

NEXT IAS

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Bhopal

Online

Test Code : TC003

Program :

FLT

FLT+

MAIN TEST SERIES 2023 (FULL LENGTH TEST-3)

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. :

(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			
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14	30			
15	33			
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17	39			
18	42			
19	45			
20	48			
Grand Total				

Signature

MACRO COMMENTS

Sl. No.	Particulars	Amount	Remarks
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Total

Signature

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

Ans. World Inequality Report 2022, says

top 10% holds 57% income while bottom 50% holds only 13% income.

Thus it becomes important for govt to take measures to promote welfare state.

Windfall tax is the taxation on sudden profit by a company/individual. It is to ensure that profits remain accountable.

Windfall tax can help redistribute wealth & promote economic equality -

- 1- Increase the revenue receipt of the government, which could be used in various welfare schemes like MGNREGA to provide employment

- 2- Promote social justice through schemes like Pradhan Mantri Awaaz Yojana
- 3- Promote Skill (PM Kaushal Vikas Yojana)
 - could engage youth in employment
 - economic welfare.

However, windfall tax has limitations

- 1- The share of tax to total income is lower.
- 2- It could promote tax evasion, corruption or money laundering to prevent taxes.
- 3- Difficult to decide what sudden profit means - the income, value limitations to decide tax.

Thus, an innovative step to ~~to~~ reduce ginni coefficient and promote equality. other steps like ease of doing business, helping small & marginal farmers could help.

Q.2

नई मौद्रिक नीति समिति (एमपीसी) व्यवस्था के अंतर्गत मुद्रास्फीति लक्ष्यकरण 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

Ans. Monetary Policy committee includes members from RBI and government that targets to maintain inflation in range of 2-6%.

Successes of implementing Inflation Targeting

- Maintain prices of essential goods in limits helps both
 - industry (little increase help incentivise further production)
 - consumers (reduce financial burden)
- Helps to maintain the value of currency (reduce depreciation) or (appreciation)
- Ensure equitable share of burden of fiscal issues.

Challenges

- Difficult to immediately reduce or increase inflation.
 - (eg) took 10 months Jan (6.0) 2021 - Nov (5.9) 2022 when inflation could be controlled.
 - Banks may not increase/decrease the loan rates - end consumer might not get benefits.
 - Fail to reduce inflation of food items. (eg) Tomato / onion prices remain high.
 - Cannot have control over effects on Income Economy due to International Economy.
 - (eg) US Monetary Tightening Policy.
- Thus, MPC has tried its best by regulating Repo Rate \uparrow and controlled inflation to an extent in India.

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Candidates must not write on this margin

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

Ans. Jal Jeevan Mission aims to provide safe drinking water to every household through taps starting 2024. #

Significance

- ① Provide clean drinking water will reduce the burden of diseases like cholera.
- ② Accessibility of water in scarce areas like Rajasthan could reduce women's labour of fetching water from long distance - Increase productivity & women empowerment.

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- ③ Help revive traditional rain water harvesting mechanism in all regions
Baelis - Delhi, Phad - Maharashtra
Tankas - Rajasthan.
- ④ Help SC/ST community move out of historical disadvantage & have access at home to clean water.

Impediments in achieving objectives

- ① Demand driven scheme - but lack of awareness in rural areas leads to exclusion.
- ② Difficulty in collaboration of various ministry & departments.
- ③ Funds
 - delays & gaps in allocation.
 - 60:40 share mechanism, states reluctant.
- ④ Social discrimination still prevails in rural society - Village Sarpanch may have biased implementation.

Jal Jeevan mission is a positive step and can help us realize our goal of SDG-6 (Clean Drinking Water & Sanitation)

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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

Ans To meet India's INDC goal of producing 50% electricity by 2030, via renewable sources. It's important to ensure its proper storage.

Battery energy storage system (BESS) is a large scale rechargeable lithium-ion battery systems to store all types of energy - renewable, thermal etc

Application

- 1- Multi stakeholder based - Industries, government, companies can ensure storage of power.
- 2- Reduce power fluctuations & ensure continuity of supply
- since Renewable sources are

Seasonal (Solar - Summer)
(Wind - high velocity wind)

- 3- Automobile sector can benefit to realise goal of FAME scheme - (EV development)
- 4- Tentile sector suffers from power cuts. It can ensure better supply & increase our exports.

It can Revolutionise energy Programme

- 1- Reduce power losses by DISCOMs
- 2- Make India self sufficient in energy sector - Energy security.
- 3- Help move towards Renewable sources of energy - Solar, Wind
- 4- Give boost of International Solar Alliance and One world one Grid system.
- 5- Reduce fiscal deficit of states in financing DISCOMs.

Thus, BESS has huge potential to the growth of India's energy programme of Amsit Kaal.

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

Ans. Gaganyaan mission is ISRO's programme to launch manned mission to space & ensure 5-6 days flight experience in space.

Development & Challenges

- 1- Training to the astronauts.
- 2- Testing the capacity of manned module to stimulate earth-like conditions.
- 3- Challenge to ensure that the module lands back to earth (planned off Gujarat coast)
- 4- The increase in weight of module, than other satellite launches

could pose the challenge.

However, various developments are on -

- 1- Tested the design of all parts & sub parts
- 2- Mission with Navy in deep water of evacuation of astronauts.
- 3- Flight testings are in progress.

Benefits possible for society

- 1- Great job employment opportunity in fields of R&D, science.
- 2- Encourage private sector participation.
- 3- Space tourism could appear as a possible field.
- 4- There could be possibility of new discovery in space that could open new opportunity

ISRO's Gaganyaan Mission is a step further in India's space exploration & ensure self sufficiency in low cost missions.

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

Ans. National Green Hydrogen mission is the programme to derive energy from hydrogen that is renewable & ensure sustainable future.

Advantages

- 1- Help Reduce climate change
- 2- It reduce reliance on coal for electricity.
- 3- It can be used in vehicles - replace petroleum & ~~ensure~~ Reduce India's dependence on Middle East.
- Reduce import Bills.
- 4- Reduce emission of gases like CO₂, SO_x, NO_x from Industries.

5- Increase India's prospect to export Hydrogen - reduce climate change world wide.

However, there are certain challenges

- 1- Mission is still in nascent stage, the possible outcomes & applications unknown.
- 2- The method of generating hydrogen - dependent upon Solar & Wind, which are seasonal in nature
They have regional disparity.
(TN high potention & compared to states like Bihar)
- 3- Other hydrogen is derived from burning coal - though hydrogen clean but manufacturing process generates pollution

National Green Hydrogen Mission is a step to ensure Sustainable Development goal of

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?

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

Ans. The incident of Joshimath land subsidence provides us a challenge to relook our development measures in ecologically sensitive areas.

Key lessons for

1- Disaster Management

- Preparedness of Disaster Response Team - swift movement (NDRF)
- Sensitise people in risk areas such as Himalayas - cloud burst, avalanches, land slides or coastal areas / western ghats.
- Use of technology such as drones in search & evacuation operations if disaster takes place.

Candidates must write on this margin

- Availability of basic facilities - food, medicine, water, rehab.
- Post disaster management of re-establishing structures - bridges, homes

2- Environmental conservation

- Environmental Impact Assessment needs to be exhaustive to prevent mishaps.
- Manage tourism in hilly areas.
- Reduce mining or explosive activities in shivaliks (loose sand mountains)
- Afforestation programmes
- Community engagement in conservation.

We must focus on preventive measures for disasters by ensuring environmental conservation but also ready for curative measures in disaster management.

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Q.9

"पंजाब में हालिया कट्टरपंथी रुझानों से पता चलता है कि खलिस्तान 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

Ans. Issues like Demands for separate state - Khalistan in Punjab has pointed to the issue of Regionalism turning Radicalism in India & attacking Indian embassy abroad (London, San Francisco)

Issue they possess

- 1- Against unity & Integrity of India (Preamble)
- 2- Creates Separatist tendencies.
- 3- Against fundamental right of promoting brotherhood (Art-57A)
- 4- Creates a stain on India's International Image (protest in Canada, London)

5- Radicalisation of India's youth. ~~to~~

Measures to Handle it

- 1- The fundamental leaders identified needs to be arrested (Lawrence Bishnoi)
- 2- Social media regulation (IT Act, 2000) of radical methods.
- 3- Control over funding over such movements (Prevention of money laundering Act)
- 4- Community Outreach
 - through religious leaders
 - local panchayat sarpanchs.
- 5- International engagement with Indian Diaspora, embassy & local government of nation needs to collaborate.

India has already suffered Partition, further seeds cannot be allowed to germinate at any cost. We need to promote fraternity among citizens.

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

Ans. The recent attack of Drone on Jammu air base poses a security threat to India.

The drones could be controlled from a far space & used to surveillance or information gathering on enemy state. They're thus anonymous. They also don't need elaborate technicalities to operate - just a remote control would do.

Other challenges

- 1- Non-identification in radar range.
- 2- Local manufacturing.
- 3- Borderless weapons.
- 4- Use by both civilians & defence personnels (difficult to identify)

Suggestions

- 1- Strengthen Drone Rules, 2022.
- 2- Technological advancements to identify → shoot → destroy drones.
- 3- Division into
Red
Green
Yellow zones

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

Ans. India has electrified its last village in 2022, but ensuring continuous, low cost- electricity availability has been a challenge.

Electricity amendment Bill, 2022 allows multi stakeholders to buy electricity and gain distribution rights.

Advantages to

1- Consumers

- low cost- electricity since competition among distributors
- regular supply since reduction in transmission power losses -

2- DISCOMs

- Reduce the burden in maintaining extensive distribution channels.
 - Decentralisation effective.
- Reduce transmission losses.
- Reduce fiscal deficit of DISCOMs
 - huge losses currently.

3- Environment

- Integration of Renewable Sources with reduce pollution.
- efficient management will require less generation of electricity.

Shortcomings

- 1- losses to ~~DISO~~ DISCOM are generally due to excessive subsidisation of electricity to farmers for irrigation.
 - This has not been addressed.

- 2- The infrastructure development needs to be efficient - copper wires.
- 3- Storage issues have not been addressed.
- 4- Private players can still enter the distribution sector but losses are discouraging.

Measures to overcome

- 1- Rationalise irrigation subsidy → Promote renewable energy (PM-KUSUM)
- 2- Develop Storage facilities as envisaged in Battery Energy Storage System.
- 3- P-P-P in whole process from production to distribution to ensure efficiency & reduce losses.

It's important to ensure Energy Security and realise SDG

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

Ans. SEBI is a regulatory body that ensures safeguards in trade market. It takes various measures to ensure this -

- 1- Regulator of market
- 2- Advisor to government on any discrepancy or amendment to ensure safeguards.
- 3- Act as Quasi-Judicial body to address disputes arising out of transactions.
- 4- Ensure generally functioning via transparency & accountability in the market.

However, with great power comes great responsibility & SEBI faces

Certain challenges in these responsibilities

- 1- Not able to mend loopholes. Post-date relief by amendments.
(such as Harshad Mehta frauds)
~~made~~ or Nirav Modi
- 2- SEBI enjoys huge power - judicial, acts as a court.
- 3- Enjoys legislative power with respect to rules & procedures of itself.
- 4- Rigidity in the attitude.
- 5- Multiple market places are still prevalent - leads to confusion among traders.
- 6- Hedging prevalent. eg) Hidenburg Report on Adani enterprises

Suggestive Reforms

- 1- Digitalisation of company records.
- 2- Customer awareness about company in simplified understandings should be available.
- 3- Finance audit of companies listed on market → transparent.
- 4- SEBI's need to be accountable for frauds or excessive gains by companies.
- 5- Simplify grievance redressal mechanism.

Thus, various measures like T+2 settlements have reduced fraud instances but further reforms could strengthen the market & encourage investors to invest & provide companies to gain capital.

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

Ans Indian agricultural sector

employs 45% of the population but they contribute merely 17% to the GDP.

Agricultural sector suffers from various constraints

- 1- Disguised unemployment: more people are employed than required for efficient production.
- 2- Rainfed Agriculture: 52% of India's agriculture is rainfed - made them vulnerable to monsoon in this changing climatic conditions.

3- Unsustainable agricultural practices: due to measures like MSP, growth of sugarcane in Rajasthan.

4- Lack of crop diversification: focus on rice, wheat. Millets etc neglected.

5- Small & Marginal Farmer: more than 86% of farmers own less than 2ha of land.
- lacks mechanisation
- reduces economies of scale.

6- Irrigation subsidy has led to excessive irrigation & soil degradation. Also fertiliser use excessive

7- Lack of market to farmers to gain profit.
~~They could be overcome by~~

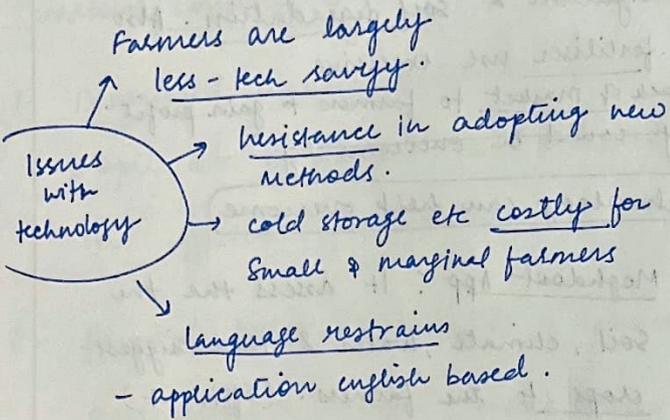
Technology can help overcome

1- Meghdoot App: It assess the soil, climate, water & then suggest crops to the farmers. (Efficient)

2- eNAM: an online portal to connect traders/buyers and sellers/farmers of agricultural produce.

- Help realise good price.

- 3- Development of efficient cold storage based on new technology.
 - Help store, reduce perishability of crops.
- 4- e-choupal: village based. Help farmers with marketing, agricultural practices information.
- 5- Methods used in Soil Health Card scheme can prevent degradation - suggestions like micro-irrigation could also help.



Agriculture is the backbone of India's food security. Farmers need to be strengthened to ensure regular food supply.

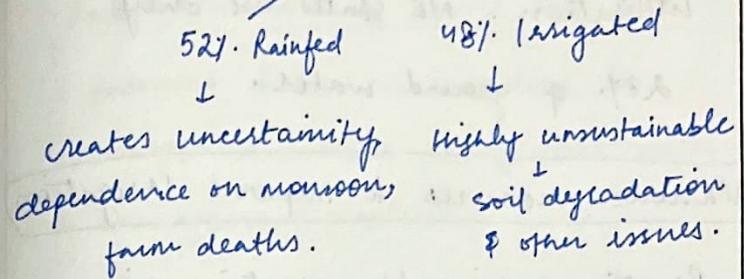
Q.14

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 सुझाए। (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

Ans. India suffers from twin challenge of providing water to crops



Impact of Irrigation

- 1- Decline in the water table. States like Punjab, Haryana, Delhi extract more than 100% groundwater
- 2- Diversion of water - 90% used in agriculture.
- 3- Pollution of water: use of fertilisers in excess - leads to eutrophication.

- 4- Excessive Irrigation also leads to degradation of soil & soil erosion (removal of top soil)
- 5- Regional disparity in resource utilisation. NE states use only 28% of ground water.

Various measures to improve Irrigation

- 1- Practise sustainable practices like Micro-irrigation to ensure reduction in wastage of water. Drip-Irrigation.
- 2- Development of Integrated Watershed Management.
- 3- Increase Rain water Harvesting practices - traditional methods like Bawdis - Delhi
Khadis - Maharashtra
could be encouraged.

- 4- Methods like Development of Canals or Interlinking of Rivers (Indira Sagar) could be adopted to ensure [Ken-Betwa] equitable share of water.
- 5- Rationalisation of Power Subsidies - farmers have no incentive to adopt renewable or efficient water management practices.

Thus, various methods along with PM-KUSUM could be promoted to ensure better irrigation methods.

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

Ans. Dr Homi Jehangir Bhabha and Dr Vikram Sarabhai laid the road to India's development in Energy & Space.

Benefits in

Contribution of Homi Bhabha

- 1- Laid foundation of Atomic Research
- 2- Represented India at ^{Int} Atomic Energy Agency

Contribution of Vikram Sarabhai

- 1- Research on cosmic rays and properties of upper atmosphere.

Benefits to India

- 1- India's development of Nuclear Bomb (Smiling Buddha) - helped strengthened geopolitical relations.
- 2- Various nuclear power plants - Tarapur, Naraura - helped India meet its high energy demands.
- 3- ISRO has launched many missions to outer space
 - Chandrayaan-3 (recently)
 - Mangalyaan (1st attempt)
 have been successful due to visions of Vikram Sarabhai.
- 4- We have attained significant presence of satellites - communication, defence, navigation - in outer space.

(Helped us secure our strategic presence, in event of recent Space warfare)

5- India - 3 stage Nuclear Development programme was already envisioned by Homi Jehangir Bhabha.

Thus, India has benefitted immensely from contributions of 2 great researchers.

Q.16

जेनेरेटिव 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

Ans. Generative AI refers to Artificial Intelligence that could generate original content based on large language models (LLM) learned through deep science. Recent examples include chatgpt, MyAI etc.

Potential in Innovation

- 1- Aid in Research & Development of various sectors
 - Health
 - Education
 - Agriculture
 - Defence
- 2- It can help in data science to organise huge data sets of economics or surveys or any other report.
- 3- It can aid in development of vaccines or help with genetic engineering of plant cells to produce better crops.

- 4- It can revolutionise Internet of Things in more efficient manner.
- 5- It can help government agencies publish reports → or- voluntary disclosure of information, help maintain transparency in governance

However, it raised certain

Societal Impacts

- 1- Potential loss of jobs in traditional fields - like content writing, research based job profiles.
- 2- Overdependence of AI could impede human innovation & Development

(eg) Impact of short content on Social Media - loss of attention)

- 3- Risk to security. Import of technology has risks of Back Door trap.
(eg: Hawaii ban in India because it was alleged to extract Indian user's data to China)
- 4- Uncontrollable nature of certain AI - could be a threat. (programming malfunction.)

However, Generative AI if used in judicious manner could aid human life.

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 महत्त्व 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

Ans. Mangrove Alliance for Climate is an initiative launched by Indonesia and UAE for restore mangroves in ecosystems for their potentially high benefits. India, Japan, Australia also joined the initiative.

Purpose

- 1- International collaboration to grow & restore mangroves.
- 2- Gain funding from multi stakeholders for restoration.
- 3- Generate awareness about risk of climate change & sea

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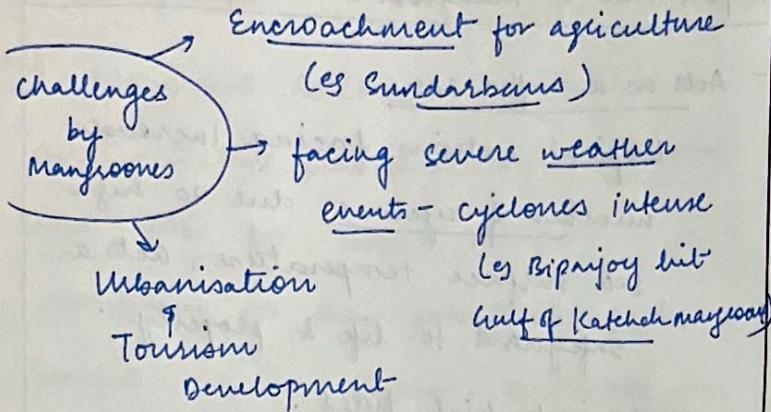
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level rising to Small Island Development States.

Importance of Mangroves in Tropical Nations

- 1- Acts as a buffer zone
 - Tropical nations facing increase number of cyclones due to high sea surface temperature, acts a safeguard to life & property.
 - against high tides.
- 2- They help in mitigating challenge of rising sea level - absorbs the saline water.
- 3- Help manage floods by absorbing water.
- 4- They also absorb metal & other solid pollution → keeps the environment of coastal areas clean.
- 5- They support rich biodiversity -

helps maintain ecotone biodiversity of flora & fauna.



Government of India along with Mangrove Alliance for Climate has also launched MISHTI scheme for restoration of mangroves in India.

Forest Survey Report 2021 suggests that area under mangroves is rising - a positive step for India.

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

Ans India saw 300+ disasters, 80,000 lost-lives & nearly 108 crore people were affected by various disasters ~~in India~~ according to a Report by UN office of Disaster Risk Red. Reduction. (2000-2019)

This has been amplified in recent years thus India needs to constantly update its strategy to deal with disasters.

Advantages of Coalition for Disaster Resilient Infrastructure

- Deal with new - climate change - induced challenges.
 - (eg) Frequent cloud burst - Amarnath chomali etc.
- Help collaborate with International Agencies
 - for funding
 - new technology (radio systems)
 - new strategies.

3- Impact of Disasters are not limited to national boundaries

↳ (eg) Climate Refugee

↳ to deal with floods in N-E, need intelligence report-sharing of Brahmaputra from China.

4- Earlier methods were based on curative strategies - India needs

to move to preventive strategies

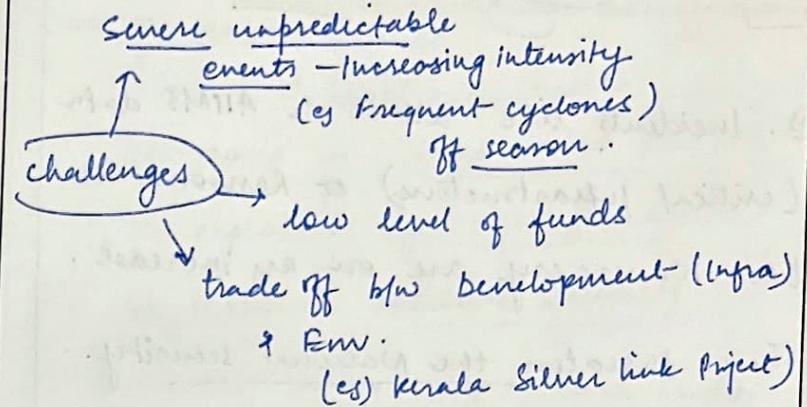
to reduce loss of life & property.

(Disaster preparedness)

5- Equip the disaster teams better with faster search operations. [NDRF]

6- India is a fast developing nation, it needs to balance its Development with sustainable

environment in hilly areas. to prevent incidents like Himachal Flash Floods.



However, India is on a progressive step. States like Odisha - worst hit by cyclone once has now effectively dealt with cyclone Asani with its new strategy of mitigation

- 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

Ans. Incidents like attack on AIIMS data (critical infrastructure) or Ransomware like WannaCry are on an increase.

They threaten the National security.

↓
Needs laws to protect
cyber space.

Factors contributing to the trend

- 1- Vast development of Dark Web gives opportunity of faceless, trackless & borderless attacks.

- 2- Development of blockchain had made ransoms - nearly untraceable
- 3- Nation The Data of government agencies → Defence is all stored on cloud based services. It is exploited by enemy nations to threaten national security.
- 4- Relatively easier way to earn money.

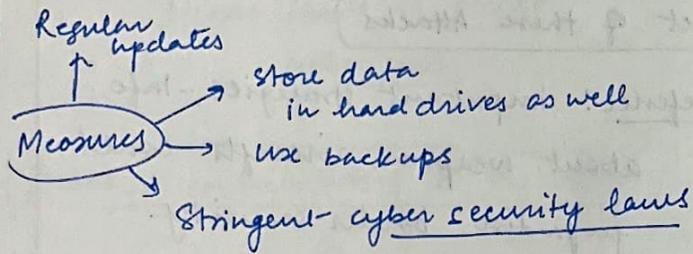
Impact of these Attacks

- 1- Defence: important strategies, info about weapons, aircrafts could jeopardise border security.
- 2- Corporations: Ransom could jeopardise business profits & future growth prospects. (Dominio's data leak 2020)
- 3- Social Media: Women are more vulnerable of threat to morphed content & demand for ransom.

4- Cyber economy - largely based on cyber space could be impacted due to loss or leaving market.

5- Critical Infrastructure: FBI define CI as any national importance institution whose data leak could threaten National Security.

- (e) AIMS data leak twice.
Aadhar data leak could jeopardise right to privacy.



It's important to ensure safety of cyber space to have thriving economy & achieve \$5 trillion aim.

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

Ans. India has a long coastline border of 7500+ km. It shares territorial border with 7 nations, thus it becomes important to ensure effective border management.

Challenges in cooperation & coordination

→ Multiplicity of Agencies securing one spot.

- (e) Vikas Battalion, ITBP, Army protecting China border.

→ Agencies under various ministries

- (e) Vikas Battalion (Central Secretariat)
 BSF (Ministry of Home Affairs)
 Army, IAF, Navy (Ministry of Defence)

→ Ways to cooperate & coordinate & ensure effective border Management

- ① Integrated theatre command groups
 - ↳ small units which are self sufficient (Army, ~~Nav~~ Air) coordinating to carry full attack.
- ② Coordination exercises
 - ↳ (eg) Exercise Karnach b/w Navy & Indian Coast Guard.
- ③ Cooperation with civilian police forces.
 - (eg) State police with AFSPA to tackle NE insurgency & porous borders.
 - OR
State police with CRPF in Naxalite regions

④ International Exercises

- (eg) Operation Sunrise with Myanmar
Operation All Clear with Chutan
to protect borders.
- ⑤ Pick the Chief of Defense Staff to
Co-ordinate with all three agencies
& defence - Army,
Naval
Chief

Thus, various measures could be deployed to strengthen our defence & secure our borders.