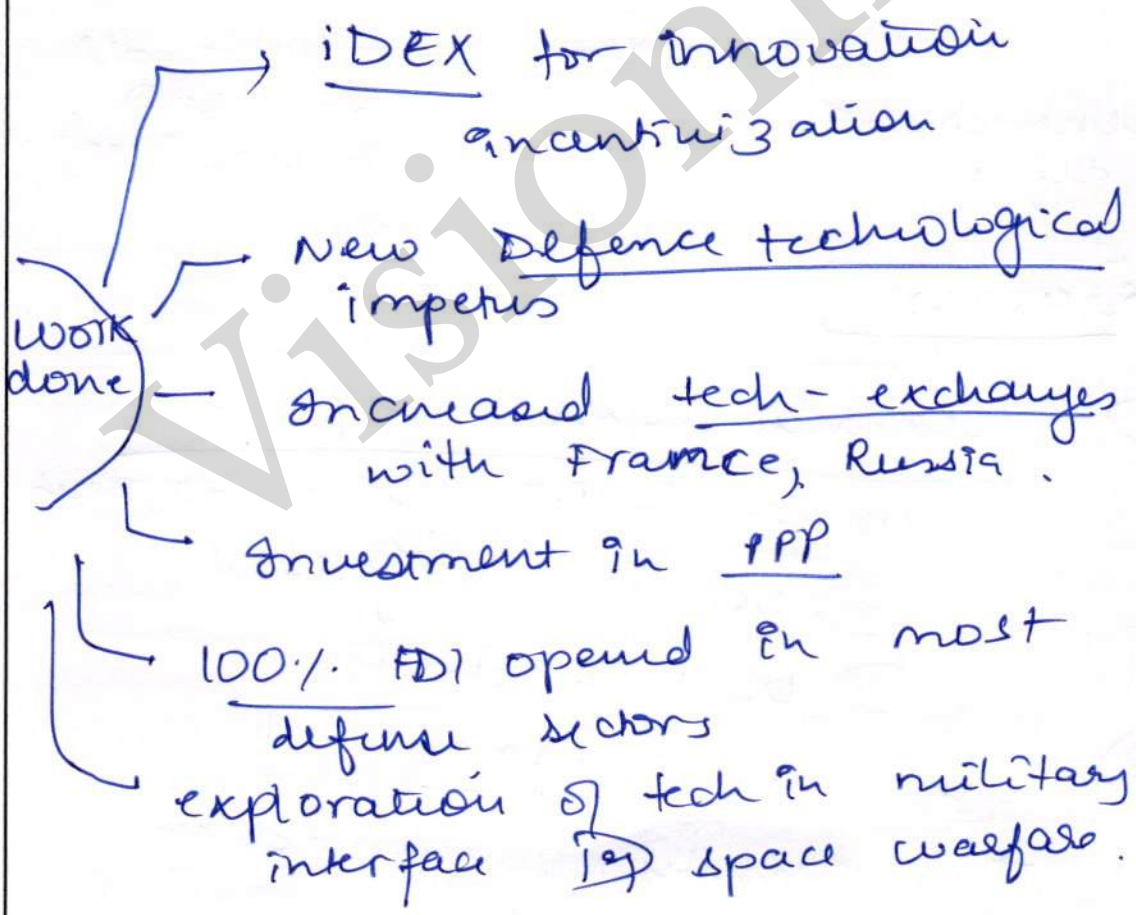
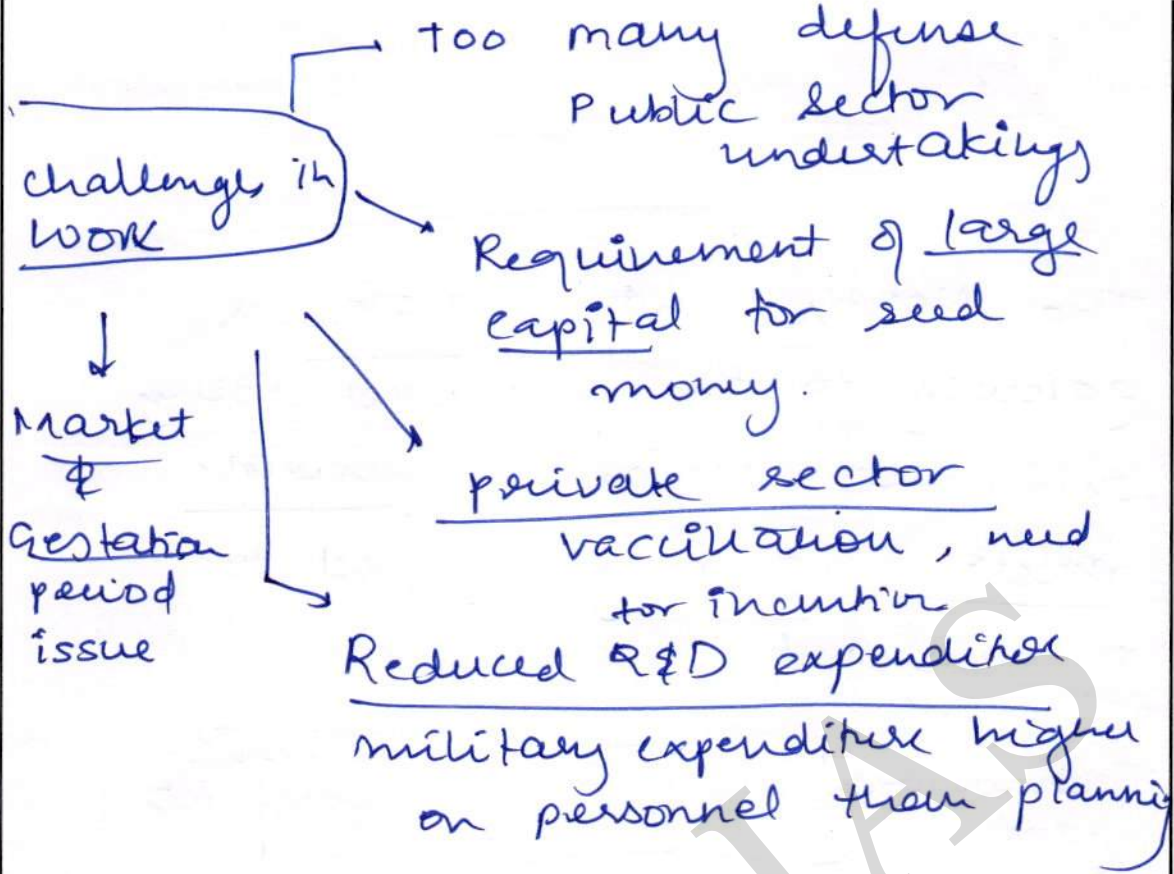
इंडियन आर्मी वर्ष 2024 को 'प्रौद्योगिकी समावेशन वर्ष (Year of Technology Absorption)' के रूप में मना रही है। इसके आलोक में, स्पष्ट कीजिए कि भारत के रक्षा क्षेत्र में प्रौद्योगिकी के समावेशन की आवश्यकता क्यों है। इस पहल में भारत को किन चुनौतियों का सामना करना पड़ सकता है? (उत्तर 150 शब्दों में दीजिए)

The Indian Army is observing the year 2024 as the 'Year of Technology Absorption'. In light of this, explain why there is a need for technology absorption in the defence sector of India. What challenges can India face in this initiative? (Answer in 150 words) 10

उम्मीदवारों को इस हिसाब में नहीं लिखना चाहिए
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Defense modernisation, charting as a top priority in Budget 2024-25 amidst rising instability around India's 'Island of certainty' mandates technological revolution.





Thus, with strong push for Aatmanirbhar, India is facing itself with tech absorption to be followed implementation and actionability.

11.

भारत के पूर्वोत्तर क्षेत्र (NER) में व्यापार एवं उद्योगों के विकास में किन समस्याओं का सामना करना पड़ा है? इन समस्याओं से निपटने हेतु किए गए उपायों पर टिप्पणी कीजिए। (उत्तर 250 शब्दों में दीजिए)
 What are the issues faced in the development of trade and industries in the North-Eastern Region (NER) of India? Comment on the measures that have been taken to tackle these issues. (Answer in 250 words)

उम्मीदवारों को इस हिसाब में नही लिखना चाहिए
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15

The North East Region, a gateway to the Act East Policy and the region of 'resource excess', is being tapped for its potential.

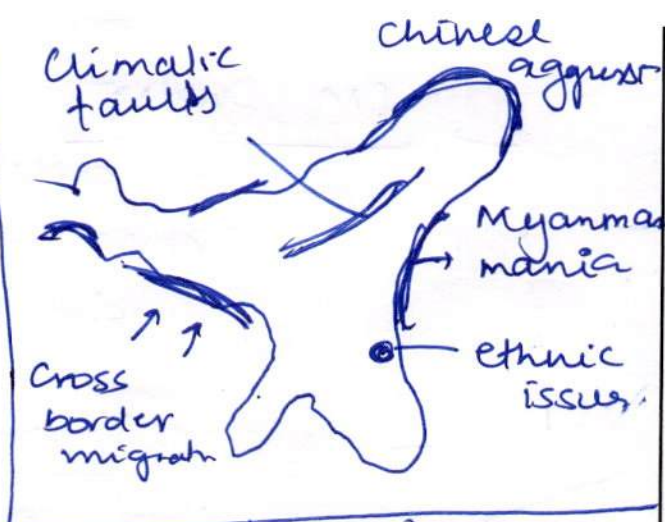


Reasons:

1) Excessively severe conflicts
 ↳ ethnic adversity at its peak
 ① NSCIN - Nagaland
 ② ULFA in Assam.

2) Connectivity deficit
 → currently connected by 22 km wide Siliguri corridor only.

3) Investment deficit
 difficult for industrial set up.
 ↳ Tribal council issues.



उम्मीदवारों को इस कश्चि में नही लिखना चाहिए
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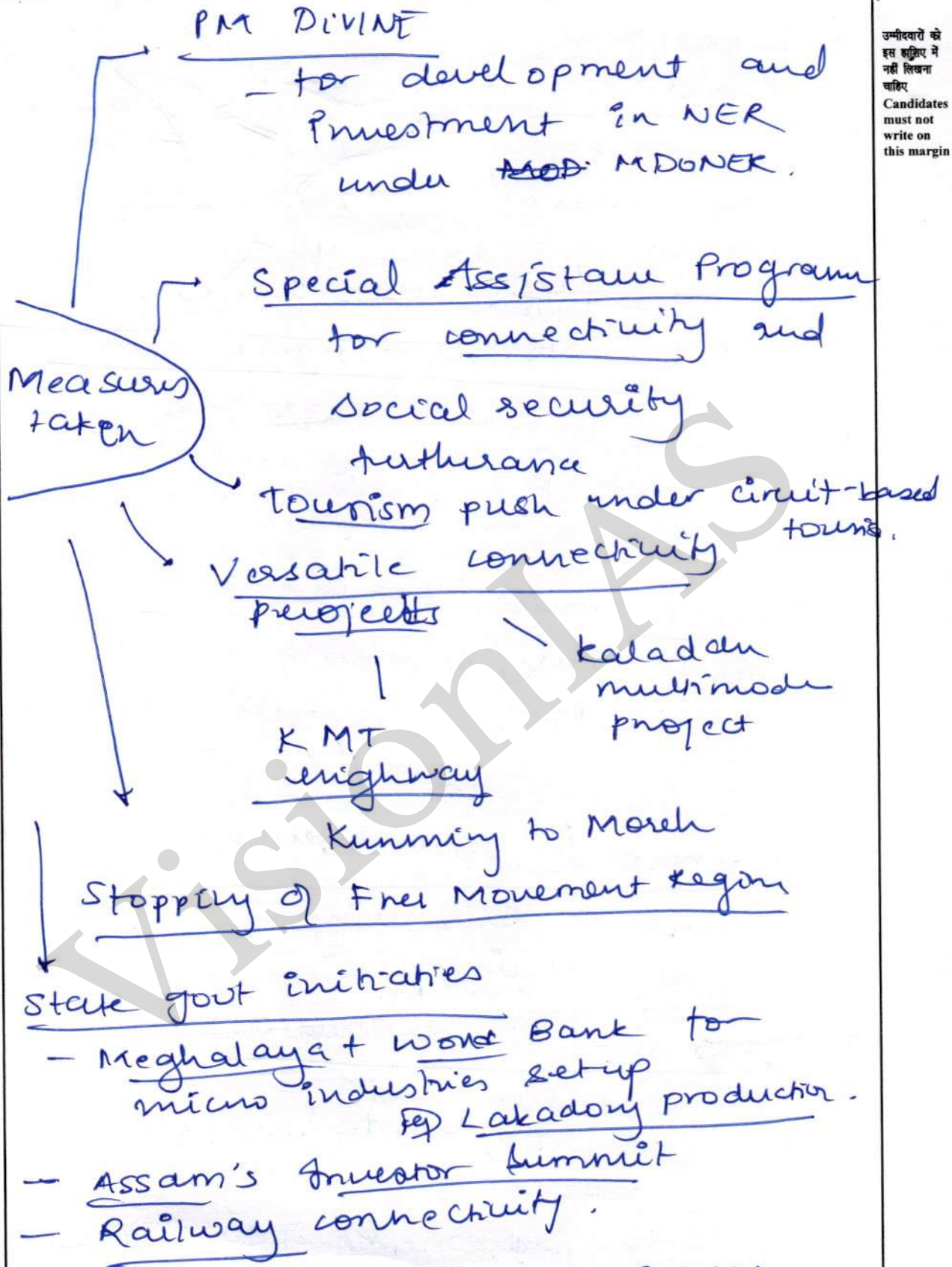
4) Political appeasement periphery
 bureaucratic cholesterol and political strongholds bad for business. (eg) District Autonomous Council approvals.

5) Chinese and Bangladeshi
 border expansionist tendencies.
 ↳ further insecurity of business.

6) unexplored primitiveness
 Lack of surveying of resources availability.

7) Geographical difficulty
 - Flooding and topographical difficulties (eg) landslides in Meghalaya.
 - atop Red zone of earthquake vulnerability.

8) Lack of market access
 more easily available in 'mainland' India.



Thus, whilst spotted by issues, NER holds the key for advancing India's trade and industry with its 'mineral' and 'hospitality' capital

12.

जलवायु परिवर्तन और बढ़ते जल संकट के युग में, सूक्ष्म सिंचाई प्रणालियां भारत में संधारणीय कृषि पद्धतियों में किस प्रकार योगदान दे सकती हैं? (उत्तर 250 शब्दों में दीजिए)

In the era of climate change and growing water scarcity, how can micro-irrigation systems contribute to sustainable agricultural practices in India? (Answer in 250 words) 15

Micro-irrigation systems refer to 'per-drop more crop' initiatives that reduce water consumption whilst maximising optimization

Contribution to sustainable practice

1) Precision irrigation

for reduction of leakages and increased usage of water.

2) Productivity enhancement

tracked input of water for maximum crop productivity

1D night-irrigation technique.

3) Weather-tailored irrigation

managing wet and dry spells with utmost precision.

4) More value per drop

increased water efficiency

5) Targetted water interfaciny and feeding

ie) sprinkler networks.

6) Technologically tailored to different cropping patterns

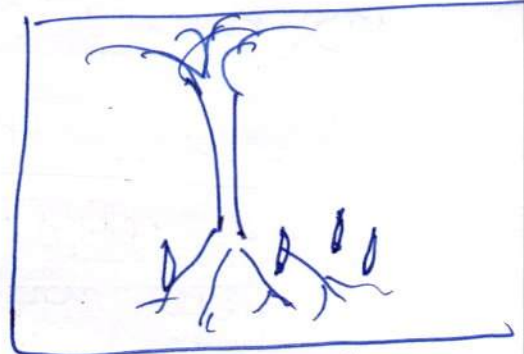
↳ thus enhancing adoption of more climate resilient patterns ie) multicroping

7) Eased farm productivity even in semi-arid and arid regions.

ie) pomergonate farming in Maharashtra & Rajasthan.

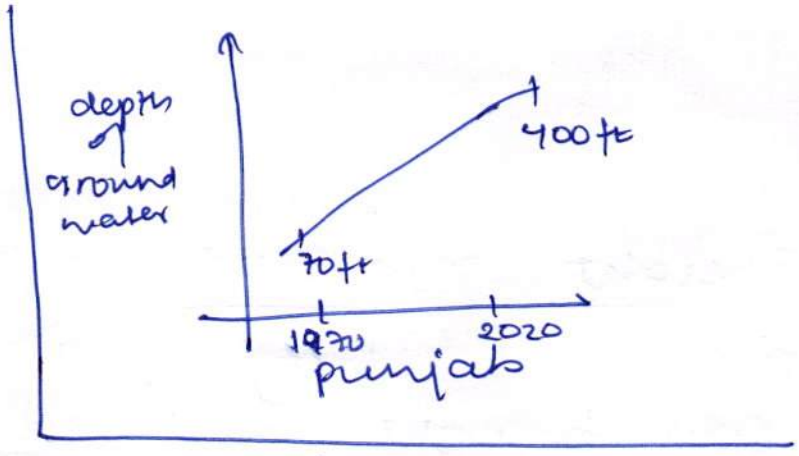
8) Input delivery via irrigation

fertilisation via irrigation capillaries



9) Removal of 'pump-well' culture that enhanced water wastage during and post green revolution

10) easing aquifer refilling in Green Revolution areas →



Adoptive measures

- 1) Integrated Micro Irrigation Plan under Ministry of Jal Shakti
- 2) Soil Health Card recommendation on water usage.
- 3) Pradhan Mantri Kishi Sinchai Yojna with impetus on micro-irrigation.
- 4) Indo-Israel collaboration in Haryana and UP for 'greenhouse' irrigation optimisation
- 5) Imperative component under Paramparagat Kishi Vikas Yojna

Thus, micro irrigation holds the key to making the 70% irrigation dependency into an optimised, seamless and water efficient paradigm.

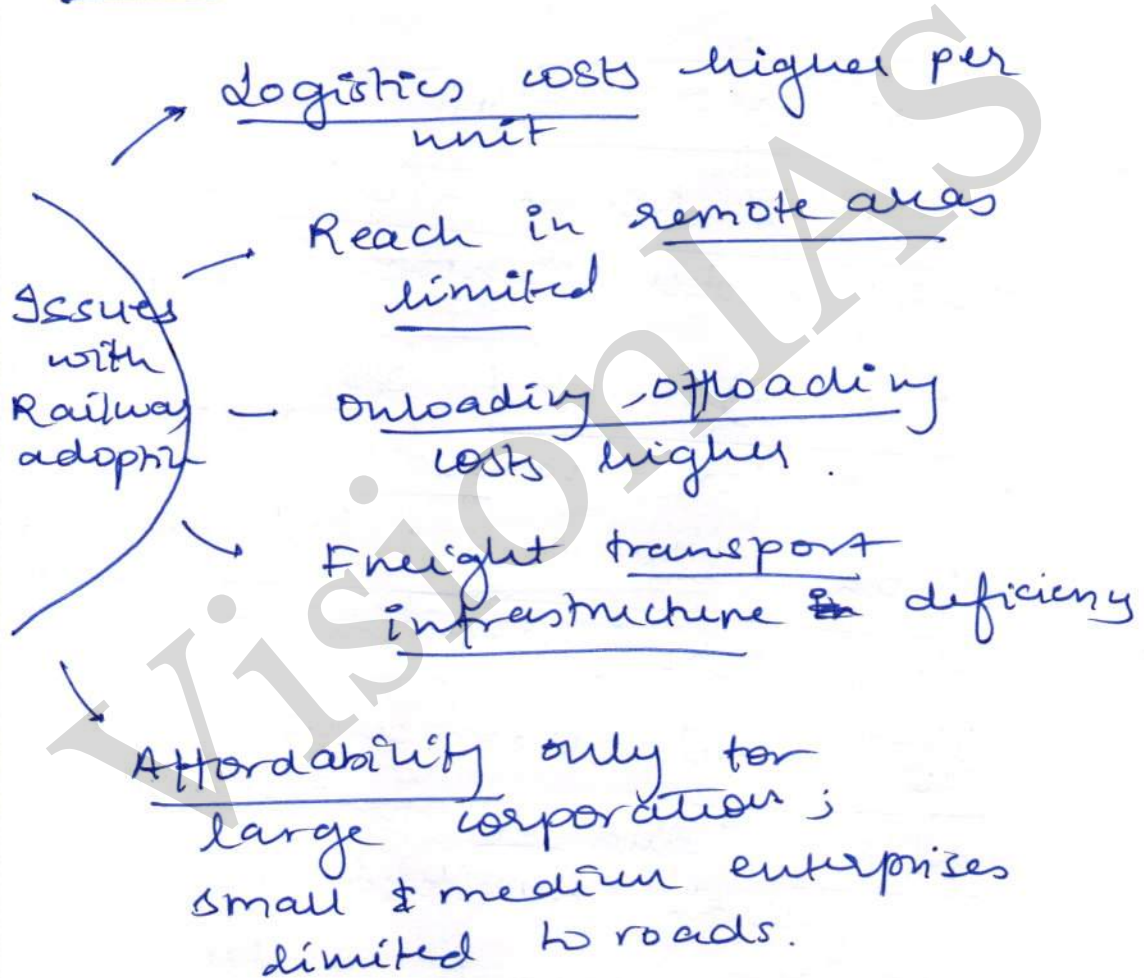
13.

भारतीय रेलवे में माल परिवहन से संबंधित समस्याओं का समाधान करने तथा घरेलू माल दुलाई में इसकी हिस्सेदारी बढ़ाने के लिए कौन-सी रणनीतियां अपनाई जा सकती हैं? (उत्तर 250 शब्दों में दीजिए)

What strategies can be adopted to overcome the issues pertaining to freight transportation in the Indian Railways and increase its share in the domestic freight? (Answer in 250 words) 15

उम्मीदवारों को इस दृष्टिकोण में नहीं लिखना चाहिए
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Freight transport in India suffers efficiency deficit with 60% freight modelled on road transport.



Strategies for adoption

- ▷ Reduction of logistics costs
- by efficiency enhancement on track construction

2) Cross subsidisation of
passenger - train deficit must
not be made from freight

3) Creation of separate regulator
and planning authority
for freight under Indian
Railway Board

4) Track expansion to cover
larger areas, especially
remote coverage.

5) Per unit cost reduction with
increase in freight trains.

6) Freight train upgradation
under way for container
efficiency.

7) Cross-country and international
exchange for efficiency
enhancement

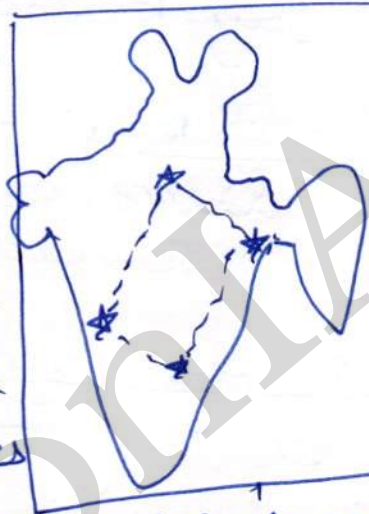
↳ Indo-Japan office
training of IRES for
efficient coach construction.

8) Diversification beyond coal
and heavy industries

9) Kisan Rail Scheme.

9) Integration of cold storage and warehousing on stations for enhanced access for perishable goods industries.

10) Construction of zone wide and inter-zone corridors via industrial zones



Budget allocation increased by 30% for Railways Modernization

11) 'Golden quadrilateral of industrial rail exchange

12) Connectivity to North East Region to ↑ freight but also industrial development.

13) Warehousing availability on stations

These are the measures that can be taken to 'Revolutionise Railways' for a 'Revolution of Industries'

14.

उन कारकों पर चर्चा कीजिए जिन्होंने नवीकरणीय ऊर्जा क्षेत्र में प्रभावशाली प्रगति करने और वैश्विक नवीकरणीय ऊर्जा परिवर्तन में अग्रणी के रूप में स्थापित होने में भारत की सहायता की है। (उत्तर 250 शब्दों में दीजिए)

Discuss the factors that have aided India in making impressive strides in the renewable energy sector and establishing itself as a frontrunner in the global renewable energy transition. (Answer in 250 words)

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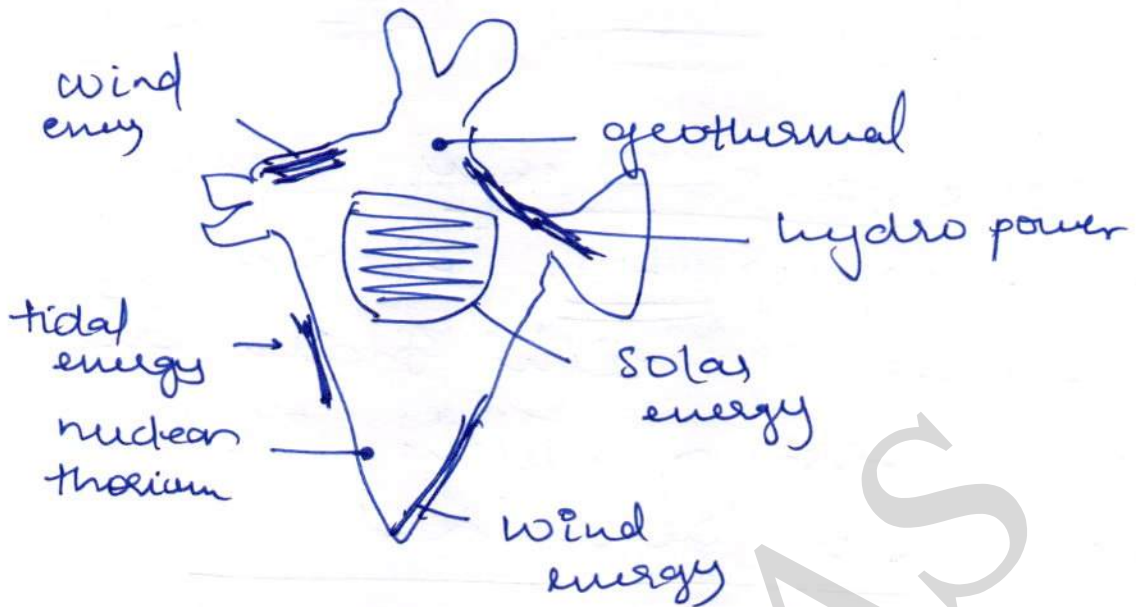
Renewable Energy now makes up 40% of energy basket, making India one of the first to achieve its Nationally Determined Goals.



Factors for success

- 1) Political leadership & will
consistent engagement at international fora for environmental sustainability.
- 2) Expansive planning and interministerial strategisation
1) WAPCC in addition to
→ Submission.

3) Geographical diversity



Availability of excessive diversity of renewable energy sources.

4) Efficient absorption of technology

1) Exchanges between Scandinavian countries for tech. transfer.

5) Diplomatic ventures into climate collaboration

1) Indo-US technological alliance

2) Global Biofuels alliance.

6) Large Agricultural ambib aidity in Biofuels

Production

1) Coop production (#5)

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

4) Brain capital

'Indian Council for Agricultural Research' as promulgator of revolution.

5) Creation of effective incentive structures

1) Carbon credit scheme.

2) Green credit scheme.

3) Rooftop solar scheme.

4) PM - KUSUM

6) Decentralized approach

citizen centric

- LIFE mout
- Rooftop solar scheme

state centric

DTN - centre collaboration on wind

Issues

multi-vector approach but implementation difficult

further branding out yet to be done.

↳ 'coal dependency' and 'oil dependency' increasing by the day.

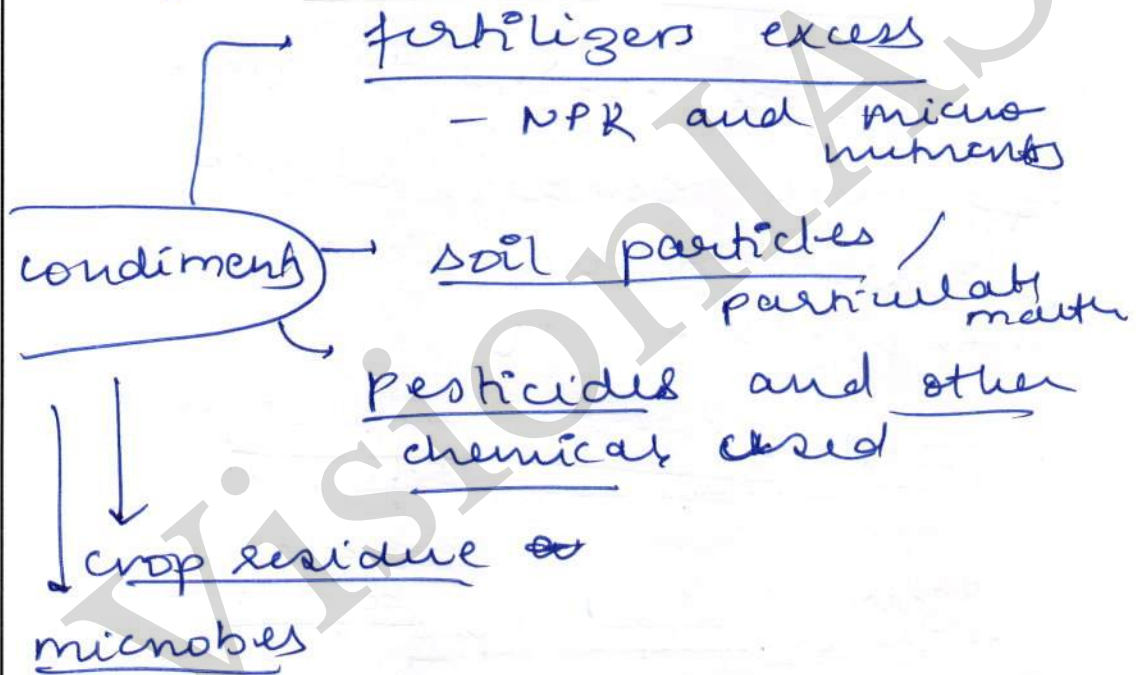
15.

उर्वरकों और कीटनाशकों से युक्त कृषि अपवाह पर्यावरण प्रदूषण में किस प्रकार योगदान देता है? कृषि अपवाह के प्रभाव को कम करने के लिए क्या उपाय अपनाए जा सकते हैं? (उत्तर 250 शब्दों में दीजिए)

How does agricultural runoff containing fertilizers and pesticides contribute to environmental pollution? What measures can be taken to mitigate the impact of agricultural runoff? (Answer in 250 words)

15

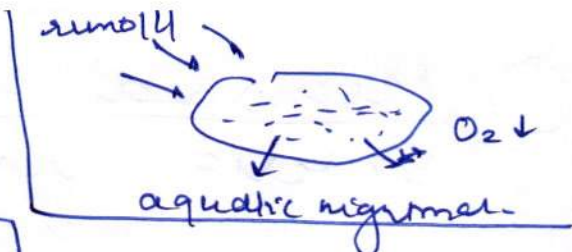
Agricultural runoff refers to residual water excess containing input condiments that exits the farm post usage.



contribution to environmental pollution

1) Excessive fertilizer ^{is} absorbed by water and moves into water bodies thus causing eutrophication.

Eutrophication



- ① Aquatic life threat
- ② depleted oxygen in water body.
- ③ aesthetically displeasing

2) Water pollution as it :

- ④ seeps down to aquifers thus causing ground water pollution
- ⑤ Surface water polluted as it flows into rivers, lakes, ponds
- ⑥ Soil erosion facilitated by water thus furthering environmental pollution.
- ⑦ Fertilizer excess in runoff concentrated on newer places → toxification of environment
- ⑧ Biodiversity harm caused due to noxious substances thus contained.

उम्मीदवारों को इस शीट में नहीं लिखना चाहिए
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9) Microbial condiments like Bacteria, virus, etc pollute environments

eg) black fungus, contagious worm infestations

10) Runoff leaves behind bare soil that furthers soil erosion

Changed cropping patterns for efficient water usage.

eg) multi-cropping with tree fences
eg) poppler



- Measures
- Micro irrigation for water efficiency
 - Contour farming for effective water containment
 - Runoff pits for prospective cleaning of water
 - Water harvesting equipment for dehydrated soils.
 - Effective waste management of water.

Thus, run off is a pernicious, multifaceted issue that can be solved for soil, water, farm health or pension.

16.

हिमालयी राज्यों में पर्यटकों की बढ़ती संख्या ने उनके पारिस्थितिकीय समावेशन क्षमता को पार कर लिया है, जिसके कारण बड़े पैमाने पर मानव-जनित आपदाएं उत्पन्न हुई हैं। संधारणीय पर्यटन को बढ़ावा देते हुए ऐसी आपदाओं को रोकने के लिए क्या उपाय किए जा सकते हैं? प्रासंगिक उदाहरणों के साथ चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए)

The growing influx of tourists in Himalayan states has breached their ecological carrying capacity, leading to significant man-made disasters. What measures can be implemented to prevent such disasters while promoting sustainable tourism? Discuss with relevant examples. (Answer in 250 words)

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

15

With recent construction of Char Dham highway, Buddhist tourism circuit, North East connectivity expansion - tourism to Himalayan states has increased multi fold.

Heat escape from 14 heatwaves

Increased Tourism Impetus

Uttarakhand

clean space exploration

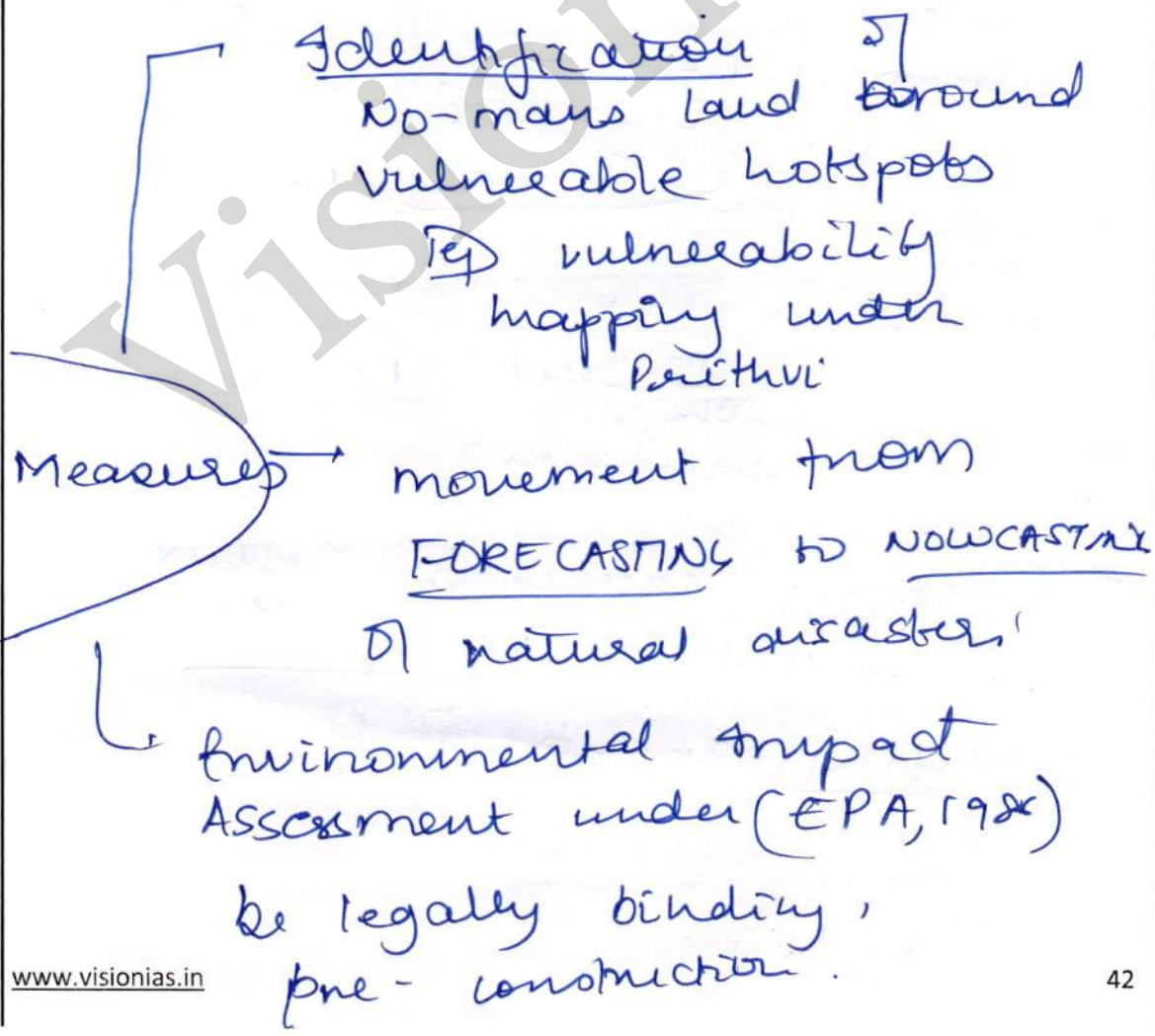
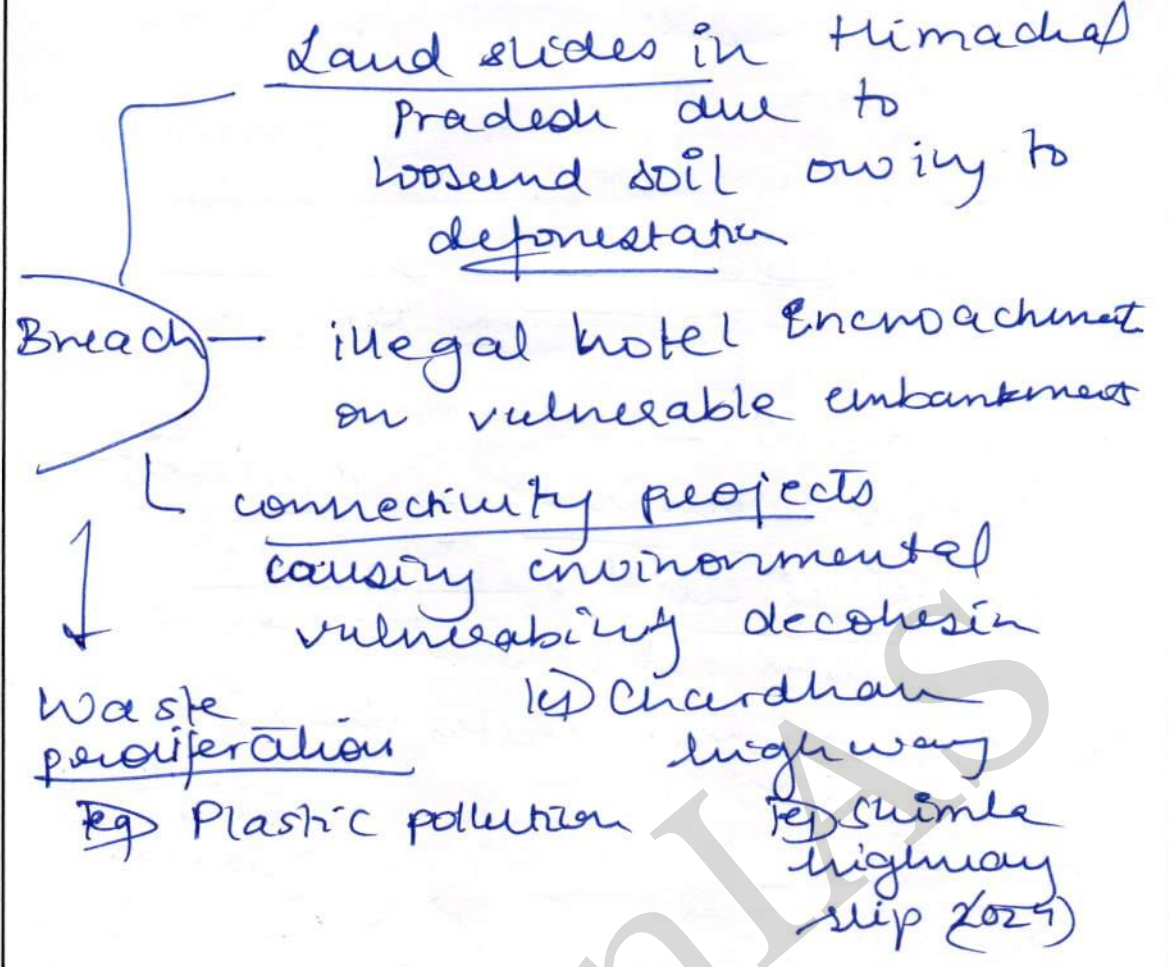
Increased Influx

social marketing of hospitality adventures

Govt push via tourist circuits

The above causes for influx have aided in breach of carrying capacity of Himalayas.

उम्मीदवारों को इस क्वेश्चन में नहीं लिखना चाहिए
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- assimilation of locals in
decisionmaking for effective
disaster mapping, and
habitat preservation

- e-tourism push, as in
Sikkim with impetus
on eco-friendly leisure

- Protected Areas encroachment
ban ^{National} Park

- Stricter implementation of
e-hospitality measures ^{Meghalaya} e-Regulation

- sustainable tourism training
and modulation via
education of masses.

- Pocketed exposure with
'footprint limit' per person.

with measures of such kind,
sustainable tourism can
aid a 'sustainable' alternative
to a booming industry of
livelihood and environment
sensitisation

17.

सुपरकंडक्टर्स विज्ञान एवं प्रौद्योगिकी के विभिन्न क्षेत्रों में नवाचार को किस प्रकार बढ़ावा देते हैं? उदाहरण सहित स्पष्ट कीजिए। (उत्तर 250 शब्दों में दीजिए)

How do superconductors fuel innovation in diverse fields of science and technology? Illustrate with examples. (Answer in 250 words)

15

उम्मीदवारों को इस क्राफ्ट में नही लिखना चाहिए
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'Superconductors' are the new oil of industrial economy, furthered by coming of Industrial Revolution 4.0.

Fields impacted

1) used in entertainment sets in managing diodes

↳ QLEDs and LEDs used superconducting process in manufacturing

2) Space technology

innovation and proliferation of 'big mission making' requires immense electric conductivity.

3) Usage in quantum research
quantum technology

like discovery of highly charged particles at nano-length requires super conductivity.

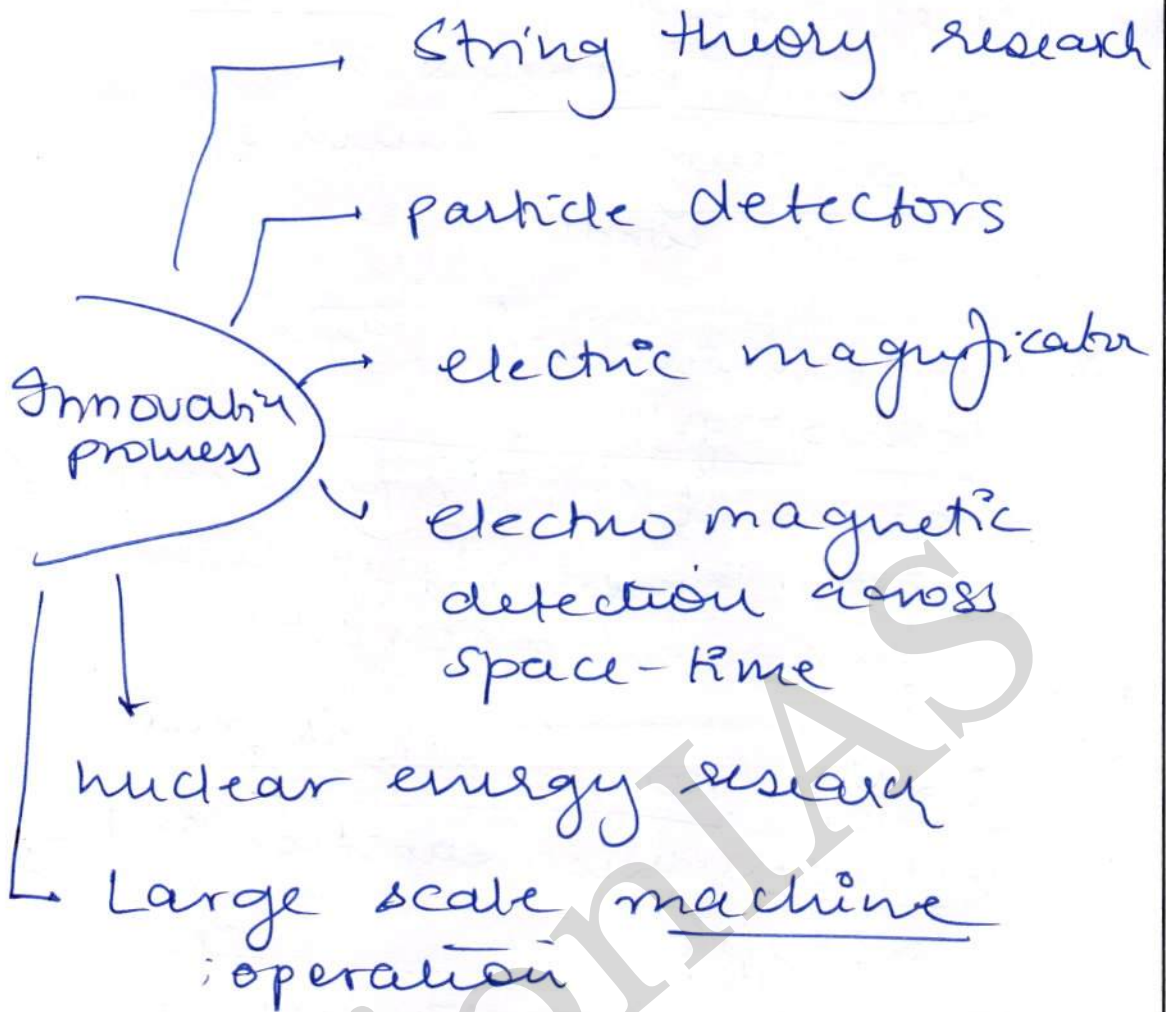
4) Nuclear research and technology

- super conductivity required for temperature regulation and enhancement

5) CERN's large Hadron Collider uses superconductivity principle in m-space to determine gravitational waves

6) Transistor creation and other electronics manufacturing requires SC edifice.

7) Super conductivity, especially in creation of Chinese and other Tokamak or Thermal Reactors is crucial.



Thus, superconductivity holds the key to enhancing innovative surplus in deep-science realm.

18.

यद्यपि भारत में लगभग सभी प्रकार के बौद्धिक संपदा अधिकारों को कवर करने वाले कानून मौजूद हैं, फिर भी अनेक प्रवर्तन संबंधी, विनियामक और प्रशासनिक चुनौतियां भारत में बौद्धिक संपदा अधिकारों के व्यावसायीकरण में बाधा उत्पन्न करती हैं। सविस्तार वर्णन कीजिए। (उत्तर 250 शब्दों में दीजिए)

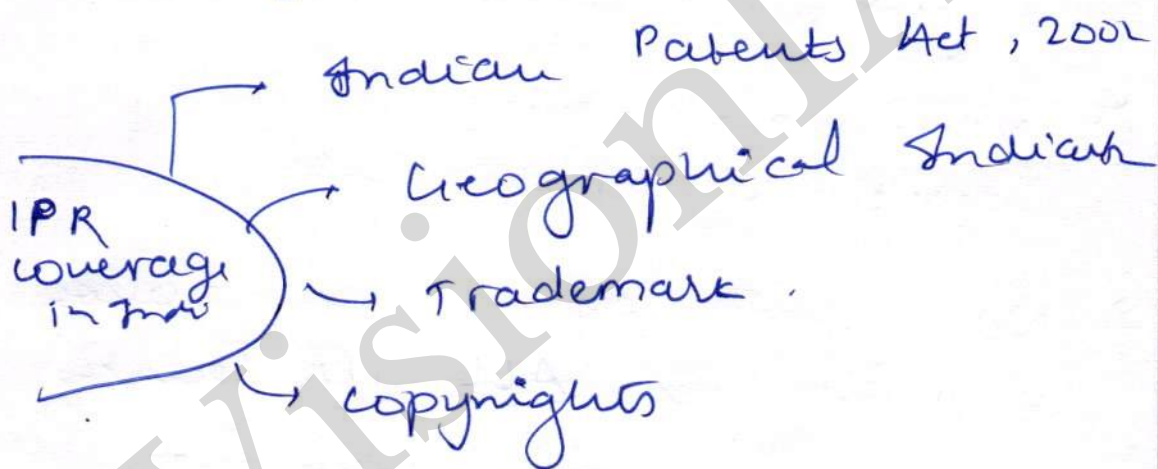
While India has laws covering almost all types of intellectual property rights, numerous enforcement, regulatory and administrative challenges hamper the commercialisation of IPRs in India. Elaborate. (Answer in 250 words)

15

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

'Patent - prognosis has been India's key focus for innovation realisation'

Intellectual Property Rights in India have been diversified but cogent challenges remain.



Challenges faced

1) Intricacies abound

eg ~~sec~~ Sec 3 of IP Act

and the regulatory complexity around 'inventive' value.

2) Non benchmarked IPR

regime around TRIPS.

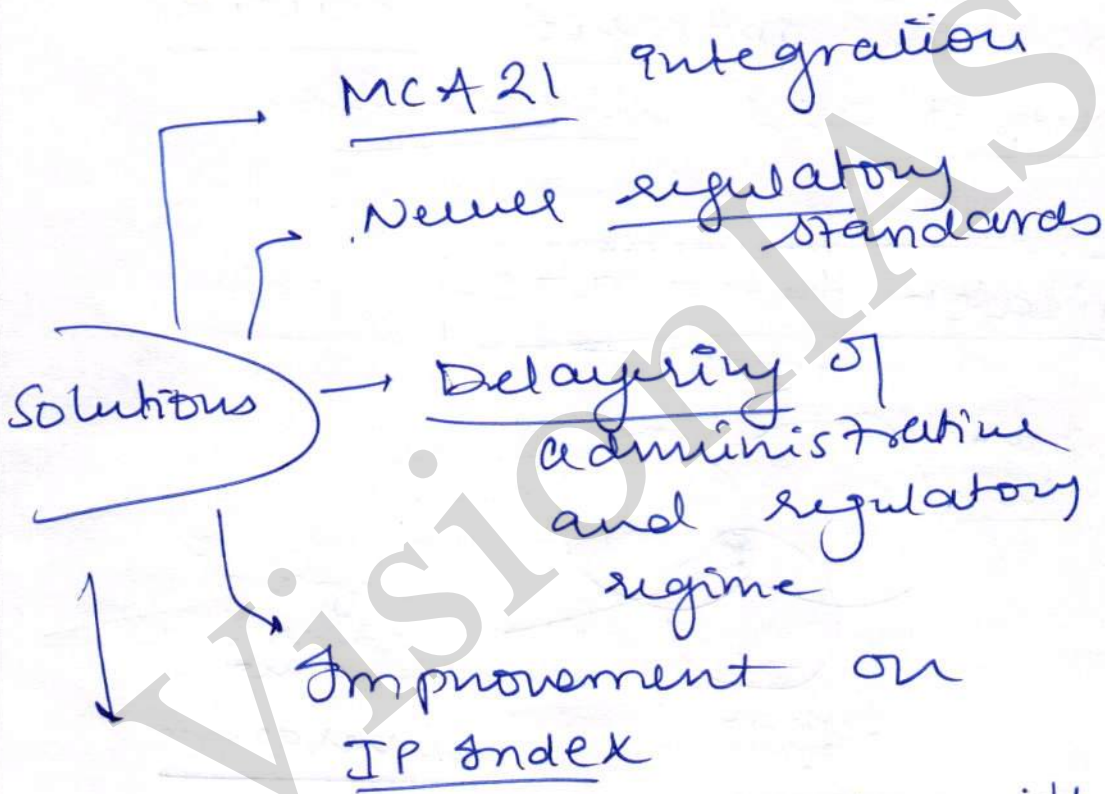
↳ tussle at WTO

- 3) Framing of laws not updated per modern standards.
- 4) Long drawn process of inspections and other procedural inadequacy.
- 5) Foreign involvement standard and procedural complexity.
- 6) Non-decentralized system of application
- 7) No single-point registration conduit for ALL IPR licences
↳ GI tags and copyright handled by different quarters
- 8) Verification and authentication problems owing to which delay occurs.
- 9) Enforcement abridging
↳ Non recognition by other governments of

Indian IPR certification

↳ EU's denial of acceptance of Indian certification

10) Ignoring informal sector innovations and parochial focus on high-end tech inclusion



Increased patent output with current 6 month deadline

(↳ current output: 30,000 patents)

Thus, with unlocking of a blooming IPR regime, India will be able to offer incubated

innovation capital thus aiding the realization of \$5 trillion burgeoning

19.

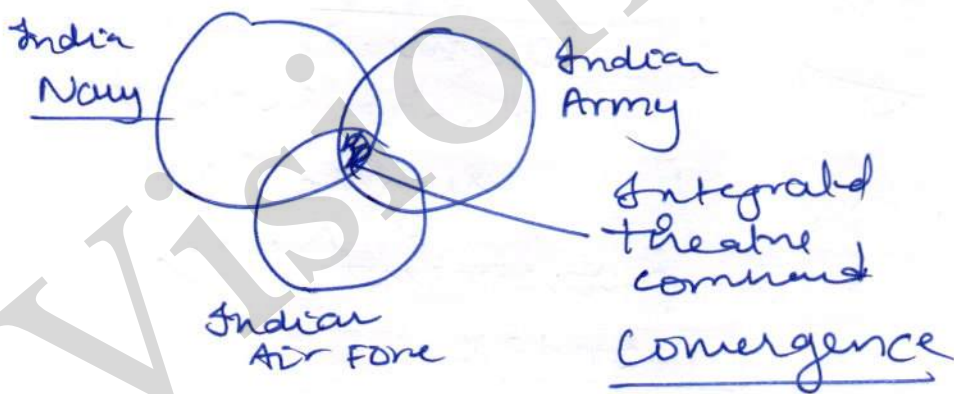
एकीकृत थियेटर कमान का निर्माण करने में सामना की जाने वाली चुनौतियों को ध्यान में रखते हुए, परीक्षण कीजिए कि कमानों का थिएटराइजेशन किस प्रकार तीनों सेनाओं के बीच जनशक्ति और संसाधनों के बेहतर एकीकरण और युक्तिकरण को बढ़ावा दे सकता है। (उत्तर 250 शब्दों में दीजिए)

Keeping in view the challenges in creating integrated theatre commands, examine how the theaterisation of commands can lead to greater integration and rationalisation of manpower and resources among the three services. (Answer in 250 words)

15

Integrated Theatre Command,
proposed as a major defence
modernisation reform, will
aid in optimised security
output and collaboration

Greater Integration



- 1) Uniformity of planning
aided by cross-connection
of strategisation
- 2) Convergent goals of sovereignty,
unity and protection
via three-in-one
capacitation.

4) Current financial break up disfavours navy and IAF
 Army : 55% IAF : 20%
 Navy : 15%

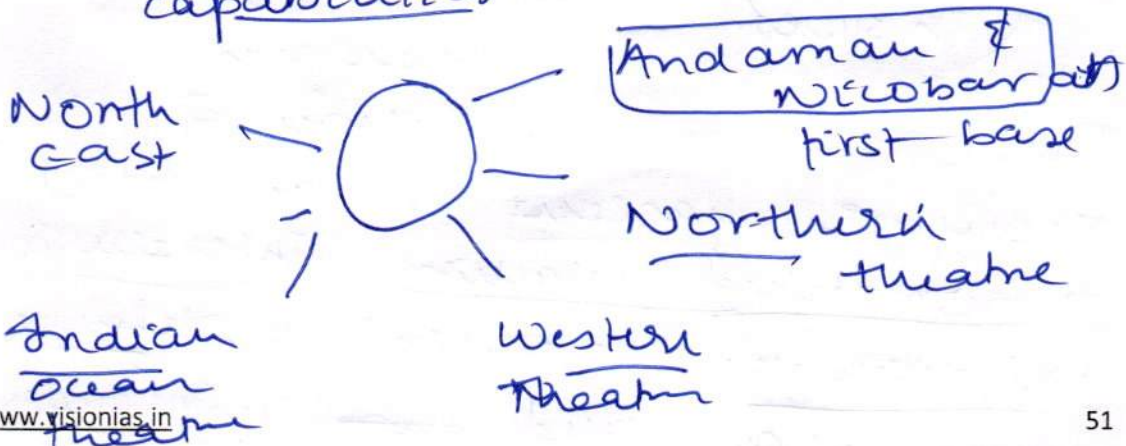
5) Personnel management eased via control of integrated command on discipline and welfare.

6) wartime practice integration with unified control under CDS

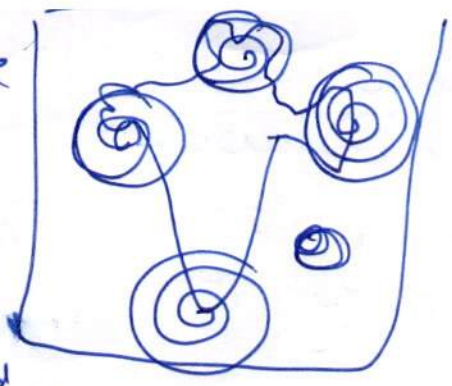
7) Nation Security Doctrine proliferation

8) Agencies integration across different services further eased.

9) Rationalisation of localised capabilities.



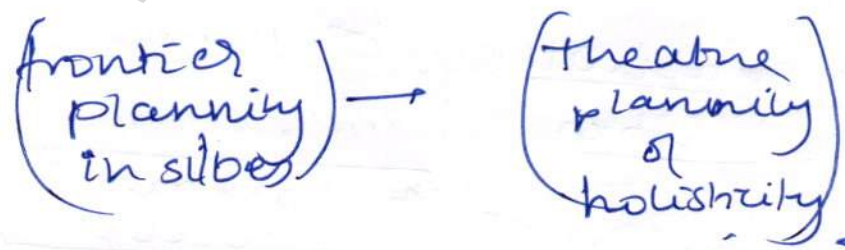
10) Tailor made decision making from all 3 services combined.



11) Holistic focus on threat perception on
 { airspace
 maritime security
 land border issues.

12) Countering Chinese belligerence via US model of theatrisation

13) Creation of secularly managed theatres aids focus on man, money, material and local assessment.



Thus, the promulgation of ITC though in nascent stage swing to mismatched hierarchies, interservice goal differences, is crucial to defense optimisation and restructuring for a 21st century model.

सीमावर्ती गांवों को न केवल भौगोलिक दृष्टि से बल्कि सुविधाओं के मामले में भी प्रथम गांव मानना, सीमा सुरक्षा बढ़ाने की एक प्रमुख रणनीति हो सकती है। विवेचना कीजिए। साथ ही, इस संबंध में सरकार द्वारा किए जा रहे उपायों पर भी प्रकाश डालिए। (उत्तर 250 शब्दों में दीजिए)

Treating border villages as first villages not just geographically but also in terms of facilities can be a key strategy for enhancing border security. Discuss. Also, highlight the measures being taken by the government in this regard. (Answer in 250 words)

15

"Locals of borders are not ordinary citizens but strategic assets"

— Rajnath Singh.

Comprehensive Border management mandates a key focus on border villages as first lines of defence and offense.

Key strategy log

1) Border protectors

— akin to geographical and social paraphernalia on own side and other.

Therefore, information banks.

2) can also become LIVEWIRES as On-ground workers

3) Immediate targets of civilian abduction by enemies

(a) Tammu attacks,

- 4) Military - civilian concomitance most crucial for effective border security management (Shivshankar Menon)
- 5) 'Village integration' via developmental surplus key to ensuring they do not become insurgency hotspots
Ex) 1990s Kashmir insurgency.
- 6) 'Espionage retrievers' for border management
Ex) Surveillance toolkit in LTBP camps
- 7) Border security ensures via land route ^{checks and} spotting
Ex) tunnel terrorism from Pak-occupied Kashmir
Ex) Doda killings.
- 8) 'Village to villain' indoctrination prevention necessary for ~~can~~ border security.

Operational Sadbhawan

for military civilian convergence and confidence building

Vibrant villages programme for developmental surplus aiding public trust building

Deradicalisation squads under different sectors for specific concern

Ministerial visits during festivals

Measures

Fishermen rights in coastal borders near Katchatheevu

Sehkar Samahro by political leaders

NER development via North East PM-DIVAK



Thus, villages at borders aid in Realisation of Doval Doctrine's 'offence via defence' strategy as measure of development and ~~defence~~ securitisation

SPACE FOR ROUGH WORK

AL

VisionIAS