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NEXT IAS

GS MAINS ADVANCED COURSE 2024

(To be filled by candidate)

TEST CODE : GSMAC2407

Name of Candidate: Sahil MobileRoll No. : GSMAC24 A1253 Start Time 9:20 AMDate of Examination: 10/09/2024 Medium : English ☒ Hindi ☐

Q. No.	Maximum Marks	Marks Obtained	Q. No.	Maximum Marks	Marks Obtained
1	10		11	15	
2	10		12	15	
3	10		13	15	
4	10		14	15	
5	10		15	15	
6	10		16	15	
7	10		17	15	
8	10		18	15	
9	10		19	15	
10	10		20	15	
TOTAL MARKS - 100			TOTAL MARKS - 150		

GRAND TOTAL -/ 250

EVAL CODE: EVAL DATE:

GENERAL INSTRUCTIONS

1. Immediately on receipt of the QCA booklet, please check that this QCA booklet does not have any misprint or torn or missing pages or items, etc. If so, get it replaced by a fresh QCA booklet.
2. Candidates must mention all relevant details like Name, Email, Roll No, Mobile, etc. in the space allocated.
3. Candidate is expected to attempt all 20 questions within the given timeline.
4. Answers must be written in the medium authorized at the time of admission.
5. Candidates must write answers for the specific question under the respective question itself. Any answer written outside the space allotted may not be given credit.
6. Please write neatly. Avoid illegible writing.
7. Do not write/mark irrelevant matters in the QCAB.

सामान्य निर्देश

1. QCA पुस्तिका प्राप्त होने पर कृपया तुरंत जांच लें कि इस QCA पुस्तिका में कोई पृष्ठ या सामग्री आदि गलत छपी हुई या फटी हुई या गायब तो नहीं है। यदि ऐसा है, तो इसे एक नई QCA पुस्तिका से बदल लें।
2. अभ्यर्थियों को सभी प्रासंगिक विवरण जैसे नाम, ईमेल, रोल नंबर, मोबाइल नंबर आदि का आवंटित स्थान पर उल्लेख करना होगा।
3. अभ्यर्थियों से अपेक्षा की जाती है कि वह आवंटित समय-सीमा के भीतर ही सभी 20 प्रश्नों के उत्तर-लेखन का प्रयास करें।
4. प्रत्येक उत्तर, प्रवेश के समय चुनी गयी भाषा के माध्यम में ही लिखे जाने चाहिए।
5. अभ्यर्थियों को विशिष्ट प्रश्न के उत्तर संबंधित प्रश्न के नीचे ही लिखने होंगे। आवंटित स्थान के बाहर लिखे गए किसी भी उत्तर को क्रेडिट नहीं दिया जाएगा।
6. कृपया साफ-सुथरा लिखें। अपठनीय लेखन से बचें।
7. QCAB में अप्रासंगिक तथ्यों को न लिखें / न ही चिह्नित करें।

REMARKS:

FOR OFFICE USE ONLY

<u>Student Concerns / Query</u>	<u>Evaluator's Feedback / Response</u>
1	1
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2	2
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3	3
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<u>MARKING SCHEME *</u>			
Marks Per Ques	Below Average	Average	Above Average
10 Marks	Below 3.00	3.00 - 3.75	4.00 and above
15 Marks	Below 4.50	4.50 - 5.75	6.00 and above

* Subject to change without prior notice.

<u>IMPORTANT QR CODES</u>	
 Topper's Copy	 Common mistake and Correct Filled QCAB
 Copy Scanner App	 Next IAS Test Centre Location

MACRO COMMENTS

The Purpose of evaluation@nextias.com is to provide constructive suggestions on 'How to improve Answer Writing and thereby score better marks.

STRENGTHS OF THE CANDIDATE

AREAS OF IMPROVEMENT



IMPROVEMENT SUGGESTIONS

1. केंद्रीय बजट 2024-25 में दीर्घकालिक पूंजीगत लाभ (LTCG) और प्रतिभूति लेनदेन कर (STT) के संबंध में महत्वपूर्ण परिवर्तनों पर टिप्पणी कीजिए। भारत की बचत और निवेश व्यवस्था पर ऐसे परिवर्तनों के प्रभावों का मूल्यांकन कीजिए।
(10 अंक, 150 शब्द)

Comment on the important changes with respect to the Long-Term Capital Gains (LTCG) and Securities Transaction Tax (STT) in the Union Budget 2024-25. Evaluate the impact of such changes on India's savings and investment regime.
(10 marks, 150 words)

Union - Budget 2024-25
under theme 'Next-generation'
reforms changed various tax-rates
where long-term capital gains tax increased
by 0.02% and securities transaction tax
by 1%.

Need of changes →

- ① Growing stock market → need to increase regulatory overhead.
- ② increasing tax base for increased govt. earning.
- ③ lowering fiscal deficit.
- ④ Modifying people → pitfalls of over-investment.

Evaluation of impact of changes :-

① India's savings regime :-

Positives	Issues
① <u>Long-term holding</u> will benefit	① <u>Issue of investors</u> not putting investment

② Flourishing
bond market

In country

③ More govt. savings

towards securities.

④ Increased burden
on retail investors.

(II) Impact on Investment regime:

Positives

Issues

① Attract long
term capital
investment instead
of short term FPI.

② Boost investment
for private sector.

① India's stock market
is 3rd largest $\Rightarrow$ create
hindrance in
expansion.

② Tax deficit
 $\hookrightarrow$ no contribution
of taxation regime.

Therefore, new taxation
introduced in budget 2024-25
can have multi-vector impacts.

need of how is proper monitoring
and implementation for ensuring
Atmanirbhar Bharat!

2. भारत की एक कल्याण योजना "कोई भी व्यक्ति पीछे न छोड़े" की कहावत के साथ आगत-आधारित दृष्टिकोण से परिणाम-आधारित सशक्तिकरण में परिवर्तन आया है। उपरोक्त कथन के आलोक में, चर्चा करें कि सरकार के दृष्टिकोण में इस परिवर्तन ने समावेशी विकास को किस प्रकार बढ़ावा दिया है। (10 अंक, 150 शब्द)

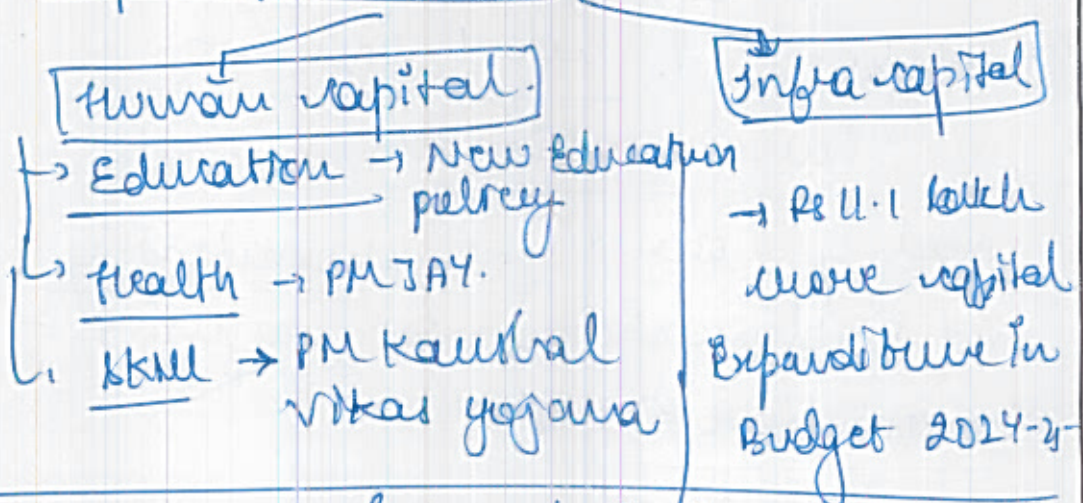
India's welfare scheme has undergone a shift from an input-based approach to outcome-based empowerment with the maxim of "no person left behind". In light of the above statement, discuss how this change in the approach of the government has fostered inclusive growth.

(10 marks, 150 words)

As per OECD, inclusive growth is economic growth with opportunities created for everyone & dividend distributed equally among all sections.

shift from input-based to outcome-based empowerment :-

- ① creating output oriented policies (eg) Output-Outcome budgeting
- ② capital formation motive.



This change fostered inclusive growth.

- ① Increased access to basic necessities

of survival. (eg) New welfareism

LPG

Pub toilets

Internet

② Ensuring food security - "mission" of
no one left behind

(eg) PM Antodaya Anna Yojana.

③ Ensuring housing and access to
clean water.

→ PM Awas Yojana { Rural → Rural house to poor
Urban → streets
→ AMRUT → urban water management

④ Aspirational districts program →
400 blocks targeted for development
from grass roots

⑤ Financial inclusion → (eg) to remove
jan-dhan accounts ensuring
ease of banking and credit facilities

Thus, old approach of input-based
with loan waivers have been
transformed towards 'capability'
approach on lines of Amaritya sen idea

3. भारतीय कृषि की वर्षा आधारित प्रकृति इसे जलवायु परिवर्तन के प्रति अधिक संवेदनशील बनाती है। कृषि की जलवायु-अनुकूलता में गुणवत्तापूर्ण सिंचाई के महत्व पर प्रकाश डालिए। भारत में उपलब्ध सिंचाई पद्धतियों की समग्र दक्षता में सुधार के लिए क्या-क्या उपाय किए जा सकते हैं? (10 अंक, 150 शब्द)

The rainfed nature of India's agriculture makes it more susceptible to climate change. Highlight the importance of quality irrigation in the climate-adaptability of agriculture. What measures can be undertaken to improve the overall efficiency of the available irrigation practices in India?

(10 marks, 150 words)

As per Economic survey,
52% of agriculture is rainfed, thus
irregular nature of monsoon increases
vulnerability of agriculture sector

Importance of quality irrigation in
climate-adaptability of agriculture:

- ① Access to water in dry and arid regions like Marathwada or Rajasthan $\Rightarrow$ ensuring crop & food security
- ② 'Climate resilient agriculture' in case of extreme weather events due to climate change.
- ③ Ensuring productivity and yield due to changing climate (eg) FAO $\rightarrow$ 2°C rise in temperature would lead to 12% fall in agri yield.
- ④ Access to water for livelihood & livestock rearing $\rightarrow$ Integrated farming

Measures to improve overall efficiency of available irrigation practices:

① Technological solutions

→ Drip Irrigation → reducing wastage and improving water use efficiency at roots

→ Monitoring using sensors (e.g. SENSEGR1) tools of measurement

② 'fertigation' → improving fertilizer response ratio with sustainable agri.

③ Revising traditional irrigation system

→ Baoli of Rajasthan

→ 'Mission Kakatiya' in Telangana.

④ 'Agroforestry' → increasing water table by afforestation & avenue plantation

This would reduce our vulnerability and dependency on monsoon & lead to sustainable and resilient agriculture.

4. भारतीय कृषि में पशुधन के महत्व को ध्यान में रखते हुए, विश्लेषण करें कि पशुपालन में निवेश भारतीय कृषि को प्रोत्साहित करने में किस प्रकार मदद कर सकता है। (10 अंक, 150 शब्द)

Considering the importance of livestock in Indian agriculture, analyze how investment in animal husbandry can help in incentivizing Indian agriculture. (10 marks, 150 words)

Livestock rearing's contribution to India's GDP is 4% and contributes to 16% of Agriculture's GVA.



Investment in animal husbandry can help in incentivising Indian agri.:-

- ① Diversify source of income of farmer apart from crop production

- ② Increased "yield of milk" $\Rightarrow$ "doubling farmer's income" & nutritional security (eg) Muroah
- ③ Controlling animal disease (eg) vaccines for dumpy skin disease.
 $\hookrightarrow$ "one health approach"
- ④ Ensuring 'forward linkages' with food processing industries (eg) packaging of meat products.
- ⑤ women's leadership as 75% of rural women are involved
- Issues**
- $\rightarrow$ Low awareness among farmers
 - $\rightarrow$ Poor investment by private sector
- Solutions**
- $\rightarrow$ Dedicated fund (eg) Agri-Infra fund $\Rightarrow$ capital formation
 - $\rightarrow$ Boost credit support (eg) Kisan credit card.

Thus, animal husbandry can enhance agricultural income and ensure nutritional security in "New India".

5. आंध्र प्रदेश में भारतीय लॉरेल वृक्षों (Indian Laurel trees) की खोज ने पेड़ों में पानी को संग्रहीत करने और छोड़ने (store and release) की क्षमता में वैज्ञानिकों की रुचि जगाई है। इस संदर्भ में, पेड़ों में जल परिवहन और भंडारण (transportation and storage) की प्रक्रिया के पीछे के विज्ञान की व्याख्या कीजिए। (10 अंक, 150 शब्द)

The discovery of Indian Laurel Trees in Andhra Pradesh has sparked the interest of scientists in the capacity of trees to store and release water. In this context, explain the science behind the process of water transportation and storage in trees. (10 marks, 150 words)

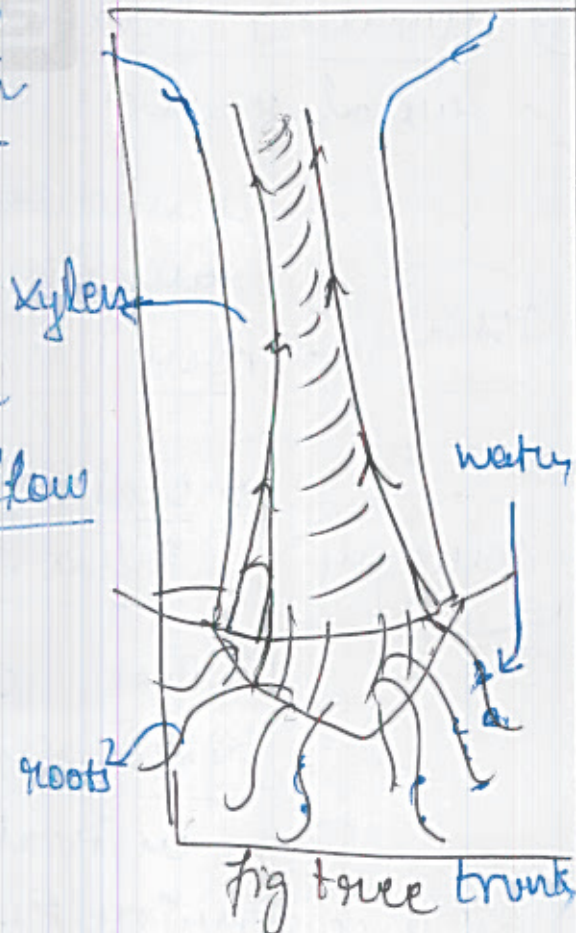
Indian 'laurel trees' stored
water in 'trunk tissues' to ensure
'water availability' throughout season to
fight dry seasons.

science behind process of water
transportation and storage

- ① water absorption
by tap root system
by 'hairy' substances
on roots.

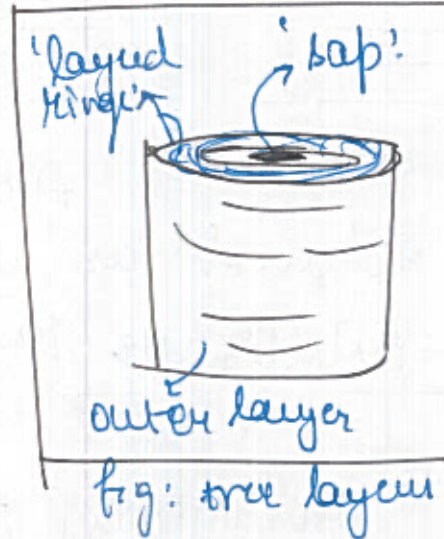
- ② water uptake in
unidirectional flow
by 'xylem tissues'.

- ↳ elongated tracheae
for water
transportation



- ③ Water storage in tree's 'sap'
on 'inner most layer' of trunk

- ④ Water 'usage' by
transportation using
xylem & food
preparation using
'phloem tissues'



way forward

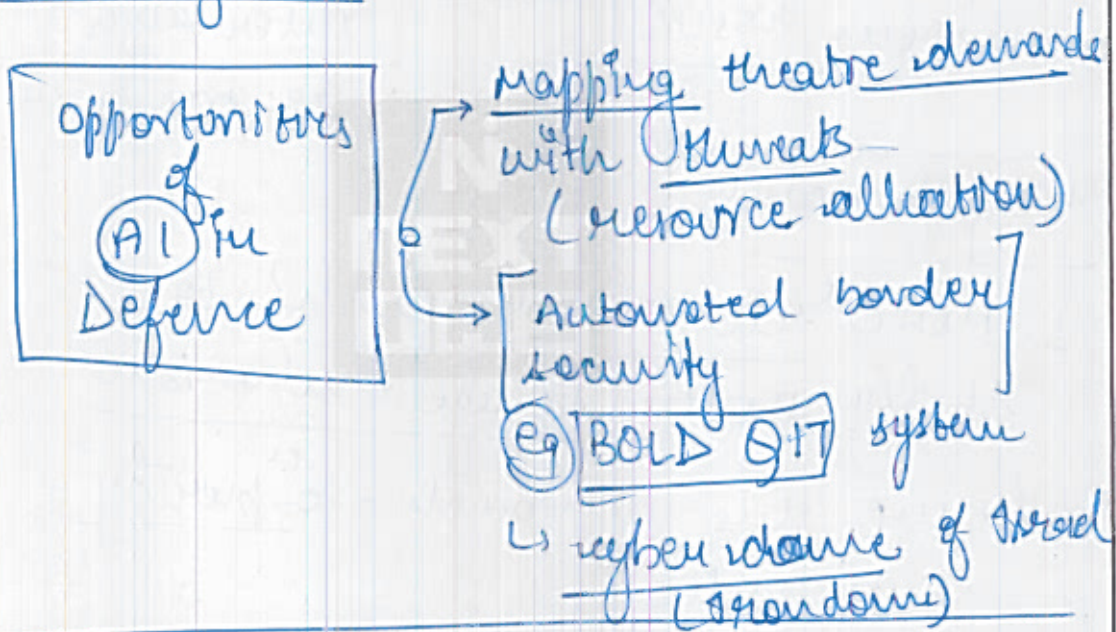
- ① More 'scientific research' to
study water storage mechanism
↳ use this approach to 'purify
waste water'
- ② Ensuring water security in
drought prone areas.

Hence, the remarkable
feat can help address water
security issues and help achieve
national forest policy goal of 33%
forest area.

6. सैन्य क्षेत्र में जिम्मेदार कृत्रिम बुद्धिमत्ता पर हाल ही में आयोजित वैश्विक शिखर सम्मेलन (आरईएआईएम, 2023-responsible artificial intelligence in the military domain) ने सैन्य अनुप्रयोगों में कृत्रिम बुद्धिमत्ता के उपयोग से जुड़े अवसरों, चुनौतियों और जोखिमों को प्रदर्शित किया। इस संदर्भ में, रक्षा और सैन्य अनुप्रयोगों में कृत्रिम बुद्धिमत्ता के प्रभाव का आलोचनात्मक विश्लेषण कीजिए। (10 अंक, 150 शब्द)

The recently conducted global Summit on Responsible Artificial Intelligence in the Military Domain (REAIM, 2023) showcased the opportunities, challenges and risks associated with the use of Artificial Intelligence in military applications. In this context, critically analyse the impact of Artificial Intelligence in defence and military applications. (10 marks, 150 words)

Artificial intelligence is referred as mimicking of human intelligence in machines.



Negative impact of AI in defence and military operations :-

- ① Biasness in AI → may lead to issue of retaliation.
- ② Risk of technology going in hands of non-state actors (eg Terrorist groups).

- ③ Issues of humanoid malfunctioning causing threats to compatriots.
- ④ lead to massive destruction with all countries sending war machines.
- ⑤ Risk in inequality → harms of AI tech
↳ harmful of AI tech
- ⑥ Proliferation of Defence tech & spending.
- some positive → Autonomous systems → less loss of life & property
↳ more precise and effective allocation of resources

Thus way, we must ensure that ethical use of AI is promoted with equitable benefits for all.

7. लोक लेखा समिति ने हाल ही में प्लास्टिक प्रदूषण के बढ़ते खतरे के बारे में चिंता व्यक्त की है। इस संदर्भ में, प्लास्टिक प्रदूषण को रोकने के लिए सरकार द्वारा हाल ही में प्रारम्भ की गई पहलों पर प्रकाश डालिए। (10 अंक, 150 शब्द)

The Public Accounts Committee has recently flagged concerns about the rising menace of plastic pollution. In this context, highlight the recent initiatives taken by the Government to curb plastic pollution. (10 marks, 150 words)

As per data of NOAA
around 68% of world packaging is
done using plastic, creating menace
of plastic pollution

Recent initiatives to curb plastic pollution

- ① Ban on 'Single use Plastics' in 2021 (eg) plastic straws, cups etc
- ② New 'waste management rules' included extended producer responsibility to collect & recycle plastic waste.
- ③ Mission [LiFE] (Lifestyle for Environment) → sustainable & plastic waste free living
- ④ Increasing thickness of plastic

bags to curb the menace of
thin plastics.

⑤ Promoting biodegradable packaging

eg Mandatory use of jute bags
for sugar packaging.

⑥ Sustainable waste management
practices (disposal)

eg Karnachal Pradesh → used
plastics in road making

This way steps have been
taken at national level. This
year world Earth day's theme
was also Planet vs Plastics showcasing
our common efforts in creating
a plastic free planet.

8. भूस्खलन एक प्राकृतिक घटना के बजाय मानव-प्रेरित घटना बन गई है। भूस्खलन की बढ़ती घटनाओं के कारणों पर प्रकाश डालें और आपदा को कम करने के लिए क्या उपाय किए जा सकते हैं। (10 अंक, 150 शब्द)

Landslides have become more of a human-induced phenomenon rather than a natural phenomenon. Highlighting the reasons for increasing incidences of landslides, suggest measures that can be undertaken to mitigate the disaster. (10 marks, 150 words)

India has 12% of its area as landslide prone as per ISRO's vulnerability index.

Recent landslide in Kerala, wayanad brings about human hand behind landslides.

Reason for increasing landslides:-

- ① Rampant cutting of mountains for development eg Himachal's shinku highway frequent landslides.
- ② Population pressure induced by high tourism eg Uttarakhand landslides
- ③ Deforestation and cutting trees is loose soil leading to landslides.
- ④ water percolation stopped due to concretisation $\Rightarrow$ landslides.

Measures to mitigate disaster :-

- ① Proper Environment Impact Assessment of project in mountainous region.
- ② Ecotourism practices → lowering risk of landslides (eg) according to carrying capacity
- ③ Afforestation drives & Ecosensitive zones to soil work & prevent landslides.

This way we can prevent loss of lives and property. Early warning systems and vulnerability mapping of sites is way ahead

9. राष्ट्रीय सुरक्षा के लिए खतरे धीरे-धीरे "भौगोलिक" से "विषयगत" (thematic) में बदल गए हैं। इस संदर्भ में, आंतरिक सुरक्षा की समकालीन चुनौतियाँ (contemporary challenges) क्या हैं और ऐसी चुनौतियों से निपटने के लिए क्या उपाय किए जा सकते हैं? (10 अंक, 150 शब्द)

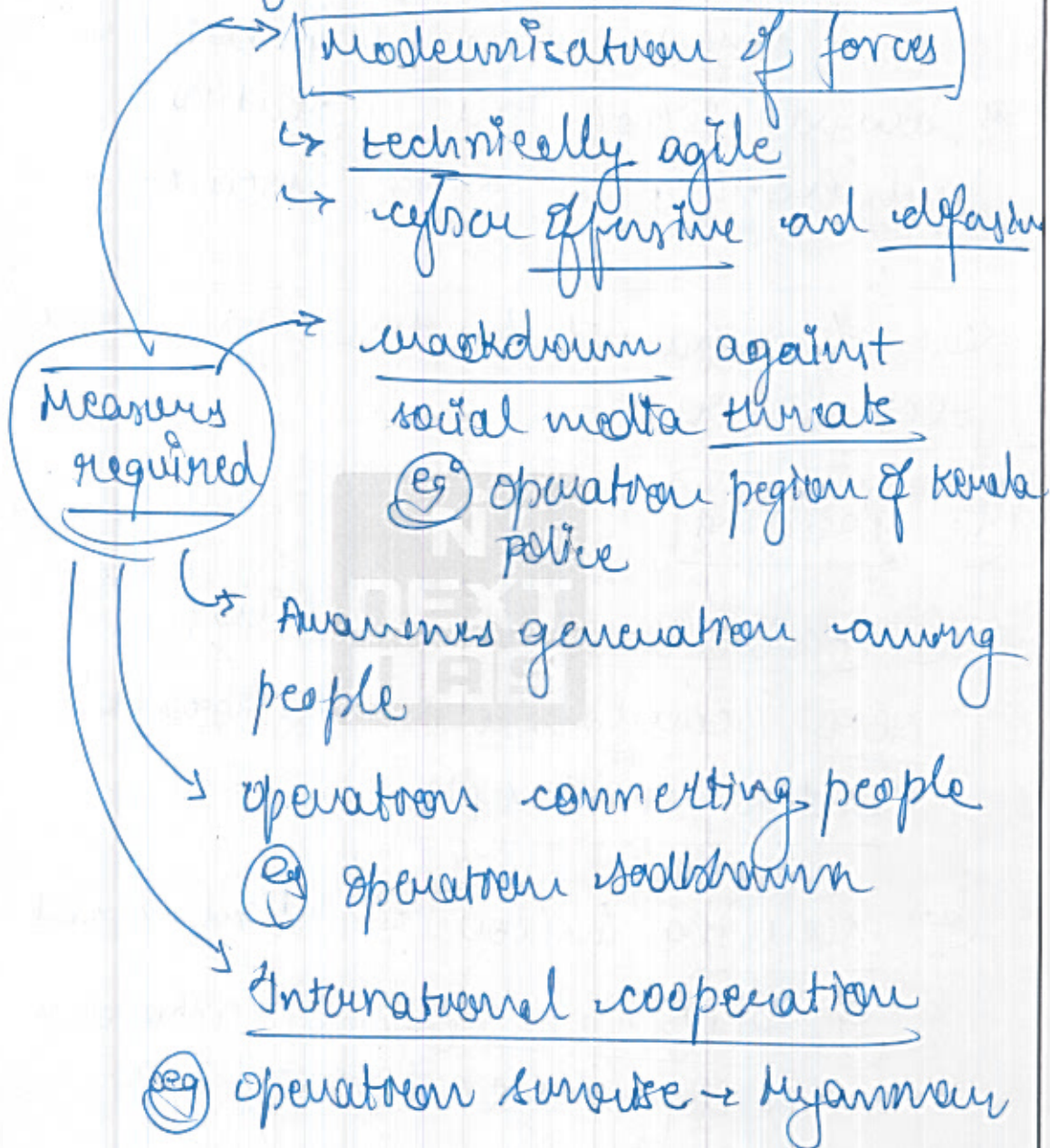
The threats to national security have gradually transformed from being "geographic" to being "thematic". In this context, what are the contemporary challenges of internal security and what measures can be undertaken to deal with such challenges? (10 marks, 150 words)

National security threats
have transformed due to increased
thematic platform like cyber space,
role of AI etc

Contemporary challenges of internal security :-

- (1) Naxalism → both rural and urban naxalism as it is ideological warfare
- (2) Cyber crimes (eg) shadow pad attack on Mumbai Grid
- (3) Social media issues (eg) Radicalisation of youth
- (4) Organised workers and hybrid militancy in Kashmir.
- (5) Money Laundering due to

Increased usage of cryptocurrency
in organised crimes.



This way, Indian National
security can be maintained with
SMART policing

10.

भारत के सीमा सुरक्षा ढांचे को मजबूत करने और सीमा पार खतरों से निपटने में उन्नत सीमा निगरानी प्रौद्योगिकियों (enhanced border surveillance technology) की भूमिका का मूल्यांकन कीजिए। (10 अंक, 150 शब्द)

Evaluate the role of enhanced border surveillance technologies in bolstering India's border security framework and addressing cross-border threats. (10 marks, 150 words)

India has long border
of around 15000 km creating
vulnerability for India's security

Role of enhanced border surveillance technologies :-

(I) Positioning

(1) Radar based monitoring (eg
CBMS / comprehensive integrated
border input system)

(2) securing inflow of illegal migrants

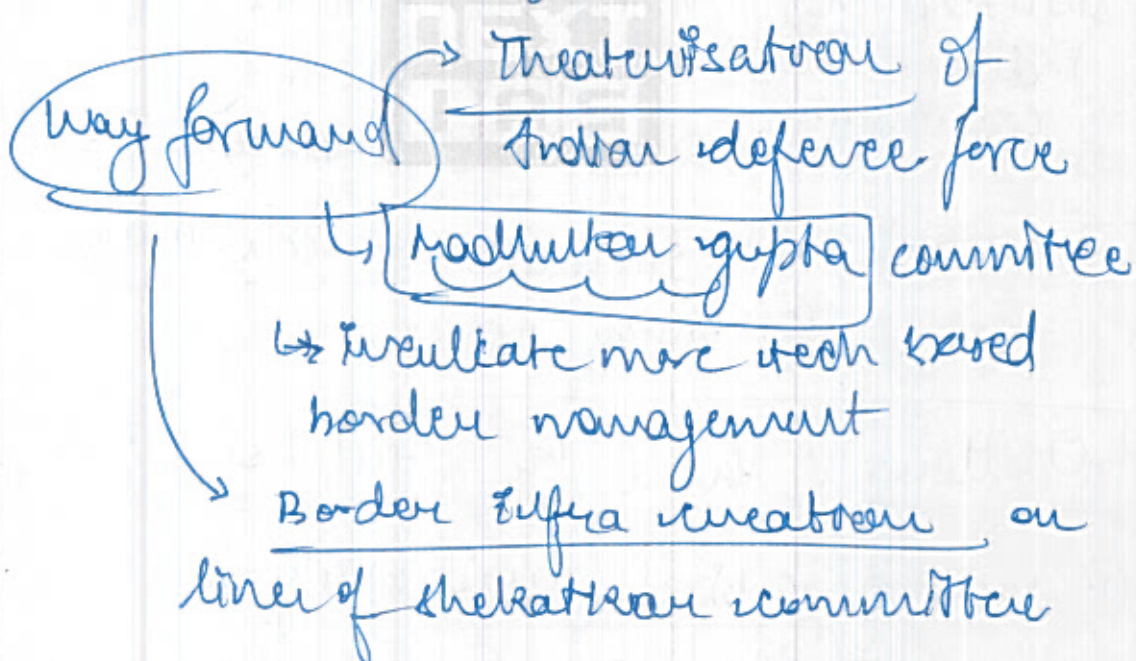
(eg) BOLD GRT (Border electronically
developed GRT interception
technology)

(3) Automated substation technique

(eg) western border with
drug based smuggling

(II) Issues

- ① Very long border → not comprehensive coverage
- ② Issues in maritime border security
- ③ Technology dependency needs to be integrated with defence force strategies.



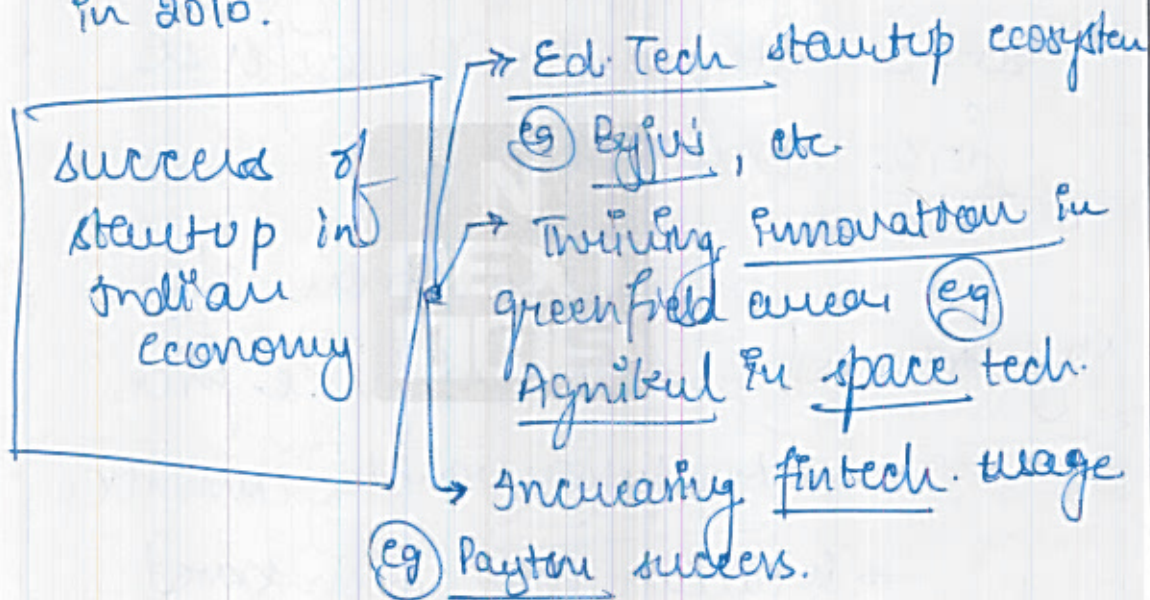
A secured border is necessary for secured and prosperous India

11.

जबकि भारत में स्टार्टअप्स ने अर्थव्यवस्था में उद्यमशीलता और नवाचार को बढ़ावा देने में उल्लेखनीय सफलता हासिल की है, भारत में स्टार्टअप्स की स्थिरता को चुनौती देने वाले कुछ संरचनात्मक मुद्दे हैं। स्टार्टअप्स के सामने आने वाली इन चुनौतियों पर प्रकाश डालें और समस्याओं के व्यावहारिक समाधान सुझाएं। (15 अंक, 250 शब्द)

While startups in India have achieved notable success in fostering entrepreneurship and innovation in the economy, there are certain structural issues challenging the sustainability of startups in India. Elucidate upon these challenges faced by startups and recommend practical solutions to the problems. (15 marks, 250 words)

India's startup system has boomed in past decade with around 111 unicorn startups in 2022 from 0 in 2010.



Challenges faced by startups :-

- ① Lack of capital availability in terms of investors (eg) More than 100 startups failed due to lack of continued investments.
- ② Low availability of skilled labour
(eg) India skills report - only 50% of educated youth employable.

- ③ Lack of diversified startup ecosystem areas (eg) Gurgaon, Bangalore, Hyderabad only major startup hubs
- ④ Lack of initial business sustainability 'incubation centres' for training entrepreneurs.
- ⑤ ~~Ex~~ External influences (eg) Ed-Tech bubble burst due to lack of demand post COVID recovery.
- ⑥ Infrastructure issues → low availability of infrastructure for industry based startups.
- ⑦ Delayed payments to MSMEs and startup overflow due to dependency of startup - industry linkage.

Practical solutions to issues →

- ① incubation centres for booming startup culture across India.

- ② Promoting Innovation among youth (eg) More schemes like Atal thinking labs
- ③ Organising investors summit to give platform for entrepreneurs to access to credit (eg) Shank tank model
- ④ ~~By~~ Increasing 'Infra availability' for industry based startups.
- ⑤ Registering startups for 'PLI' schemes
- ⑥ Ensuring availability of skilled manpower
↳ schemes like PM Kaushal vitar
Yojana 4.0.

This way, startups could be utilised to take India towards goal of 'Atmanirbhar Bharat'.

12. भारतीय रेलवे के बुनियादी ढांचे के आधुनिकीकरण में सार्वजनिक-निजी भागीदारी की प्रभावशीलता का आलोचनात्मक मूल्यांकन कीजिए। सुरक्षा क्षेत्र को रेलवे के लिए प्रमुख चुनौतियों में से एक मानते हुए, भारतीय रेलवे के समग्र सुरक्षा मापदंडों में सुधार के लिए क्या उपाय किए जा सकते हैं? (15 अंक, 250 शब्द)

Critically evaluate the effectiveness of public-private partnerships in the modernization of railway infrastructure in India. Considering safety as one of the major challenges for railways, what measures can be taken to improve the overall safety parameters of Indian Railways? (15 marks, 250 words)

Recently FDI limit was eased in railway infrastructure segment to 100% automobile route signifying involvement of private sector in railways.

Also, Bharat gaurav train with public-private partnership started in 2023.

Effectiveness of PPP in railway modernisation :-

(I) Issues of PPP →

(1) Increased cost of railway services along with increased transportation costs.

(2) Burden on common man

Taxes

Increased cost of travel

(3) 'Increased speed of trains' by Mission Raftaar → increasing

vulnerability to disasters.

④ Implementation challenges

(eg) Rakesh Mohan committee →
departmentalisation creating
bureaucracy in PPP model.

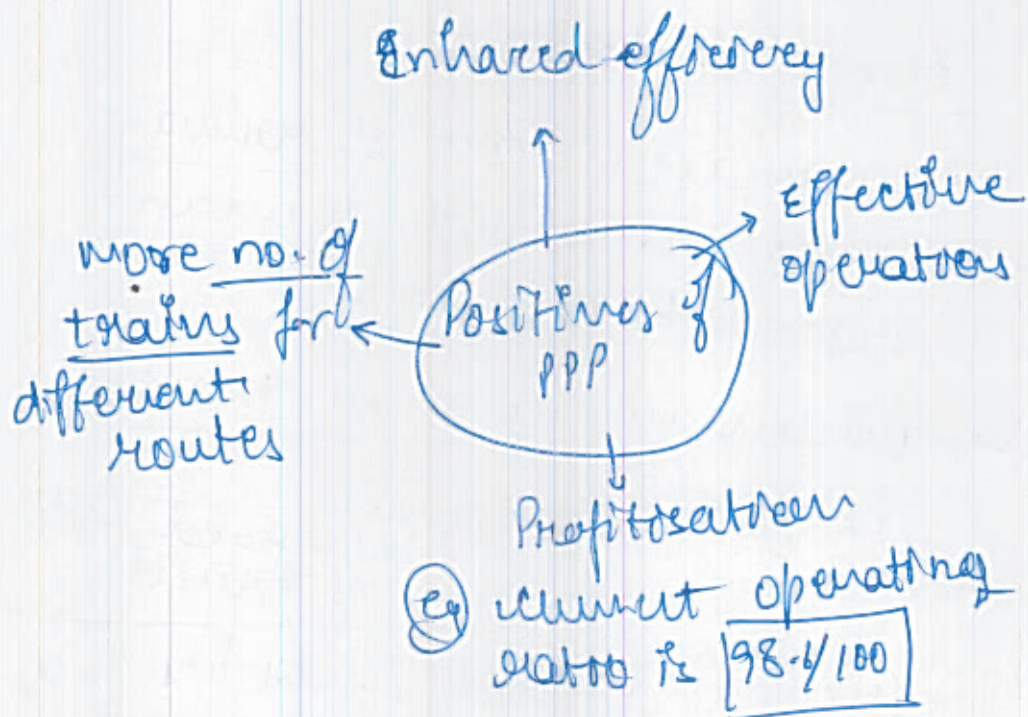
⑤ Dependency of people on railways

→ (eg) 23 million daily passengers.

↓
Privatisation

↓
Decreased access to cheap transport.

However, there have been certain
positives as well. :-



Measures to improve safety features:

- (1) using radar based flaw detection systems in rakes
↳ most common reason of de-railments

- (2) Technological solutions

↳ Train Collision Avoidance system
in all train

↳ KAVACH - indigenous system
to ensure safety of railways

- (3) Transitioning to more safer
German model - "Lütkle Hoffman
Busch" train designs (Anil Kakodkar
recommendation)

"They, as per Rakesh Mohan committee we must first ensure safety and security of railways before involving private sector."

13.

“अगर डपज समय पर हमारी थाली तक पहुँच जाए तो खेती लाभकारी हो जाती है।” इस संदर्भ में, भारत में कृषि विपणन और परिवहन क्षेत्र के समक्ष आने वाले अपस्ट्रीम और डाउनस्ट्रीम मुद्दों पर प्रकाश डालिए। इस क्षेत्र की समग्र दक्षता में सुधार के लिए कौन-सी पहलें प्रारम्भ की जा सकती हैं? (15 अंक, 250 शब्द)

“Farming becomes remunerative if the produce reaches our plates in time”. In this context, highlight the upstream and downstream issues faced by the agriculture marketing and transport sector in India. What initiatives can be undertaken to improve the overall efficiency of the sector?

(15 marks, 250 words)

India has high logistics cost along with delays in transportation resulting in issues of agri marketing.

Issues faced in agri marketing and agri transportation :-

(I) Downstream & Upstream Issues :-

- (1) Low connectivity to food processing industries (eg) only 2% of fruits are processed.
- (2) Lack of 'cold storage chains' increasing perishability issues and food wastage. (eg) 30-35% food wasted annually.
- (3) Low transportation modes from 'farm-gate' pickup service.
- (4) Delays in 'freight trains' → lack of dedicated freight corridors.

⑤ Low market availability leading to distress sale in mandi's.

⑥ Upstream Downstream Issues →

① Low access to credit

↳ issue of moneylender's debt system

② Lack of transporters in agri-sector → mostly industrial goods supplier

③ low market e-markets for farm produce.

Initiatives to improve overall efficiency of sector :-

① 'Urbanisation of agriculture'

↳ Demand based transportation system

② Booming startup culture for modern farming

eg Promoting Agri Hydroponics in cities itself → no issue of transportation

- ③ Increased marketing availability as per recommendation of Ashok Dalwai committee
"include private sector."
- ④ 'Cropping pattern' as per climate and marketing availability
(eg) sugarcane in south India due to large no. of mills.
- ⑤ Infra creation (eg) Cold chain storage
- ⑥ Mixed models of transportation
(eg) RoRo model → Roll on Roll off
integrating road-railway-waterway model
- ⑦ Dedicated food transportation corridors (eg) KISAN RATH, Kisan rail etc

This way agriculturists could be transformed into agri-preneurs by market access and transportation linkage.

14. भारत की कृषि संबंधी निर्यात-आयात की नीतियां किसानों के बजाय उपभोक्ताओं की ओर अधिक झुकी हुई हैं। दिए गए कथन के आलोक में, किसानों पर आयात और निर्यात नीतियों के प्रभावों का आलोचनात्मक विश्लेषण कीजिए। किसानों को आयात-निर्यात संबंधी मूल्यों के दहशत से बचाने के लिए क्या उपाय किए जा सकते हैं? (15 अंक, 250 शब्द)

India's agriculture export-import policies are tilted more towards the consumers rather than the farmers. In light of the given statement, critically analyze the impact of import and export policies on farmers. What measures can be undertaken to shield farmers from import-export price shocks? (15 marks, 250 words)

India is a net exporter of agriculture goods with around \$50 Billion export in 2022.

However, it is mostly tilted towards consumers and not farmers :-

- Export of goods like sugar etc.
 - Beneficial to consumers
 - Agriculture (water export) as it is water guzzling crop.
- A non-remunerative price of goods exported as daily consumption goods have low income elasticity in demand.

Impact of import & export policies on farmers :-

- ⑩ Oil seeds import of 80% → leads to price variability as

per international market $\Rightarrow$ low remuneration to poor farmer

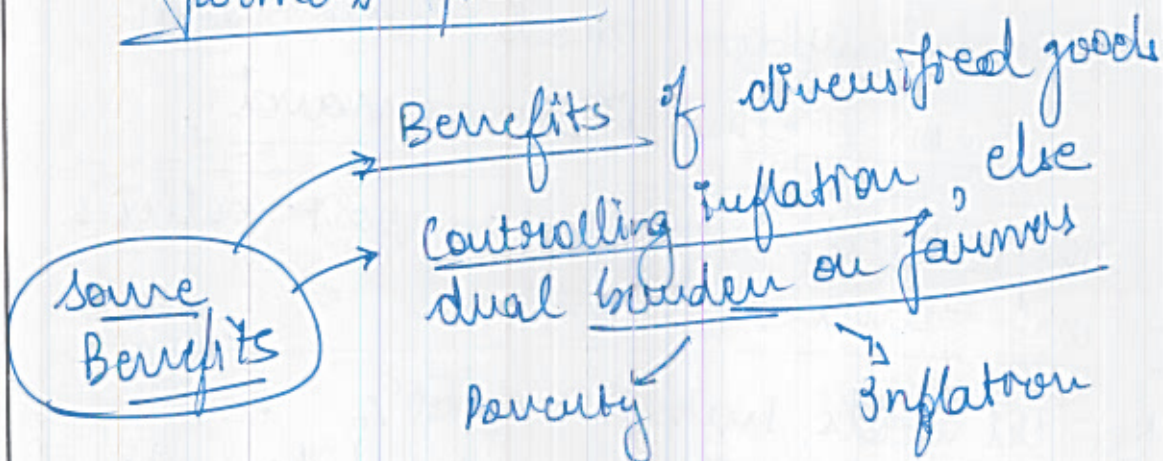
- ② 'Ban ~~of~~ on export' of commodities like onion, potatoes to control consumer price index

$\hookrightarrow$ 'Low price' of goods for farmers.

- ③ Exporting products with international demand. $\Rightarrow$ finished products and not 'farm produce'

$\hookrightarrow$ ~~Benef~~ Benefits industries and not farmers.

- ④ Import of other products like 'exotic fruits' rather than promoting consumption and marketing of farmers' fruits.



Measures to shield farmers :-

- ① farmer specific policies
↳ involve them in decision & policy making.
- ② Export - Import impact assessment on farmer income.
- ③ Increased forward - backward linkages to ensure farmer gets remunerative price for produce.
- ④ Capacity building and nudging farmers towards profit oriented farming (eg) MSP on millet production → promoting its consumption.

Hence, farmers can & increase their income and are protected from price variability in market based marketing model.

15.

चिकित्सा विज्ञान में भारत की उन्नति, भारत की पहली कैंसर रोगी के इलाज के लिए CAR-T सेल थेरेपी का उपयोग करने में सफलता में परिलक्षित होती है। कैंसर और संबंधित बीमारियों के इलाज में CAR-T सेल थेरेपी के कामकाज और प्रभावशीलता पर चर्चा कीजिए। (15 अंक, 250 शब्द)

India's advancement in medical science is reflected in India's success in using CAR-T cell therapy to treat the first cancer patient. Discuss the working and effectiveness of CAR-T cell therapy in treating cancer and related diseases. (15 marks, 250 words)

Recently CDSCO gave licence to NexCAR 19 → India's first CART cell therapy reflecting our advancement in medical science.

Working of CAR-T cell therapy →

- ① Patient's blood sample taken
- ② Introducing 'chimeric - antigen receptor' on T-cells (lymphocytes)
- ③ CD19 protein
- ④ Multiply T-cells autogeneally
- ⑤ Infuse back to patient



- (5) T-cell (lymphocytes) target cancer cells with CD19 protein and kill them.
- (6) cured patient of cancer cells.

Effectiveness of CAR-T cell therapy

(I) Positives

- (1) More precise as it targets proteins only programmed by chimeric antigen receptor.
- (2) Timely treatment → only 2-3 sittings compared to monthly long chemotherapy.
- (3) Better effectiveness and survival rate. globally
- (4) cheaper indigenously rather than price ^{internationally} However, there have been certain apprehensions regarding use of CAR-T cell therapy & —

(II) Issues —

- ① Too much lymphocyte toxicity causing fever like inflammation and cell mass death.
- ② Large scale cancer cells :-
 - ↳ T-cell attack might result in organ failure
- ③ Nascent technology
 - ↳ need more research and testing before commercial usage
- ④ More expensive than chemo-therapy
 - ↳ Inequality in health care

This way, CAR T cell therapy must be made equitable for all in society.

16. भारत के गगनयान मिशन और भारतीय अंतरिक्ष स्टेशन का मुख्य उद्देश्य क्या है? किन अन्य देशों ने अंतरिक्ष में अपने मानवयुक्त मिशनों को सफलतापूर्वक लॉन्च किया है? गगनयान मिशन और उससे संबंधित भारतीय अंतरिक्ष स्टेशन के सफल क्रियान्वयन के लिए कौन सी प्रमुख प्रौद्योगिकी की आवश्यकता है? साथ ही, इन मिशनों से जुड़ी चुनौतियों को भी स्पष्ट कीजिए।

(15 अंक, 250 शब्द)

What is the main objective of India's Gaganyaan Mission and Bharatiya Antariksha Station? Which other countries have successfully launched their manned missions into space? What major technologies are required for the successful execution of the Gaganyaan Mission and related Bharatiya Antariksha Station? Also, elucidates the challenges associated with these missions.

(15 marks, 250 words)

India plans to launch
Gaganyaan mission by end of 2024
and plans to build its own Bharatiya
Antariksha station by 2035.

Main objectives →

Gaganyaan mission

→ Take 2 astronauts to low earth orbit and take them back safely
→ Perform scientific experiments in zero gravity space

Bharatiya Antariksha mission

→ Indigenously built space station in low earth orbit
→ Place for staying and experiments
→ Showcase India's scientific capabilities in space sector

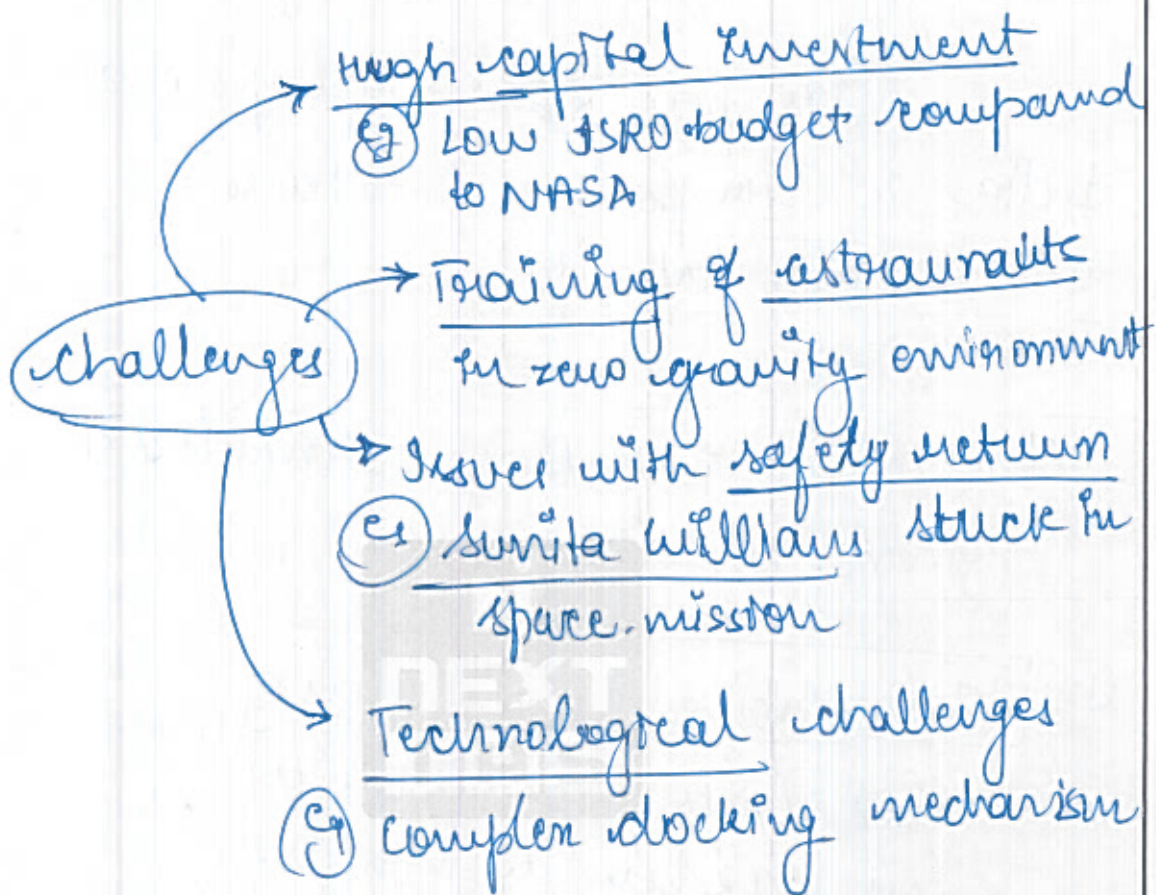
Countries with successful launch of manned mission into space :-

- ① Russia's Roscosmos → Luna missions.
- ② USA & NASA → moon manned missions
- ③ China

Major technologies required for successful mission :-

- ① Pad abort mission tests → for safe abortion of mission in earth's atmosphere.
- ② Human rating of spacecraft to ensure safety of astronaut in space.
- ③ Communication technology for connection to ground station
- ④ Orbiting Antenna ~~test~~ station tech
 - ↳ spacecraft interlocking and docking system to park spacecraft on station
 - ↳ Gravity based system

↳ Energy and power → solar and small modular nuclear reactors.



way forward

↳ Budgetary pool to be increased

↳ collaboration with other nations

(eg) France, Russia for training

This way, India would be able to achieve feat of space odyssey like it did by Chandrayaan 3 landing in 2023

17. "भारत की अपतटीय पवन ऊर्जा के क्षेत्र में उच्च क्षमता है, लेकिन कार्यान्वयन अभी भी कम है।" अपतटीय पवन ऊर्जा के दोहन में बाधा डालने वाली चुनौतियों पर चर्चा करें और संभावित समाधान सुझाएँ। (15 अंक, 250 शब्द)

"India's offshore wind energy has high potential but remains low on implementation". Discuss the challenges impeding the harnessing of offshore wind energy and suggest possible solutions.

(15 marks, 250 words)

As per REN energy report
India is 4th position in terms of
wind energy capacity.

Challenges impeding harnessing of
offshore wind energy

- ① High capital investment
↳ ~~loss~~ high fiscal deficit &
low ~~tax~~ tax base in India
- ② Technology development and
installation issues.
- ③ Biodiversity challenges :-
(eg) NOAA → wind farms lead to
threat of flying birds.
- ④ Apprehension among people
(eg) People do not like wind
turbines in neighbourhood

5. Delays in implementation

(eg) land acquisition issues.

6. Policy prioritisation :-

(eg) Move focus on solar based energy with target of 280 GW by 2030.

7. Low private sector participation in wind energy projects.

8. Operations and management issues

(eg) Lack of skilled workforce.

Solutions to these challenges :-

1. Policy coherence and prioritisation
↳ inculcating targets for wind energy both offshore and onshore

2. using technological solutions

(eg) Bird deterrents to lower biodiversity impact.

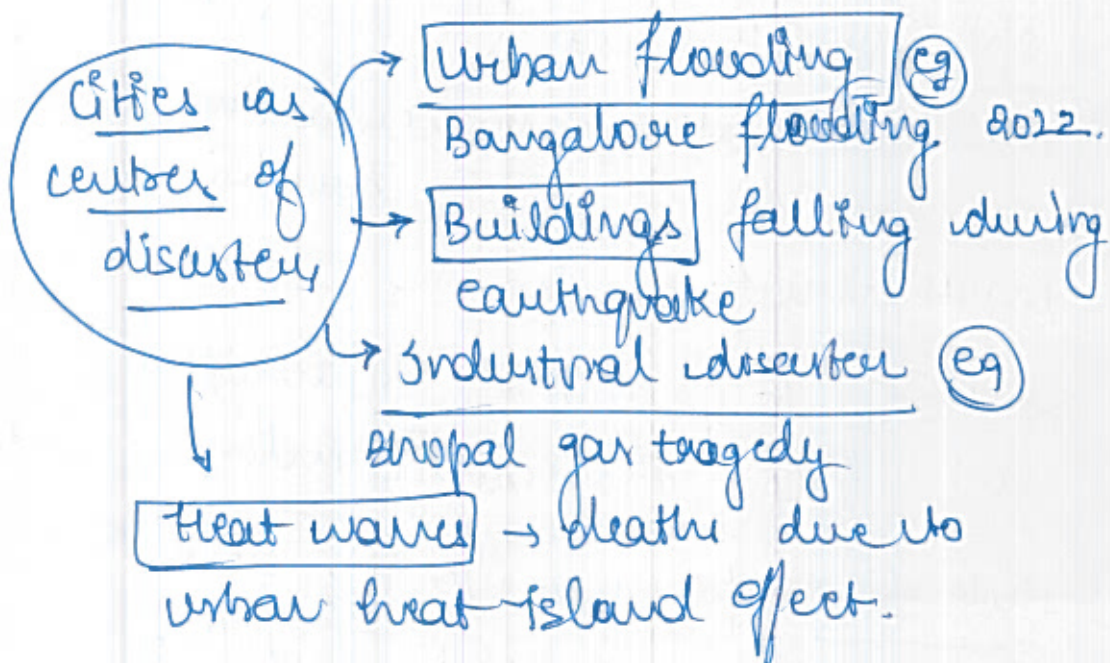
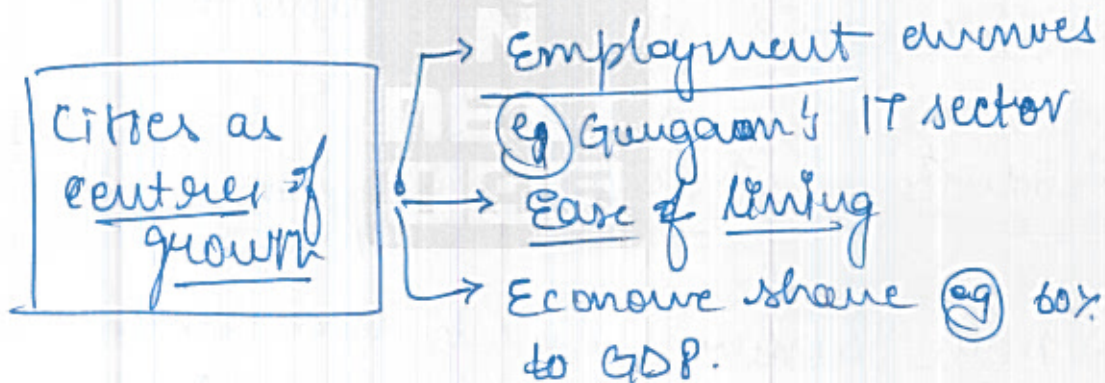
- ③ PLI support for wind turbines
↳ include private participation.
- ④ Research and development to
improve transportation
energy losses to minimum.
- ⑤ campaign for social acceptance
and solving land acquisition issues
- ⑥ ULIN based ecosystem

Thus, wind energy has potential to increase renewable energy capacity and achieving goal of anchoring with 50% installed energy by 2030.

18. विकास के केंद्र होने के अलावा, शहरी क्षेत्र आपदा जोखिमों के संचय के केंद्र भी हैं। मेगा-शहरी समूहों (Mega urban cities) में आपदा प्रबंधन विशेष रूप से जटिल क्यों है? शहरी क्षेत्रों में आपदा प्रबंधन और जोखिम न्यूनीकरण की समस्याओं को दूर करने के लिए क्या उपाय किए जा सकते हैं? (15 अंक, 250 शब्द)

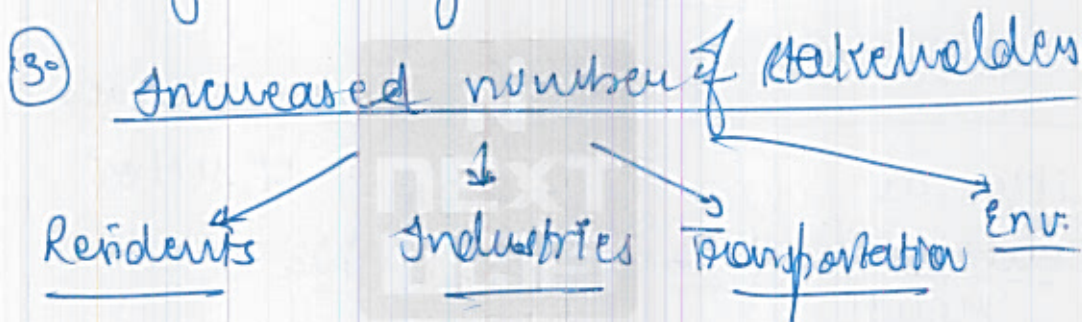
In addition to being the centres of growth, urban areas are also centres of accumulating disaster risks. Why is disaster management particularly complex in mega-urban cities? What measures can be undertaken to address the problems of disaster management and risk reduction in urban areas? (15 marks, 250 words)

Urban areas refer to areas with more population involvement in service and industrial sector boosting India's GDP as 3% of area contribute 60% to GDP.



Disaster management is complex in mega-urban cities as:-

- ① Expansive nature of urban areas in haphazard way eg urban sprawl
- ② Lack of urban local governance power devolution to municipalities by state government.



- ④ More pressure due to increased opportunities causing issues in management eg overcrowding in Mumbai.
- ⑤ Requirement of housing for all
↳ leads to sprawl of slum and high Footsquare index.
- ⑥ lack of proper monitoring and implementation of safety guidelines

Measures to address risk reduction

- ① Bottom up governance
 - ↳ include Urban local govt. in planning and monitoring
- ② Planned cities like Chandigarh to counter future disasters.
- ③ vulnerability mapping and action plan as per region needs
 - ↳ flooding in Mumbai.
 - ↳ desertification in Jaipur
- ④ Using technology
 - ↳ Early warning system for urban flooding
 - ↳ regular inspection of buildings for fault.

hence, disaster resilient cities are required to boost India's growth and achieving goal of \$5 Trillion economy along with safety.

19.

भारत की आंतरिक सुरक्षा के लिए सोशल मीडिया और नेटवर्किंग साइट्स द्वारा उत्पन्न खतरों पर चर्चा कीजिए। सूचना और प्रौद्योगिकी नियम, 2021 के तहत तथ्य-जांच इकाइयाँ (FCU) सोशल मीडिया पर फर्जी खबरों के प्रसार के समग्र खतरे को नियंत्रित करने में किस प्रकार मदद करती हैं? सरकार द्वारा तथ्य-जांच इकाइयाँ (फैक्ट चेक यूनिट) स्थापित करने के बारे में प्रेस प्रसारकों और डिजिटल मीडिया प्रतिभागियों की क्या-क्या चिंताएँ हैं? (15 अंक, 250 शब्द)

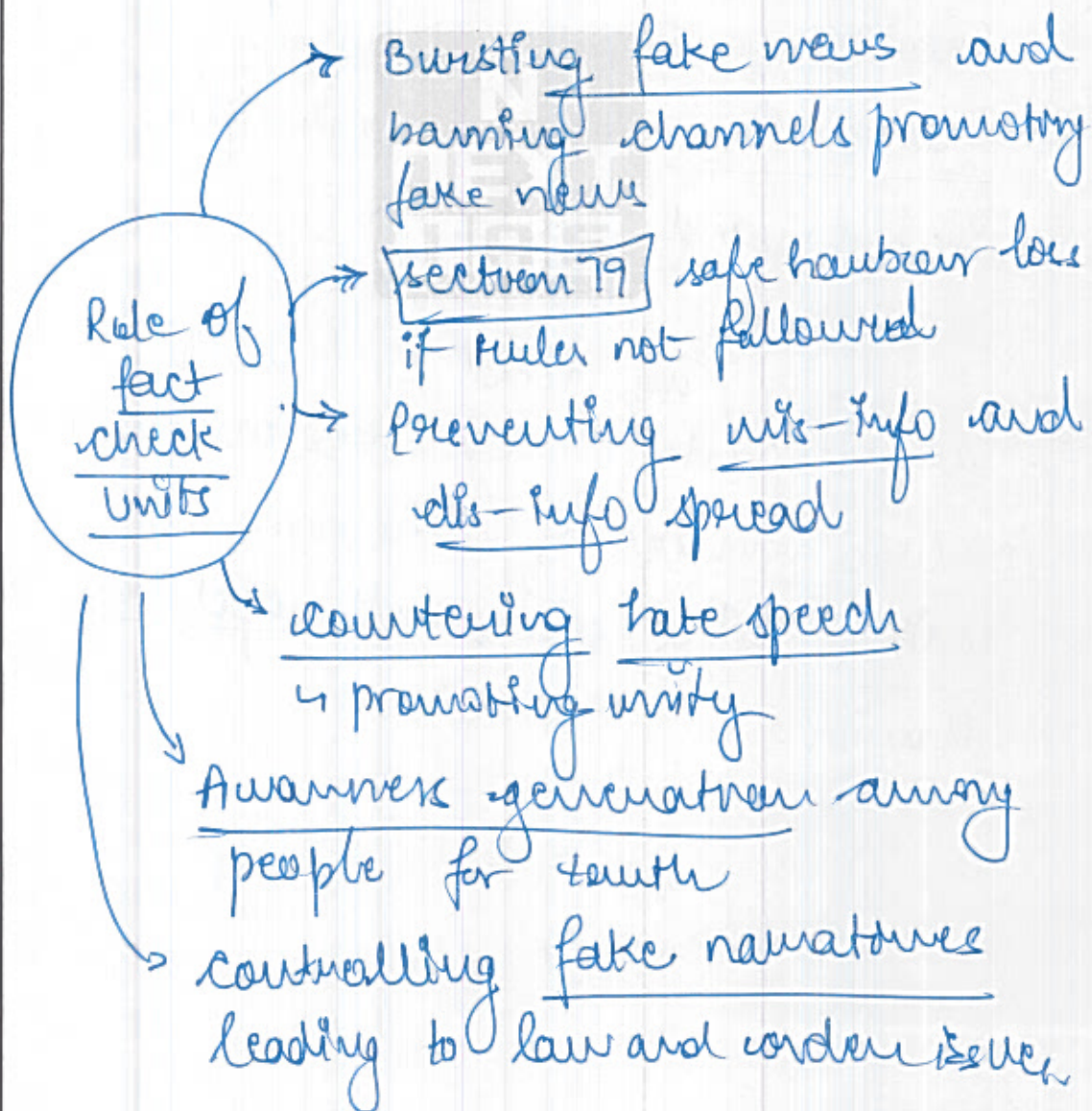
Discuss the threats posed by social media and networking sites to the internal security of India. How do the fact-check units (FCUs) under Information and Technology Rules, 2021 help in controlling the overall menace of the spread of fake news on social media? What are the concerns of press broadcasters and digital media participants about the Government establishing fact-check units? (15 marks, 250 words)

cyber security forms
Integral part of internal security
with protection in the virtual
domain

Threats by social media and
networking sites :-

- ① Platform for radicalisation (eg) youth in Kerala by ISIS groups on telegram app.
- ② Changing ideology → love warrior creation (eg) Echo chamber effect of social media on isolated individuals.
- ③ Dens of fake news creating issues of law and order (eg) fake news of attacks on North East people in bangalore.

- ④ Recruitment platform for terrorist groups (eg) using game chats stream
- ⑤ Access to technology with terrorists for training (eg) online training & tutorials.
- ⑥ Boost to communal ideology
(eg) Issues of Love Jihad, UPSC Jihad etc.



Concessions of press broadcasters and digital media participants :-

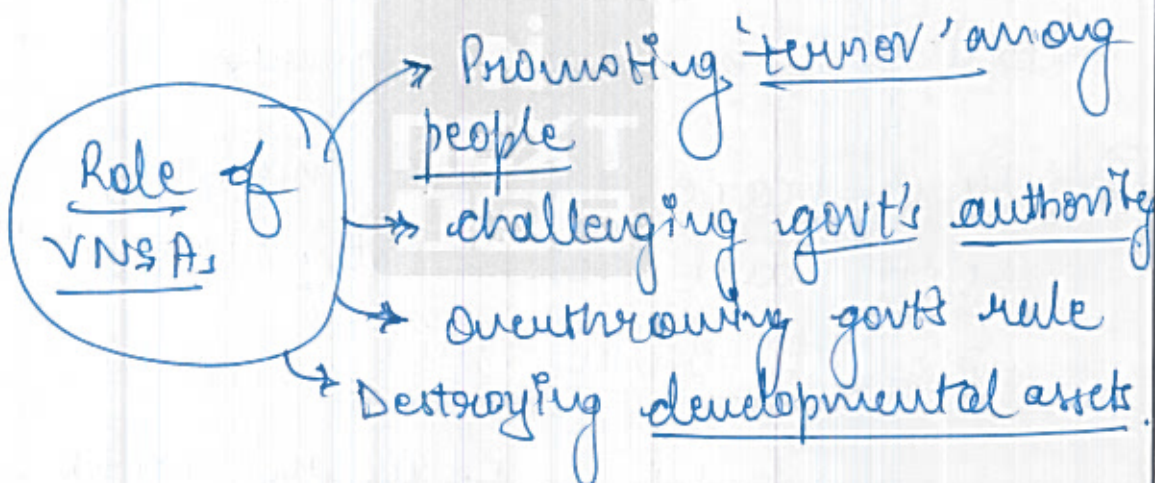
- ① curbing right to freedom of speech and expression by fact check units
- ② Tyranny of 'ruling power' and executive using fact check unit
- ③ Creating politically biased narratives against principles of press and journalism.

Thus, need of how is
of an independent regulatory authority
to curb menace of fake news on
social media along with apologetic
behavior

20. कश्मीर घाटी में हिंसा भड़काने में हिंसक गैर-राज्य अभिकर्ताओं (वीएनएसए-अपवसमदज Non-state actors) की भूमिका पर प्रकाश डालते हुए, चर्चा कीजिए कि सशस्त्र बलों द्वारा "ऑपरेशन सद्भावना" स्थानीय युवाओं की आकांक्षाओं को संबोधित करके वीएनएसए-ओजीडब्ल्यू (ओवर ग्राउंड वर्कर्स) गठजोड़ से कैसे निपट सकता है। (15 अंक, 250 शब्द)

By highlighting the role of Violent Non-State Actors (VNSAs) in inflicting violence in Kashmir valley, discuss how "OPERATION SADBHAVNA" by armed forces can tackle the VNSA-OGW (Over Ground Workers) nexus by addressing the aspirations of local youth. (15 marks, 250 words)

Recently Kashmir militancy was seen as uprise trend with attacks in Maeri district and Jammu district causing concern from violent non-state actors.



Operation SADBHAVNA can tackle VNSA-OGW issues :-

- ① creating dialogues and discussion with young and people to know issues of people better.
- ② compassionate way of dealing thus filling trust deficit and

closing rift lines.

- 3) Involving youth in military affairs
solves 2 issues of :-

↓
Employment

↓
Info dissemination

- 4) Creates rifts among overground
workers and non-state actors
leading to break up of network.

- 5) More peace in Kashmiri
society and better integration at
with all India level.

- 6) More development in the area
with Kashmiri people led
growth instead of top-down
approach.

Issues → Hybrid terrorist attacks
→ New theatres of war
↳ eg cyber attacks.

way forward :-

2 front war

↳ operation sodbhana

↳ delinking of nexus
with non-state actors

↳ crackdown
of violent
actors

→ cyber
offensive &
defensive
strategies

This way, normalcy in Kashmir
can be established with development
touching all segments of
society

NEXT IAS

Space for Rough Work

NEXT IAS

Space for Rough Work

NEXT IAS

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2. Do not write anything other than the actual answers to the questions anywhere inside your QCA Booklet.
3. Do not tear off any pages from your QCA Booklet, if you find any page missing do not fail to notify the supervisor/invigilator.
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2. Write your registration number and other particulars, in the space provided on the cover of QCA Booklet.
3. Write legibly and neatly. Do not write in bad/illegible handwritings.
4. For rough notes or calculation, the last two blank pages of this booklet should be used. The rough notes should be crossed through afterwards.
5. If you wish to cancel any work, draw your pen through it or write "Cancelled" across it, otherwise it may be evaluated.
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3. Any page/pdf having shadow needs to be rescanned. Please make sure that the pdf that you upload is as clean as possible.
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6. Please check the sequence of the answer and total number of pages in the scanned version. Make sure it is in consonance with the physical version of the same.

महत्वपूर्ण निर्देश

अभ्यर्थियों को निम्नलिखित निर्देशों को ध्यानपूर्वक पढ़ना चाहिए। किसी भी निर्देश का उल्लंघन करने पर दण्डित किया जा सकता है।

क्या न करें-

1. इस प्रश्न-सह-उत्तर पुस्तिका के भीतर कहीं भी अपना नाम या पंजीकरण संख्या न लिखें।
2. अपनी QCA पुस्तिका में कहीं भी प्रश्नों के वास्तविक उत्तरों के अलावा कुछ भी न लिखें।
3. अपनी QCA पुस्तिका से कोई भी पृष्ठ न फाड़ें, यदि आपको कोई पृष्ठ गायब लगे, तो पर्यवेक्षक/निरीक्षक को सूचित करना न भूलें।
4. अपनी QCA पुस्तिका को अपनी टेबल पर न छोड़ें, परीक्षा समाप्त होने के पश्चात इसे निरीक्षक को सौंप देना चाहिए।

क्या करें-

1. कवर पृष्ठ पर दिए गए निर्देशों को ध्यान पूर्वक पढ़ें और उनका सख्ती से पालन करें।
2. QCA पुस्तिका के कवर पृष्ठ पर दिए गए स्थान पर अपना पंजीकरण नंबर और अन्य विवरण लिखें।
3. स्पष्ट और पठनीय तरीके से लिखें। खराब/अपठनीय लिखावट में न लिखें।
4. रफ नोट्स या गणना के लिए, इस पुस्तिका के अंतिम दो खाली पृष्ठों का उपयोग किया जाना चाहिए। रफ नोट्स को बाद में क्रॉस कर देना चाहिए।
5. यदि आप किसी कार्य को रद्द करना चाहते हैं, तो उस पर अपना पेन चलाएं या उस पर "रद्द" लिखें, अन्यथा उसका मूल्यांकन किया जा सकता है।
6. परीक्षा हॉल छोड़ने से पहले अपनी QCA पुस्तिका व्यक्तिगत रूप से निरीक्षक को सौंप दें।

ऑनलाइन सुविधा का लाभ उठाने वाले अभ्यर्थियों के लिए विशेष अनुरोध

1. QCA पुस्तिका को ठीक से स्कैन करें। हम चाहेंगे कि आप स्कैनिंग के लिए कैमस्कैनर ऐप (CAM SCANNER) का प्रयोग करें। (यह कोई प्रमोशन नहीं है)।
2. कृपया QCA पुस्तिका को पर्याप्त रोशनी में स्कैन करें। कम रोशनी में स्कैन की गई पुस्तिकाएं, उनके मूल्यांकन की गुणवत्ता को बाधित कर सकती हैं।
3. स्कैन के दौरान छाया वाले किसी भी पृष्ठ/पीडीएफ को फिर से स्कैन किया जाना चाहिए। कृपया सुनिश्चित करें कि आपके द्वारा अपलोड की गई पीडीएफ यथा संभव स्पष्ट हो ।
4. QCA पुस्तिका का उपयोग नहीं करने वाले उम्मीदवारों को अपना विवरण पहले पृष्ठ पर देना चाहिए और मैक्रो टिप्पणियों के लिए अगला पृष्ठ खाली छोड़ दें। यह समझना चाहिए कि उत्तर स्कैन की गई पीडीएफ में पृष्ठ नंबर 3 से शुरू होना चाहिए।
5. QCA पुस्तिका का उपयोग नहीं करने वाले उम्मीदवारों को प्रश्नपत्र के अनुसार उत्तर के अनुक्रम का पालन करना चाहिए।
6. कृपया स्कैन किए गए संस्करण में उत्तर के अनुक्रम और कुल पृष्ठों की संख्या की जाँच करें। सुनिश्चित करें कि यह उसी के भौतिक संस्करण के अनुरूप है।

