

NEXT IAS

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(To be filled by candidate)

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Registration Number : Date of Examination :

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. :

(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

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2. Write your registration number and other particulars, in the space provided on the cover of QCA Booklet.
3. Write legibly and neatly. Do not write in bad/illegible handwritings.
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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

In 2022, Government of India imposed windfall tax on crude oil production and processing companies in wake of windfall profits.

The windfall tax is a tax that is levied upon the companies that gets substantial increase in their profits not due to their enterprising decisions, but due to changing market situations.

- **Windfall tax : a tool for redistributing wealth**

↳ ① As all taxes are part of government's mechanism to redistribute the resources in economy, so is the windfall tax.

↳ ② Windfall tax redistributes the excessive profit attained by companies to the government, that in turn uses it for social welfare spending.

↳ ③ It redistributes the economic wealth and promotes the economic equity in society.

- 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

The new Monetary Policy regime (MPC) came into operation in 2016 in wake of amendment to RBI Act, 1934 which mandates the Monetary Policy Committee for inflation targeting.

As per new MPC regime, the Monetary Policy Committee is to maintain the inflation consumer/retain inflation in the range of 2-6%.

- Success of Monetary Policy Committee regime
 - ↳ It clearly identifies the priority area for Monetary policy committee, thus an effective focus on inflation targeting.
 - ↳ It ensures proper coordination between monetary policy and fiscal policy as committee consists of both central Bank members and members nominated by government.
 - ↳ It imposes accountability on committee as committee is to file explanation for being failed ~~for~~ if inflation is above mandate for

more than 9 months.

- ↳ Monetary policy committee effectively dealt with inflation and economic growth issue during Covid-19 by reducing Repo rate and later increased it.
- ↳ Monetary policy attempts to manage the inflation through demand side management.

• Challenges of Implementing Inflation targeting

- ↳ ① It only caters to demand side management, not supply-chain issue, as seen during Russia-Ukraine war that caused supply chain disruption.
- ↳ ② Reduction or increase in interest rate is transferred to consumer lately.
- ↳ ③ Due to constant increase in fiscal deficit, the overall supply of money in economy increases, increasing inflation.
- ↳ ④ It is not able to ~~take~~ tackle structural issues in economy.

MPC regime is noble mechanism to ensure inflation control and economic growth but there needs collaborative efforts on part of government

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

United Nations General Assembly declared 2023 as the International Year of Millets, to popularise the millets, as it got substantial benefits for both sustainable agriculture and food security of the world.

• Millet's production promoting sustainable Agriculture

↳ ① Millets require low amount of water. It ensures more crop per drop and can be cultivated in acid and semi-acid region.

↳ ② It can be cultivated into degraded soil as well. It not only tolerate the decreased soil health but also augments the soil nutrient.

↳ ③ It tolerate the harsh ^{weather} ~~weather~~ conditions. It assumes significance in the wake of extreme ^{and} frequent weather events due to climate change.

↳ ④ Millets requires less or ~~now~~ no external inputs like fertilisers, pesticides etc. thus helping to reduce overconsumption of synthetic products, helping both ecosystems.

• Millet cultivation improving food security

↳ ① It contains substantial number and amount of micro-nutrients and fibre, that ultimately benefits the consumer.

↳ ② It is suitable to be cultivated in small and marginal farmers' lands that requires less input cost and ensures food and nutritional security.

- Measures taken
- ① Center of Excellence for Millets in Hyderabad.
 - ② Inclusion of millet in government's programmes like Mid-day Meal, ICDS.
 - ③ Government is also promoting it through procurement at MSP.

Thus, Millet cultivation is indeed the key in ensuring sustainable agriculture and improving food security.

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 is the flagship initiative of Government of India to ensure 'Water for All' by 2024. It targets for 55 litre per capita water availability by 2024.

Significance of Mission

- ↳ ① As there existed substantial disparity in the availability of piped drinking water in rural and urban areas, Mission initiated in 2019 aimed at ensuring piped drinking water to every rural household.
- ↳ ② There also existed inequity in access of safe, adequate and piped drinking water to households within rural areas, and the mission aims at mitigating the inequity.
- ↳ ③ It also ensures sustainability of resources through local committee management of water resources, and levying a fee.

④ It also mandates the water recycling through grey water management.

• Impediments in achieving targets

↳ ① As it is central-sponsored scheme, some state governments are not enthusiastically participating in the scheme.

↳ ② Delayed implementation due to supply chain disruption during Covid-19.

↳ ③ In wake of climate change, adequate water availability itself becoming a challenge.

↳ ④ Widespread contamination of water resources is a challenge.

↳ ⑤ Time and cost overrun.

↳ ⑥ Inadequate funding for the mission itself poses risk to viability of mission.

However, Jal Jeevan Mission is indeed emerging a vital cog in ensuring the equitable and inclusive development of all through providing access to basic need of life i.e. water.

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

Battery energy storage systems are devices that ensure the storage of excessive of energy supply during energy surplus phase and release of energy during energy deficit phase.

• Applications of Battery Energy storage systems

- ↳ ① It holds the potential for revolutionizing the energy program of India as it can capture the solar energy during day time and gradual release of energy during night or when sun is not available.
- ↳ ② It ensures the Grid Stability, thus mitigating the key challenge in India's renewable energy program.
- ↳ ③ It can even capture the energy produced through solar energy,

wind energy in the form of Hydrogen fuel and can ensure the transportation.

Thus, it can change the face of mobility.

↳ ④ It ensures the de-centralised production of energy.

↳ ⑤ It ensures the operation of standalone electronics devices, thus boosting the digitalization of the economy.

Thus, Battery energy storage systems can play a key role in the effective and just transition of Indian economy, ensuring ~~de-carbonization~~ de-carbonization of production and consumption systems.

- 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

ISRO aims to operationalise its ~~flight~~ manned space flight by 2025, thus putting it into league of few developed space powers. The Gaganyaan mission would launch three Indians through indigenously developed launch vehicle (LVM-3) into low orbit orbit for a period of 3-7 days.

- Gaganyaan mission is based on number of sophisticated technological development and ISRO has made considerable strides in achieving / acquiring these technologies

(e.g.) Safe Abort technology, successful reentry vehicle launch etc.

Challenges in the Mission

- ↳ ① Logistics challenges in terms of ensuring the coordinating ~~the~~ such a large scale operations.

- ↳ ② Training of Indian crews is taking place in Russia and taking too much time.
- ↳ ③ The delay caused by Covid-19 caused cost and time overrun.
- ↳ ④ number of technologies are still in the developmental stage.

• Possible Benefits of Mission

- ↳ ① Spin-off effect of new technologies developed.
- ↳ ② Technologies development and mission operation would lead to substantial increase in job opportunities for skilled personnel.
- ↳ ③ would act as inspiration for youth to take scientific and technology studies.
- ↳ ④ would act as foundation for other space programmes that have substantial benefits for the society.

Thus, India is very close to make a new milestone for itself by launching humans into space.

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

Green Hydrogen is the hydrogen that is produced through hydrolysis of water into Hydrogen and oxygen gas with help of renewable energy.

Green Hydrogen does not emit any green house gas or other air pollutants, thus tackling the climate change and air pollution.

Considering its benefits, India in 2023 launched the National Green Hydrogen Mission. It aims to increase the production of green hydrogen by 5 MMT by 2030

↳ It also aims at making India hub for manufacturing equipment for ~~hydro~~ hydrolysis process.

↳ It mandates the integration of green hydrogen into renewable energy

systems .

- Challenges
- ① Low manufacturing base
 - ② Incipient not use of technologies.
 - ③ Lack of infrastructure for integration and transportation of green hydrogen .

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

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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

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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

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- 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

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- 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

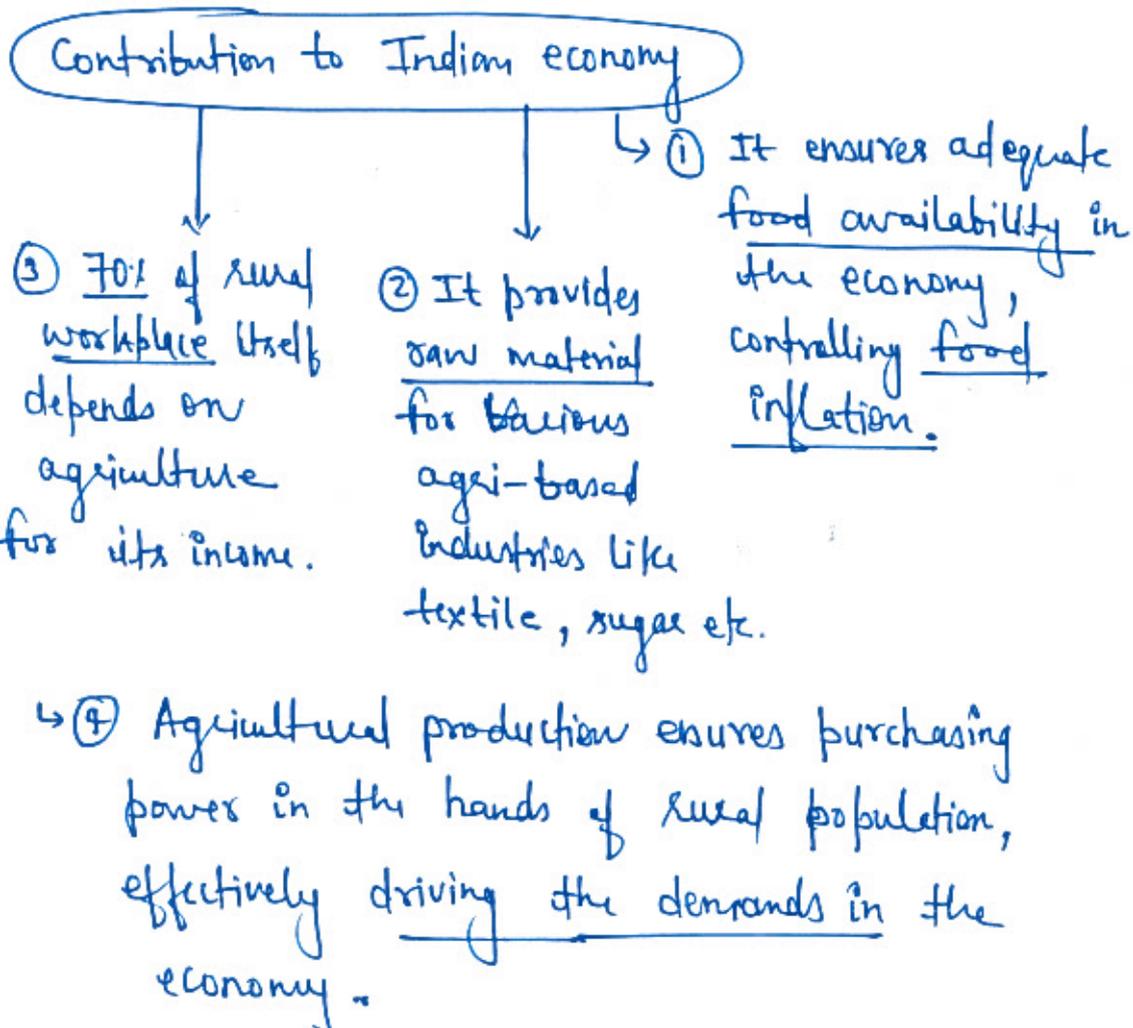
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- Q.13 भारतीय अर्थव्यवस्था में एक प्रमुख योगदानकर्ता होने के बावजूद, कृषि क्षेत्र कई बाधाओं से ग्रस्त है जो इसकी वृद्धि और विकास में बाधा डालते हैं। इन बाधाओं पर काबू पाने में प्रौद्योगिकी की भूमिका पर चर्चा कीजिए।
(250 शब्दों में उत्तर दीजिए) 15 अंक

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

Agriculture sector contributes on average 10-20% of India GDP and employs more than 45% of India's labour force.



• Constraints impeding Growth in Agricultural sector

- ↳ ① Small landholdings — as per Census 2011, 86% of farmers are small and marginal farmers having less than 2 hectares of land.

- ② Low productivity of Indian agriculture sector is a challenge itself as it leads to wastage of resources. For Instance, Rice yield in India is $\frac{1}{3}$ rd of China's.
- ↳ ③ Low mechanization - In Indian agriculture, mechanization stands at just 40-45%, causing low productivity.
- ↳ ④ Wastage of resources due to excessive use of fertilisers, pesticide and other resources through traditional methods.
- ↳ ⑤ Low Irrigation coverage - In India, irrigation coverage stands at just close to 50%, making agriculture dependent on monsoon.
- ↳ ⑥ Low remunerative price for farmers due to distress sale and no competitive discovery of prices in APMC Mandis
- ↳ ⑦ Just 10% of agricultural produce is processed, causing substantial wastage.

• Role of Technology

- ↳ ① High yield variety seeds, synthetic chemicals like fertilisers, pesticide etc.

- ↳ ② Also development of GM crops and other disease resistant, draught-tolerant crops.
- ↳ ③ Precision agriculture through constant monitoring of crops and optimal usage of resources.
- ↳ ④ In wake of groundwater depletion, efficient irrigation technologies like spinkler, deip irrigation ensures more crop per drop.
- ↳ ⑤ Digital marketing through connecting farmers with buyers. (e.g. e-NAM)
- ↳ ⑥ Digital apps making it convenient for farmers for taking agricultural equipments like tractor, thresher on rent.
- ↳ ⑦ Food processing industries holds the potential to reduce the wastage of produce, increase value-addition and reduce distress sale among farmers.

As agriculture played substantial role in Indian economy and essential for nation's food security, all the impediments plaguing the sectors must be removed with effective use of technology and other policy reforms.

- 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

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

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- 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

Generative A.I. is the emerging branch in the Artificial Intelligence that not only mimics the human actions and identifies the pattern, but also generate new content based on its training on data.

• Potential of Generative A.I.

- ↳ ① Education — It helps to generate and create the content as per demand of student and thus ensures learner-centric education.
- ↳ ② Business — In workplace, generative A.I. assists in generating new ideas based on past data, and also in effectively communicating in writing.
- ↳ ③ Entertainment — Generative A.I. develops new poems, dramas, musical tones and lyrics, helping creators and artists to get fresh thoughts.

↳ ④ Administration — It helps to do trend analysis, and get curated data as per requirement.

(e.g.) **SUPACE** is a generative A.I. based digital programme assisting judges of Supreme court in sifting required judgements based on past verdicts.

↳ ⑤ It automates the repetitive tasks and reduces mental drudgery.

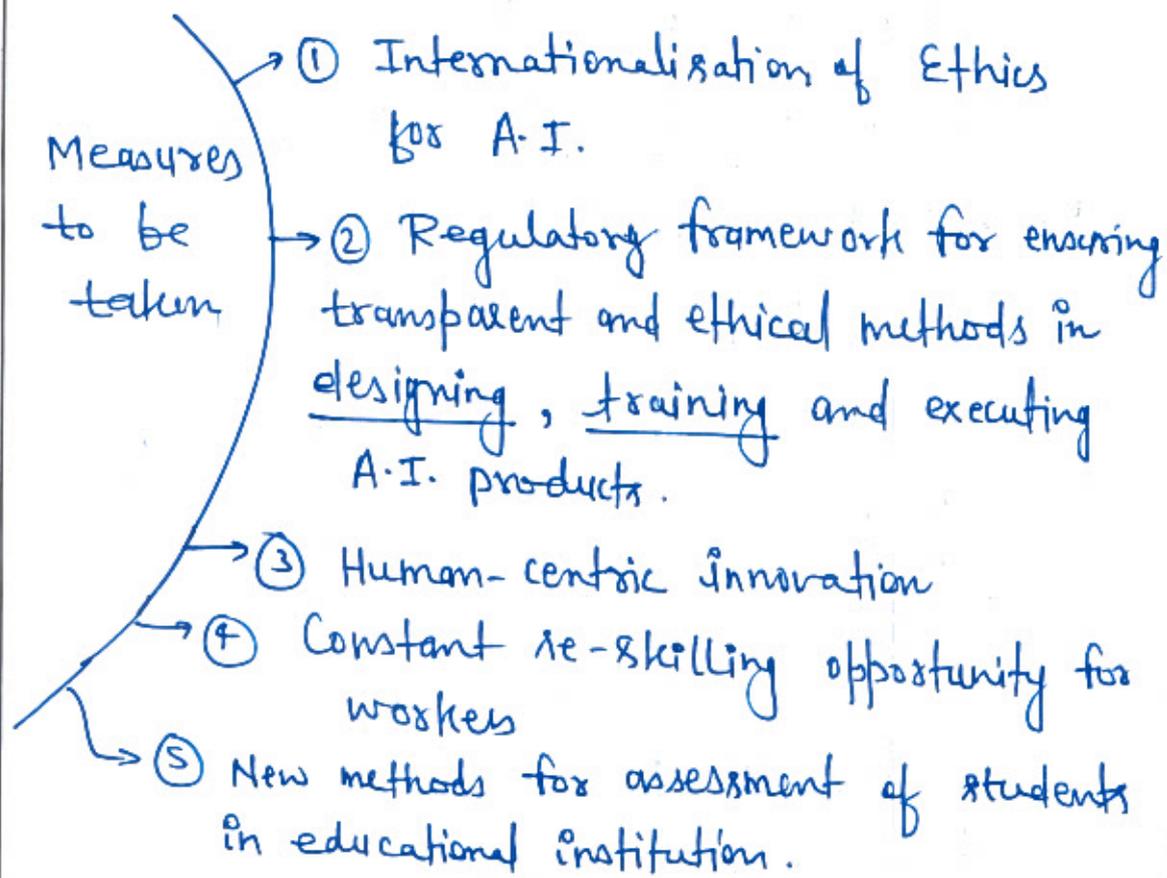
↳ ⑥ Even new computer programmes can be written with its helps, increasing the labour productivity.

• **Challenges posed by A.I.**

↳ ① Biased and Prejudice behaviour of A.I. model due to its training on biased database.

↳ ② Plagiarism and copyright violation in academic as there are reports that students are presenting their assignments by pasting for A.I. generated content.

- ↳ ③ The Digital Divide in the access to such new tools would further deepen the inequality in society.
- ↳ ④ As more task is automated, skills of persons would become redundant, resulting in substantial loss of jobs.
- ↳ ⑤ There is always a threat of Sentinel A.I. that substantially outpaces the human intelligence.



Although Generative A.I. holds the immense potential, it must be used with human welfare at the centre.

- 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

Mangrove Alliance for Climate (MAC) is a flagship initiative, launched at UN COP 27 in Egypt to ensure the effective and sustainable usage of Mangrove.

• Purpose of Mangrove Alliance for Climate

- ↳ ① It aims at utilising Mangroves as the Nature-based Solution to mitigate the climate change by absorbing the excessive carbon in atmosphere.
- ↳ ② It aims at collaborating and coordinating the efforts for conserving and preserving the mangroves.
- ↳ ③ It aims to mobilise the resources, as done under REDD++ to support local communities for preserving the mangroves.

- ↳ ④ MAC would ensure the exchange of best practices in the preservation of Mangroves.
- ↳ ⑤ MAC also aims at using Mangroves as the effective mechanism against the Disaster management. ~~and~~ through acting as resilient Bioshield against disasters like Cyclones, Tsunami. etc.

• Importance of Mangroves

- ↳ ① They acts as water purifier by holding the pollutants.
- ↳ ② plays an important role in ground-water recharge.
- ↳ ③ Also plays a key role against the coastal flooding during sea-surge.
- ↳ ④ Acts as habitat for hundreds of species, becoming a hub of biodiversity.

- ↳ ⑤ It moderates the local climate.
- ↳ ⑥ Also helps in the purification of air by capturing air pollutants.
- ↳ ⑦ Provides number of products in the form of wood, fish etc. to coastal communities.
- ↳ ⑧ acts as shield against impact of Cyclones and Tsunamis.

Considering the importance of Mangrove, Indian government strengthened the Coastal Management Rules, joined the international programmes like RAISE, and also started new programmes for Mangrove preservation and sustainable usage in Budget 2023-24.

Thus, Mangrove holds a vital position in the sustainable economic development and resilient socio-economic order.

- 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

The Coalition for Disaster Resilient Infrastructure (CDRI) was is a flagship climate initiative of Indian government at International level in the field of Disaster management.

The initiative of CDRI was first proposed by Hon'ble PM of India at New York Conference on climate in 2019.

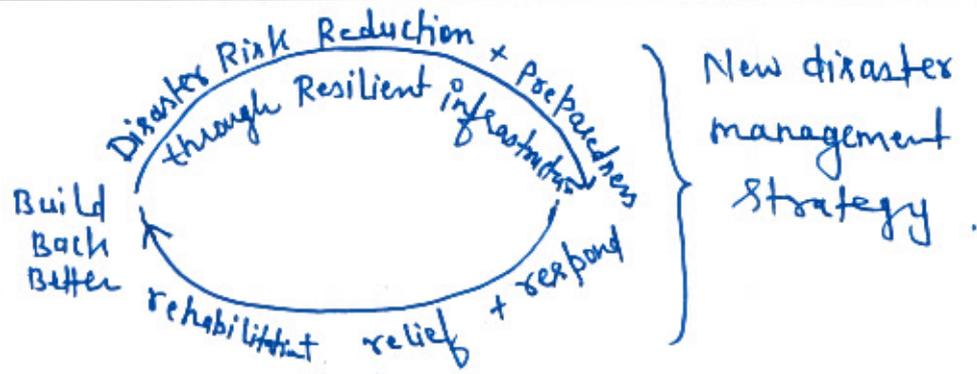
The initiative emphasizes on the resiliency of infrastructure against the rising disasters as it is well known that it is not earthquake but building that kills the human. So is the case with other disaster as well.

The CDRI would ensure the collaborative and cooperative approach in increasing the knowledge and access

to new tools, techniques and finance to ensure disaster-resilient infrastructure.

• New Strategy for ~~Time~~ Disaster Management

- ↳ For a ~~long~~ long time, the emphasis of disaster management has been on reactive measures, focussing on rescue, relief and rehabilitation. It is akin to post-disaster management.
- ↳ This approach is inadequate in mitigating the substantial loss to life, property and infrastructure.
- ↳ Hence, post-Sendai framework (2015), the emphasis of disaster management has shifted from post-disaster management to pre-disaster risk reduction and resilient infrastructure.
- ↳ Disaster-management Act (2005) emphasizes on the integration of disaster-risk reduction techniques in the planning and execution stage itself.



- ↳ In new strategy, the risk for disaster are minimized through incorporating the structural measures in the design of infrastructure and systems. for instance, shock absorber in building against EB waves
- ↳ The resiliency of infrastructure is ensured through incorporating the risk of disasters and hazards. for instance, under the ground electric and water lines to ensure resiliency during cyclone in coastal region.
- ↳ During the ~~rehabilitation~~ rehabilitation phase, the reconstruction of infrastructure is done ensuring structural measures in new building.

Thus, the disaster management framework has shifted from linear approach to circular approach ensuring resilient system.

- 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

In 2022, AIIMS Delhi was attacked with ransomware, bringing virtual standstill in its operations of patient records and management. As per Mckinsey Report, there has been substantial increase in the cyberattacks in India, posing a risk to safety and security of country.

• Factors contributing to rising Cyberattacks

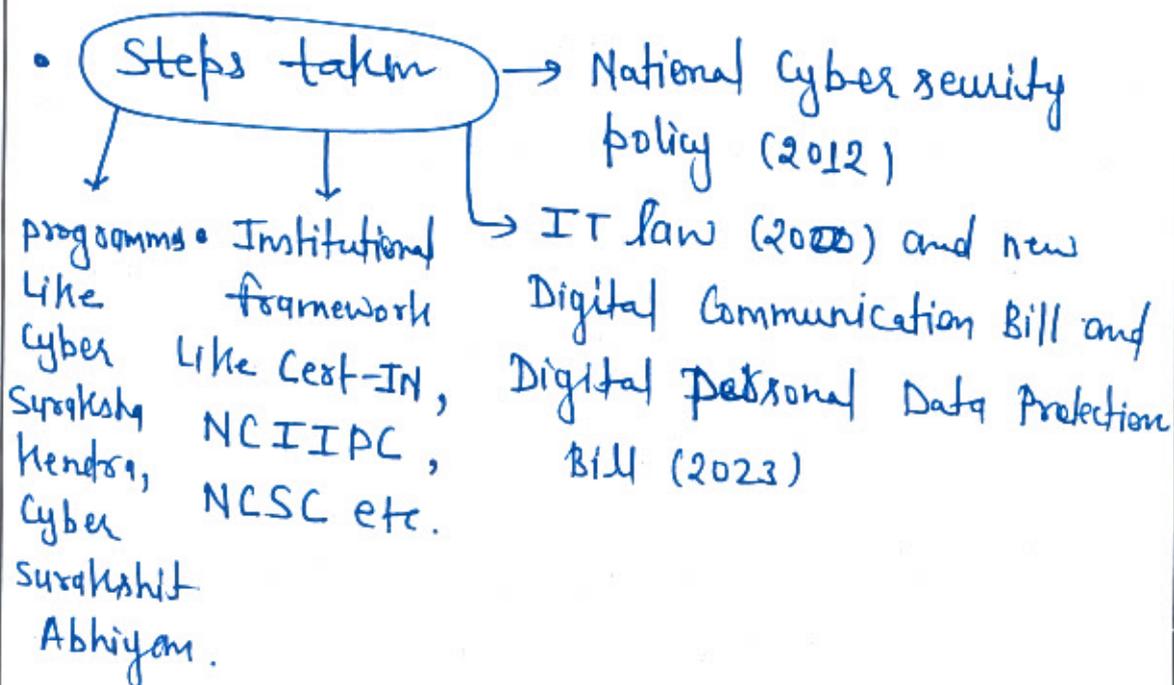
- ↳ ① The increasing digital penetration in the country makes it easier for cyber attackers to attack. (more than 70 crore Indians had Internet connectivity)
- ↳ ② Growing technologies like Dark web, crypto coins provided the extra anonymity to attackers, thus boosting their confidence against law enforcement agencies.

- ↳ ③ The terrorist organizations ~~are still~~ are shifting their strategies and exploring the methods of attacking on critical infrastructure through cyber attacks
- ↳ ④ Even geopolitical tensions like border row between India and China induces adversary countries to resort to cyber attacks. (In 2021 Mumbai Power outage is supposed to be caused by Chinese hackers)
- ↳ ⑤ sophistication of cyber attack technologies like Zero click malwares, increasing the ease of attacks.
- ↳ ⑥ The hidden vulnerabilities in the system provided easy route for attackers.

• Impact

- ↳ ① Attack on corporates results in substantial economic loss in the form of ransom paid, production stopped and even data base is lost.
- ↳ ② Reputation of organization is lost.

- ③ Threat to National security as attack on critical infrastructure brings the economic and other system to standstill.
- ④ Chances of Data theft and data misuse
- ⑤ Attacks on critical services like hospitals, administration brings substantial inconvenience and hardships to citizens.



• **Need for New & stronger measures**

- ↳ ① Existing legal and institutional framework is adequate, suffers from ~~at~~ ambiguity and overlap.
- ↳ ② technological developments requires new counter-technological measures

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

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