



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. : 45815385

अभ्यर्थी का नाम/Name of Student : ARYAN KUMAR SINGH

माध्यम: हिंदी/अंग्रेजी
Medium: Hindi/English

ENGLISH

तारीख
Date

25-08-24

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

केंद्र
Centre

DEHRADUN

निरीक्षक के हस्ताक्षर
Invigilator's Signature

P Singh

	<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
<p>परीक्षक के हस्ताक्षर Signature of Examiner(s)</p>	

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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अधिकतम अंक: 250
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प्रश्न-पत्र संबंधी विशेष अनुदेश

कृपया प्रश्नों के उत्तर देने से पूर्व निम्नलिखित प्रत्येक अनुदेश को ध्यानपूर्वक पढ़ें:

कुल बीस प्रश्न दिए गए हैं जो हिंदी और अंग्रेजी दोनों में छपे हैं।

सभी प्रश्न अनिवार्य हैं।

प्रत्येक प्रश्न/भाग के लिए नियत अंक उसके सामने दिए गए हैं।

प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए, जिसका उल्लेख आपके प्रवेश-पत्र में किया गया है, और इस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यू.सी.ए.) पुस्तिका के मुख-पृष्ठ पर निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिखे गए उत्तर पर कोई अंक नहीं मिलेंगे।

प्रश्न संख्या 1 से 10 तक का उत्तर 150 शब्दों में तथा प्रश्न संख्या 11 से 20 तक का उत्तर 250 शब्दों में दीजिए।

प्रश्नों में इंगित शब्द सीमा को ध्यान में रखिए।

प्रश्न-सह-उत्तर पुस्तिका में खाली छोड़े गए कोई पृष्ठ अथवा पृष्ठ भाग को पूर्णतः काट दीजिए।

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instructions carefully before attempting questions.

There are **TWENTY** questions printed both in **HINDI** and in **ENGLISH**.

All questions are compulsory.

The number of marks carried by a question/part is indicated against it.

Answers must be written in the medium authorized in the Admission Certificate which must be stated clearly on the cover of this Question-cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in a medium other than the authorized one.

Answers to Questions No. 1 to 10 should be in 150 words, whereas answers to Questions No. 11 to 20 should be in 250 words.

Keep the word limit indicated in the questions in mind.

Any page or portion of the page left blank in the Questions-cum-Answer Booklet must be clearly struck off.

EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

1. खाद्य 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)

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

Food processing is a rapidly growing sector with survise potential of 50,000 Kr. of FDI

- PM Modi

Rapid Growth

- Increasing Exports (13% contribution)
- More focus on value addition and marketing.
- Globalisation based Industries. eg Jam, ketchup etc.

However this is posing a challenge for food safety →

- ① Hunger for Profits, killing hunger for food. eg Increasing adulteration.

② False marketing strategies to lure consumers. eg Recent ~~get~~ notice to milk drinks for false claims.

③ Using chemicals to make food

more attractive

Reduce production time

④ Devising methods consumers by using chemicals

eg Beetle powder in chilly powder.

⑤ Colouring agents (Rhodamine) have harmful health impact.

Way forward

(a) Increasing regulatory powers of FSSAI.

(b) Regular inspections and checks.

(c) Online CRM portal.

This can promote food security with 100%.

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 नहीं लिखना चाहिए। Candidates must not write on this margin

Fair Price Shops are the link between consumers and food procured by state govt. from FCI, under PDS system.

However transformation of FPS is an evolving process:

Issues

- ① Corruption → Faulty weighing machine
→ Hoarding of grain.
- ② Lack of storage facilities.
- ③ Poor identification of beneficiaries.
- ④ Poor technological infrastructure.
- ⑤ Nexus with food grain mafias.

Thus it evolved as :

- ① New 95% FPS shops have e-Pos machines.
- ② Universal seeding of Aadhaar with ration card.
- ③ One nation one ration card.
- ④ Digitalization of identification process.
- ⑤ Direct beneficiary transfer.

Steps needed But, further more
for evolution :

- ① Compulsory Inspections, by PM.
- ② utilising blockchain Infrastructure.
- ③ Surveillance using CTV Infrastructure.

This can ensure we
escape from PDS to Smart PDS.

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

Agri-tech Startups are crucial for incorporating digital revolution in agriculture for enhancing its GDP from current 17%.

Enhancing farm productivity

- ① Supporting technological extension.
eg Micro Irrigation.
- ② Spreading knowledge through Krishi Vigyan Kendras.
- ③ Facilitating investment in agriculture research and Innovation.
- ④ Supply biotech modified produce.
eg Nano urea.

Enhancing market access

① Formation of Cooperatives.

→ Sahakar Nima

② Promoting Entrepreneurship and Internship in agri marketing.

③ Collaborating with Big business chains.

→ McDonalds

However they face few

Challenges

- ① Less support from Government.
- ② Low Profitability.
- ③ Poor education and awareness level of farmers.
- ④ Distress caused by Climate Change.
→ Recent locust attack.

Way forward

Draft
Contract
farming
bill of NITI
ay ay

Promoting degree
Courses in agri
marketing.

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

Digitization of land records can potentially increase India's GDP by 1% - Economic Survey 24

Role in effective implementation of land records :

- ① Faster resolution of land claims.
- ② Solving issue of conclusive land titling.
- ③ Securing tenancy rights.
- ④ Reduced paperwork ⇒ administrative ease in implementing land reforms.
- ⑤ Increased transparency of local Samindars → fair consolidation of agriculture.
- ⑥ Management of land data → Better policy making.

However following hurdles remain :

- ① Only 38% digital literacy.
- ② Difficulty in finding old records and papers (not preserved)
- ③ Centralized database pose security threat. \rightarrow Chinese attack on VADAI database.
- ④ Land fragmentation still exists.
 \rightarrow 1.08 hectares average size holding.

This calls for following

measures

- ① Universalization of VLPIN - Bhu Aadhar.
- ② Digital literacy using PM g disha.
- ③ Decentralized management as done in SWAMITWA scheme.

This can make land reform favour agricultural reform.

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

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

India has around 65% population between 15-39 years, showing significant demographic dividend.

Challenges in full exploitation

- only 4.7% of trained workforce - India skills report
- Stagnant manufacturing GDP at (17%)
- Lack of Industry academic linkage (53% graduates not employable)
- 99% MSMEs belong to micro categories of low potential.
- Jobless growth (ES'17)

Thus, harnessing a manufacturing led model is needed. 14

① Potential to create more jobs.

eg MSME currently employs 11 crore people.

② Will boost local entrepreneurship.

③ Harnessing human resource to solve disguised unemployment.

④ Providing base for urbanisation and ensuring more tertiary jobs.

eg Agglomeration effect ⇒ Bangalore.

⑤ Promoting labour intensive exports.

May forward

① Extension of PLI scheme.

② Ensuring cheap credit push to MSMEs

③ Promoting Vocal for local - for sinha committee

This can make us achieve vision of Atmanirbhar Bharat

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

India has a vast coastline of around 7500 km, out of which 76% is vulnerable to Cyclones.

- [NDMA]

This creates natural hazards resulting from Climate Change.

- ① loss of livelihood and lives.
eg. Recent Wayanad landslide.
- ② Destruction of Infrastructure.
- ③ 58% Increase in Cyclone vulnerability in Arabian Sea (global warming)

This calls for increasing resilience of Coastal Communities

- ① Awareness about disaster mitigation and management in schools.

- ② Utilising full potential of district disaster management fund.
- ③ Seeking inputs in vulnerability mapping
- ④ Following Odisha Model
 - 1999 cyclone \Rightarrow 6,000 casualties
 - 2012 Feni cyclone \Rightarrow 0 casualties.
- ⑤ Using local knowledge for better predictability of disasters.
- ⑥ Empowering decentralised decision making for better coordination with DC.
- ⑦ Disaster = hazard \times Vulnerability
(natural) (can be controlled by local communities)
collaboration exercises
as done by Pradeep Kumar Jena (IAS)
in Odisha can be followed.

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

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

Green Credit Programme was launched by India during recently conducted UNFCCC Summit at UAE (up 28).

Features

Ensuring credit availability for promoting green infrastructure & Technology.
Supplementing Carbon Credit Initiatives.

It goes beyond carbon management as it not only transfers carbon credits but put them in effective use to promote green development.

Here it is a more comprehensive,
holistic and a proactive measure to
incentivize green infrastructural projects.

This will push for a more
Sustainable development model as
funds and resources will be circulated
for sustainable use.

However there are various
challenges in its implementation such
as lack of clarity of issuing credit,
lack of proper monitoring mechanism,
vague definition of green infra etc.

To overcome these challenges,
we can substantiate it with RBI's
green credit facility and go for
global collaboration as done in
International solar alliance funding.

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 क्राफ़ में नही लिखना चाहिए
Candidates must not write on this margin

NavIC is 1st developed regional satellite based GPS system to foster ease of marine fishing.

Need for NavIC

- ① Comprehensive focus on guiding fishermen.
- ② Maintaining maritime sovereignty.
- ③ Protecting our fishermen's safety.
eg) Italian navy shot a fisherman in confusion.
- ④ Combating climate change by preventing frequent weather disruption.
- ⑤ Promoting technology enabled sustainable fishing practices.

However there are few challenges
for NAVIC :

- ① Overlapping coverage with other
regional satellites. \rightarrow IRNSS.
- ② Lack of technological skills in coastal
communities.
- ③ Maritime boundary disputes.
 \rightarrow Katchatheevu issue with SL.
- ④ Question about reliability and
credibility.

Way ahead

- ① Integrating NAVIC in national
coastal management policy.
- ② Training of local fishermen.

This can ensure that
we achieve the goals of Blue economy
by respecting UNCLOS

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 शीट में नहीं लिखना चाहिए। Candidates must not write on this margin

Around 20% of money-laundering occurs through online portals and social media platforms.

- University of Peace and Economics

Cyber Crime → new frontier for money laundering.

- ① Difficulty in tracing transactions.
- ② Rise in crypto currencies and block chain infrastructures.
- ③ Online hawala mafia using dark net.
- ④ Pseudo apps and games used to launder money. → covered user craft
- ⑤ Increased digitisation → Increase in 300% cyber crimes. - NSCF

⑥ Low cost involved in online laundering of money.

⑦ Poor Cyber Security infra. (could only prevent 58% of crimes - NCRB)

Ways to address this issue

- ① Robust Cyber Security workforce, on lines of ED, NCB.
- ② Addressing infra structural issues by increasing funding for CERT-INDIA.
- ③ Digital awareness campaigns.
eg Cyber Swachhta Abhiyan.
- ④ Extending mandate of FATF to Cyber crimes.

This can ensure we are able to create a safe ecosystem as per BN Shrikrishna Committee

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 क्षेत्रक में प्रौद्योगिकी के समावेशन की आवश्यकता क्यों है। इस प्रह्व 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

~~Recently~~ 15th Finance Commission

(A.280) recommended free modernization fund for defence Expenditure ⇒ paving way for technological adoption.

Need and Significance

- ① Tackling modern fronts of warfare.
⇒ cyberwarfare.
- ② Efficient management of data.
⇒ MIS system.
- ③ Upgradation of defence Infra.
⇒ AI for defence mapping.
- ④ Surveillance technologies / Modern bunkers
/ Reserves
CPS.

⑤ Upgradation of modern weaponry.

Challenges

- ① low investment in the fund.
- ② Will require support from private sector.
- ③ Unreliable nature of technology.
- ④ Security of confidential defense data.
- ⑤ Adaptation Capability of Soldiers.

Way forward

- ① Comprehensive digital courses during training.
- ② Focussing more on data privacy.
- ③ Enhancing FDI limit.

This can ensure we
create modern defense forces as recommended
by Madhukar Gupta Committee

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 नहीं लिखना चाहिए
Candidates must not write on this margin

15

PM Modi calls North Eastern States as "Ashtalakshmi" & having tremendous potential.

Yet development has not been upto the mark as in :

① Trade

① Geographical challenges

① Narrow corridor of chicken's neck
(Siliguri tunnel)

① Difficult terrain — Siachen (Brahmaputra)
— Eastern Himalayas
— mangrove forests.

② Historical neglect in investment due to Soft loan policy.

③ Regional Instability

- ① North eastern Insurgency ^{manipure} → Nagaland
- ① AFSPA hinders smooth trade.

④ Industry

- ① Porous borders facilitate illegal smuggling.
↳ low smuggling in Bangladesh.
- ② Low skill potential of Youth.
 - ① High menace of drugs. (proximity to Golden Triangle)
- ③ Halting of Infrastructural projects - lack of political will.
- ④ Difficulty in supplying raw material.
- ⑤ Tribal population ⇒ clearance issue.

Thus, Government has taken few measures to overcome these challenges:

- ① PM Devidu Scheme ⇒ Infrastructural development.

② Change in foreign policy.

→ From ~~set~~ look east to act east.

③ Connectivity measures, such as IMT highway, Kaladan multimodal projects,

④ Extension of Kaushal Vikas Yojana

⑤ Dedicated freight corridor (Kolkata → Guwahati)

However more needs to be done:

① Creation of Special economic zones,

② Ensuring Environment Impact assessment
→ Blue green Infrastructure

③ Scholarships to NE students.

④ Extending PLI Scheme

This can ensure that we achieve goal of ‘Inclusive Bharat’

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

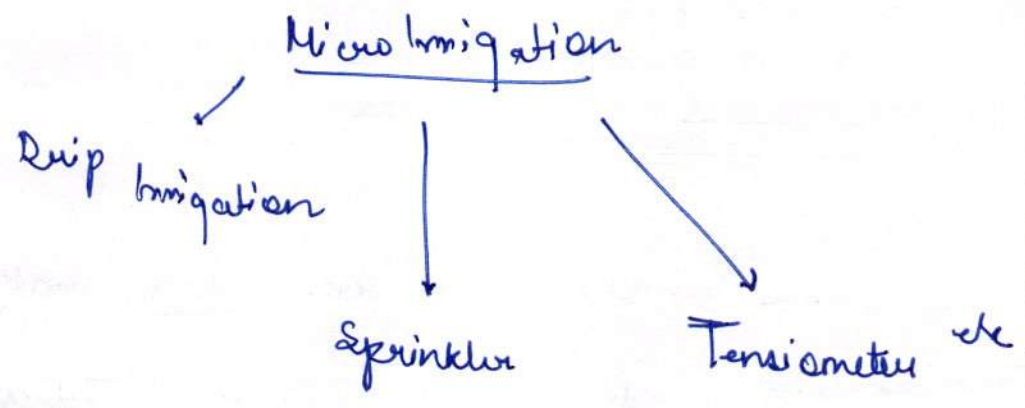
उम्मीदवारों को इस कक्ष में नहीं लिखना चाहिए
Candidates must not write on this margin

In terms of per capita water availability, India ranks 133/180 due to adverse impact of climate change.

Impact of Climate Change on Water Scarcity

- Increasing frequency of droughts.
- Irregular monsoon patterns.
- Combined with excess pollution } Ground water.
- Increasing period of heat stress.
- Urban heat Island facilitates drying of urban water sources.

In this context, micro irrigation becomes important.



Contribution to Sustainable agriculture

- ① Saves water upto 30%.
- ② Increased land productivity by 25%. - Rajmaji Punjab
- ③ Reduces surplus of groundwater.
- ④ Promotes transition from water intensive crops (rice).
- ⑤ Enables Climate Smart agriculture.
- ⑥ Reduces cost on pumping ground water.

However it faces the given challenges :-

- ① High Initial Cost of Installation.
- ② May lead to excessive salinization.
- ③ Poor tap to land Extension

④ Not viable for Plantations — Economic Survey — Poor farmers.

Way forward

- ① Incentivizing Initial cost
- ② Supplementing with sustainable cropping practices.
- ③ Facilitating slow transition

Case Study
Nauragar
 (Uttarakhand)
 ↓
 micro-irrigation
 +
 crop diversification
 ↓
 30% Increase in production

Further Mishra Shah Committee report on watershed management can be Supplemented.

13.

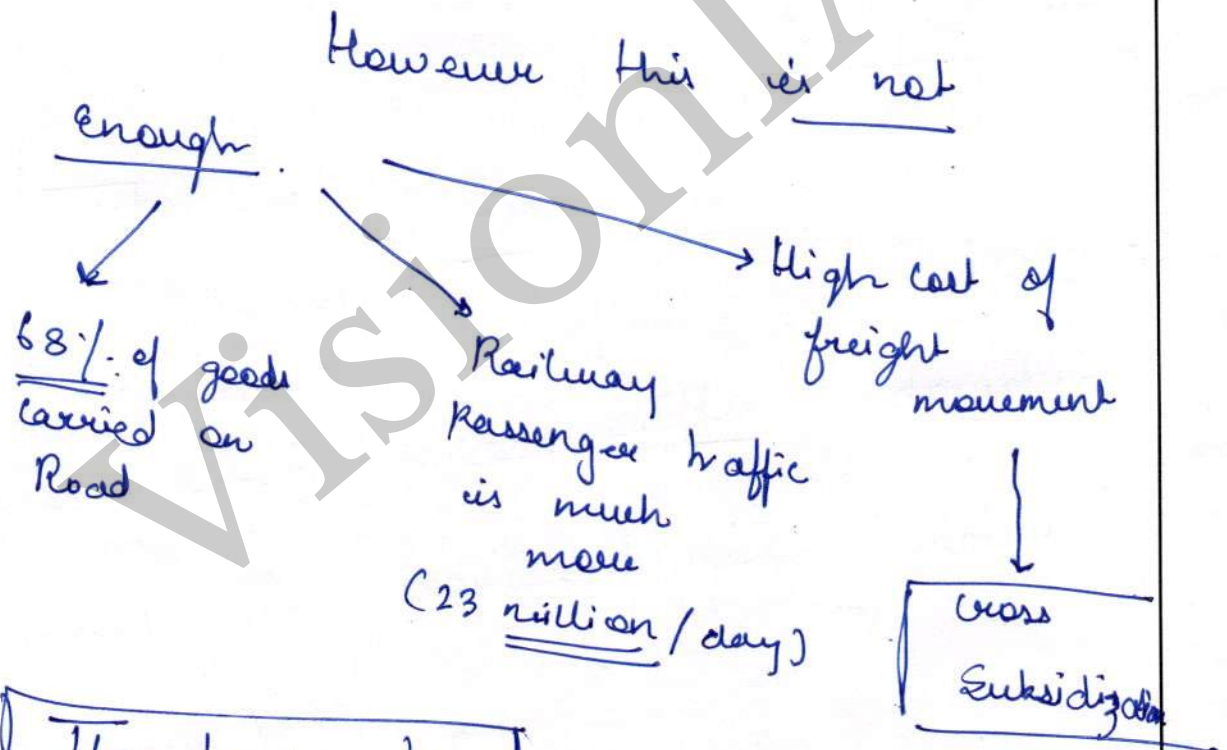
भारतीय रेलवे में माल परिवहन से संबंधित समस्याओं का समाधान करने तथा घरेलू माल ढुलाई में इसकी हिस्सेदारी बढ़ाने के लिए कौन-सी रणनीतियां अपनाई जा सकती हैं? (उत्तर 250 शब्दों में दीजिए)

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

Indian railways carry around 3 million tonne of freight everyday.

- [Economic Survey 21]



This leads to

① concentration in Roadways.

② Excessive pollution

Per capita Emission

Road \Rightarrow 137

Rail \Rightarrow 29

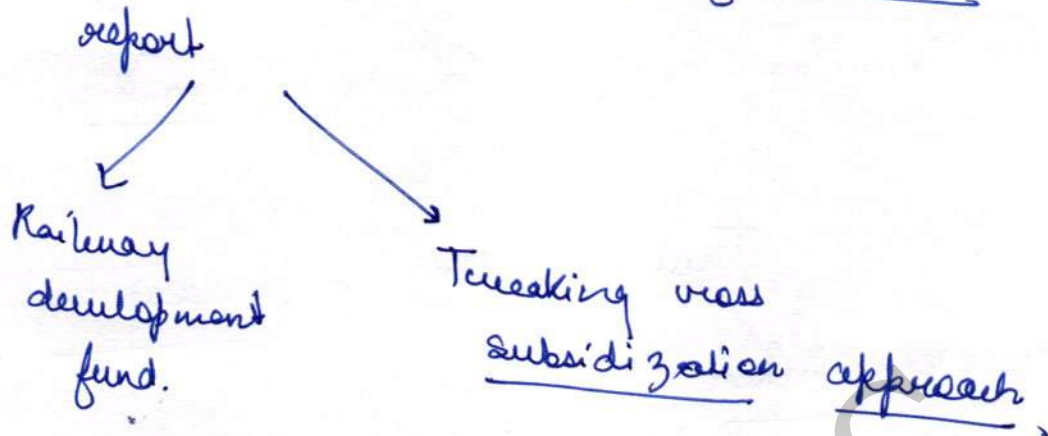
③ Revenue loss for railways.

→ Spending 98 Rs to earn 100 Rs.

Thus, following measures
can be taken:

- ① Allowing for private sector entry in freight.
→ Tejas in passenger.
- ② State of art carriers such as Wande Bharat to be used.
- ③ Increasing Track layout.
↓
currently only 68,000 km tracks of 80% timely delivery services.
- ④ Increasing FDI limit in railways.
- ⑤ Establishing modern storage facilities on stations under Adash Station Scheme.

⑥ Implementing Bikek Debeey Committee



⑦ Shifting from "Earning not just spending" model.

⑧ Collaborating with industry to favour rail transport more.

"This can make sure that railways do act as the growth engine of our [Vikar Yatra], as seen in case of China, Russia.

- [PM Modi]

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)

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

15

India has achieved the aim of 43% of renewable energy capacity, planning to expand it to 500 GW by 2030

Panchamrit pledge

Factors facilitating such success

- ① Geographical factors
- ② Tropical climate ⇒ Solar Energy
 [9] 750 GW solar potential
 - National Institute of Solar Energy
- ③ Average wind speed is 13-14 km/hr ⇒ wind energy.
- ④ Coastal capacity (7500 km) ⇒ Tidal energy
- ⑤ Perennial rivers ⇒ Hydropower.

② Government Initiatives

SATAT

Green Hydrogen Mission

PM Kusum

AJAY scheme.

③ International collaboration

eg International solar alliance
OSOWO C
Green credit initiative

④ Moving to bring lifestyle changes, not just procedural changes.

eg mission life.

⑤ Incentives or Subsidies. eg LED under Ujala, UJwala scheme for LPG

However few challenges still remain:

① 73% of energy output comes from coal.

② High initial cost of renewable energy.

↳ Green Hydrogen → \$4-5/kwh Extra.

③ Issue of land clearance

- 80% of solar plants are land based.

④ 90% electricity generation based on
coal < cheap
availability.

⑤ Climate Change vulnerability impacting
renewable energy.

Way forward

① Moving towards nuclear energy Potential.

② Promoting rooftop solar.

③ Slowly adapting phasing out coal
plan.

④ Adapting Pradyumn Sinha Committee
report.

Recently launched PM
har ghar kiji yojna can facilitate this
change and SDG-7.

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

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

India is the 2nd largest user of fertiliser in the world. This is reflected in the form of agricultural runoff.

Contribution to Environmental Pollution

① Leaching of chemicals into soil and groundwater.

~~100~~ 80% Ground water in urban areas is polluted - Min of urban affairs.

② Diffusion of chemical waste into streams, lakes, drinking water.

③ Increasing amount of toxins in

ground water.

eg uranium - Punjab.

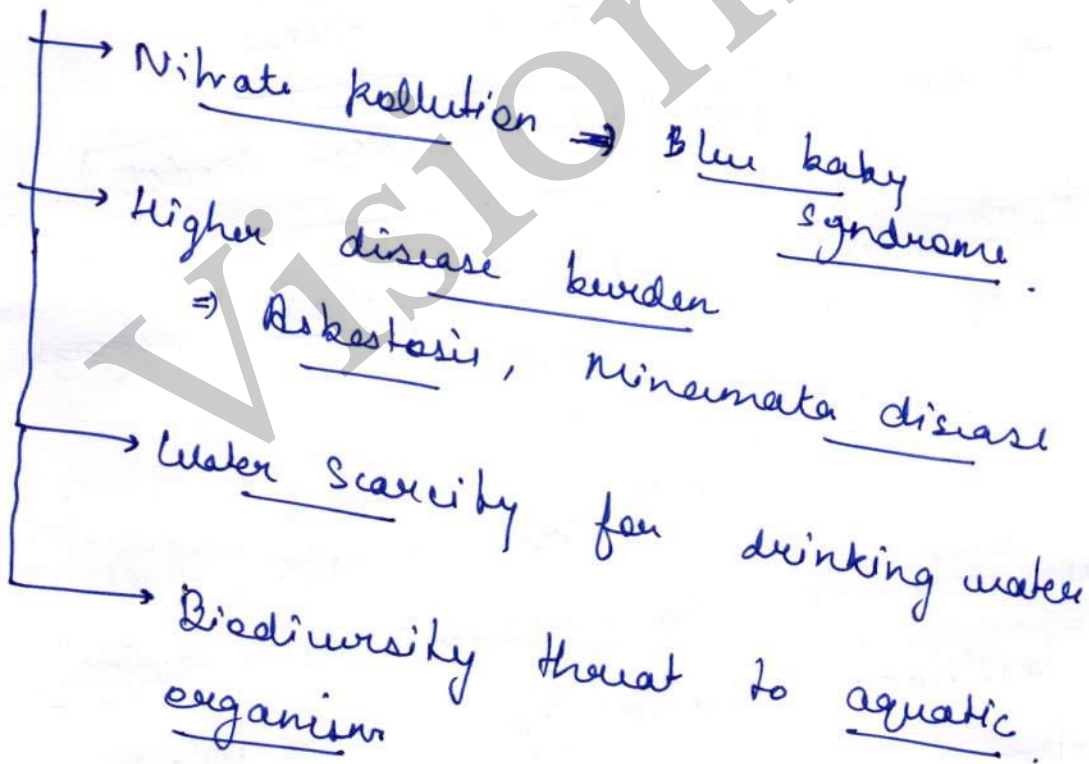
④ Eutrophication of water bodies

- Algae growth

- High biological oxygen demand.

⑤ Leads to nitrification of water.

Input



This calls for following

measures :

① Moving towards organic farming & zero budget natural farming.

② Using natural pesticides using traditional methods.

→ Buttermilk, chilli paste etc.

③ Adopting Vermi composting for manure using

→ Compost Kanoo Paisa Kanoo Scheme

④ Following Subhash Palekar Model.

⑤ Facilitating proper drainage disposal system.

This can ensure that we integrate agriculture with ecology to facilitate sustainable agroecological system.

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

15

The horrors of Kedarnath floods and recent glacial lake outburst in Sikkim, raise an alarming concern about unsustainable tourism in India.

This has breached the Carrying Capacity of Himalayas:

① Subsidence of land [Jashimath].

② Migration of villagers to popular tourist spots → Population burden.
eg) Most villagers of Uttarakhand.



③ Increase in Extreme weather events
landslides ↓ floods ↓ earthquakes.

④ Loss of biodiversity and disruption
in food web. \Rightarrow Musk deer now
become endangered.

⑤ Reckless pollution by tourists damaging
local ecology.

⑥ Poorly monitored developmental
projects \Rightarrow risk of collapse.
 \Rightarrow Recent Silkyera tunnel collapse.

This calls for following
measures:

① Limiting no. of tourist entering
per day.

② Redistribution of local population.

③ Limit on

- Hotels
- Kebab/Restaurants
- Home stays.

④ Effective polluter pay principle for Garbage.

⑤ Mandatory environmental impact assessment.

⑥ Following Mishra Committee report Sustainable tourism and Regular monitoring.

Case study → Likkini's Eco tourism model, can be followed.

↳ Mawlyantong village, Meghalaya
↳ Cleanest Himalayan village.

This can ensure Himalayas stand as the Gaardian of Subcontinent firm and strong.

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

Super conductors are advanced stage of conductors that allow electricity to easily flow through them with more ease than conductors.

They can ~~fuel~~ fuel innovation in diverse fields:

① Electronic sector

↳ Push to Semi conductors Industry.
↳ Making of transistors and chips.

② Transport sector

↳ Supporting magnetic levitation technology as in [Japan].
↳ Facilitating growth electric vehicles.

③ Healthcare Sector

↳ Ensuring regular power supply.

④ Automobile sector

↳ Medium day car / automatic
/ driverless.

⑤ Space sector

↳ Facilitating launch of small
Satellite vehicle.

⑥ Energy Sector

↳ Reducing load burden on Non
renewable energy.

⑦ Industrial manufacturing

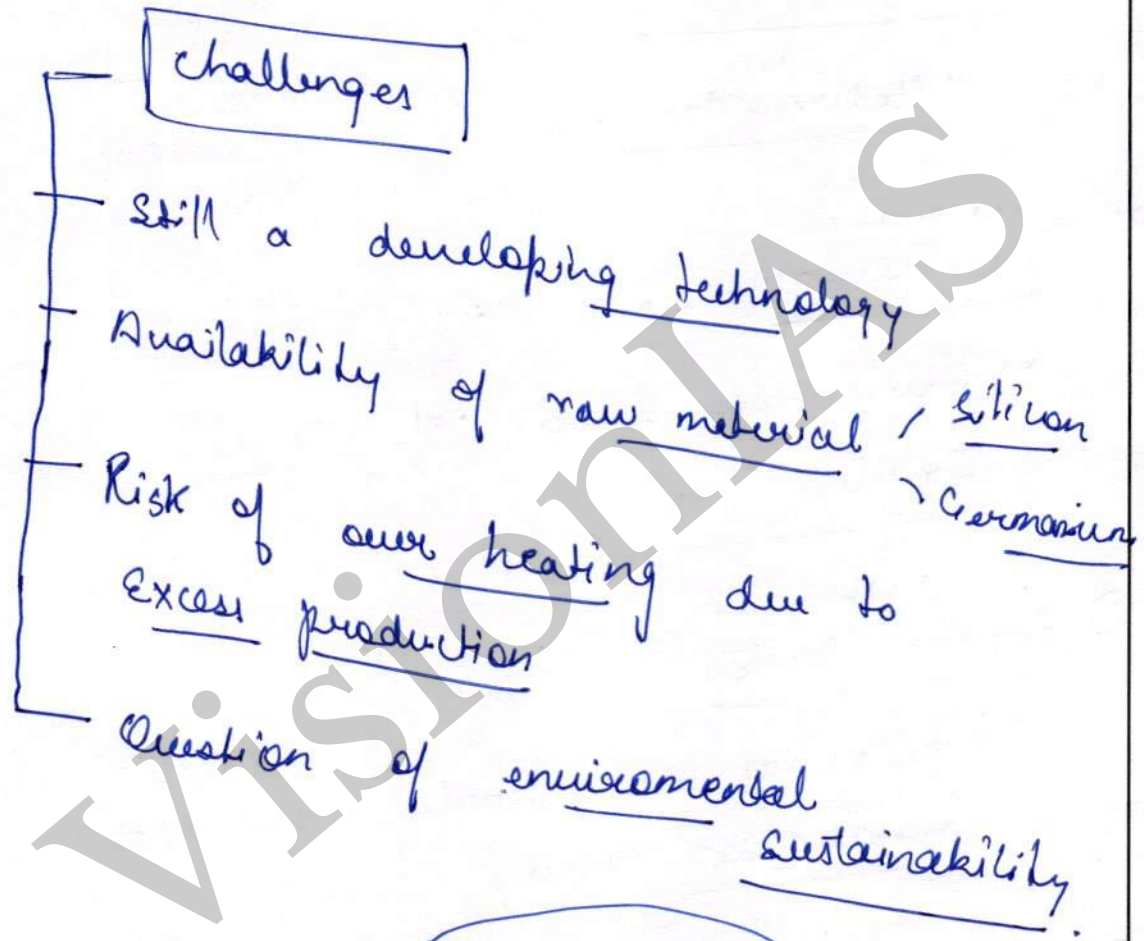
↳ Automation of entire process.
↳ Reducing cost of production.

⑧ Geospatial technology

↳ Pravise data monitoring.

Q Super Computing

↳ Energy to ~~run~~ ^{run} modern day supercomputers. \Rightarrow Param Shriey.

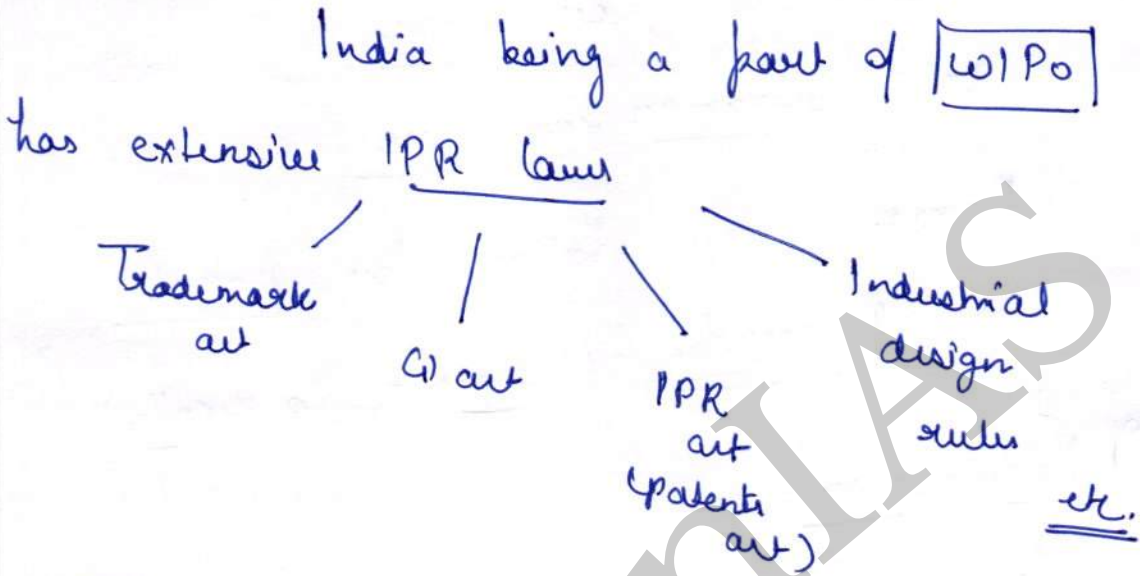


18.

यद्यपि भारत में लगभग सभी प्रकार के बौद्धिक संपदा अधिकारों को कवर करने वाले कानून मौजूद हैं, फिर भी अनेक प्रवर्तन संबंधी, विनियामकीय 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



This has facilitated growth of IPR

- ① Over 1,00,000 patents registered in 2024 so far.
- ② Enrolment in IPRD increased by over 80% in 2023.
- ③ One technology seeking patent every 6 minutes.
- ④ Time for Trademark Clearance reduced to 12 months

⇒ DIPP data 47

However few Issues still remain :

(A) Enforcement.

① Instances of Corruption.

eg. S. Subramaniam case.

② Average time taken for patents is 58 months (China = 20 months)

(B) Regulatory

① Irrational denials to patents as held by Delhi HC in P and G case.

② Excessive regulatory compliances caused less women participation - only 10% (DIPP).

(C) Administrative

① Bureaucratic Red Tapism delay the approval.

② Lack of specialist staff in

handling patent cases.

- ① Around 60% funding by public sector (in developed countries \rightarrow 20%.)

This calls for following

measures

- ① Streamlining patent rules.
- ② Online registration and appeal.
- ③ Setting up patents tribunal with timely jurisdiction.
- ④ Shifting from process patent towards product patent.
- ⑤ Increasing Expenditure from 0.7% to at least 2.5%.

This can ensure the achievement of SDG - 9 \rightarrow Innovation and growth.

19.

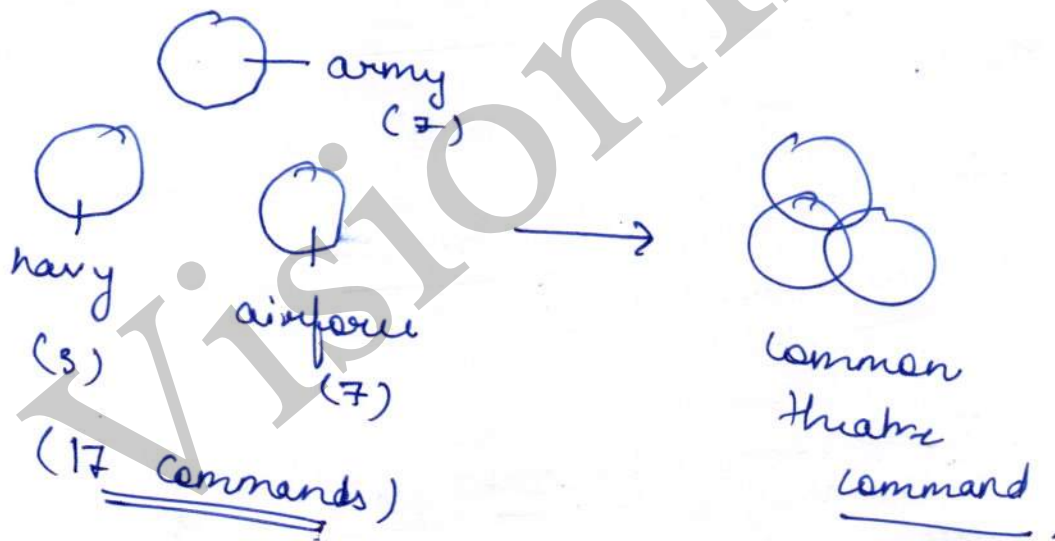
एकीकृत थियेटर कमान का निर्माण करने में सामना की जाने वाली चुनौतियों को ध्यान में रखते हुए, परीक्षण कीजिए कि कमानों का थिएटराइजेशन किस प्रकार तीनों सेनाओं के बीच जनशक्ति और संसाधनों के बेहतर एकीकरण और युक्तिकरण को बढ़ावा दे सकता है। (उत्तर 250 शब्दों में दीजिए)

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

उम्मीदवारों को इस हिसाब में नहीं लिखना चाहिए
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Theaterisation of Commands refers to creating one common pool of human resources from army, navy and airforce for specific purposes.



It can facilitate greater integration and rationalisation of manpower.

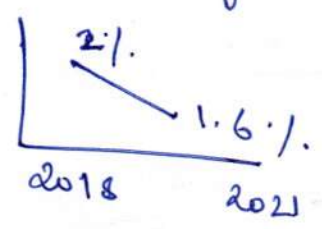
① Promoting economies of Scale:

- ② Creation of common budget ⇒ Reducing burden on defence ministry.
- ③ Combined training of all forces
 - ⊙ Increased fraternity
 - ⊙ Sharing diverse experts experiences.
 - ⊙ Culture of learning.
- ④ Can be deployed for specific purpose. (eg) Theatre force at Andaman and Nicobar.
- ⑤ Better coordination among these forces.
- ⑥ Facilitating unity of command and effective management.

However it will face following challenges :

- ① Lack of integration between these forces ⇒ Prevalence of army.

② Declining defence Expenditure.



- ③ Issue of who will head the theatre command.
- ④ Will ~~compromise~~ ^{compromise} human resources for these specific forces.
- ⑤ Lack of consensus between the three.

Way forward

- ① CDS to act as linking pin.
- ② Starting with phased theatreisation.
- ③ Rotation of chairmanship at regular intervals.
- ④ Inter forces Exercises for better coordination.

DB Shekhatker Committee
can guide us forward

20.

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

Having land border of around 15000 km, guarded by militant Pakistan bordering Myanmar, Expansionist China, and unpredictable Bangladesh; border security becomes crucial.

In this context border villages become important:

- ① Infrastructural development.
- ② connectivity eg DBO old, Bhole Ladia Bridge.
- ③ Act as humanitarian link between the two borders.
eg Mane (uttarakhand and Tibet).
- ④ Development of integrated check points.
eg Raxual.

④ Supporting army operations

- ① Storage of weapons
- ② Supply food, shelter.
- ③ Providing scope for enhanced interpersonal relations.

⑤ Bringing last mile connectivity to the remote areas.

To promote this, government has taken given steps :

- ① Village development Program.
- ② Collaborating with Japan to build border infrastructure.
- ③ Vibrant villages scheme.
- ④ Operation Sadbhavana and kaul for better cooperation.
- ⑤ Environmental awareness upto 600 km of border.

However, following challenges remain:

① Threat to the lives of civilians.
↳ Uri attack.

② Geographical challenges (mountainous border).

③ Lack of effective investment and planning.

④ Mistrust between villagers and army.
↳ Recent manipure case
↳ openfired mistakenly on civilian trucks.

Way forward

① Promoting Sustainable traditional living practices of villagers.

② Creating border village development fund.

This can ensure our intensecurity is 'inclusive' and 'effective'.

SPACE FOR ROUGH WORK

VisionIAS