

NEXT IAS

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Test - 3

Code : TC705

RCA Batch 2023

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SUBJECT/PAPER
GENERAL STUDIES

Invigilator's Sign. :

[To be filled by the STUDENT]

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

[To be filled by the EXAMINER]

Evaluator's response

(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

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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?

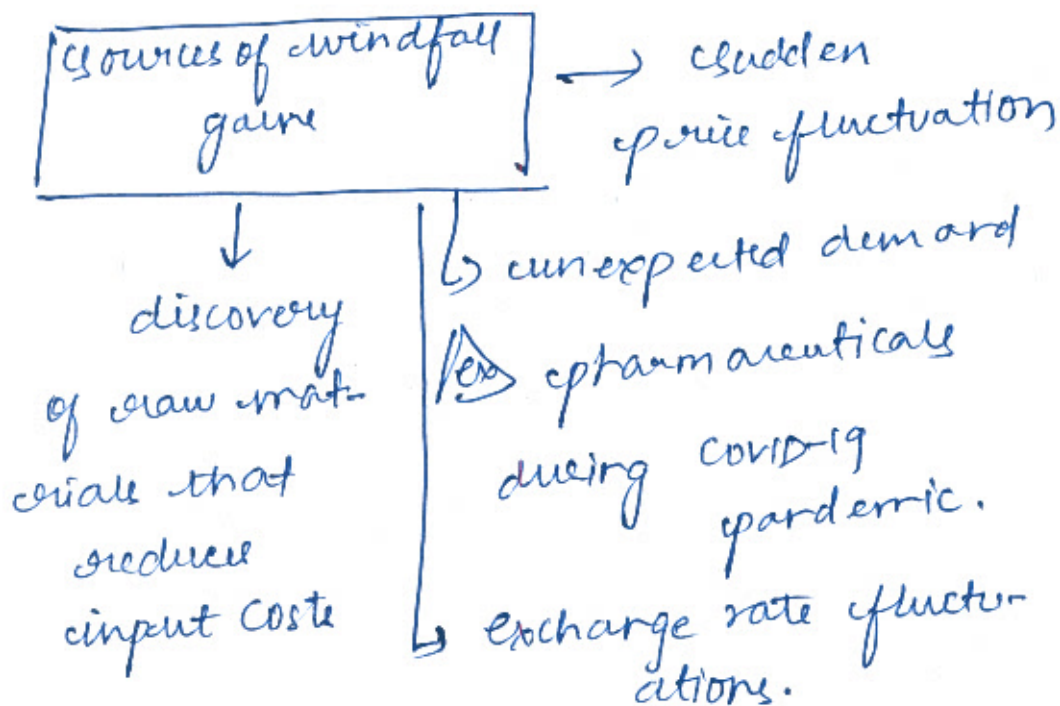
(150 शब्दों में उत्तर दीजिए) 10 अंक

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

Taxes imposed on sudden and spontaneous profits of the companies are called as windfall taxes. They basically tax windfall gains.



Role of windfall taxes in wealth redistribution

⇒ These taxes act like automatic

wealth stabilizers by taking away the incidental profits from the company.

⇒ effectiveness of windfall taxes depends on the expenditure policy of the government. $\Rightarrow$ schemes should be properly directed towards the poor.

⇒ windfall taxes may promote non-reporting of profits and may lead to tax evasion $\Rightarrow$ chaos ensue and perpetuate inequalities.

⇒ They also discourage re-investment which could impact employment generation and contribute to inequality.

Windfall taxes, hence, are effective only if used at rare cases and the revenue is directed towards welfare.

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

Ans

In 2016, the Government provided statutory backing to the monetary policy committee and officially accepted the inflation targeting framework on par with many advanced nations.

provision ① target set by government every four years

② 2% fluctuations allowed.

③ RBI must submit report for failure to meet targets along with expected time required for fulfilment

④ monetary policy meeting every three months.

Achievements

- ⇒ it has made price stability a major goal of RBI. under
- ⇒ Inflation has been control since its adoption, as RBI closer discretion over inflation target.
- ⇒ inflation targeting also balances growth by providing a minimum requirement of inflation.

Challenges

- ⇒ Independence of RBI is compromised.
 - ⇒ The headline inflation target is CPI (consumer prices) that are very unstable due to greater weightage of food.
 - ⇒ inflation targeting also compromises the independence in forex markets.
- However, price stability shall ensure interests of consumers and also producers equally.

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

Ans

UN has declared 2023 as
"International year of millet" on
India's demand. and also domestically
the budget of union (2023-24) has
laid renewed focus on millet
by introducing the "Isari Anna"
mission.

Role of millets in food security

Production → India is the world's
largest producer of millets, hence,
can improve agricultural output.
ex) can be grown in semi-arid/

Nutrition → millets like Jowar

Bajra and Ragi are good source
of proteins and other vital minerals
as in line with India's

nutrition specific crude.

↳ can prevent malnutrition.

affordable → reproduction costs of millets
are relatively low than ~~for~~ other
foodgrains, hence, the final purch-
ase price may also be low, increasing
affordability.

Role of millets in sustainable agriculture

⇒ millets are drought resistant hence
require less water/irrigation crude.

⇒ reduce use of chemical fertilizers
as millets do not require them.

⇒ do not require intensive agriculture
practices that impact the soil health

Hence millets are rightly
called "revolutionary grains". However,
lack of demand by consumers is a
major hindrance for millet produ-
ction.

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 was launched by the government of India with an objective of 100% water supply to all households by 2022.

Objective

- ① Har ghar jal
↳ water connection to every rural and urban household.
- ② availability → 20 litres per person per day.
- ③ affordability → free of cost installation and free water access.
- ④ regional disparity → special focus on rural households and water stress areas.
- ⑤ Health → mineral rich and de-fluorinated water supply

Significance of TJM

- ⇒ fulfills sustainable development goals ~~and~~ [charge, poverty, inequality and sanitation]
- ⇒ fulfills the objectives under the constitutions ~~Ex~~ article 21 (right to life)
article 14 (right to equality)
- ⇒ Improves rural & urban health by providing chlorinated, de-fluorinated and mineral rich water.

Impediments

- ⇒ insufficient government funding
- ⇒ Overlap with state missions ~~Ex~~ Mission Bagiratha in Telangana.
- ⇒ poor water quality during monsoons
- ⇒ Bore tap connections
- ⇒ untimely repair of water dealcogers by officers.
- ⇒ Jaljevan mission, check the potential to safeguard India's water security

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

Battery Energy Storage Systems (BESS) are like mini power storage devices that can store the generated electricity and supply it all round (24x7)

Applications of BESS

Δ Solar energy

↳ can store the excess solar power generated during peak hours and make it available during nights

Δ e-mobility

↳ BESS is the main component of e-vehicles. Hence, it will help in catalysing transition towards e-mobility.

Δ BESS can also help to reduce frequent power cuts by ensuring that surplus (Buffer) is available during peak loads.

Role of revolutionizing Energy program

Δ BESS key to success of renewable energy, specially solar and Biomass.

Δ BESS also helps to reduce the dependence of grid power, thereby decreasing burden of grid supply.

Δ It helps in reduction of transmission and distribution losses and as discoms can opt for off grid transportation.

BESS system is crucial for India's energy sector and for fulfilling its targets under Paris agreement.

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

ISRO's human space flight program, Gaganyaan is the planned upcoming mission that aims safe human space travel.

Recent developments

- ⇒ Useful testing of the humanoid robot "Vyommitra"
- ⇒ completed trials of safe landing using re-usable launch vehicle.

Challenges of Gaganyaan

- ⇒ major challenge for the mission is inadequate funding that is causing its delayed progress.
- ⇒ demonstrating human space flight requires well trained astronauts and India lacks previous

experiences

⇒ Another major challenge in the availability and effectiveness of technology.

Impact of Indian Society

⇒ will make space travel affordable in long run if mission is successful

⇒ Improve India's soft power in the global platforms.

⇒ A way for India's inclusion in International space station.

Gaganyaan mission's success is crucial for ISRO's future endeavors and India's space history.

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

Green hydrogen is the "hydrogen" when produced using eco-friendly and sustainable ways.

To take the benefits of the green hydrogen in India's renewable energy program, the government has launched Green hydrogen mission.

Merits

Δ Green hydrogen is a clean fuel that has almost zero carbon footprint.

target 5 MMTPA of green hydrogen capacity by 2030/

Δ hydrogen is easily available in atmosphere as it is the most abundant element on earth's surface

Δ It will reduce dependence on the conventional sources of energy like thermal (coal & fossil fuel) thereby reducing green house gas (CH_4) emissions and other harmful pollutants like CO , NO_x , SO_x

Challenges

Δ Expensive → electrolysis is an expensive process hence may require diversion of funds.

Δ water consumption → it may require huge water thereby contributing to water insecurity.

Green hydrogen mission however is appreciable as it has moderate targets in line with India's climate interests.

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

Ans

Joshimath land subsidence disaster has caused heavy damage to life and property. It acts as a reminder to us about the need of environment conservation and disaster management.

Key lessons for environment conservation

- ⇒ Importance of wetlands and city preservation
- ⇒ it acts as a warning against illegal encroachment on wetlands and other sensitive areas like river beds.

⇒ it throws a renewed focus on eco-friendly tourism.

⇒ need of protection of local species and ecologically sensitive areas using community participation.

Key lessons for disaster management

⇒ Natural disasters that have a artificial origin are more complex and need large scale mobilization of funds & personnel.

⇒ need of using technology like drones in rescuing.

⇒ using artificial intelligence in early warning systems.

To meet the objective of sustainable development it is important to prevent disasters like Fukushima in future.

Q.9

"पंजाब में हालिया कट्टरपंथी 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

Ans

Khalistan issue is the separatist movement in Punjab region with an objective of a separate land for the Punjabis called "Khalistan".

Origin → lies in the Pakistan's attempts to radicalise local Punjab youth.
↳ "Green Revolution" that created inequalities in Punjab and led to unrest among the youth.

↳ The Sikh riots and the attack on Harmandir Sahib are the key flashpoints.

developments → Khalistan movement
has gained international support.

Ex) Canada, and protest near
Indian embassy in London.

Measures

- ▷ Education
↳ youth, vulnerable and the
down trodden people.
- ▷ Expansion of the benefits of Green
revolution equally across all the
regions of Punjab.
- ▷ Law enforcement → Utrigent meas-
ures against any anti state activities.
- ▷ Awareness creation among the
Punjabis
- ▷ Isolation and exposition of the role
of Pakistan on international platforms

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

Technology has revolutionised our way of living day increasing the ease of living. However, it has also contributed towards crimes, warfare and other conflicts

Unmanned armed vehicles (UAVs) are the recent challenges. UAVs are being increasingly used by terrorists and organised crime networks.

Threat of UAVs

- △ remote operation ensures anonymity of the operator.
- △ cannot be easily detected on radars and antennas due to

low level flying.

- △ Increased instances of drug smuggling, arms and ammunition trade across borders using UAVs and drones.

Measures needed

- △ Countering the threat by increasing drone based surveillance.
- △ Using AI and other emerging technologies to predict the position of drone ^{ve.} moments.
- △ Using cyberwarfare technology to identify the source of destination of the operator.
- △ Improving the radar based intrusion detection technology.

Drones pose a threat in Border areas and can be countered using more advanced technology.

- 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 Electricity amendment Bill, 2022

is in line with the long pending reforms of power sector. It has wide ranging benefits to all the stakeholders involved in the electricity sector.

Benefits to customers

- △ availability of choice
 - ↳ can purchase electricity from different suppliers without any restrictions
- △ price discovery
 - ↳ Improve efficiency in

the electricity market by removing
restriction of locus of purchase. This
helps in ^{achieving} efficient price

Benefits to DISCOMS

- △ DISCOMS have no obligation on
supplying to only a fixed region
they can expand their operations.
- △ remove cost price subsidy in the
electricity markets that helps DISCOMS
in increasing revenue efficiency.

Benefits to environment

- △ Electricity amendment Bill intro-
duces carbon markets in India
that incentivises producers to adopt
climate sensitive ways of power
generation

Shortcomings

Δ fails to prohibit heavy subsidies towards the consumers that increases fiscal burden of the state government.

Δ carbon markets may not be efficient without a command and control model of imposition.

Measures

Δ phasing of inefficient power subsidies to the on-grid consumers

Δ Incentivising roof top solar power installations in households.

Δ relieving the DISCOMs from state control through privatisation

Δ proper electricity sector is crucial for India in revolutionising its energy needs.

Q.12 भारतीय प्रतिभूति एवं विनिमय 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

Securities and exchange board of India (SEBI) is the watch-dog of financial markets in the country.

Objectives of SEBI

△ Ensuring transparency in financial market transactions and other dealings.

↳ Stocks IPOs, trading etc

△ protection of investors interests by ensuring competitive markets that fulfil global standards.

Challenges faced by SEBI

△ Independence is compromised
 ↳ the interference of ministry of finance in the decision making process of SEBI through appointments of Board and removal.

△ Increasing complexity of market
 ↳ day increased sophisticated financial instruments.

△ Technological innovations in financial markets
 ↳ growing fintech firms

challenge of and startups, increased regulation. crypto currency trade

△ Overlapping regulatory jurisdiction
 with IRDA and RBI

↳ NBFCs, listing of insurance firms.

- Δ Increased participation of middle class in financial markets
 ↳ require SEBI to be more careful about their interests.

Reforms needed:

- Δ Increasing the autonomy of SEBI
 by providing it a "constitutional body" status.
- Δ Identifying and removing the overlapping jurisdictions between multiple regulatory bodies
- Δ Modernisation of financial markets
 by using latest cutting edge technologies  AI and ML.
- Δ Ensuring proper budgetary support to SEBI along with independence in its own revenue decisions.
- Hence, SEBI needs to be strengthened to protect the overall interests of investors.

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

Agriculture sector contributes to one ~~third~~ ^{fifth} of India's GDP and employs over 40% of the workforce. It is the backbone of Indian economy as it is crucial for ensuring the food security.

Constraints in growth of agriculture.

△ fragmented land holdings
 ↳ avg farm size in India is less than 1.5 acres.
 ↳ prevents mechanisation.

△ heavy dependence on monsoon
 ↳ lack of irrigation facilities
 ↳ over 50% of the cropped area

is dependent on monsoons.

Δ lack of access to credit

↳ farmers are still dependent on informal sources of credit through money lenders that charge exorbitant interests.

Δ monocropping

↳ most of the farmers practice monocropping that reduces soil fertility and decreases crop yield.

Δ lack of marketing infrastructure

↓
lack of cold storages
warehouses
causing

↳ lack of all weather roads
only 70,000
APMCs, mandis and
rural markets for 6 lakh
villages.

Δ Inefficient extension service

→ Includes weather forecasting

→ soil testing

Role of technology in overcoming other constraints

△ drone mapping of land to
ensure proper land records and
efficient land redistribution

△ fintech initiatives
across to
formal credit. {
↳ Jandhan mobile Aadhar
↳ UPI payments directly

△ Nano fertilizers → Nano urea,
helps in increasing crop efficiency

△ Drone based fertilizers applications.

△ Use of latest irrigation technologies
→ sprinkler-drip irrigation

△ e-marketing → through e-hari
e-banta.

△ e-learning → to educate farmers

Technology revolution is
important to remove bottlenecks in
agriculture sector

- 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

ans
Indian agriculture is heavily dependent on monsoons for irrigation. Therefore it is essential to increase irrigation facilities like canals, tubewells, etc in these regions. But, irrigation has undue impact on environment.

Δ Reduction in ground water table

↳ due to excessive extraction of underground water using tubewells.

Δ Soil erosion

↳ top soil erosion and decrease in soil fertility due to over

and excessive water usage.

△ release of Green house gases (GHGs)

→ methods of intensive irrigation like used for paddy in India, contributing towards GHGs like releasing methane.

△ Increases soil salinity.

△ canal irrigation leads to displacement of people and fragmentation of wild life habitat.

△ usage of on-grid electricity to power borewells increases the contribution of GHGs as on-grid electricity is generated using thermal power

Measures needed.

- △ promoting and incentivising farmers about using solar pumps.
- △ crediting subsidy on on-grid electricity to farmers to ensure transition towards solar.
- △ using latest methods of irrigation that are more efficient
 - ▷ sprinkler and drip irrigation
- △ regulation of installation of tubewells and borewells in low ground water table areas.
- △ Hybrid irrigation facilities that uses green energy.
- △ Structural and behavioral transformation in irrigation sector is needed to ensure environment sustainability

- Q.15 परमाणु ऊर्जा और अंतरिक्ष प्रौद्योगिकी के क्षेत्र में क्रमशः डॉ. होमी जहाँगीर भाभा और डॉ. विक्रम अंबालाल साराभाई 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

- 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

Ans Generative AI has gained prominence in the recent months especially after the launch of Generative pre-trained transformers like ChatGPT, and Google Bard.

The Generative AI basically uses LLM technology that provides information in an orderly manner, in an organised format and gives human like responses.

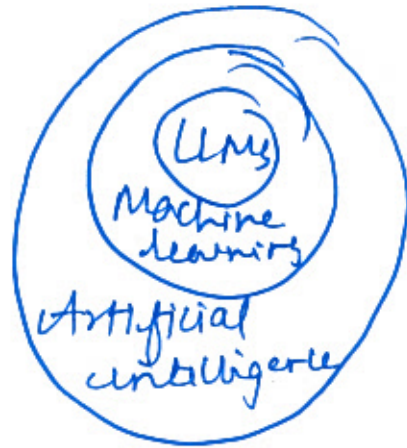
Advantages of Generative AI

Automation of repetitive tasks

↳ Ex digitising data, organising and cleaning data.

Research

↳ Generative AI
is actively being used
as research assistants

Big data

↳ help in processing of data easily
that was previously intractable.

Education

↳ helps students/teachers in
learning about different issues as
GAI provides human like responses.

Health → In recording patient data,
diagnosing and suggesting cures.

Coding and Machine learning

↳ can generate complex
code in span of seconds.

Substantial challenges

Δ fear of job loss due to replacement of labor with Generative AI

Δ reduces creativity of the human resources as Generative AI (GAI) can be used for

problem solving
report writing
poetry, story making
Art making.

Δ threat of providing biased answers as it reflects the information that is already available on the internet.

Δ Generative AI may also increase labor's preference for leisure thereby reducing labor productivity

Despite challenges, GAI's potential to contribute towards economic growth is immense hence must be utilized accordingly

- 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

Ans

UN Climate change conference was held in the Sharm-el-Sheikh town of Egypt. in 2022. It lead to many important outcomes like loss and damage fund, mangrove alliance for climate and forest & climate leaders partnership.

Mangrove alliance for climate

△ Its objective is to protect the mangroves around the world by decreasing the vulnerability of mangroves from climate change.

△ Aims at preserving the wildlife that resides in the mangrove forests.

△ Also aims to protect the marine life that is dependent on mangroves for their survival.

Importance of Mangroves

△ They are found in the coastal regions of tropical regions.

△ helps prevent coastal land erosion by acting buffer between the coast and incoming ocean waves.

△ Mangroves support a major portion of life including marine and land of the coastal habitat
⇒ Bengal tiger in Sunderbans.

△ they also help to moderate the impacts of cyclones by acting as a green wall.

△ The fruits ^{and other produce} of mangrove forests provide source of livelihood to the coastal population

△ Helps in moderating the temperature and humidity in coastal regions → providing convenient environment.

△ Mangroves are wetlands that are economically important as they are source of many useful minerals and resources.

Coastal ecology is highly dependent on mangrove forests. Hence preserving them must be a priority

- 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

Coalition of disaster resilient infrastructure (CDRI) was launched by India to promote global coordination in preventing, combating and mitigating the effects of disasters.

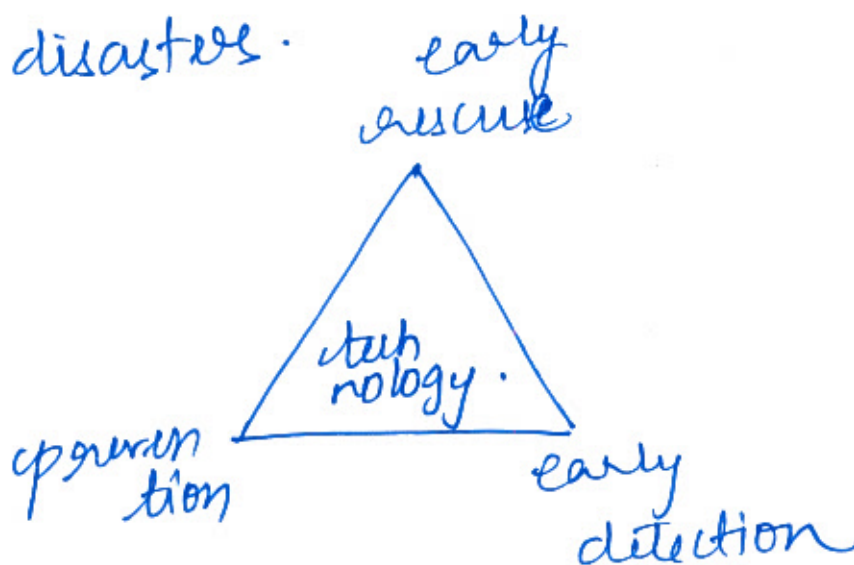
Provisions

△ provides certificate for the projects that employ disaster resilient infrastructure
△ aims for mobilization of finances to fund infrastructure

projects of least developed countries that are helpful in combatting disasters.

Need for new strategy

India needs a strategy for disaster management that is focussed on using latest available technologies in dealing with disasters.



- Δ using drones to monitor disaster prone areas.
- Δ using drones to supply food and essential medical supply to those who are trapped
- Δ using AI in early detection and warning system
- Δ imposing strict regulations on urban construction $\Rightarrow$ obtaining nodatory disaster resilient clearance.

The serow and charged approach of disaster management will help India in preventing the impact of climate change

- 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 ^{AIIMS} 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

Ransomware attacks are those that infiltrate the systems and take hostage of the data in return for a ransom (money)

India is facing increased threats from the cyber attackers specially in the form of Ransomware

→ recent attack on AIIMS - ransomware like 'wannacry' and the hacker group called 'Blackcat'

Key factors responsible

Δ lack of adequate cyber security infrastructure.

↳ antivirus, firewalls and intrusion detection systems.

Δ lack of trained and cyber friendly employees.

Δ Inadequate prevention strategies

↳ no back up of data.

Δ slow data encryption rate

↳ no end-to-end encryption or higher codes like 128-bit and 256-bit

Impact on various sectors

Health

↳ threat of leakage of data in the dark web that could expose India's health profile to the enemy nations.

financial → increases the vulnerability of financial networks.
↳ increases burden on the companies by payment of ransom.

Critical personal data → can be leaked on the darkweb

Ex) Aadhaar data leakage in 2021

Cyber security shall be strengthened and awareness must be created among employees by corporation

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
There are many security agencies involved in protection of border security in India. Including

BSF, Indian Army, ITBT, local police, IB and RAW (Coast guard)

Considering the recent increased infiltration it is important to ensure that there is a coordination between these agencies to preserve the integrity of the border.

Δ it will help in exchange of
intelligence & information

Δ Better cooperation will help in
dealing the multi dimensional
issues.

↳ NIA + BSF → to deal with
terrorism & organised crime

Δ monitoring of proper borders to
enforce proper measures.

↳ RAW + BSF

Space for Rough Work

Candidates must not
write on this margin

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