

NEXT IAS

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(To be filled by candidate)

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Roll No. : MT 23 RCA PA 113

Registration Number : Date of Examination : 14/08/23

Exam Centre : Old Rajinder Nagar Bhopal Online

Test - 3

Code : TC705

RCA Batch 2023

GENERAL INSTRUCTIONS

This Question-cum Answer (QCA) Booklet contains 56 pages. Immediately on receipt of the 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.

Candidates must read the instructions on this page and the following pages carefully before attempting the paper.

Candidates should attempt the questions strictly in accordance with the instructions specified in the question paper and in the space prescribed under each question in the booklet. Any answer written outside the space allotted may not be given credit.

Question paper will be provided separately and can be taken by the candidates after conclusion of the exam.

SUBJECT/PAPER
GENERAL STUDIES

Invigilator's Sign. : 

[To be filled by the STUDENT]

Student's Queries for the Evaluator (if any write them below)

Handwriting practice area for student queries, featuring a solid top line and four dashed midlines.

[To be filled by the EXAMINER]

Evaluator's response

Handwriting practice area for evaluator's response, featuring a solid top line and four dashed midlines.



(For filling by Examiners only)

Evaluator Code :

Q.No	Pg No.	Maximum Marks	Marks	Total
1	1			
2	3			
3	5			
4	7			
5	9			
6	11			
7	13			
8	15			
9	17			
10	19			
11	21			
12	24			
13	27			
14	30			
15	33			
16	36			
17	39			
18	42			
19	45			
20	48			
Grand Total				

Signature

MACRO COMMENTS



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 leaves 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.

Q.1 अप्रत्याशित कर (विंडफॉल टैक्स) से आप क्या समझते हैं? क्या आपको लगता है कि अप्रत्याशित करों से संपदा का प्रभावी ढंग से पुनर्वितरण हो सकता है और अधिक आर्थिक समानता को बढ़ावा मिल सकता है?

(150 शब्दों में उत्तर दीजिए) 10 अंक

What do you understand by Windfall tax? Do you think that windfall taxes can effectively redistribute wealth and promote greater economic equality? (Answer in 150 words) 10 Marks

Windfall tax can be understood as gains from any unexpected sudden rise in price of a commodity. eg) Property prices (real estate).

Windfall tax effectively redistributing wealth

↳ ① To ensure profits from inflation distributed across customers.

↳ ② Additional tax revenue to government for welfare measures.

eg) Recent imposition of windfall tax on oil prices.

↳ ③ Protection against price rise of a commodity till changing of tax rates are undertaken.

Promoting greater economic equality

↳ ① funds for infrastructure development having multiplier effects in economy.

- ↳ ② Promoting inclusive development.
- ↳ ③ Minimising income inequalities,
eg) According to Oxfam report, $\frac{1}{10}$ %
of population in India own > 40%
wealth.

Way forward

- ↳ ① Rationalised tax structure to prevent tax terrorism.
- ↳ ② Easing compliance structure under taxation regime.
- ↳ ③ Increasing commodities under windfall tax regime.

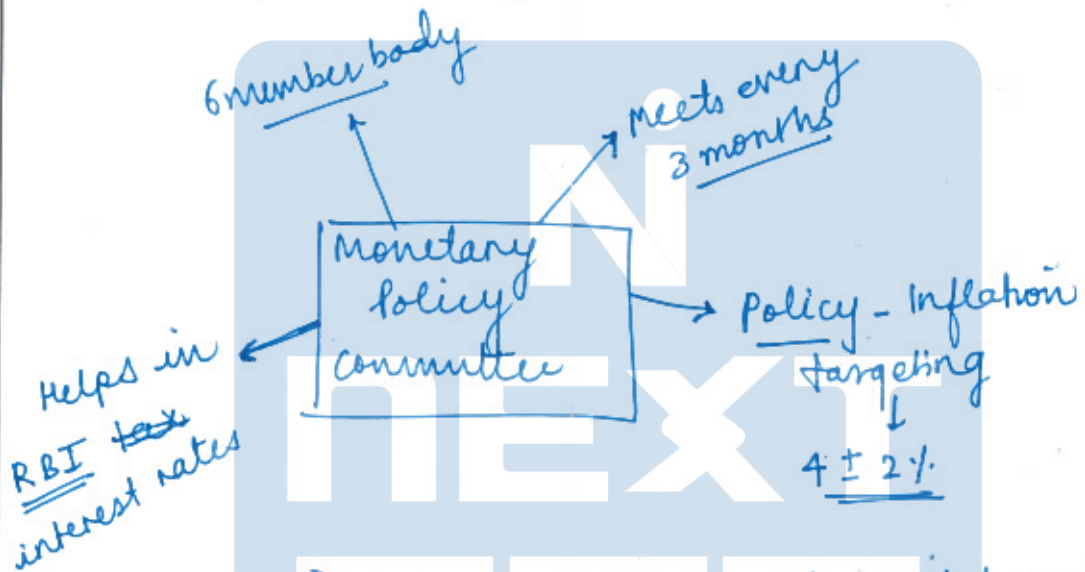
An effective windfall tax regime forms a key to inclusive growth in India.

Q.2

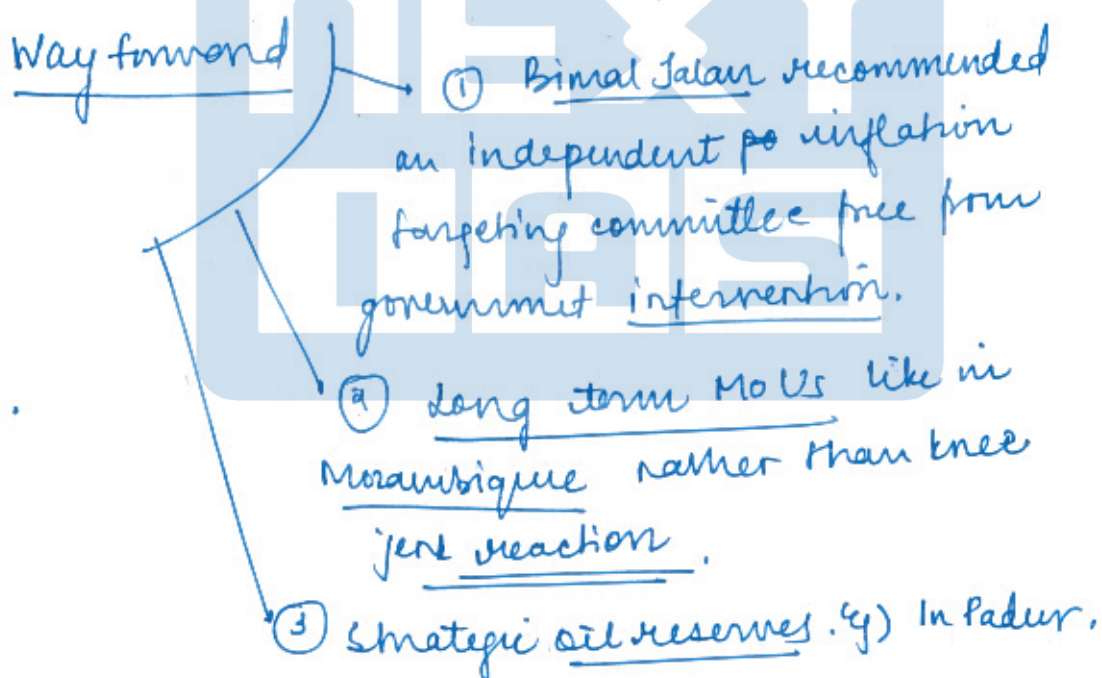
नई मौद्रिक नीति समिति (एमपीसी) व्यवस्था के अंतर्गत मुद्रास्फीति लक्ष्यीकरण को क्रियान्वित करने की कथित सफलताओं और चुनौतियों पर चर्चा कीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

Discuss the perceived successes and challenges of implementing inflation targeting under the new Monetary Policy Committee (MPC) regime. (Answer in 150 words) 10 Marks

Under RBI Act, 1934 amendments, Monetary Policy Committee (MPC) has been provided for.



- Perceived Successes in MPC
- ① It has helped target inflation during a price rise in 2022.
 - ② RBI uses its interest rates (Repo rates) on MPC targets.
 - ③ During COVID, helped regulate price rise of essential commodities.
 - ④ Ensuring inflation to act as a income stabiliser.



Maintaining inflation is the need of the hour to prevent deterioration of private consumption (Economic survey '22)

Q.3

भारत में सतत कृषि को बढ़ावा देने और खाद्य सुरक्षा में सुधार के लिए मोटे अनाज उत्पादन की क्षमता का आकलन कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

Assess the potential of millet production in promoting sustainable agriculture and improving food security in India.

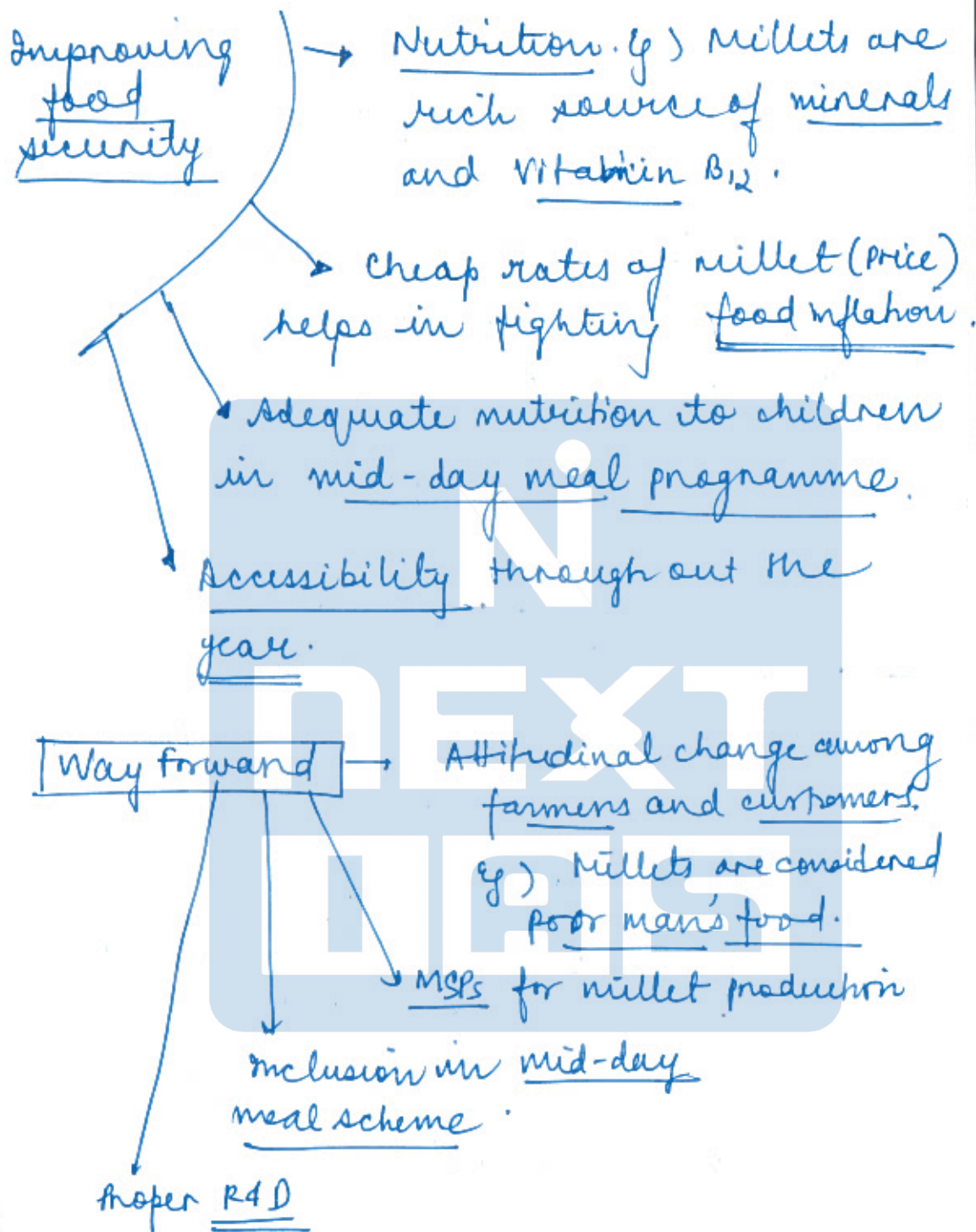
(Answer in 150 words) 10 Marks

2023 is being celebrated as International Year of Millet by UN to emphasize upon its importance in food security and sustainability.

Potential of millet production

- Sustainable agriculture practise
- ① It is drought resistant crop and help fight climate change.
 - ② It can even grow in water logged conditions.
 - ③ Preventing monocropping and depletion of land resources.
 - ④ As it is a handy crop, it requires less water intensive methods.

Eg) 230 water guzzling crops in India causing groundwater depletion.



Government of India has established centre for Research of Millets in Hyderabad.
which is a policy in right direction.

Q.4 जल जीवन मिशन में पेयजल की उपलब्धता और पेयजल तक पहुँच में क्षेत्रीय विषमता को समाप्त करने का सामर्थ्य है। मिशन के महत्त्व पर प्रकाश डालते हुए, वांछित उद्देश्यों की प्राप्ति में अंतर्निहित बाधाओं पर चर्चा कीजिए।

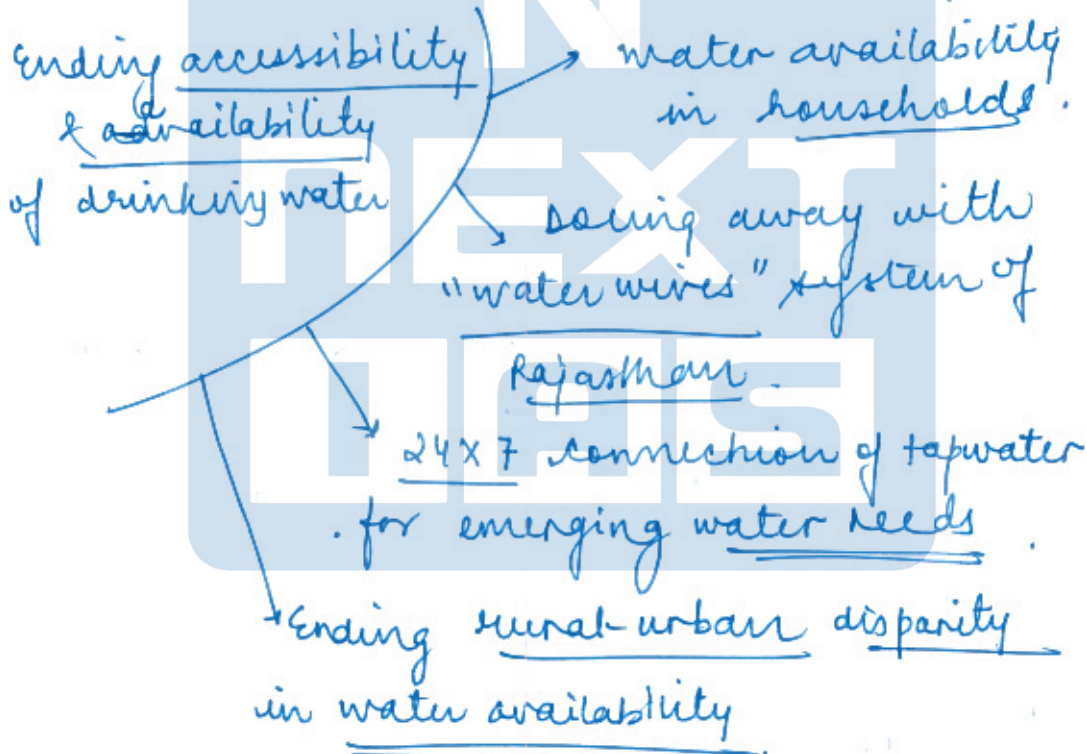
(150 शब्दों में उत्तर दीजिए) 10 अंक

Jal Jeevan Mission has the potential to end the regional disparity in the availability and accessibility of drinking water. Highlighting the significance of the mission, discuss the underlying impediments in achieving the desired objectives.

(Answer in 150 words) 10 Marks

Jal Jeevan Mission of Jal Shakti Ministry aims to ensure functional tapwater connections to all till 2024.

Potential of Jal Jeevan Mission

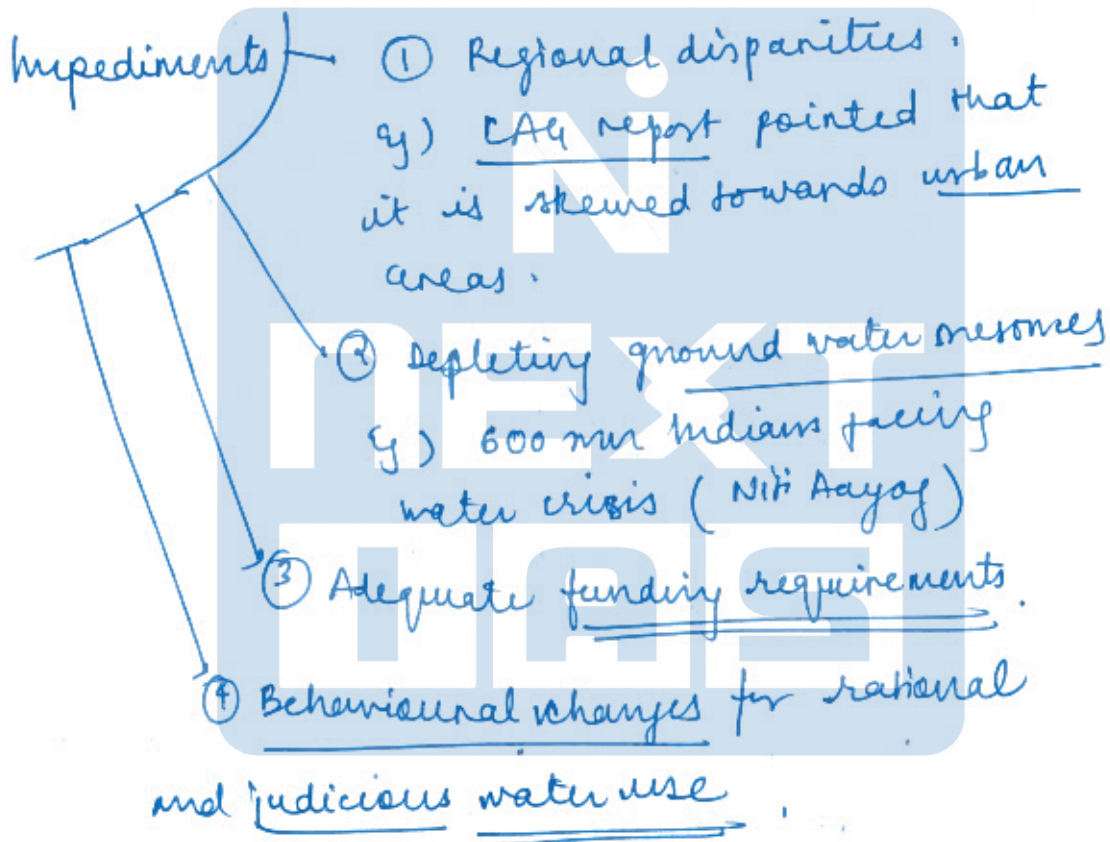


Significance of the mission

- Inclusive growth by providing water to all. (SDG-6)
- Addressing sanitation concerns and related health issues (e.g.) cholera

→ Also linked with undernutrition and malnutrition.

→ Promoting gender-equality - freeing women from non-economic production processes.



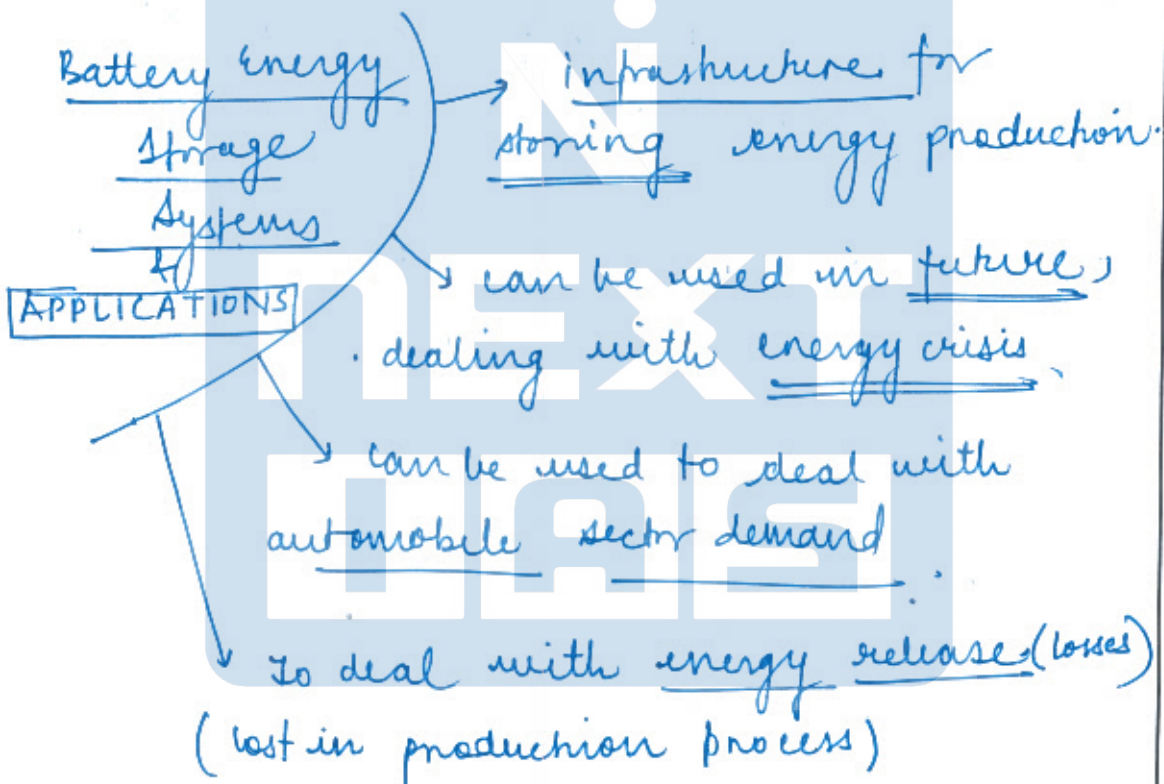
Availability of tap water with successful rainwater harvesting is a key to sustainable growth.

Q.5

बैटरी ऊर्जा भंडारण प्रणाली (बीईएसएस) से आप क्या समझते हैं? इसके अनुप्रयोगों पर चर्चा कीजिए और यह भारत के ऊर्जा कार्यक्रम में किस प्रकार क्रांतिकारी बदलाव ला सकता है। (150 शब्दों में उत्तर दीजिए) 10 अंक

What do you understand by Battery Energy Storage Systems (BESS)? Discuss its applications and how it can revolutionize the energy program of India. (Answer in 150 words) 10 Marks

Budget 2023-24 has introduced Battery Energy Storage System to enhance energy production and use.



Revolutionising energy programme of India

→ for net zero targets of 2070.

→ updated INDCs competition.

eg) 50% of energy from non fossil fuel resources

→ Helping deal with rising energy demand. Eg) India is the 3rd largest energy consumer after USA, china.

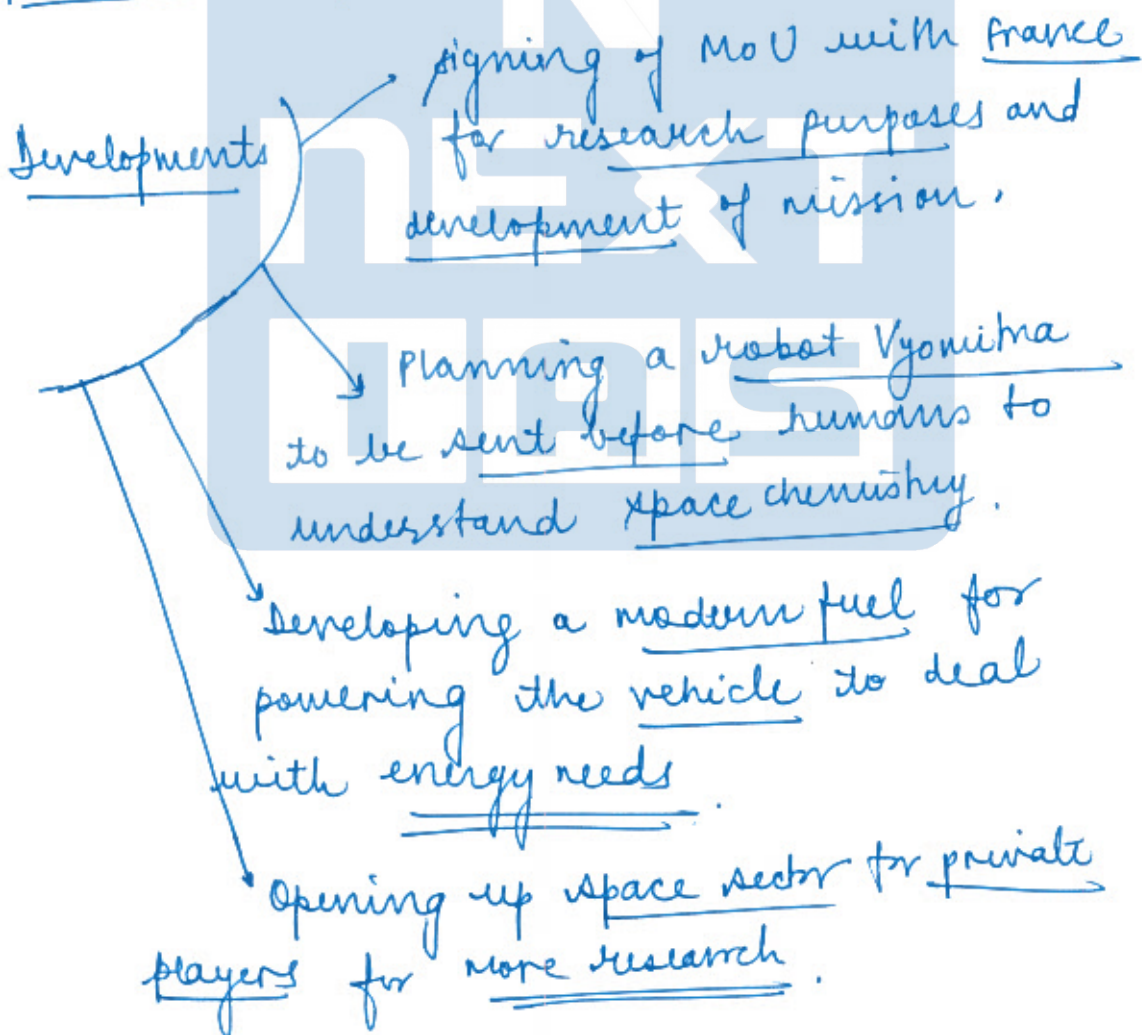


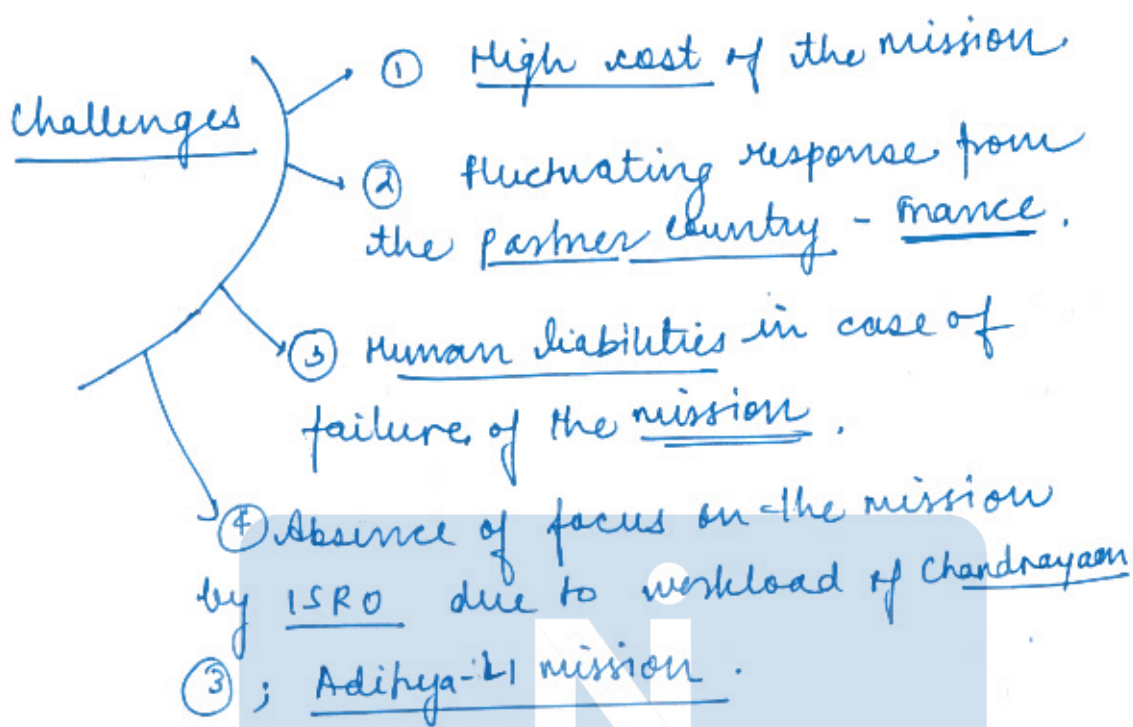
Q.6 इसरो के गगनयान मिशन में हुए विकास और उपस्थित चुनौतियों पर संक्षिप्त चर्चा कीजिए। समाज के लिए मिशन के संभावित लाभ क्या हैं? (150 शब्दों में उत्तर दीजिए) 10 अंक

Discuss in brief developments and challenges in the Gaganyaan mission of ISRO. What are the possible benefits of the mission for the society? (Answer in 150 words) 10 Marks

Gaganyaan Mission of ISRO aims to send people to space for research purposes.

Developments and Challenges of Gaganyaan mission of ISRO





India, thus needs a renewed focus on Gaganyaan mission to achieve the benefits of the mission.

Q.7

“जलवायु परिवर्तन और प्रदूषण से निपटने की हमारी खोज में हरित हाइड्रोजन एक सरल और जादुई समाधान हो सकता है”। भारत के राष्ट्रीय हरित हाइड्रोजन मिशन के आलोक में कथन का आलोचनात्मक विश्लेषण कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

“Green hydrogen can be the silver bullet in our quest to tackle climate change and pollution”. Critically analyze the statement in light of India's National Green Hydrogen mission.

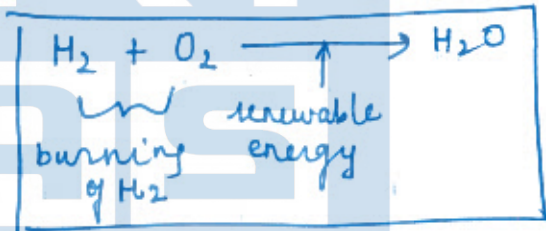
(Answer in 150 words) 10 Marks

Budget 2022 announced a Green Hydrogen Mission that plans for 5 million tonnes of production of Green Hydrogen energy.

Green Hydrogen - a silver bullet in our quest to tackle climate change and pollution

→ Clean energy source - Hydrogen. only end product is water.

① Helps enhancing our renewable energy capacity.



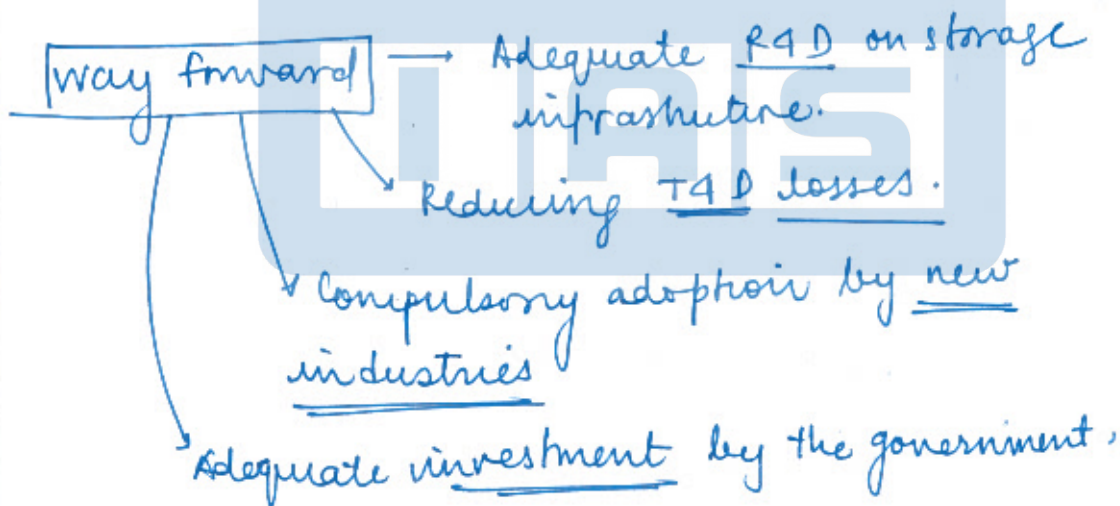
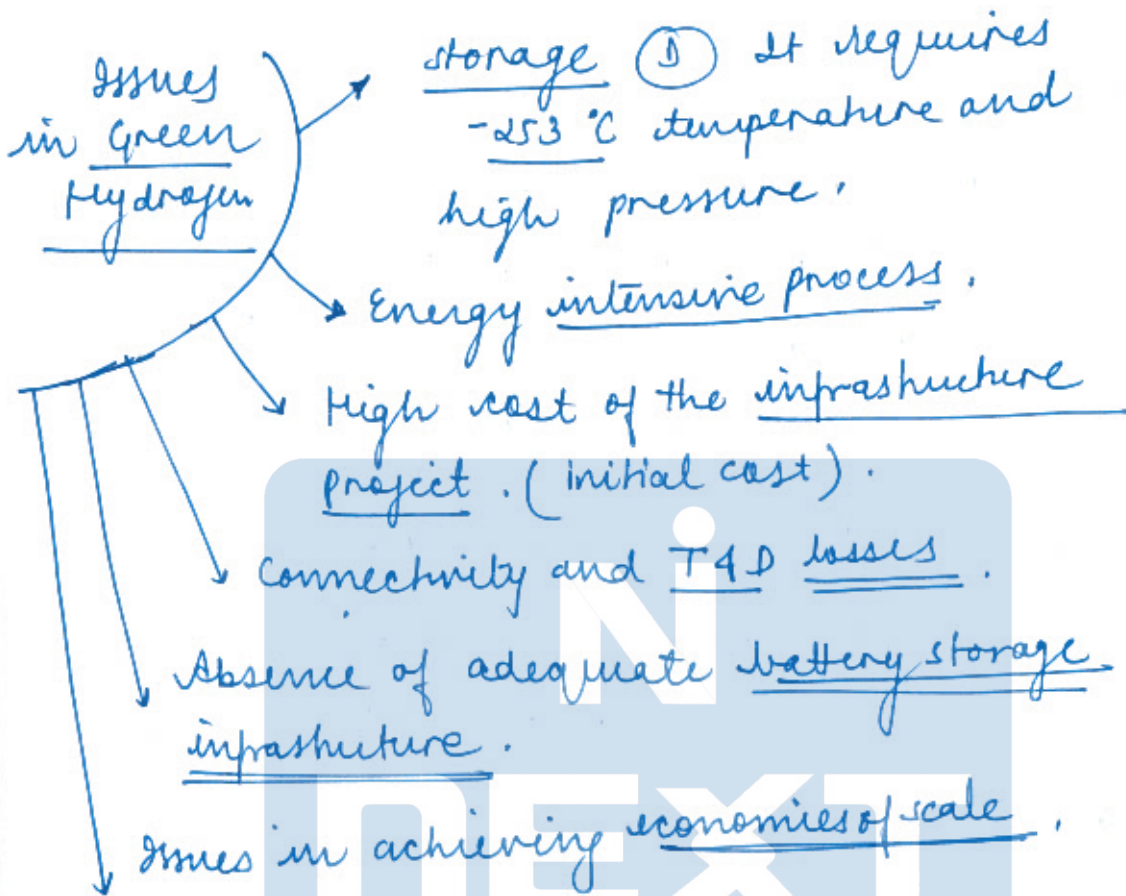
② Highly intensive energy source.

③ 120 MJ/kg of energy is produced.

Other advantages

→ Readily available
Eg) Hydrogen adequately available in atmosphere.

→ Does away with coal and methane burning.



A successful Green Hydrogen Mission would enable a self-sufficient energy availability for India.

Q.8

हाल ही में जोशीमठ, उत्तराखंड में आई आपदा के आलोक में, हिमालय क्षेत्र में आपदा प्रबंधन और पर्यावरण संरक्षण के लिए मुख्य सबक क्या हैं? (150 शब्दों में उत्तर दीजिए) 10 अंक

What are the key lessons for disaster management and environmental conservation in the Himalayan region, in light of the recent disaster in Joshimath, Uttarakhand? (Answer in 150 words) 10 Marks

Joshimath, Uttarakhand recently witnessed major landslips pointing to a faulty development process and thus providing lessons for disaster management.

Key lessons for disaster management

→ Adequate early warning system to be in place for vulnerable areas.

eg) Use of nano-sensors.

→ focussing on non-structural measures.

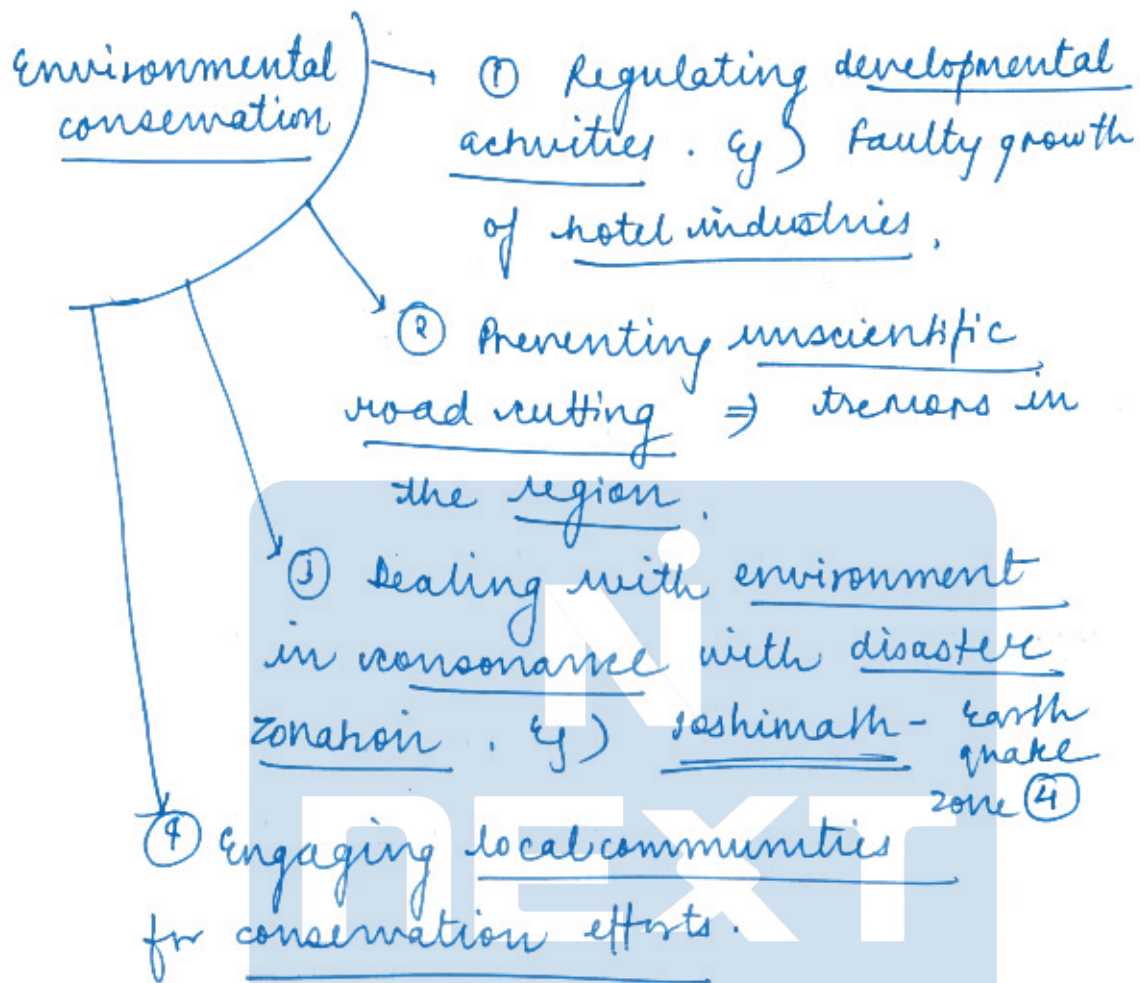
eg) Landslide Hazard Zonation.

→ Adequate preparedness and response needed.

eg) Displacement of communities of the region.

→ Regulating tourism sector in collaboration with state & central government.

eg) 50 lakh inbound tourists (In 2022) → No End forest and Climate Change



Joshimath and other popular tourist destinations can follow Mangalajodi model of eco-tourism that helped transform tourist activities with the help of local communities in Chilika Lake region.

Q.9

"पंजाब में हालिया कहरपंथी रुझानों से पता चलता है कि खालिस्तान का मुद्दा अभी भी उबल रहा है।" हालिया घटनाक्रम के संबंध में कथन पर चर्चा कीजिए और इससे निपटने के उपाय सुझाएँ।

(150 शब्दों में उत्तर दीजिए) 10 अंक

"The recent radical trends in Punjab show that the Khalistan issue is still simmering." Discuss the statement with respect to recent developments and suggest measures to handle it.

(Answer in 150 words) 10 Marks

Recently, Indian embassies were attacked in Canada and France pointing to rising Khalistani movement.

Recent radical trend in Punjab show
Khalistan issue still simmering

- ① Uncovering of radical network point to the organised nature of the crime.
- ② Their ability to remain undercover point to a possible local support.
- ③ Possible involvement of state and non-state actors.
eg) Pakistan's support to Khalistan movement.
- ④ Funding of the activities through utilising drug smuggling network
eg) Issue shown in UDTA Punjab

Measures to handle the issue

↳ managing favorable perception of the government from the youth.
eg) Adequate means of livelihood (jobs)

↳ using international organisation.
eg) India hosting "No money for Terror finance"; Radicalism one of the agendas in UNSC.

↳ Collaborating with foreign governments.
eg) Canada and UK to deal with foreign networks.

A multi-faceted development of the region would enable a safe and secure Punjab without a feeling of radical regionalism.

Q.10 ड्रोन संचालन में आसानी और साथ ही इसके संचालक की अनामिता, भारत की सीमा सुरक्षा की चुनौतियों में वृद्धि करती है। विस्तारपूर्वक वर्णन कीजिए और सीमावर्ती क्षेत्रों में ड्रोन समस्या से निपटने के लिए सुझाव दीजिए।

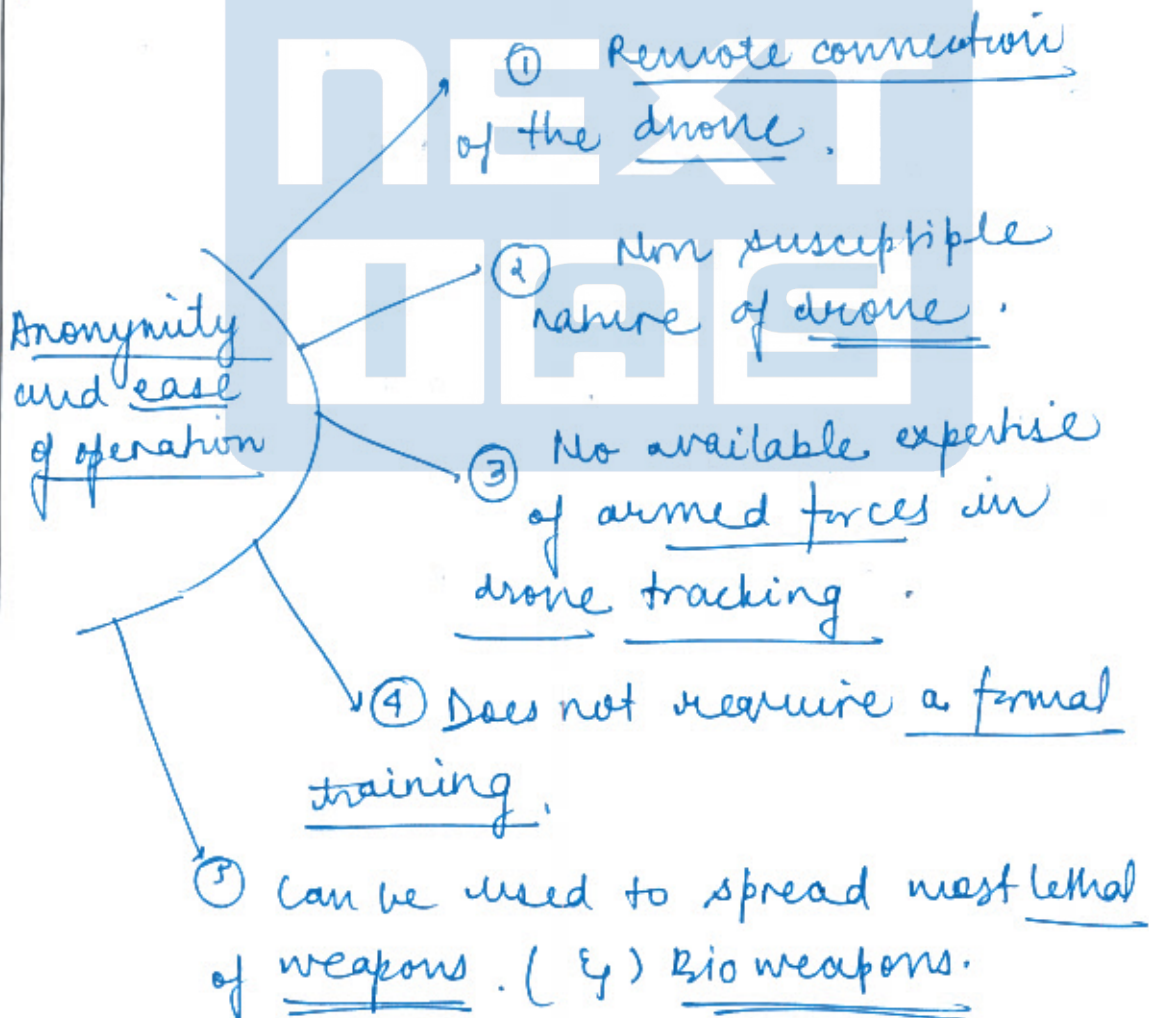
(150 शब्दों में उत्तर दीजिए) 10 अंक

The anonymity and ease of drone operation contribute to the challenges of India's border security. Elaborate and give suggestions to tackle the drone problem in border areas.

(Answer in 150 words) 10 Marks

In 2022, India was attacked by drone from Pakistan which points to its rising challenge.

Anonymity and ease of drone operation contributing to border security challenges





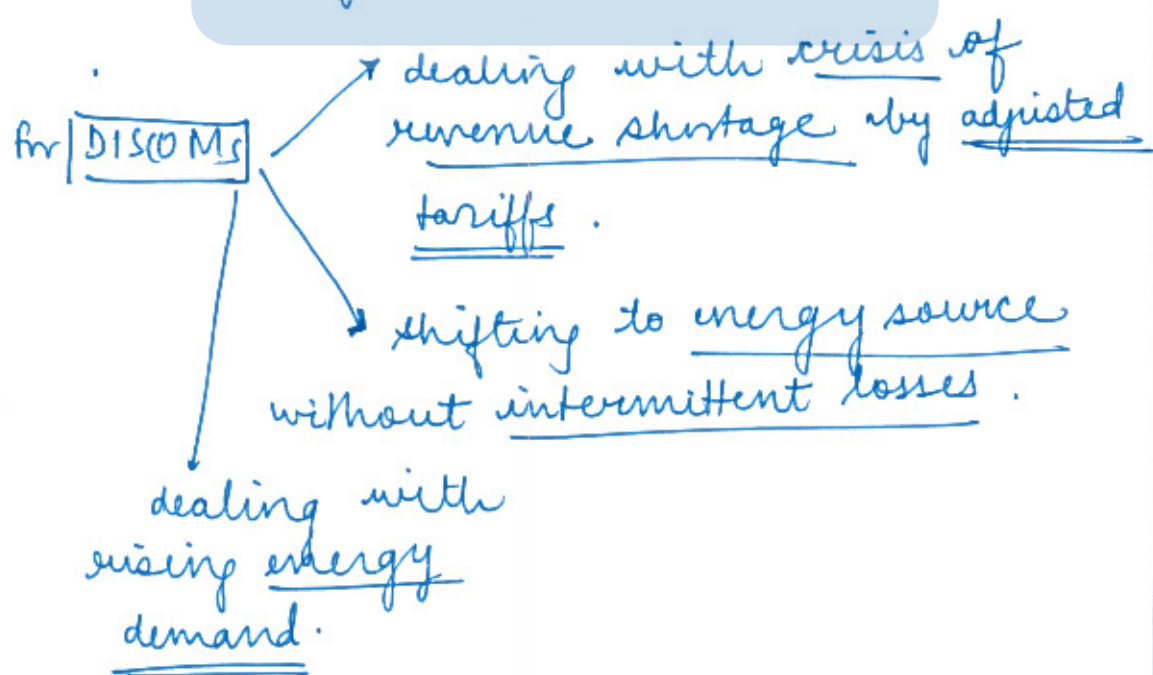
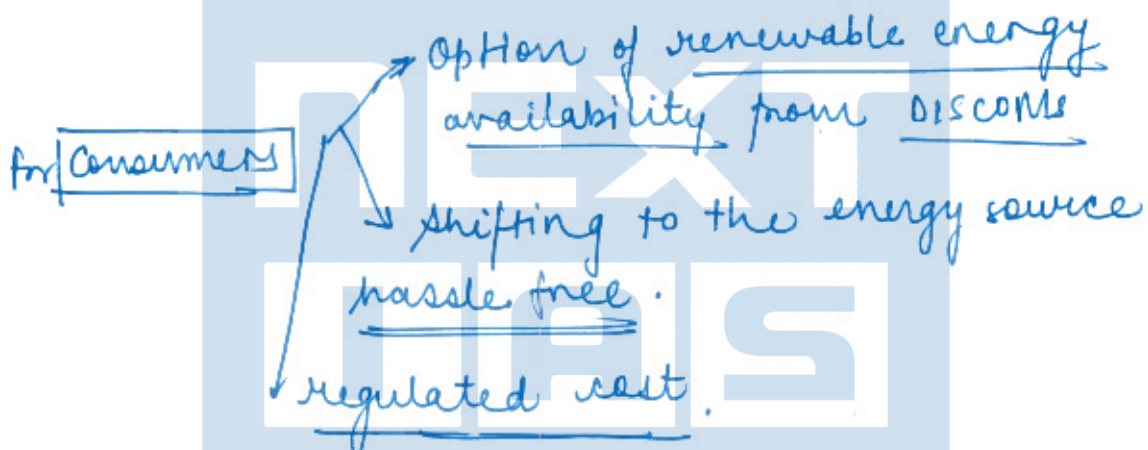
Q.11 विद्युत संशोधन विधेयक, 2022 उपभोक्ताओं, डिस्कॉम के साथ-साथ पर्यावरण के लिए कई लाभ प्रस्तुत करता है। सविस्तार वर्णन कीजिए। साथ ही इसकी कमियों को भी सूचीबद्ध कीजिए और उन्हें दूर करने के लिए कुछ उपायों का भी सुझाव दीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

Electricity Amendment Bill, 2022 brings several advantages for consumers, DISCOMs as well as the environment. Elaborate. Also, list out its shortcomings and suggest some measures to overcome them.

(Answer in 250 words) 15 Marks

Electricity Amendment Bill, 2022 aims to deal with the rising consciousness of customers and industries about environment.

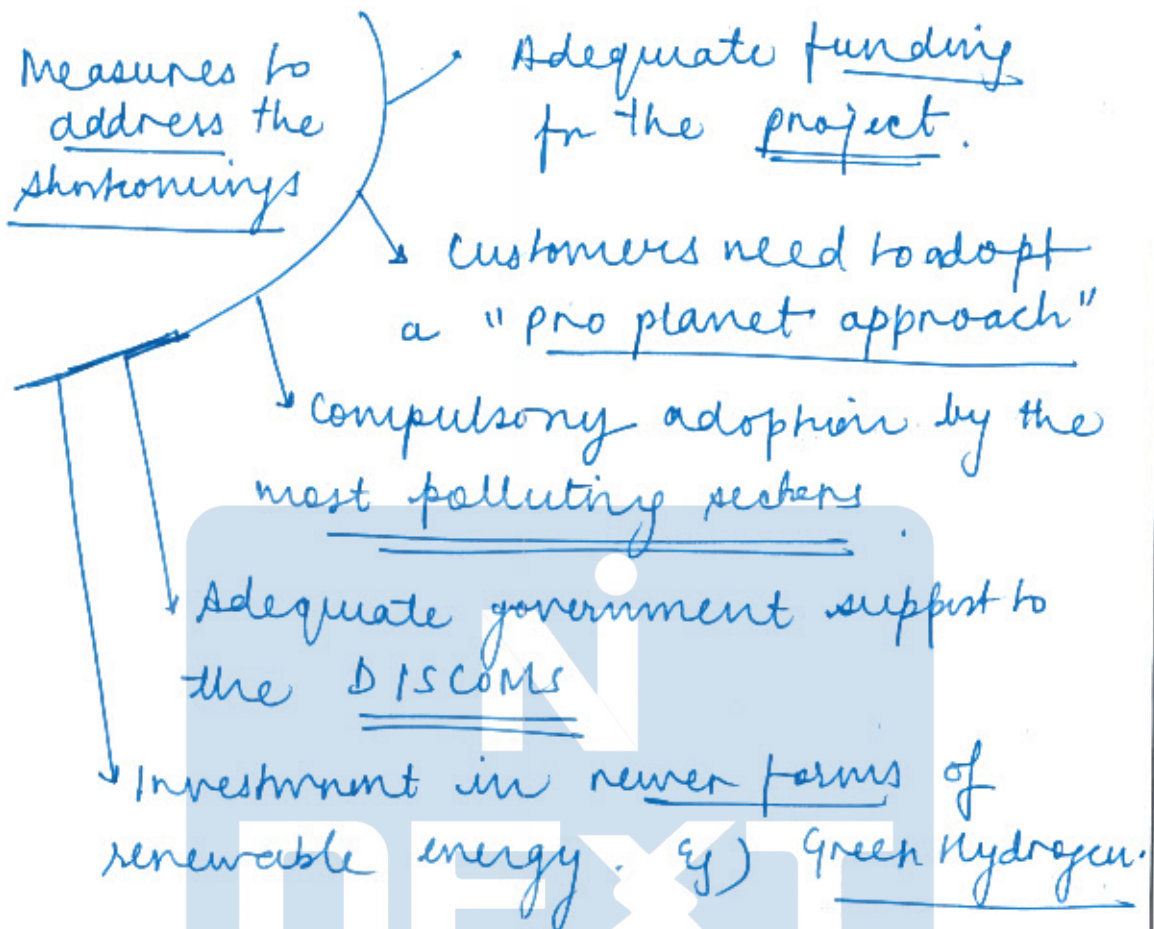
Electricity Amendment bill, 2022 - Advantages



- for environment
- shifting from polluting coal industries to renewable sources.
 - Help achieving "phasing down" coal dependence.
 - Completing INDCs of the government.
 - ① 50% of energy requirement from non-fossil sources.

Shortcomings of the Electricity Amendment Bill, 2021

- Human resource : eg) Electricity personnel not trained enough to deal with changed structure.
- funding requirement of the shift from non-renewable to renewable source.
- Behavioural change in the customers.
- Regulation of tariffs . eg) Purchase of renewable energy greater cost than ₹ 5/unit electricity to consumers.



This amendment to the Electricity Act, 2002 is in consonance with goal of Mission life of government both domestically and at international forums.

- Q.12 भारतीय प्रतिभूति एवं विनियम बोर्ड (सेबी) शेयर बाजार के नियमन और निवेशकों के हितों की सुरक्षा में महत्वपूर्ण भूमिका निभाता है। दिये गए कथन के आलोक में, सेबी के समक्ष आने वाली चुनौतियों पर प्रकाश डालिए और इस संबंध में सुधारों का सुझाव दीजिये।
(250 शब्दों में उत्तर दीजिए) 15 अंक

Securities and Exchange Board of India (SEBI) plays an important role in the regulation of the share market and safeguarding the interests of investors. In the light of given statement, highlight the challenges faced by the SEBI and suggest reforms in this regard.
(Answer in 250 words) 15 Marks

Securities and Exchange Board of India (SEBI) was established by an act (statutory body) in 1992 to manage the security sector of India.

SEBI regulating share market and interests of the investors

↳ Dealing with emerging issues in share market.

eg) Co-location in share market.

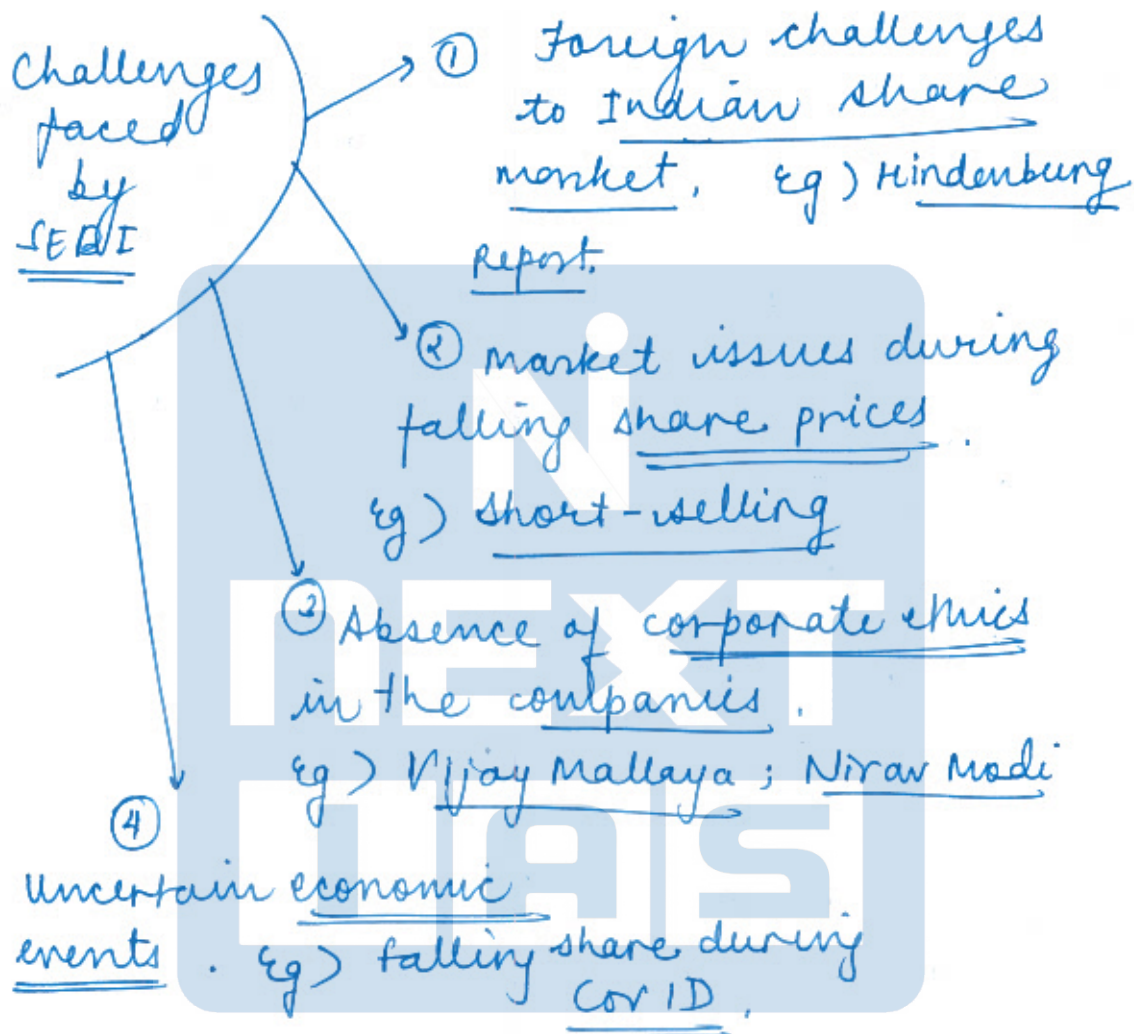
↳ Providing level-playing ground for the investors.

↳ Deepening of security markets for promoting FDI and FPIs in India.

↳ Also supports inclusive growth.

eg) National Social Security Exchange established for NGOs.

↳ Also deals with environmental concerns. eg) ESG requirements on certain sectors.



Reforms in SEBI

→ Independent regulation of the share market, free from governmental control

→ Mechanism to enforce regulation
eg) Penalties for non-adherence to

the rules prescribed.

→ Greater control over the foreign investors for preventing unscrupulous off-loading of shares (FII)

→ Collaboration with ~~the~~ Ministry of Commerce for opening up sectors on Ministry of Finance FDI.

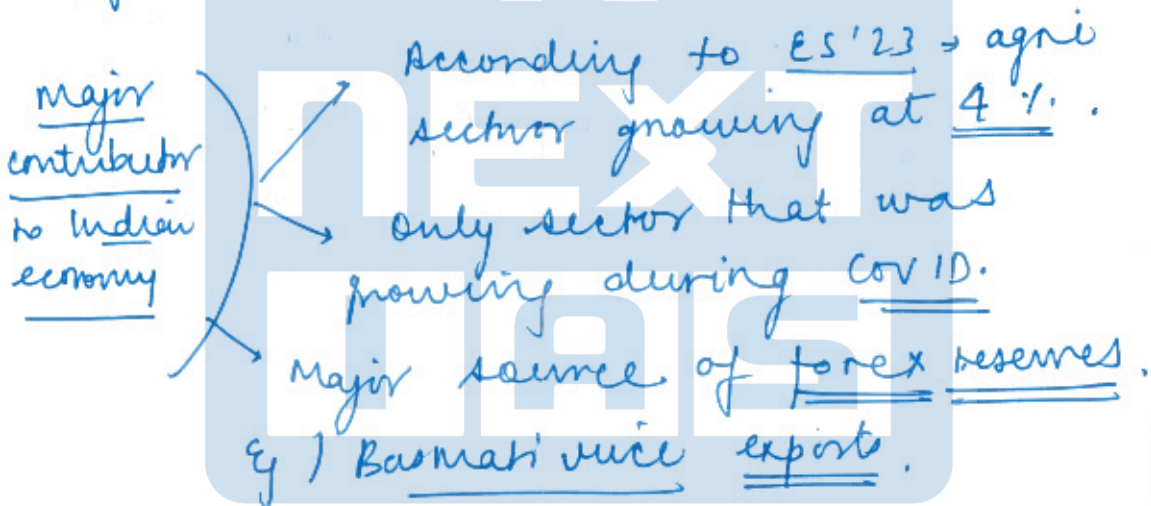
An ~~independent~~ independent regulation of the share market is an urgent need for dealing with the crisis in economy.

Q.13 भारतीय अर्थव्यवस्था में एक प्रमुख योगदानकर्ता होने के बावजूद, कृषि क्षेत्र कई बाधाओं से ग्रस्त है जो इसकी वृद्धि और विकास में बाधा डालते हैं। इन बाधाओं पर काबू पाने में प्रौद्योगिकी की भूमिका पर चर्चा कीजिए।
(250 शब्दों में उत्तर दीजिए) 15 अंक

Despite being a major contributor to the Indian economy, the agriculture sector is plagued by several constraints that impede its growth and development. Discuss the role of technology in overcoming these constraints.
(Answer in 250 words) 15 Marks

According to Economic Survey '23, Agriculture sector engages 49% of total population but contributes only 15% to the GDP.

(Agriculture Sector of India)



(Constraints in agri sector)

- Non availability of independent price discovery mechanism.
- inputs issues
 - ↳ Unregulated use of fertilisers
 - ↳ Groundwater depletion
- issues of climate change.

- Transporting and marketing issues
- ↳ Road transport. only 2% of network but carry 40% of freight.
 - ↳ Loss of grains during transport.
 - ↳ Absence of cold storage infrastructure
- Absence of insurance coverage.
- eg) ES'23 - only 6% of crops are covered with insurance.

Role of technology in overcoming constraints

- ① Inputs like fertilisers can be rationalised to make it more efficient. eg) Nano-urea plant.
- ② Technology can ensure proper storage and marketing.
eg) Krishi-UDAN scheme and silo containerisation (Ashok Dalwai)
- ③ ensuring proper insurance cover for farmers. eg) Santakshane

Project of Karnataka

④ Emerging climate issues can be solved through public infrastructure.

eg-) Digital Public Infrastructure (Budget 24) for dealing with emerging issues in agriculture.

⑤ For adequate marketing, initiatives like e-NAM can be used.

⑥ Field of biotechnology can be used for enhancing production.

eg) GM-Mustard

In order to adopt and promote digital and other technology :-

↳ Proper R & D.

↳ Behavioural changes in farmers.

↳ Public Private Partnership (PPP)

is ~~the~~ the need of the hour.

Technology can ensure doubling of farmers income as well.

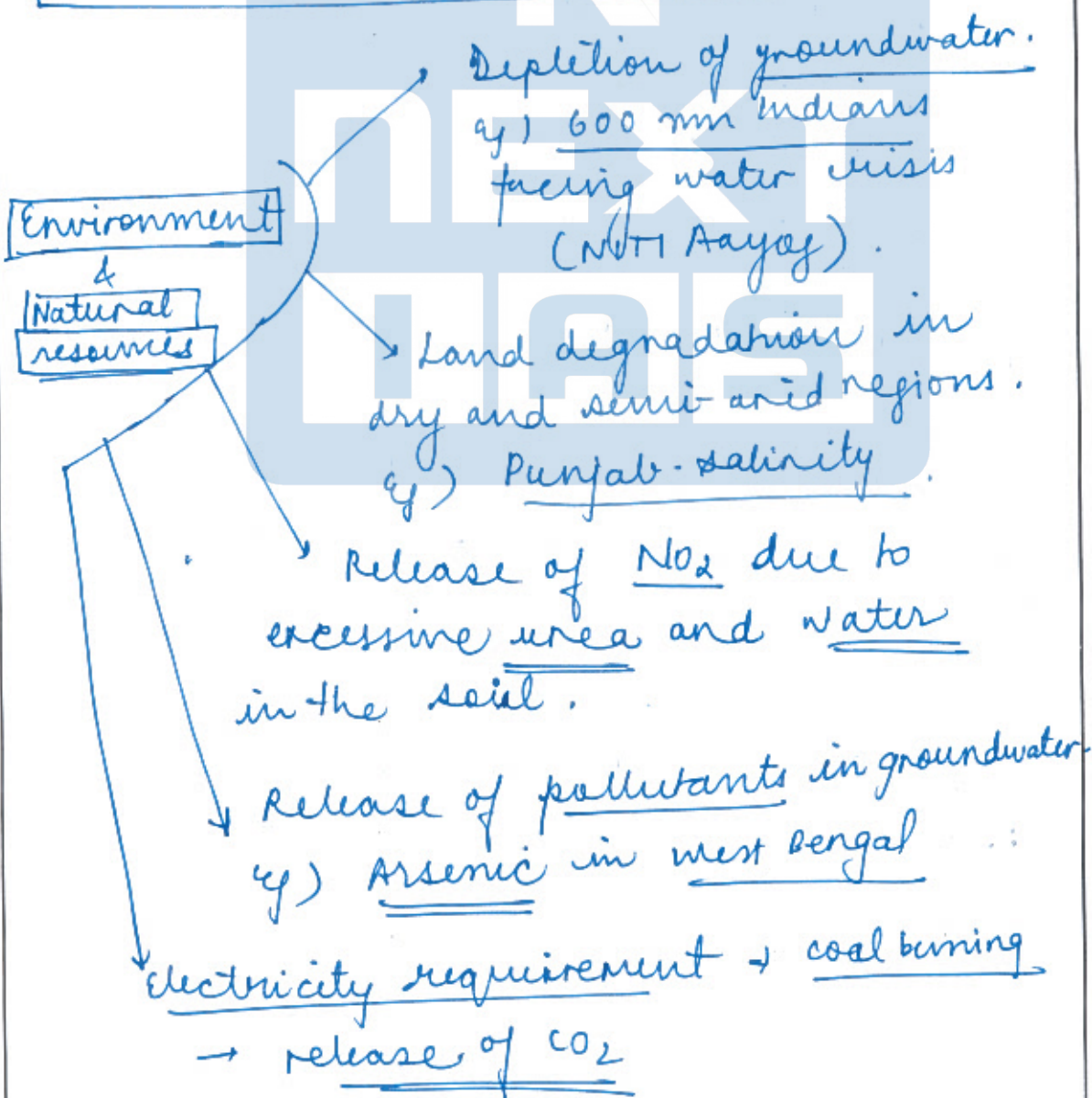
Q.14 पर्यावरण एवं प्राकृतिक संसाधनों पर सिंचाई के प्रभाव का मूल्यांकन कीजिए, और कृषि में सिंचाई पद्धतियों की संधारणीयता और समता सुनिश्चित करने के लिए उपाय सुझाएँ। (250 शब्दों में उत्तर दीजिए) 15 अंक

Evaluate the impact of irrigation on the environment and natural resources, and suggest measures to ensure the sustainability and equity of irrigation practices in agriculture.

(Answer in 250 words) 15 Marks

According to UN, India uses $\frac{1}{4}^{\text{th}}$ of total groundwater for its agriculture and domestic purposes.

Impact of irrigation on environmental and natural resources



Measures to ensure sustainability and equity in irrigation

- ① Rationalising subsidies.
eg) Timed electricity for agriculture
in Punjab
- ② Promoting micro-irrigation as it
has advantages like
 - Increased efficiency. (20-38% - Es'22)
 - Fertigation
 - Prevents run-off
 - Less electricity use
- ③ Utilising rain water harvesting
in irrigating.
eg) Integrating solar panels and
rain harvesting structure ⇒ Irrigation
to fields
- ④ Watershed development and
interlinking of rivers for irrigation
purposes.

Sustainable irrigation is the key to sustainable agriculture. Thus, there is a need to shift from land productivity to irrigation water productivity. (NITI Aayog)



Q.15 परमाणु ऊर्जा और अंतरिक्ष प्रौद्योगिकी के क्षेत्र में क्रमशः डॉ. होमी जहाँगीर भाभा और डॉ. विक्रम अंबालाल सारभाई के योगदान से भारत को रणनीतिक रूप से किस प्रकार लाभ हुआ? (250 शब्दों में उत्तर दीजिए) 15 अंक

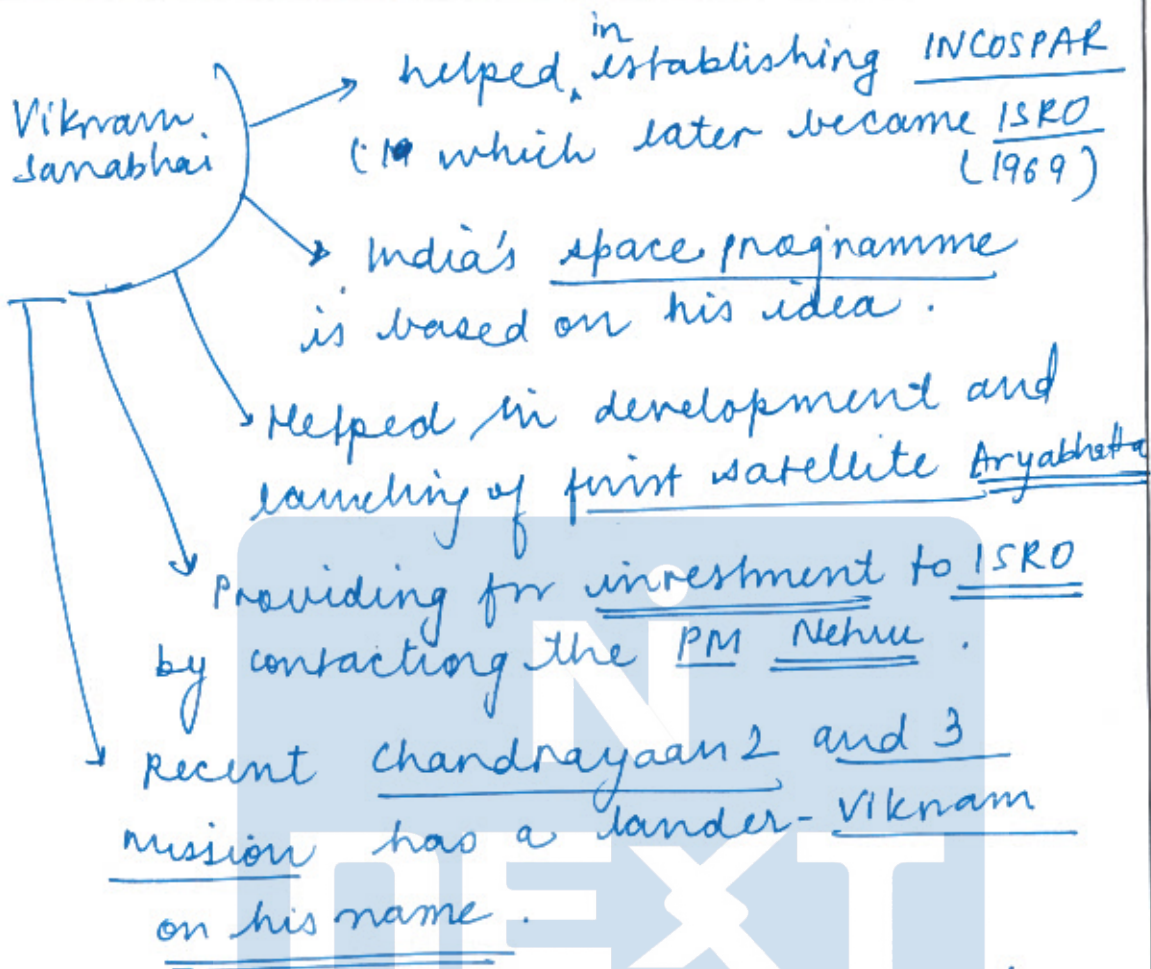
How India benefitted strategically from the contributions of Dr. Homi Jehangir Bhabha and Dr. Vikram Ambalal Sarabhai in the fields of atomic energy and space technology respectively?

(Answer in 250 words) 15 Marks

Right from the independence, various scientists have contributed in the development of technologies for growth of India. Homi Bhabha and Vikram Sarabhai are one among them.

Contributions of Homi Bhabha and Vikram Sarabhai





However, certain challenges remain:-

- (i) Expansion of nuclear technology.
- (ii) Currently only 2% of contribution to energy mix.
- (iii) Dealing with nuclear waste.
- (iii) Securing critical infrastructure from cyber attacks. (y) Kundankulam attack.
- (iv) Dealing with emerging issues in space:-
 - (a) Kessler Syndrome → space debris

(b) Liability conventions in space treaties → to private sector

(c) Some nations have not ratified treaties like Moon Treaty → not ratified by India.

Thus, we need to build upon the vision of these two scientists for carry forward the progress of India globally.

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Q.16 जेनरेटिव एआई निकट भविष्य में नवाचार की सीमाओं को आगे बढ़ाने का सामर्थ्य रखता है, फिर भी इसका सामाजिक प्रभाव पर्याप्त चुनौतियाँ खड़ी करता है। सविस्तार उत्तर दीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

Generative AI holds the potential to push the boundaries of innovation in the near future, yet its societal impact raises substantial challenges. Elaborate. (Answer in 250 words) 15 Marks

Generative AI has been a revolution in digital ~~Revolution~~ technology changing the entire methodology

Recent technologies like CHATGPT, Google BARD all are generative AI's that has transformed all the sectors. eg) Medical - describing the compound in research paper.

Potential of Generative AI

- ① RD
 - For new medical techniques.
 - eg) Protein folding by Deep Mind - Alpha fold.
 - For summarising research papers → aiding further research.

② Governance

→ Use of Generative AI in coming up with judgements. eg) use by Gujarat HC recently.

→ for identifying false beneficiaries.

eg) AADHAR - Ayushman Bharat Yojana.

↳ ③ enhancing production process.

eg) Automatic commands in assembling process.

Impacts on Society and Challenges

challenges
&
society

- ① Division between haves and have-nots.
- ② False belief on high modernism as a cause of progress.
- ③ Depletion of languages.
eg) Generative AI based on major languages like English.
- ④ Does not deal with local level solutions - "ATLAS approach"
- ⑤ Rising unemployment.
eg) WB predicts - 70% loss of jobs year on year due to AI.

Challenges with other areas

- ↳ ① Deep fakes. (eg) Taiwan has banned its use in elections.
- ↳ ② Threat to humanity. (eg) developers have raised concerns in a letter to open AI for stopping development.

Way forward

- ↳ India needs to provide a regulatory sandbox for testing the technologies.
- ↳ Upskilling of the workforce.
- ↳ Promoting and regulating use should be balanced.
- ↳ Global partnership. (eg) Recently in G7 - nations collaborated for AI.

India needs a multifaced approach including scientists, government private players and civil societies to deal with the emerging issues.

- Q.17 नवंबर 2022 में मिस्र में COP27 संयुक्त राष्ट्र जलवायु परिवर्तन सम्मेलन में लॉन्च किये गए "जलवायु के लिए मैंग्रोव गठबंधन" के उद्देश्य को स्पष्ट कीजिए। उष्णकटिबंधीय देशों की तटीय पारिस्थितिकी को बनाए रखने में मैंग्रोव के महत्व पर विस्तार से प्रकाश डालिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

Explain the purpose of the "Mangrove Alliance for Climate" launched at the COP27 UN Climate Change Conference in Egypt in November 2022. Elaborate on the importance of mangroves in maintaining the coastal ecology of tropical nations. (Answer in 250 words) 15 Marks

"Mangrove Alliance for Climate" was launched by Indonesia and UAE during COP-27 - Climate Conference.

Purpose of mangrove Alliance for Climate

- ↳ ① supporting development funds for the growth of mangroves.
- ↳ ② dealing with extreme climate events in the world.
- ↳ ③ global collaboration to highlight the importance of mangroves in the world.
- ↳ ④ Action against organised crimes causing widespread deforestation of mangroves in the world.

Importance of mangroves - Coastal ecology

- ↳ ① It helps in reducing the impact of disasters in coastal regions. (e.g.) Tsunami and cyclones.
- ↳ ② Maintaining ^{balance} ecology in the coastal regions. (e.g.) Regulating water cycle.
- ↳ ③ Providing adequate source of livelihood for the coastal communities.
- ↳ ④ Preventing soil erosion in the coastal region;
- ↳ ⑤ Supporting fisheries through droppings from the trees.
- ↳ ⑥ Maintaining soil ecology by preventing storm water surge in coastal regions.

Emerging challenges

- shrimp farming
- deforestation for urbanisation needs.
- Timber industry dependent on mangroves
- Encroachment of coastal regions reserved for mangrove production.

India, thus needs an international collaboration for safeguarding mangroves to reduce impacts of disasters (as in Tsunami 2004). Joining Mangrove Alliance for Climate would be an initiative in right direction.

- Q.18 आपदा प्रतिरोधी बुनियादी ढाँचे के लिए गठबंधन का गठन भारत में आपदा प्रबंधन दृष्टिकोण को और अधिक मजबूती प्रदान करता है। टिप्पणी कीजिए। भारत में आपदाओं से निपटने के लिए एक नई रणनीति की आवश्यकता के औचित्य सिद्ध कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

The Formation of the Coalition for Disaster Resilient Infrastructure brings more robustness to the Disaster Management approach in India. Comment and justify the need for a new strategy to tackle Disasters in India. (Answer in 250 words) 15 Marks

CDRI is an India led initiative for dealing with infrastructural changes in face of disaster events.

CDRI bringing more robustness in Disaster Management approach in India

① shifting from "reactive" to "proactive approach".

② Promoting preventive approach in Disaster management.

③ International collaboration for dealing with disasters.

e.g) exchanging infrastructural resilience information of Japan against earthquakes.

↳ ④ dealing with local level solutions and incorporating them at national levels.

Need for a new strategy in tackling disasters in India

↳ ① India's approach has been a "top down" one rather than engaging with local solutions.

↳ ② India lack preparedness in infrastructural solutions against disasters.

eg) Absence of earthquake resilient structures in India.

↳ ③ dealing with absence of expertise on the subject. ⇒ international solutions and expertise would help.

↳ ④ A global collaboration in resilient infrastructure would also provide sufficient R+D and funds for the transformation.

All these are in consonance with the Sendai Framework that aims to transform disaster management approach in the world.

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- Q.19 महत्वपूर्ण बुनियादी ढाँचे (क्रिटिकल इंफ्रास्ट्रक्चर) और प्रमुख निगमों को लक्षित करने वाले रैंसमवेयर हमलों में हुई हालिया वृद्धि ने मजबूत साइबर सुरक्षा उपायों और नीतियों की तत्काल आवश्यकता पर प्रकाश डाला है। इस प्रवृत्ति में योगदान देने वाले प्रमुख कारकों पर चर्चा करते हुए, विभिन्न क्षेत्रों पर इन हमलों के प्रभाव का विश्लेषण कीजिए।
(250 शब्दों में उत्तर दीजिए) 15 अंक

The recent rise in ransomware attacks targeting critical infrastructure and major corporations has highlighted the urgent need for stronger cybersecurity measures and policies. Discussing the key factors contributing to this trend, analyze the impact of these attacks on various sectors.

(Answer in 250 words) 15 Marks

Recently, several digital devices were attacked by skilla ransomware highlighting to the rising menace.

Ransomware attacks targeting critical and major ~~manufor~~ corporations

↳ ① Attacking of SA DHAR data,

↳ ② Attacking of SBI data in July 2023

↳ ③ Rising attacks on individual computers etc.

This emerging menace can be tackled by stronger cybersecurity and policies in India like :-

(i) Recent amendments leading to all Virtual Digital Asset reporting

(iii) Robust infrastructure under
National Cyber Security Coordination
Centre etc.

Key factors contributing to the trend

(1) Rising digital economy.
(e.g.) Digital India Mission.

(2) Rising Cyber-terrorism as a
new form of state sponsored
terrorism. (e.g.) China's attacks on
India and USA.

(3) Increasing vulnerabilities
in devices. (e.g.) Zero day vulnerabilities
are being exploited.

Impact of this trend

(1) Loss to Indian GDP. (~4%,
according to MeitY)

(2) Preventing push to digital
transformation.

(3) using ransomware as a means
for recruitment in organised terrorism
and crimes

↳ ④ growth of trust in digital infrastructure.

India needs a global collaboration and robust cyber security network in dealing with the rising ransomware attacks :



Q.20 सीमा सुरक्षा के संदर्भ में, तटीय और स्थलीय सीमाओं के प्रभावी और कुशल प्रबंधन को सुनिश्चित करने के लिए विभिन्न सुरक्षा एजेंसियों के बीच सहयोग और समन्वय को कैसे बेहतर बनाया जा सकता है?

(250 शब्दों में उत्तर दीजिए) 15 अंक

In the context of border security, how can cooperation and coordination between different security agencies be improved to ensure effective and efficient management of coastal and terrestrial borders?

(Answer in 250 words) 15 Marks

Border security and cooperation of security agencies are two sides of the same coin.

Coordination and cooperation among security agencies

↳ ① Countering emerging issues.
eg) Indo-China border security.

↳ ② A single and effective security agency is more effective in border safety.

eg) PLA - Chinese army.

↳ ③ Countering attacks from both coastal and terrestrial borders simultaneously.

↳ ④ Breaking networks of organised crimes of terrorism.

↳ ⑤ Encouraging Technological collaboration would also help in achieving the objective of border security.

↳ ⑥ Dealing with modern ^{means} of warfare.

All of this can be promoted through collaboration and coordination between security forces.



Space for Rough Work

Candidates must not
write on this margin

