12 pm
phase II

65 min → 8 × 10 mark

NEXT IAS

GS MAINS ADVANCED COURSE 2024

— (To be filled by candidate) —

TEST CODE : GSMAC2407   Test No. : 07

Name of Candidate: ...Raghav Jhunjhunwala... Mobile No. ...

Roll No. : ...GSMACT24A1055... Start Time ...7:00... End Time...5 min extra

Date of Examination: ...30 Aug, 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

Student Concerns / Query	Evaluator's Feedback / Response
1	1 ....
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2	2 ....
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3	3 ....
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....	....

MARKING SCHEME *

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.

IMPORTANT QR CODES

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.
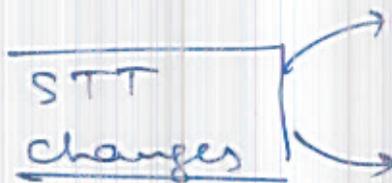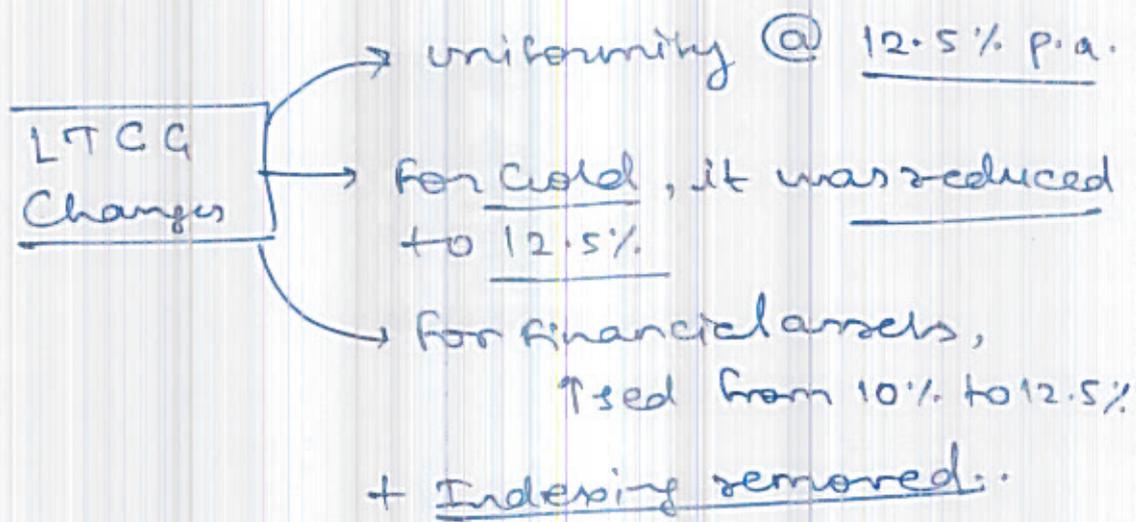
STRENGTHS OF THE CANDIDATE

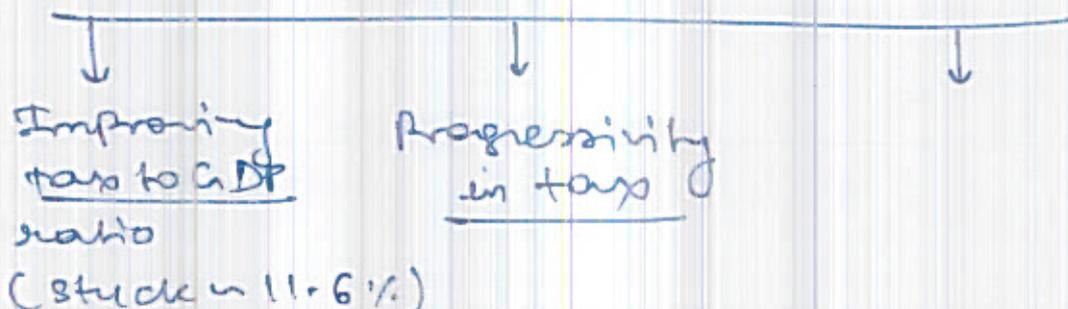## AREAS OF IMPROVEMENT

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)

Budget 24-25 demarcated imp. tax reforms with respect to <u>LTCG</u>, <u>STCG</u> and <u>STT</u>

<u>LTCG Changes</u>
→ uniformity @ <u>12.5% p.a.</u>
→ for <u>Gold</u>, it was <u>reduced to 12.5%</u>
→ for <u>financial assets</u>, ↑ed from 10% to 12.5%
+ <u>Indexing removed</u>∴

<u>STT Changes</u>

Rationale behind

↓ <u>Improving tax to GDP ratio</u> (stuck in 11.6%)

↓ <u>Progressivity in tax</u>

Impact on Savings & Invst.

① Financial Investors are now
slightly worse-off : may
disincentivize stock trade. ~~in sto~~

② ⤷ [Savings] may rise

2. भारत की एक कल्याण योजना "कोई भी व्यक्ति पीछे न छूटे" 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)

The older Input based approach focussed more upon size of govt. outlays for the scheme. current approach focusses more on outcomes (transformation).

[Fostering Inclusive Devt]:

① Financial Inclusion

Exp! JDY → over [50 cr]. Bank A/c

| women beneficiaries greater than men | Rural areas benefit more | Financial umbrella Insu. Credit etc. |
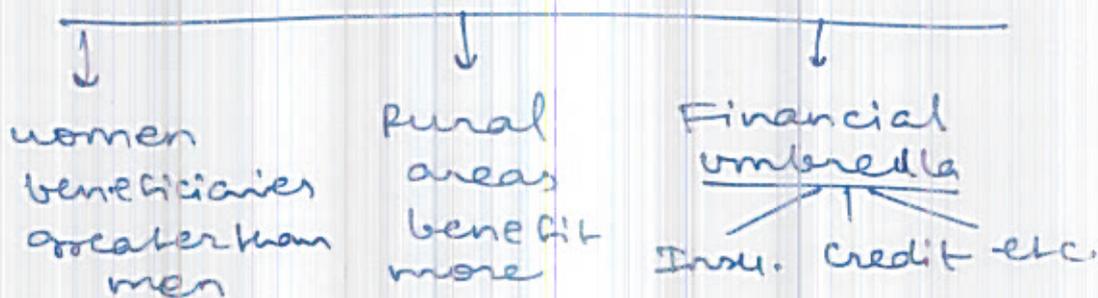
② Ujjwala Yojana

Clean cooking fuel availability
↳ Involvement of NGOs like [Social Cops] to curb corruption.

③ PM-VISHWAKARMA
  ↳ skill development of Artisan, generally uncatered section

④ PM-SVAnidhi ; etc
  ↳ Street vendours ; self Employmt
  ↳ over ₹10,000 support

⑤ LiFE approach ; focus upon sustainability to ensure 'Intergenerational Equity'

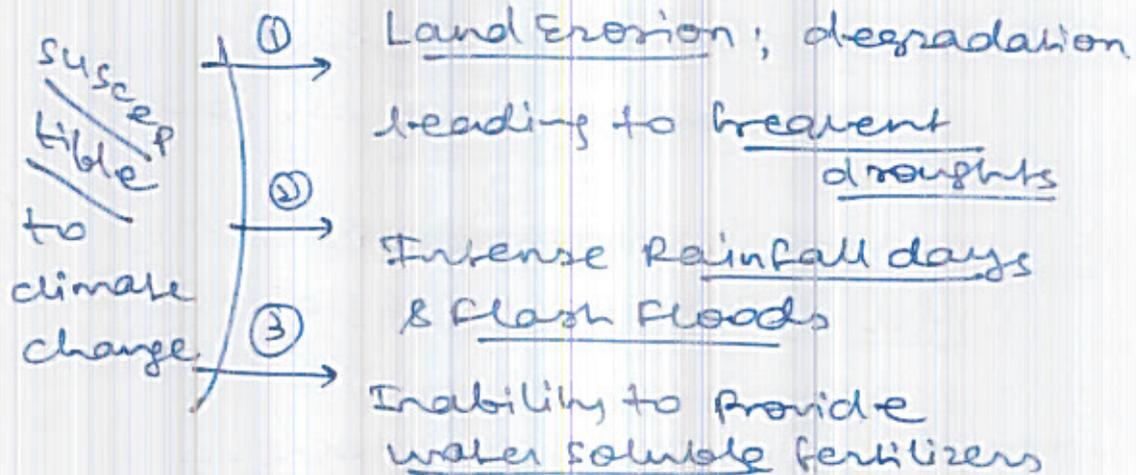⑥ Accessible India Compaign, Right of PwD Act, 2016, etc.

WAY AHEAD
  → Using technology
  → Social Audits
  → community centricity
       (ex: Drone 'DIDI')
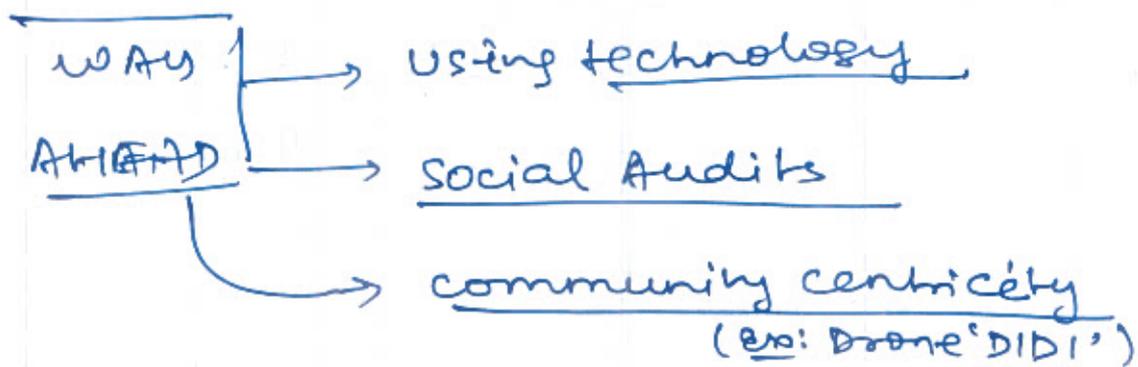
Thus, the philosophy of 'Antodaya' i.e. welfare of person in the last position is critical to ensure 'sarvodaya' (Growth of all).

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 min. of Agri ; over 51% of India's cropped area is Rainfed.

monsoon is called 'Real Finance minister!'

susceptible to climate change

① Land Erosion; degradation leading to frequent droughts

② Intense Rainfall days & flash floods

③ Inability to provide water soluble fertilizers

Importance of Quality Irrigation

① Increasing yield

Rice yield (tonne/ ha.)   2.6   4.9   India   China

② Upon assured irrigation, farmers could invest @ better HYV seeds etc.

③ minimize crop losses
↳ (Farmer Suicide ↓) (Demand for loan waiver ↓)

④ <u>Ashok Gulati</u>

    ↳ Rise in Public Expenditure

    @ Agri ⟹ crowds in Pvt. Expenditure

| Improving present Irrigation setup |

| current | ⟶ | Desired |

① Prevalence of
Ground water
<u>borewells</u>
(>2 lakh cr. p.a.
subsidy)

① Promoting <u>micro</u>
<u>Irrigation</u>
(<u>Drip</u>, <u>Sprinkler</u>, etc.)

② Lack of
maintenance of
Canals, etc.

② <u>Swaminathan co.</u>
recommended
to improve IL.

③ Lack of
<u>Rain harvesting</u>

③ Check dams,
Bunds, etc.

| Govt. vision | : | Krishi Sinchai Yojana |

    (<u>Har khet ko Paani</u>)
    & (<u>Per Drop, more crop</u>)

Increasing collab with best
Performers like ~~Israel~~ and
promoting <u>ICAR</u>, etc is the
way Ahead.

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)

[Ashok Dalwai] committee to Double farm Income laid great stress upon Agri. diversification. Livestock, is one such avenue.

Importance of livestock

Fig: Agri GVA
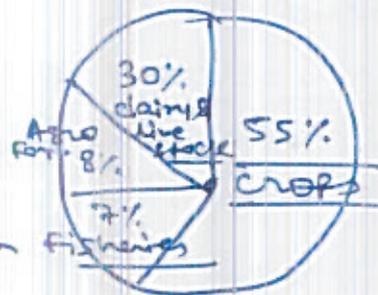
(I) Income Diversification & Augmentation beyond cropping.

(II) Gender Empowerment : due to Feminization of Agri.

(III) Nutritional Security : Protein source

(IV) No lean period like cropping ↳ stable returns

(V) Less price volatility than crops.

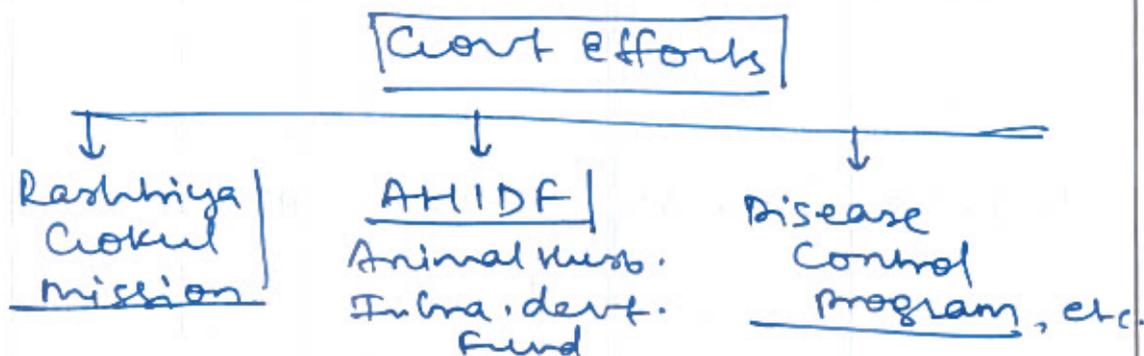Animal Husbandry $\longrightarrow$ Incentivizing Indian Agri

① Exports & Forex Earning

(India: largest buffalo meat Exporters)

② Employment generation

Animal Shed
→ carpenters
→ woodcutters
→ operational tasks, etc.

③ curtailing food Inflation by improving availability.

④ Reducing Pressure upon cropping and diversification.

Govt efforts

| Rashtriya Gokul mission | AHIDF Animal Husb. Infra. devt. Fund | Disease Control Program, etc. |

curtailing veterinary diseases, improving access and affordability of Animal feed should be the immediate operating targets.

5. आंध्र प्रदेश में भारतीय लॉरिल 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)

The recent discovery of Laurel Tree @ Andhra Pradesh has fascinated Researchers wrt unique water holding capacity
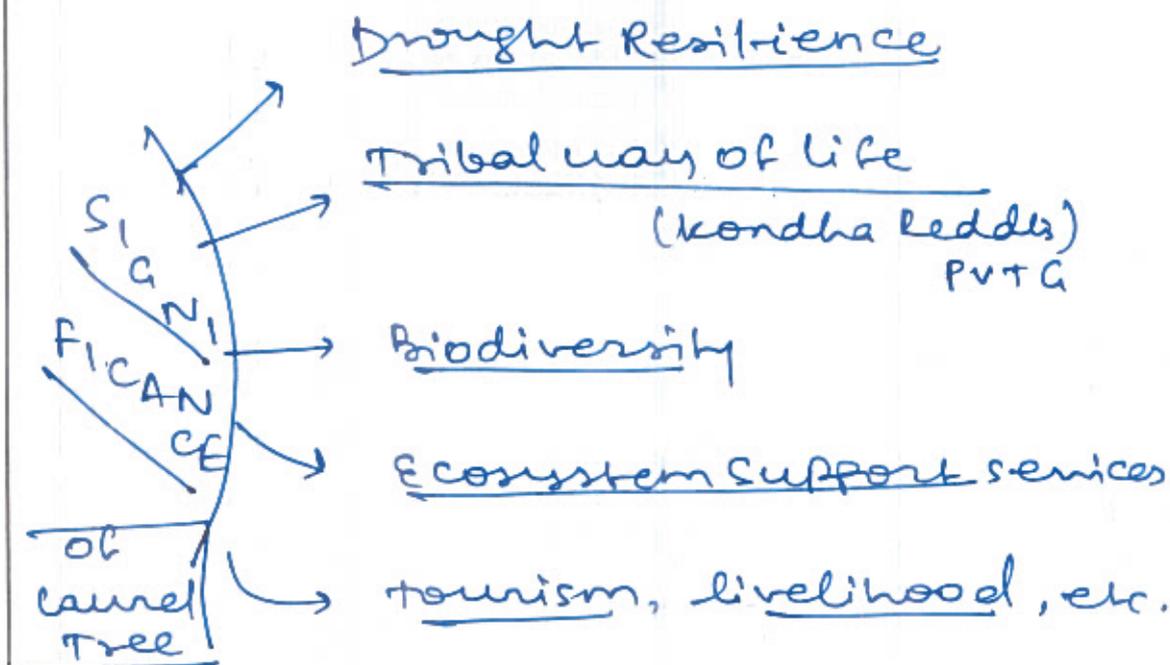

Fig:
Regional distribution

Deciduous nature
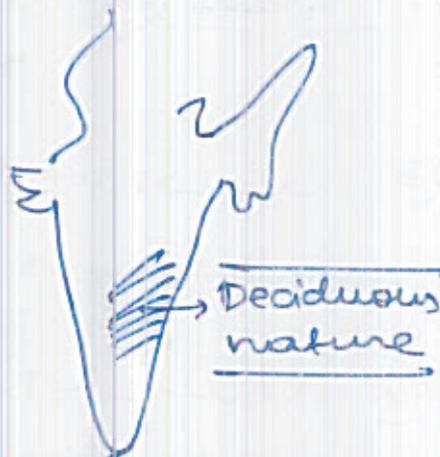
Science behind water transport & Storage :

① Role of [Roots] : Absorb water from soil moisture.

② Role of [xylem] : vascular tissue, mainly responsible for transporting water to leaves for respiration.

(iii) Role of |Leaves| : Respiration,
                              (loss of water
photosynthesis   to regulate temp)
        ↳ use water to make food

(later transported by |Phloem|)

(iv) Leaves : Augment xylem to

Store water ; Eg : Desert Plants

(waxy leaves, sunken pores to
                        min. water loss)

        Drought Resilience

        Tribal way of life
                (Kondha Reddis)
S   PVTG
I
G
N   Biodiversity
I
F
I
C   Ecosystem Support services
A
N
C
E
of
Laurel ↳ tourism, livelihood, etc.
Tree

Protecting Biodiversity & species
via Protected Area network is
key mandate of govt.

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)

" AI can be the best or the worst thing to happen to mankind."

— Stephen Hawkings

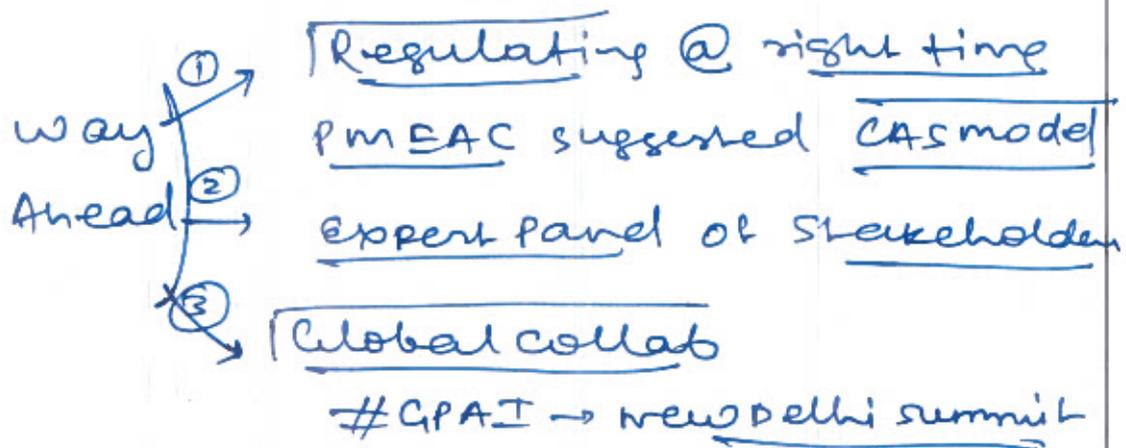AI @ military

O P P O R T U N I T I E S

① → Research & Dent. spending rise to develop new tech.

② → Reducing Human & manpower casualty

③ → Improved & Groundless border Surveillance

Ex: CIBMS technology proposed by Shekatkar committee.

Challenges of AI @ military & Risks

① Run-away AI

↳ threat that AI may become uncontrollable later.

② Hidden Identity
        ↳ fuel mistrust
            among nations.

③ Rise in role of non state Actors
        ↳ new security Challenges.

④   Turing test   ⎤ : Beyond
    & frontier AI   ⎦ : Human
                            Intellect
                            to counter.

⑤   Errors & lack of
        Emotional Intelligence

    (Ex: Encouraging militants to
            surrender before killing)

```
        ①↗  Regulating @ right time
Way  ⎧       PmEAC suggested CAS model
Ahead⎨ ②↳    Expert Panel of Stakeholder
        ③↘  Global collab
              #GPAI → New Delhi summit
```

India has launched #AI for All
and #ARISE campaigns to
promote Ethical progression of
AI for betterment of Humankind

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)

PAC report highlighted that India is now amongst TOP 5 nations globally wrt Plastic Pollution.

[Challenges highlighted]

① Poor set of guidelines by CPCB wrt EPR norms

② Poor state of segregation, collection, Processing, etc.

③ High % of open incineration due to lack of awareness.

④ Non Enforcement of bans and regulations.

⑤ Dysfunctional waste to energy plants & Poor capacity of ULBs

⑥ Lack of proper Penalties over public littering.

Impacts

(i) Health Hazard

(ii) cows, stray animals chokes die.

(iii) Ecosystem productivity ↓

(iv) Aesthetics ; Tourism ↓, etc.

Govt. Measures

(1) Ban on SUPs (Single use Plastics)

(2) EPR (Extended Producer Resp.)
   by PIBO (Producer, Importer, Brand Owner)

(3) W2E :
   waste to Energy

Way Ahead)
(1) → Effective monitoring by CPCB
(2) → Stricter penalty on improper disposal
(3) → LIFE : Reduce, Reuse, Recycle
   (Behavioral change)

we must focus upon Point of Source segregation, Proper collection & Supply Chain mgmt overall.

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)
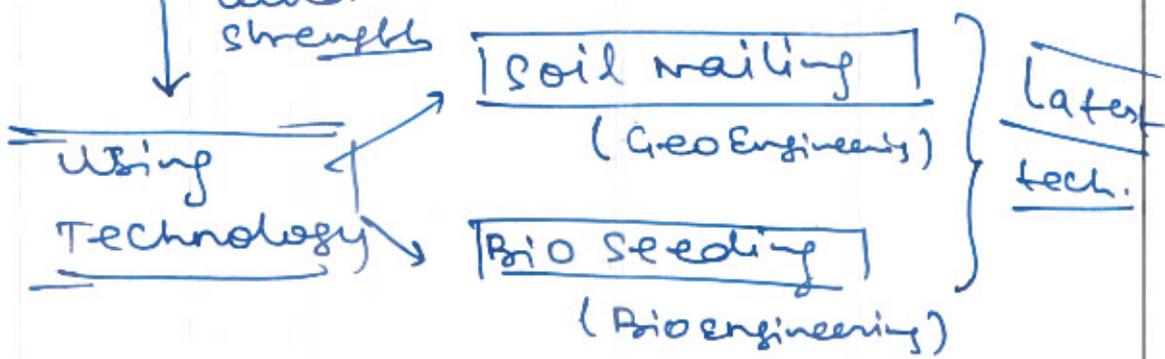
The recent wayanad landslides claimed over 300+ lives, and immense loss of livelihood & Property.

Human Induced nature on rise

① Global warming
 (>1.5°C breached already)

② warming of Arabian sea
 ⇓

③ |Cloud forcing| ; |Atmospheric Rivers| phenomena
 ↑sed Presence of PM particles

④ Intense Rainfall events
 (cloudbursts, etc.)

⑤ soil Erosion, loosening

EASIER for land slides to occur

⑥ unchecked Deforestation for Agri, Tourism, etc.

⑦ unchecked construction without Proper EIA (Himalayas, etc)

Required mitigation measures

STRUCTURAL	NON STRUCT.
① wall & boulder mesh along roads.	① Proper EIA process with better monitoring later
② Disaster resilent Infra : Ex! Jammu > Dhajji Diwar	② Development keeping in mind 'carrying Capacity'
③ GeoEngineering & latest tech. use	③ community traing: AAPDA MITRA

.Enhancing land strength

Using Technology →

↗ | Soil nailing |
(Geo Engineerig)

↘ | Bio Seeding |
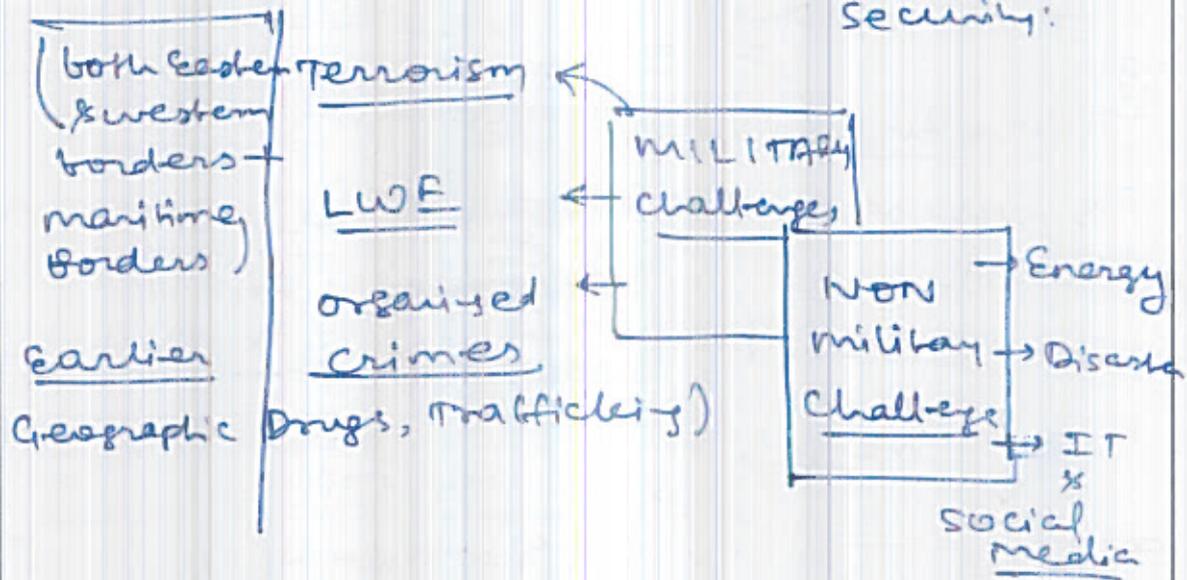(Bio engineering)

} Latest tech.

NDMA runs 'national Landslide Risk Reduction Plan' for the same.

To prevent immense loss of life & property; immediate & comprehensive measures are pertinent..

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)

The CDS of Indian Armed Forces recently emphasized upon evolving 'Thematic Challenges' of national security:

(both Eastern & western borders + maritime Borders)

Earlier Geographic

Terrorism ←

LWE ←

organised crimes (Drugs, Trafficking)

MILITARY Challenges

NON military Challenges → Energy
→ Disaster
→ IT & social media

CONTEMPORARY Challenges

① Infiltration
(esp. after Bangladesh crisis, myanmar & Afgh.)

② Drone based Drug, Arms delivery

measures Required

a) CIBMS
State of art technology

b) Border fencing

⇒ Low drone detection tech

Contemp. Issues	Required measures
③ cybersecurity threats	Joint doctrine released recently
④ organized Crimes (Extortion, etc.)	[India lacks a dedicated law mah. govt. has brought a dedicated law.
⑤ Energy security	Protecting critical Infra (tarapur nuclear) → maritime Patrols ↘ collab with Saudi, Egypt, etc to tackle Red Sea Crisis

Steps Taken { → Integrated Theatre Command
→ Post of CDS
↘ cross country collab
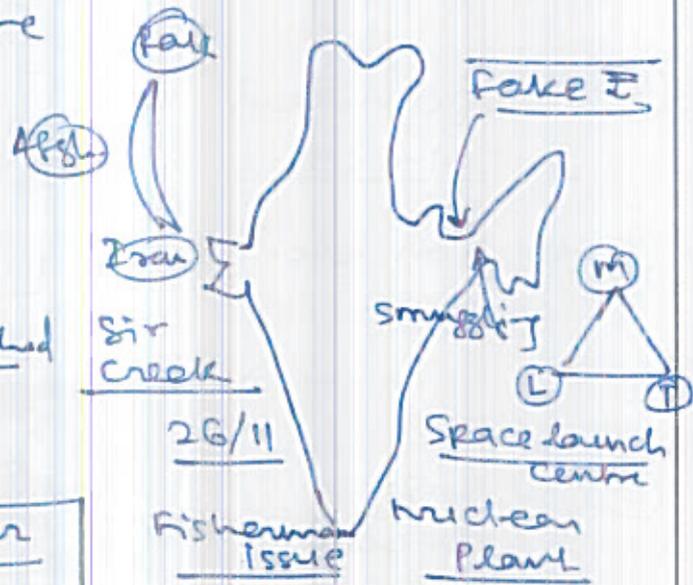(Ex: MALABAR Exercizes)

Thus, a comprehensive measure is sine-qua-non, as was reflected by Kargil Review report.

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 over 15,290+ km Land and 750 km+ marine border, albeit in a non-stable S. Asian neighbourhood

Pak

Afgh.

Iran

Sir Creek

26/11

Fisherman Issue

Fake E

Smuggling

Space launch Centre

Nuclear Plant

Role of Border surveillance

① curbing organized crime

↳ 3,000+ kg drugs received @ mundra port last year
                                (critical role of
                                  customs dept, navy)

② Infiltration reduction

↳ peace to J-K valley

↳ Curbing N-E insurgency

(op. Allclean, sunrise, etc.)

③ Cutting source of funding via curbing fake E supply.
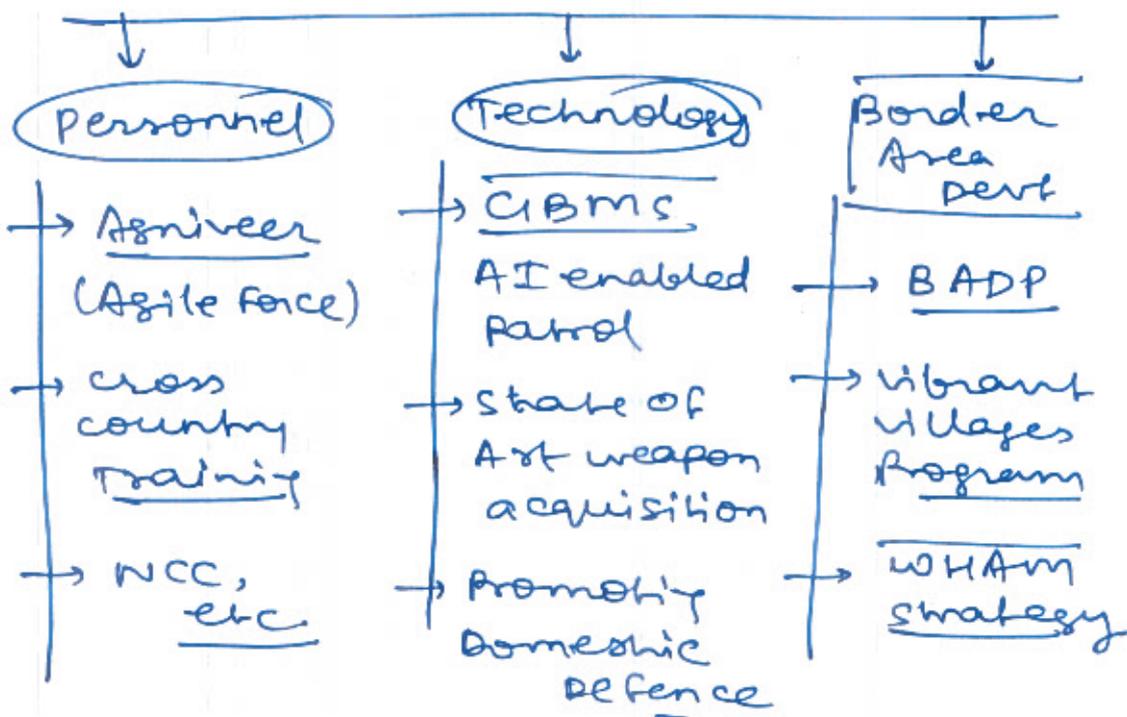
④ Black Economy
       (Illegal Cattle Smuggling)

⑤ Protecting Critical Infra & Tech.

nuclear Plants, OTEC, etc.
                  (Energy Security)

⑥ Coastal Economy
       (over 25% Population)

⑦ Reducing Youth Radicalization
and alienation.

| Shekatkar committee | (3 Front Plan) |

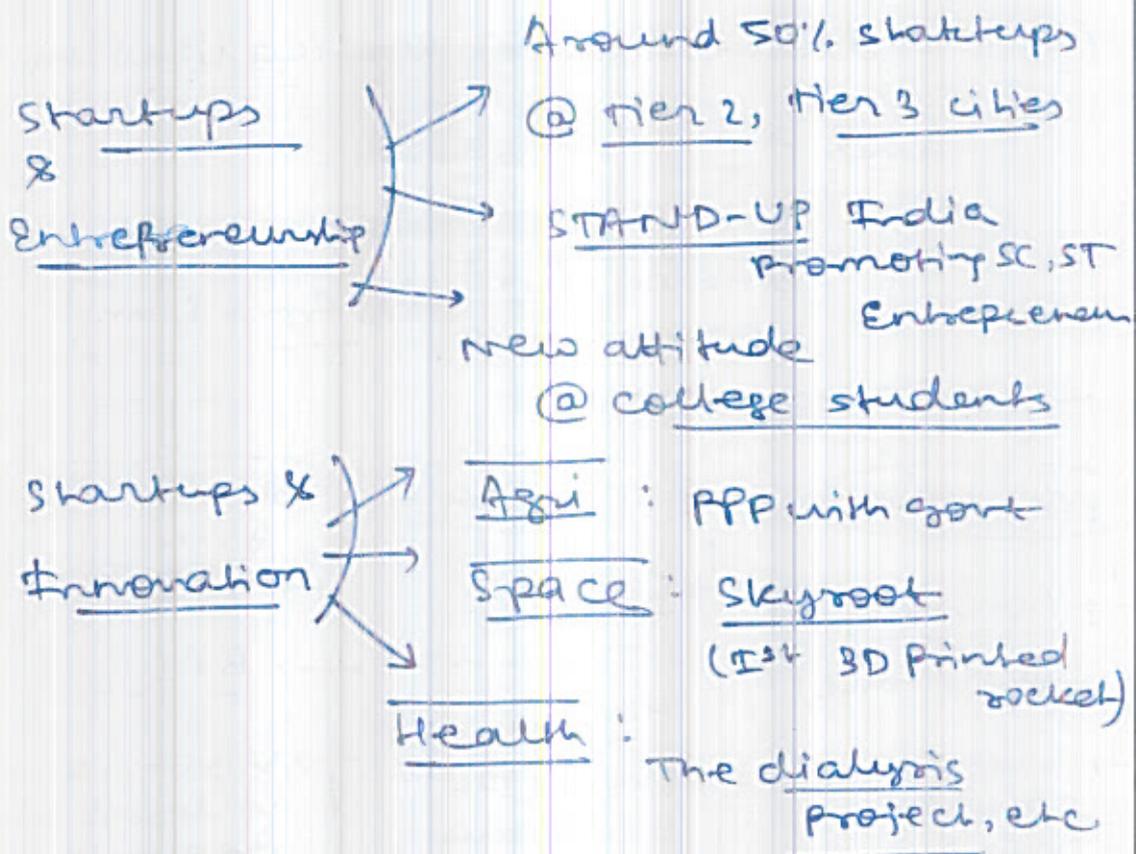| Personnel	Technology	Border Area Devt
→ Agniveer (Agile force)	→ CIBMS AI enabled patrol	→ BADP
→ Cross country Training	→ State of Art weapon acquisition	→ Vibrant villages Program
→ NCC, etc	→ Promoting Domestic Defence	→ WHAM strategy

Thus, improving Border security is
key to internal security.

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 now has world's 3rd largest network of unicorns (MEITY) which shows progress in this regards.

Startups & Entrepreneurship
→ Around 50% startups @ tier 2, tier 3 cities
→ STAND-UP India Promoting SC, ST Entrepreneu.
→ New attitude @ college students

Startups & Innovation
→ Agri : PPP with govt
→ Space : Skyroot (Ist 3D Printed rocket)
→ Health : The dialysis project, etc

Thus, Startups have led to overall contribution to Economy, along with Employment generation.

Structural Issues ⟹ Hurting
                                            Sustainability

① ⌐Scalability⌐
              ↳ capability issues in
                    expansion due to cost, etc.

② Lack of ⌐trained workforce⌐

      India skill Report: ~ 50.3%.
                          Graduates only are
                                      employable

③ Infrastructural | bottlenecks

      Ex: Erratic power supply
            Lack of multi modal Infra

④ compliance & Regulatory labyrinth

      Ex: more Permissions read. to
            start business than own gun
                                (E.Survey 2020)

⑤ Policy uncertainty

      Ex: Angel tax controversy

⑥ Financial Irregularities

      Ex: BYJUs misappropriation &
                          mismanagement

| Required Interventions | :

① **Infra boost**
  ↳ Gati shakti,
      Discom Reforms,
             etc

② **Easier compliance**
  ↳ minimal paper work,
      Single window clearance

③ **Policy Certainty**

Recommended by <u>Ahluwalia</u>
             committee

  > give predictable policy responses

④ **Incentives**
  ↳ to promote more jobs
        (Eg: Employment
            linked
            Incentive)

⑤ **Institutional support**

Eg):   Atal   respective
      tinkering   hackathons
      labs @ colleges;   etc.

<u>India's vision of Viksit Bharat</u>
by 2047 strongly hinges upon our
           Startup Prowess.

12. भारतीय रेलवे के बुनियादी ढांचे के आधुनिकीकरण में सार्वजनिक निजी भागीदारी की प्रभावशीलता का आलोचनात्मक मूल्यांकन कीजिए। सुरक्षा क्षेत्रक 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)

India is facing a duality of Railway development: Rise in networks but fall in quality & more accidents.
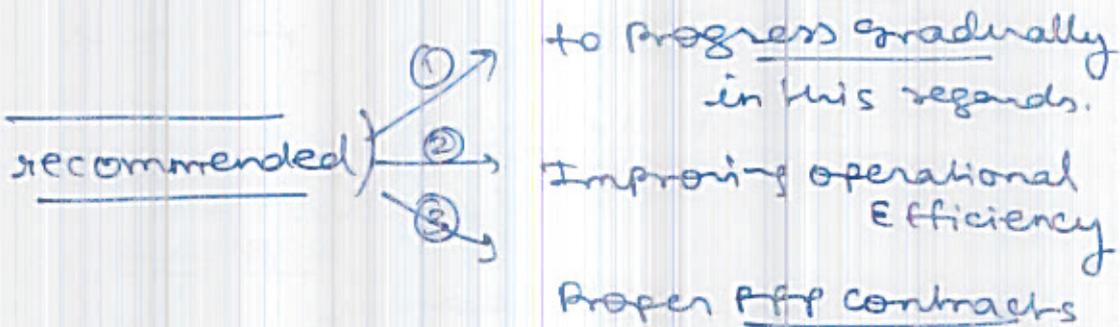
| Effectiveness of PPP |

| Hits |

① cost efficiency by private partners.

② Better technology —
     (world class tech.)
                    Digitization

③ Professional behavior
                of staff
          (↓ in corruption)

④
   state of Art Infra
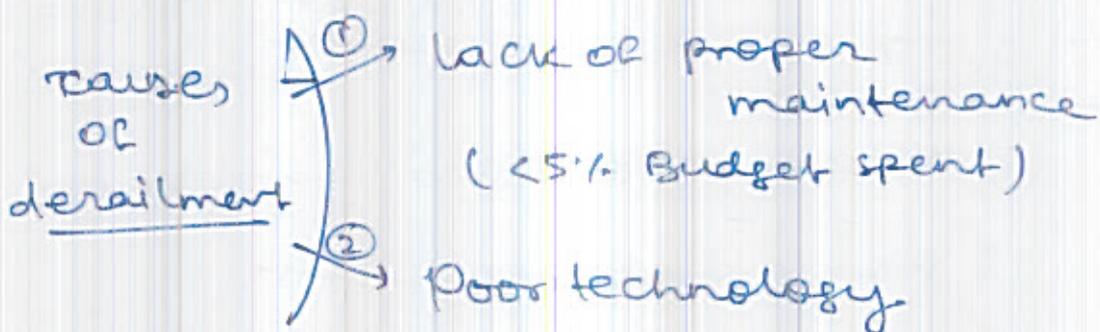   (Rani kamlapati, vidisha)
              station

| misses |

① Quality of services has declined & poor maintenance due to issues in PPP Contract.

(II) <u>Rise in prices</u> due to low
regulation. (unaffordable)

(III) Poor pay condition of <u>private
staff</u> (Exploitation)

(IV) Poor maintenance post contract

(V) Poor contract enforcement
due to poor monitoring & post
Project
assessment

| <u>Bibek Debroy</u> | Committee has

to progress gradually
in this regards.

<u>recommended</u>)
① ↗
② → Improving operational
Efficiency
③ → Proper PPP contracts

II. <u>Railway Safety</u> | Issue

causes
of
<u>derailment</u>
① → lack of proper
maintenance
(<5% Budget spent)

② → Poor technology

③ Same route for Passenger +
freight

④ Intentional
(LWE ; etc.)

[Anil Kakodkar] committee
recommendations:

① 100% shift ICF ⟶ LHB
Coaches

② Construct Railway under &
over passes (Setu Bharatam
Scheme)

③ Dedicated freight corridors

④ ↑se Budget for overhaul &
maintenance

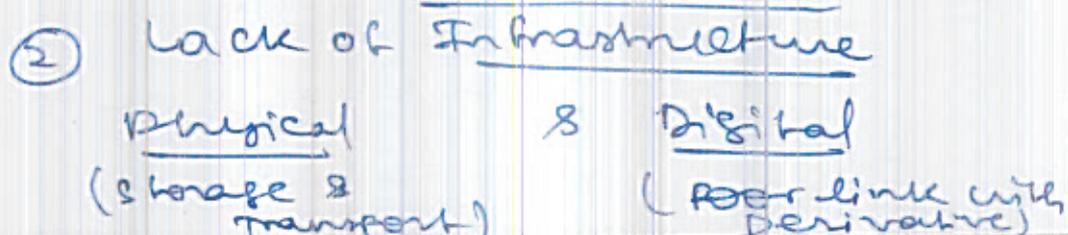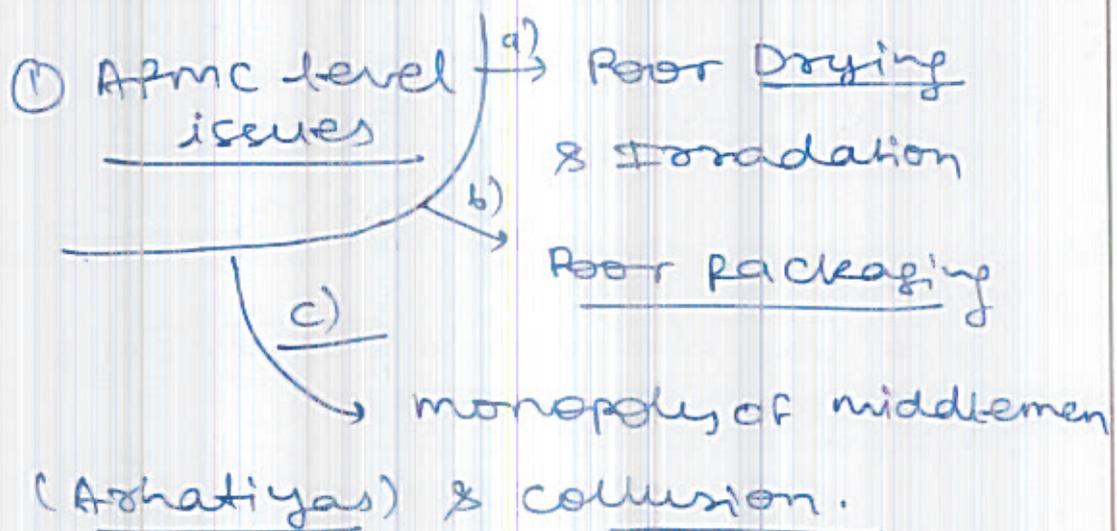Govt has developed [KAVACH]
system :- state of Art technology.

Quality of service Delivery along
with safety should be our
motto for Indian Railways.

13. "अगर उपज समय पर हमारी थाली तक पहुंच 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 है?   (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)

Dalwai committee on DFI highlighted the plight of poor remuneration in Agri. As per SAS (Situational Assessment Survey); avg. household in farm has debt of ₹ 74,000 today.

Issues @ marketing

① AFMC level issues

    a) Poor Drying & Irradiation

    b) Poor Packaging

    c) → monopoly of middlemen (Arhatiyas) & collusion.

② Lack of Infrastructure

    Physical   &   Digital

    (Storage & Transport)   (Poor link with Derivative)

③ Poor awareness about price movements and lack of Agri-Extension services

Issues @ Transport

① **Roads** : Lack of all season metalled roads

④ Poor mix

Roads have exorbitant share : non-optimal

(Railways are most efficient)

Ⅲ High cost to hire tractors by small farmers.

Govt Initiatives

marketing	Transport
① e-NAM	① Krishi Rail
Digital intervention	Rail Infra with Spl. focus on NER
② organic Promotion	② Krishi Udan
(NPOP↑ | APEDA certificate | institn)	For HVC, Horticult
	③ AIDF (Agri. Infra Devt Fund)

Initiatives Required

① Promoting FPOs

Budget 23-24: Promoting 10,000 FPOs ⇒ collectivization ⇒ Better bargaining

② Public Invst. @ Agri Infra

Storage	Transport
Coldstorage mission.	PM- Gram sadak yojana

③ Promoting R&D, Startups

↳ helps farmers increase longevity

↳ Technology: eg. Irradiation (to improve shelf life)

④ Promoting Food Processing to add value & better returns.

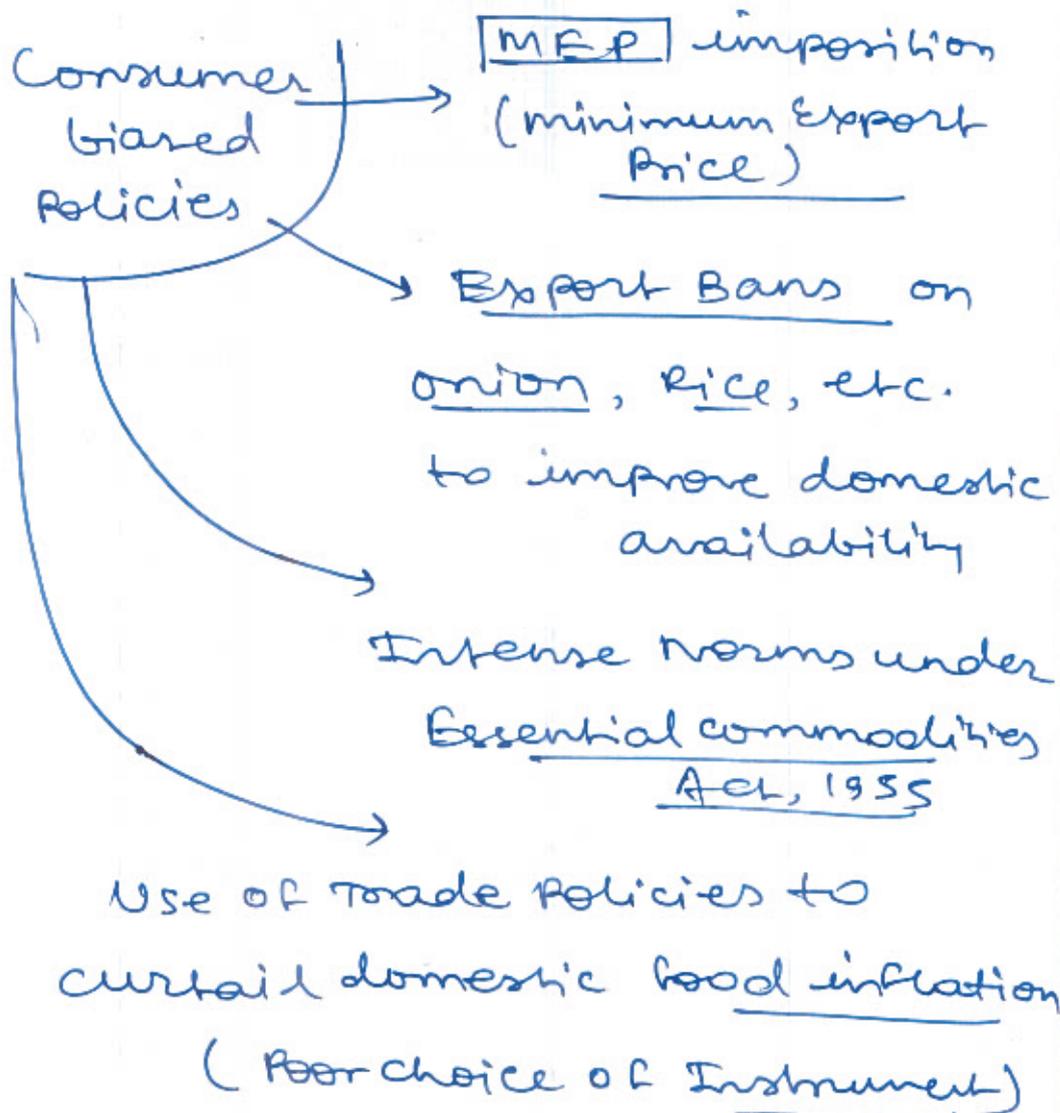Dalwai committee to Double Farm Income stressed heavily upon improving Agri Transport & marketing to improve the farming remuneration overall.

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)

Recently, Ashok Gulati raised the issue of 'consumer biased' policy of Agri; which was causing losses to producers.

Consumer biased Policies →

MEP imposition (minimum Export Price)

Export Bans on onion, Rice, etc. to improve domestic availability

Intense Norms under Essential commodities Act, 1955

Use of Trade Policies to curtail domestic food inflation (Poor Choice of Instrument)

Impact of Such Policies :

→ Farmers ① Poor Price realization

② Debt Trap (as high input cost)

③ Poor incentive to grow HVCs
(High value crops)

④ Poor Agri. Diversification.

→ India as a Exporter ① -vely hurts our image as a reliable partner.

② may poorly impact our Trade ties with UAE, etc. (middle East is a major farm Importer)

③ Long Run : Failure of Agri-Export Policy, 2018

→ Miscellaneous

① curtailing free markets

② wrong choice of instruments

measures Required :

① Creating suitable storage capabilities domestically.

② This would allow us to release shortage food items & curb farm inflation.

③ public private p'ship

    → cold storage devt

    → R&D grants to improve capacity of godowns.

④ AI : to predict shortage, global & local price movements etc

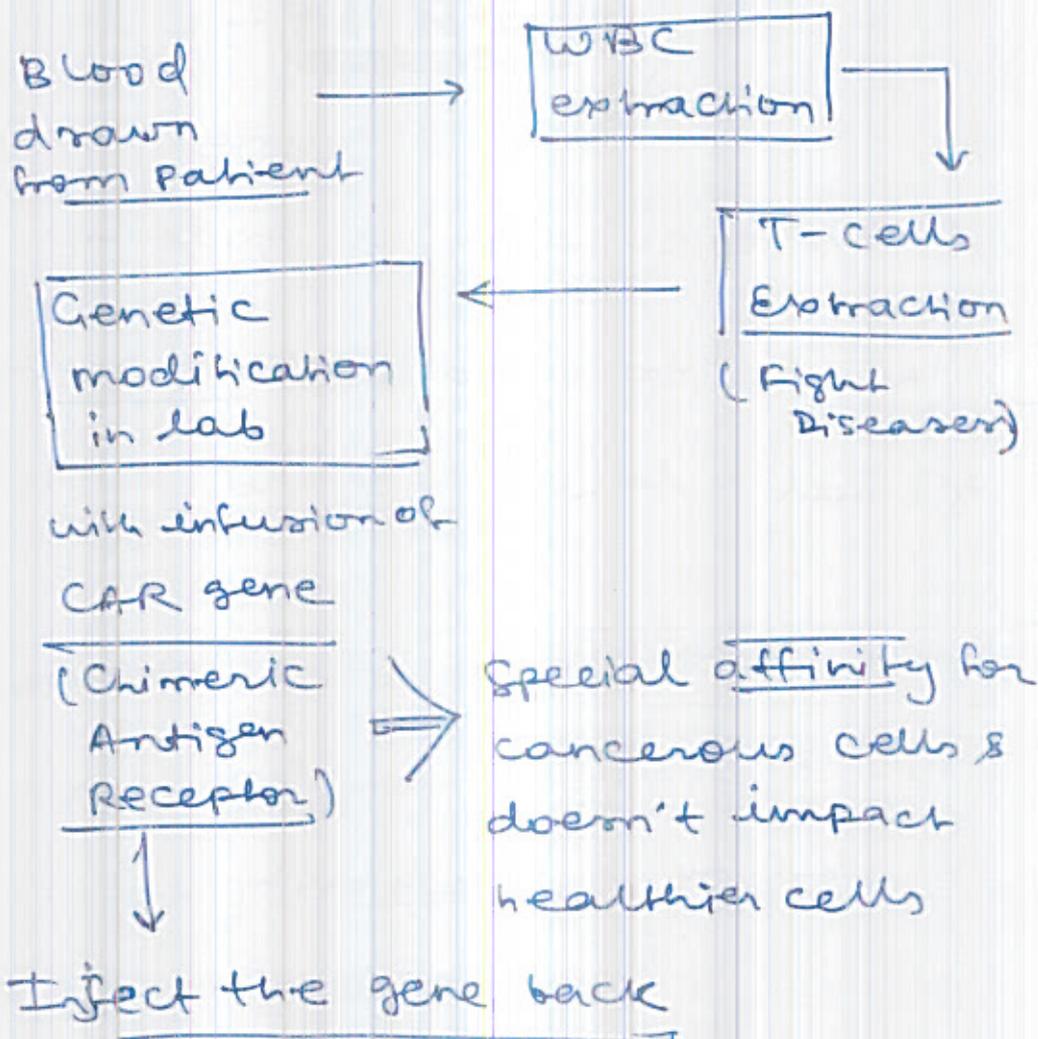Agri. Export Policy, 2018 stresses greatly upon providing stability & credibility to Agri Exports of India

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, President of India launched India's progress with CAR-T therapy which is a milestone in the regards of medical science.

| working of CAR-T |

Blood drawn from patient ———→ | WBC extraction | ——→

| T-cells Extraction (Fight Diseases)

| Genetic modification in lab | ←———

with infusion of CAR gene

(Chimeric Antigen Receptor) ⇒ Special affinity for cancerous cells & doesn't impact healthier cells

↓

Inject the gene back
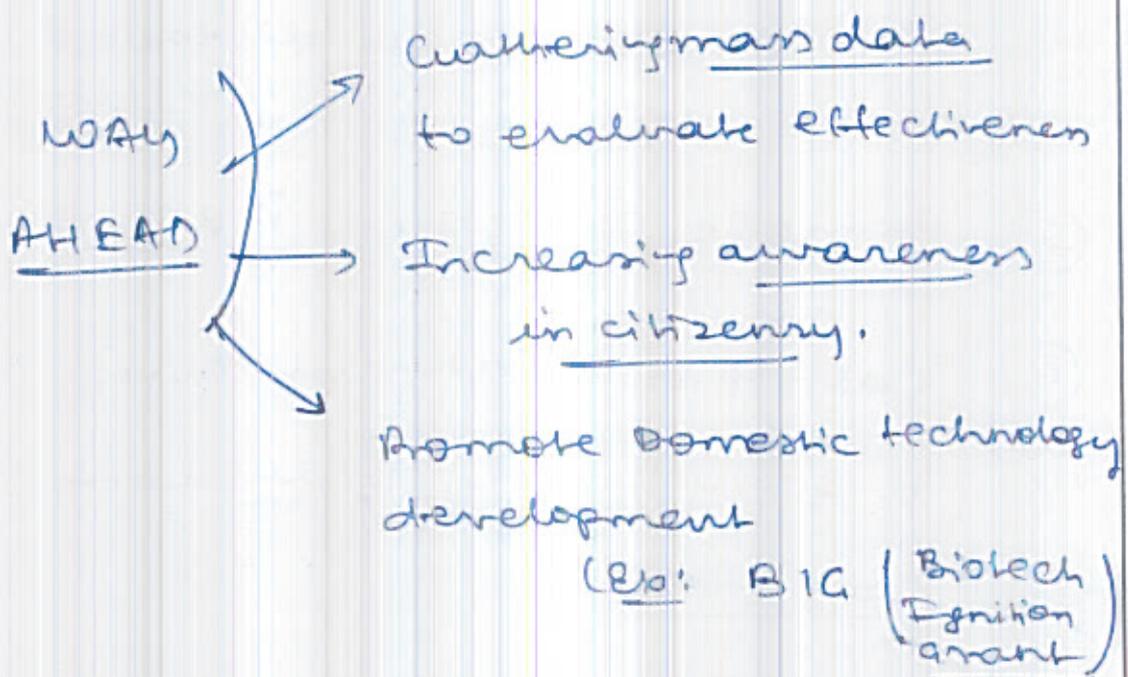
Effectiveness / Promises

① Less Painful experience than Chemotherapy.

② Lesser side effects like Hair loss, etc. that happens with chemo.

③ one time procedure : no need of repeated process.

④ Higher Effectiveness as it specifically treats diseased cells.

⑤ Promote Indigenous R & D

⑥ cost per treatment can be significantly reduced in long Run.

⑦ To complement other innovations like CRISPR - CAS9, etc.

Challenges

① Possible Cytokine storm :

Reaction by Immune
system.

② very high cost ; unaffordable

③ Lack of Awareness ;

public trust

④ Lack of Data with respect to

mass clinical trials.

WAY
AHEAD
→ Gathering mass data
to evaluate effectiveness

→ Increasing awareness
in citizenry.

Promote Domestic technology
development
(Eg: BIG (Biotech
Ignition
grant)

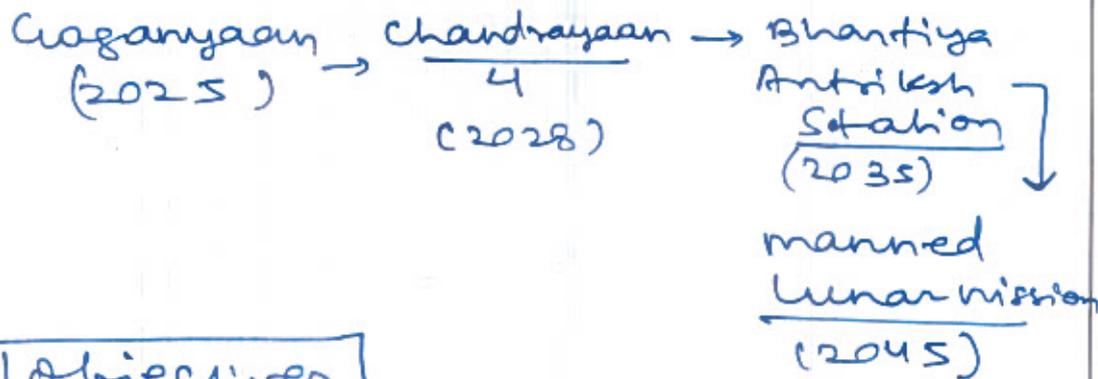CAR-T would surely help us
realize our goal of SDG-3.

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)

ISRO has time and again proved its capabilities and this time, it is on a much larger scale.

ISRO plans:

Gaganyaan → Chandrayaan → Bhartiya
(2025)   4   Antriksh
            (2028)   Sitation
                         (2035)
                              ↓
                         manned
                         Lunar mission
                         (2045)

Objectives

① Putting India on global pedestal wrt space capabilities.

② Enhancing Private sector participation

③ Boosting Space R&D.

④ Global collaboration
(NASA, ROSCOSMOS)

Other successful nations

(manned mission)

① USA (NASA)

② Russia (ROSCOSMOS)

③ China   ④ JAXA

---

major technologies Required :

① Augmented capability of launch
vehicle

✓ Currently, LVM-3 can carry
only ~ 8 tonnes to LEO (Low
Earth
orbit)

✓ Also making it Human Rated.

② | SPADEX | : For space Docking

③ | ECLSS | : Environment controlled
life support system

④ CREW-PAD Abort testing.

(5) Re - Entry technology

    (ISRO should explore P'ships

    with companies like SPACE-X

                   ↓

                  (Falcon Rockets)

Challenges associated :-

① Astronaut safety

        (Ex: Sunita Williams

                    stuck)

② Developing suitable Thrusters

   and launch vehicle

           Ex: NASA's orion|

③ Lack of Experience

        (India: not part of ISS)

④ Technological backwardness

⑤ Astronaut Training dependence

                  on USA, Russia

BAS & Gaganyaan mission

are expected to boost India's

Space Economy to ~ $100 Bn. by

2030 as per Symantec Report.

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 MNRE, India has over 120 GW potential of offshore wind energy; but surely we haven't tapped even 10% by now.

Potential Benefits

① Efficiency : Offshore → Stronger winds
↓
Greater Energy

② Lesser number of wind mills required

③ Less Environmental clearances & obstructions

④ Less conflict with diversion of land away from Agri, Fisheries etc.

⑤ Less interference with natural components mountains, etc.

⑥ Long coastline : over
                          7516 km

⑦ Strategic Advantage

 ↳ India can attach coastal
                          radars.

[Challenges Impending] :

① High cost of installation

② High cost + Unease of
                          maintenance.

③ coastal security threats
(chinese aggression, Piracy, etc)

④ Tsunami threat

⑤ costly to lay and maintain
underwater cables.

⑥ marine Pollution threat
               ↳ Biodiversity, etc.

India's vision :

   Offshore wind Energy Policy

   ↳ To tap <u>30 GW</u> by <u>2030</u>
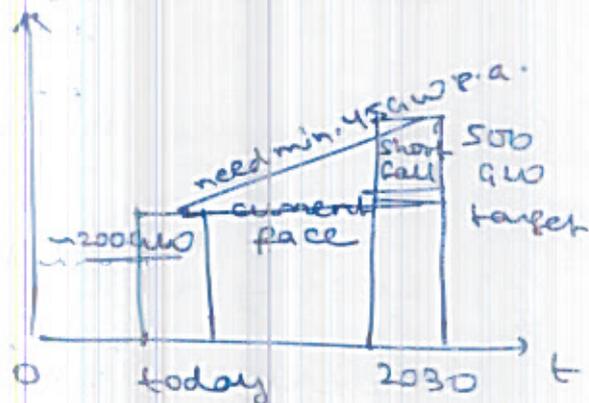

<u>measures Required</u> :

① Financial subsidy by govt

           (on lines of solar) .

② Security by <u>naval forces</u>

③ Team of Expert <u>Repair &</u>

   <u>maintenance experts</u>

④ <u>Technology</u>
   <u>collaboration</u>

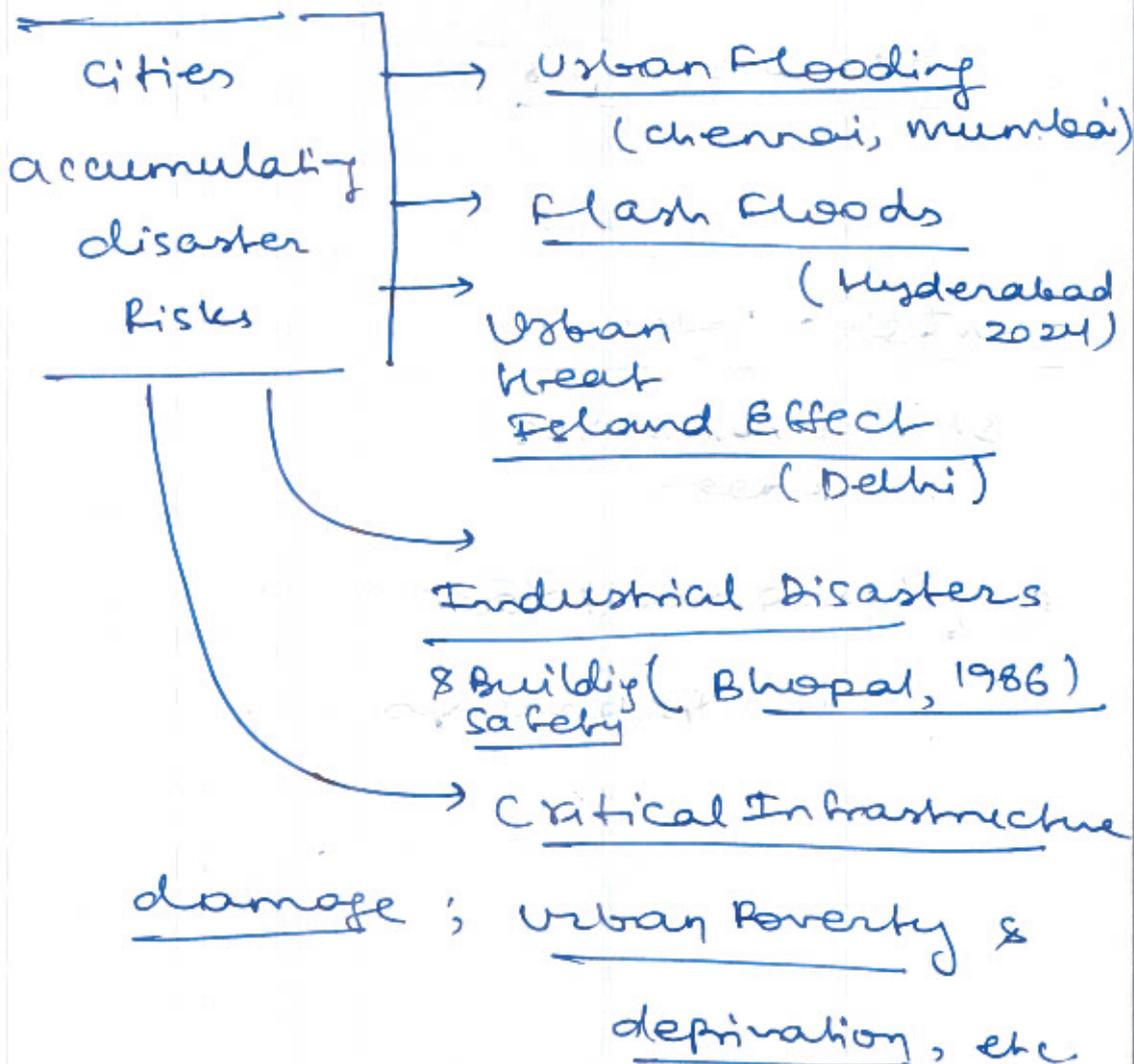   <u>with west</u> .

Thus,

   Offshore <u>wind Energy</u> can

   Significantly contribute to India's

   <u>Net Zero</u> and <u>LiFE</u> goals.

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)

Cities in India contribute over 2/3rd to GDP ; thereby acting as centres of Growth ; but are rapidly become Disaster Hotspots.

Cities accumulating disaster Risks

→ Urban Flooding (chennai, mumbai)

→ Flash Floods (Hyderabad 2024)

→ Urban Heat Island Effect (Delhi)

Industrial Disasters & Building Safety (Bhopal, 1986)

→ Critical Infrastructure damage ; urban Poverty & deprivation, etc

Complexity of disaster mgmt.
@ urban centres

1. Sabotaged Blue - Green Infra for devt. (Ex: Lakes of Bangalore)

2. Unsustainable expansion and lack of town planning

3. Lack of dedicated agencies for urban issues.

4. Heavy population pressure and overwhelmed Infra.

5. Lack of coordination among agencies ⇒ Poor accountability (Ex: RAU's IAS event)

[way Ahead] in this regards

1. Chinese concept of [Sponge Cities] (Dedicated Blue Green Infra to mimic Natural Ecosystems)

② Planned <u>urbanization</u>
                    (Ex: Chandigarh)

③ Regular <u>maintenance of</u>
   <u>sewers</u> ; constructing new
                    <u>storm drains</u>, etc

④ Dedicated <u>SOPs</u>, etc.

[measures Taken]

① 2024 NDMA <u>Amendt. Bill</u>
        ↳ Dedicated body for
                    <u>urban disasters</u>.

② UP Govt ⇒ district wise
            <u>Heat wave Action Plan</u>

③ Ist Urban Flooding control
        Program for <u>chennai</u>,
                    <u>more to come</u>

India must adhere to <u>SENDAI</u>
<u>Principles</u> and augment our
National <u>Disaster Policy</u>, 2016 in
this regards.

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)

Social media sites have significantly enhanced India's security concerns as per latest ORF Report.

[Threats posed] :

① Inflationary posts

    Eg: Beef & cow vigilantism

② Echo chambers
        (for fake news
            Eg: Clip on ₹2000 note)

③ Lack of social media accountability
    ('Intermediary status')

④ Lack of tracebility & Anonymity

⑤ Use by Radical outfits :

✓ (ISIS magazine, Radicalizing
                    Speeches,

✓ Recruitment via Telegram,

✓ Training module via video games

                     etc .)

IT Rules, 2021 ⟹ FCUs ⎤

                          ↓

                     [PIB] designated
                        by govt

(Impact) :

① To fact check any disputed

media / Info using official
                       resources.

② Analyse repercussions upon

national security & integrity.

③ Direct social media websites /

platform to remove any unsuitable

or provocative content.

④ uphold accountability of

platforms as per social media

Ethics (IT Rules, 2023)

Concerns raised

① curtailing freedom of speech as per Article 19.

② Lack of Independent nature of FCUs like PIB.

③ Govt. is both jury & Judge (alongwith petitioner).

④ curtails Agency / freedom of social media platforms.

⑤ Opacity of procedure followed by govt agencies to link a media as fake / opinionated.

In Kunal Kamra vs UOI, Bombay HC delivered a split verdict and is sub-judice now. But it is pertinent to balance freedom of speech with reasonable restriction.

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)

As per MHA's recent report;
Insurgency in kashmir valley
has declined substantially
due to mix of hard & soft
measures in the regards.

Role of VNSA-OGW
→ Help Terror outfits in Propaganda, Radicalization
→ Act as Eyes, Ears of militant outfits
→ Provide infiltrators the required on ground facilities transport, shelter, etc.
→ Take undue Advantage of local identity.
→ Create distrust against security forces in Public
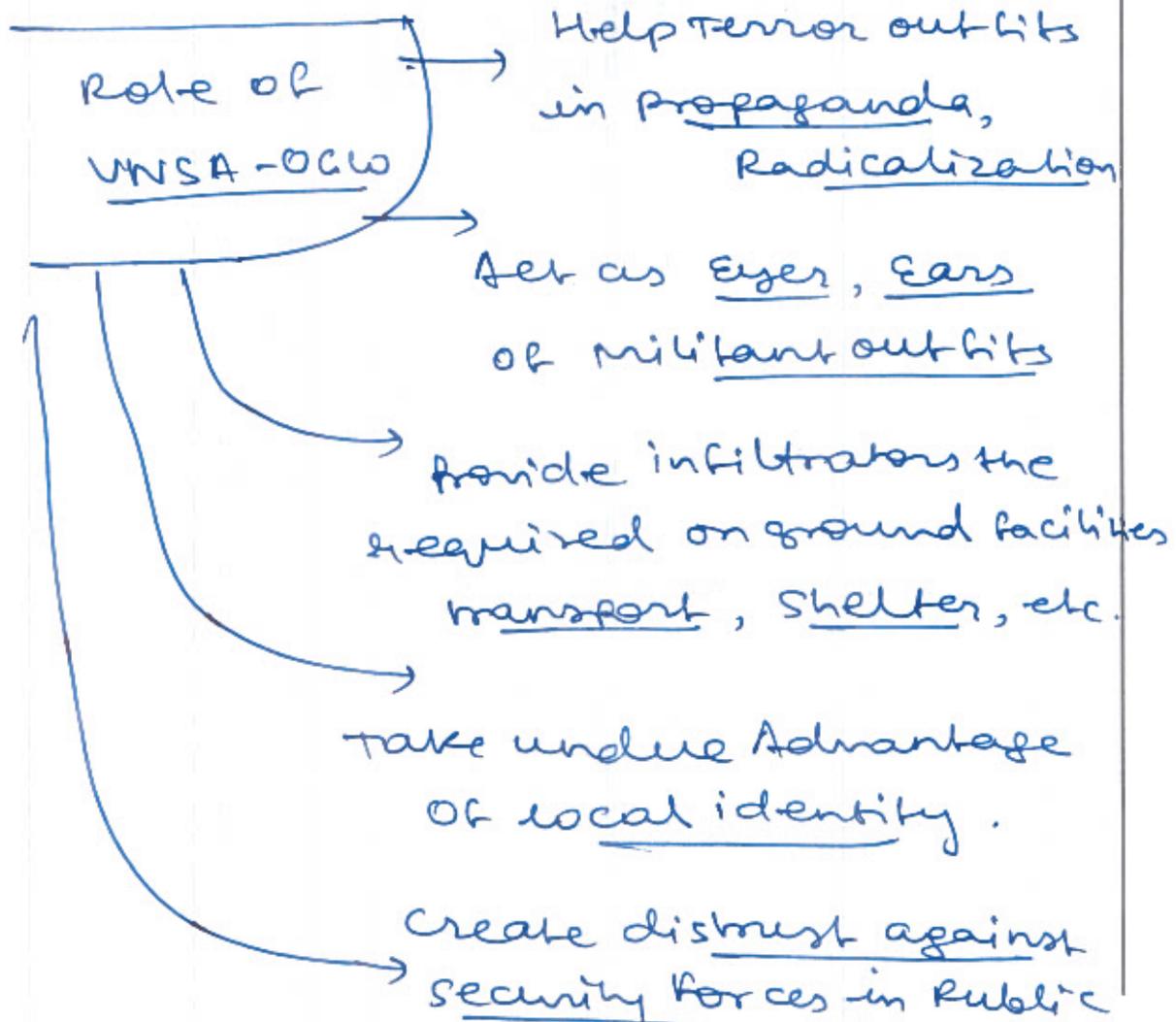
Unfulfilled aspiration of kashmiri youth

① Frequent Internet Shutdowns

(India: No. 1 globally)

Backwardness

Deprivation   Radicalization

Grounds for Extremism

② Heavy Personnel deployment & (restricted Art-19)

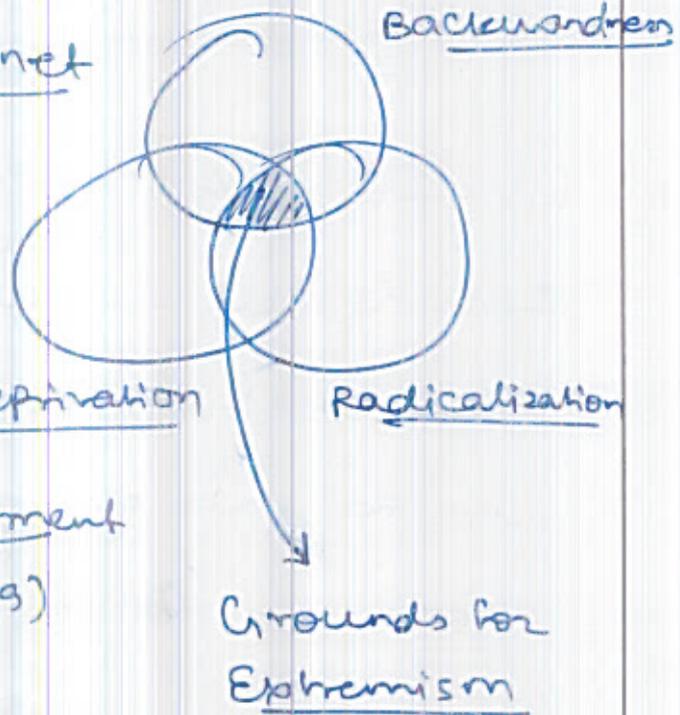③ Backwardness due to lack of integration with mainland India.

④ Security ⟶ tourism and local business hurt
   challenges

⑤ Lack of opportunities for youth
   ↳ Easily radicalized.
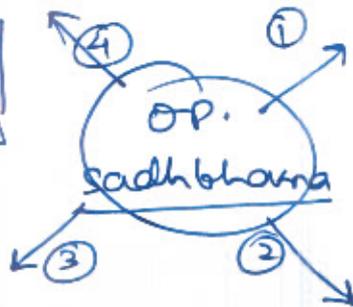
⑥ mistrust (AFSPA)

⑦ Perceived threat to kashmiri Identity.

Operation Sadhbhavna

↳ Army opens Residential schools
for kashmiri children.

Youth
Connect

| Awaam
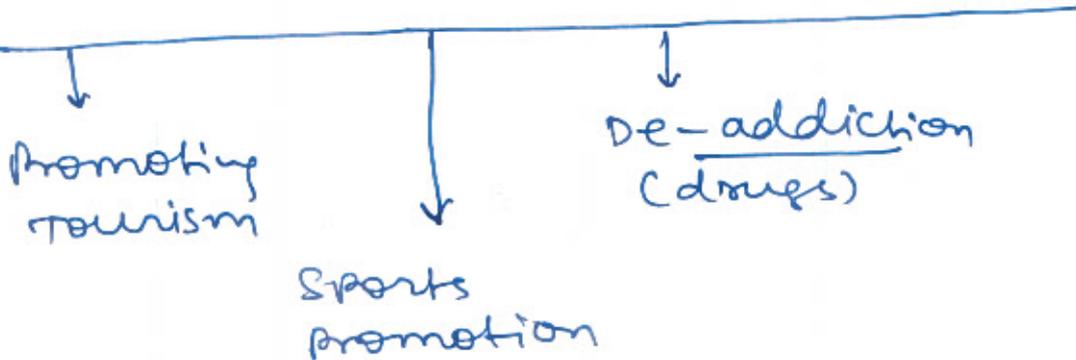ki
Awaaz |

④ ① → MISSION YOUTH

OP.
Sadhbhavna

③ ②

Parvaaz : CSE
coaching

Sher-i-kashmir
skill Developt.
of youth.

Reducing
Brute Force
strategy
(AFSPA)

WHAM
(winning hearts &
Minds)

Way Ahead

↓ Promoting
tourism

↓ Sports
promotion

↓ De-addiction
(drugs)

Thus, it is high time that we
make kashmir valley as the
'Heaven on Earth' again.

Space for Rough Work

Space for Rough Work

Space for Rough Work

IMPORTANT INSTRUCTIONS

CANDIDATES SHOULD READ THE UNDERMENTIONED INSTRUCTIONS CAREFULLY. VIOLATION OF ANY OF THE INSTRUCTIONS MAY LEAD TO PENALTY.

DONT'S

1. Do not write your name or registration no. anywhere inside this Question-cum-Answer Booklet.
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.
4. Do not leave behind your QCA Booklet on your table unattended, it should be handed over to the invigilator after conclusion of the exam.

DO'S

1. Read the Instructions on the cover page and strictly follow them.
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.
6. Handover your QCA Booklet personally to the invigilator before leaving the examination hall.

SPECIAL REQUEST FOR CANDIDATE AVAILING ONLINE FACILITY

1. Scan the QCA booklet properly. We suggest the uses of the app CAM scanner (Scan QR code in page 2) based on our previous experiences.

2. Please scan the QCA booklet in ample light. Copies scanned under moderate light can hamper evaluation quality.

3. Any page/pdf having shadow needs to be rescanned. Please make sure that the pdf that you upload is as clean as possible.

4. **Candidates not using the QCA booklet** must mention their details on the front page. And leave the next page blank for the macro comments. It must be understood that the answer should start from Page no. 3 in of the scanned pdf.

5. Candidates not using the QCA booklet must follow the sequence of the answer as per the question paper.

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 SCANER) 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।