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(To be filled by candidate)

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Roll No. : MT23RCAPA010

Registration Number : ..... Date of Examination : 31/8/23

Exam Centre : Old Rajinder Nagar ☐ Bhopal ☐ Online ☑

Test - 7

Code : TC709

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.

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

.....

SUBJECT/PAPER
GENERAL STUDIES

Invigilator's Sign. : .....

[To be filled by the STUDENT]

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

[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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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.

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1. भुगतान संतुलन (बीओपी) के घटकों के रूप में पूँजी खाते और चालू खाते के बीच अंतर का सविस्तार वर्णन कीजिए। भारत के बीओपी घाटे को संतुलित करने के लिए कुछ उपाय सुझाएँ। (150 शब्दों में उत्तर दीजिए) 10 अंक

Elaborate on the difference between Capital Account and Current Account as components of Balance of Payment (BOP). Suggest a few measures to balance the BOP deficit of India.

(Answer in 150 words) 10 Marks

Balance of Payment refers to the account on which transactions related to exports and imports are recorded along with that of other foreign transactions like remittances, etc.

Difference b/w Capital account and Current account

Capital account	Current account
① has transactions which create assets or liabilities	doesn't create any asset or liability.
② This includes foreign loans given by India / taken by India.	Includes transactions like exports, imports, remittances, etc.
③ Includes different types of investments like FII, FDI and so on.	doesn't involve any company or financial market.
④ 100% convertibility is not allowed.	100% convertibility is allowed.

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(5). Restricts like Approval through govt. route are needed. Eg:- For FDI in Defence.	Restrictions like Import Duty, Sanitary and Phyto Sanitary measures, etc.

Measures to balance BOP deficit of India

(1). Increase in exports - through → PLI, Foreign Trade Policy, 2023 → decline in cost of logistics.
(Presently, CAD - 2.2% of GDP)

(2). Deepening of financial markets to increase FIIs.

(3). Indigenisation in crucial sectors → Energy, Defence, Active Pharma Ingredient, critical Ingredient
⇓
Reduce import Bill.

(4). Managing fiscal deficit ⇒ good image at global level ⇓ more FDIs FII
(Current, 5.9% of GDP)

(5). Internationalisation of Rupee - Eg:- Rupee - Dirham exchange

Multi-pronged measures as suggested in Budget 2023-24 are needed to increase BOP in favour of India.

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2. लॉजिस्टिक्स (रसद) क्षेत्र, विनिर्माण उद्योग के विकास के महत्त्वपूर्ण घटकों में से एक है। चर्चा कीजिए। साथ ही, हाल ही में घोषित राष्ट्रीय लॉजिस्टिक्स नीति, 2022 के विभिन्न घटकों का भी उल्लेख कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

The logistics sector is one of the important components of the growth of the manufacturing industry. Discuss. Also, mention various components of the recently announced National Logistics Policy 2022.

(Answer in 150 words) 10 Marks

Logistics sector include all the operations of supply chain management such as transportation, storage, distribution and so on. It determines the ease of doing business.

Important components of growth of manufacturing industry

① Enables smooth operation of businesses.

② Determines the cost of production.
(logistics cost - 14% of GDP)

③ Connects to markets and raw materials
↳ seamless connectivity through multi-modal logistics parks.

④ Enables self-reliance. eg: Dedicated freight corridors.

⑤ Increases competitiveness of exports.
↳ eg: SAGARMALA ⇒ reduction in turnaround time.

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Components of National Logistics Policy, 2022

1. Creation of multi-modal logistics parks.
2. Reducing the cost of logistics
   - ↳ from 14% of GDP to 8% of GDP by 2025.
3. Creation of infrastructure
   - ↳ under GATI shakti master plan and NIP (2020-2025).
4. Enable dispute Resolution mechanisms
   - ↳ Vivad se Vishwash scheme
5. focus on emerging sectors
   - ↳ EVs, semiconductors, etc.

Logistics cost have to be reduced in order to make India's manufacturing sector competent and make Indian economy reach $ 2.5 tn by 2025.

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3. डब्ल्यूटीओ के तहत मत्स्य पालन सब्सिडी पर नए समझौते पर भारत का क्या रुख है? भारत के लिए मत्स्यपालन क्षेत्र किस प्रकार महत्त्वपूर्ण है? इस क्षेत्र के विकास के लिए सरकार द्वारा उठाए गए कदमों का उल्लेख कीजिए।
(150 शब्दों में उत्तर दीजिए) 10 अंक

What is India's stand on the New Agreement on Fisheries Subsidies under WTO? How is the Fisheries sector significant for India? Enumerate the steps taken by the Government to develop this sector.
(Answer in 150 words) 10 Marks

Fisheries contribute 1.27% to Agri GDP and 5% to overall GDP. It shows the import-ance of fisheries sector for Indian economy.

India's stand on the New Agreement on Fisheries subsidies under WTO

① WTO has imposed prohibition upon
↳ illegal, unregulated and unreported fisheries.

② Subsidies given by developing countries
↳ larger exemptions

③ India has agreed to both of them.

Significance of fisheries sector for India

① Provides employment (4-5 cr people)

② Huge potential for exports.
↳ 2nd largest producer of fisheries

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(3). Remunerative for small farmers
↳ Rice cum fish farming. Eg:
Below sea level farming in Kuttanad

(4). Female labourforce participation rate
↳ increased.

(5). huge potential of marine processed foods.

Steps taken by the Govt

(1). To enable infrastructure funding.
↳ aquaculture infra development fund.

(2). loans to farmers
↳ Kisan Credit Card to animal husbandry farmers.

(3). Value Chains under PM-Matsya Sampada Yojana.

(4). multipurpose IDs to fishermen on TN coast.

(5). Focus on scientific fishing
↳ ornamental fisheries.

Blue economy has to be lavished upon in order to usher in an era of Blue revolution.

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4. उन प्रणालीगत और संस्थागत बाधाओं का विश्लेषण कीजिए जो भारत में भूमि सुधार प्रयासों में बाधा बनी हुई हैं और भूमि के न्यायसंगत वितरण को सुनिश्चित करने के लिए व्यावहारिक समाधान प्रस्तावित कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

Analyze the systemic and institutional constraints that continue to hinder land reform efforts in India and propose pragmatic solutions to ensure equitable distribution of land.

(Answer in 150 words) 10 Marks

Land reforms initiated in India in 1950s and 1960s in order to provide for redistribution of land to small and marginal farmers.

Constraints hindering land reforms

Institutional Constraints

① Lack of Political will
↳ Politicians – Big farmers nexus.

② No mechanism for upgradation of land records.

③ Many legal loopholes.
↳ distinction b/w ceiling ↳ Individual / family.

④ Caste conflicts eg: Ranvir Sena and Diamond Sena in Bihar

⑤ Lack of will to consolidate lands.
(successful only in Haryana, Punjab)

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Systemic Constraints

1. Emotional attachment with land.
2. Tenants to pay to owners to get the land.
3. No focus on rights of women
   - totally ignored.

Solutions for Equitable distribution of land

1. Ensuring land titles.
   - Eg: SVAMITVA scheme.
2. Ownership rights given to women. (only 13% women)
3. Model land lease act needed
   - T Haque Committee.
4. Consolidation through formation of
   - cooperatives, FPOs, etc.
5. Plug loopholes. Eg: Benami Property Transfer act.

Paradigm shift is needed from presumptive titles to conclusive titles to resolve land disputes and ensure equitable distribution.

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5. ब्रह्मोस सुपरसोनिक क्रूज मिसाइल की अद्वितीय विशेषताएँ और क्षमताएँ क्या हैं और इसने भारत की रक्षा क्षमताओं और सामरिक स्थिति के क्षेत्र में किस प्रकार योगदान दिया है? (150 शब्दों में उत्तर दीजिए) 10 अंक

What are the unique features and capabilities of the BrahMos supersonic cruise missile, and how has it contributed to India's defence capabilities and strategic position in the region? (Answer in 150 words) 10 Marks

Brahmos Supersonic Cruise Missile has been developed indigenously by the efforts of India and Russia which shows the shift of defence industry of India.

Unique features and Capabilities of Brahmos

① Supersonic speeds
↳ above 2Mac & below 5Mac.

② Fire and Forget Principle
↳ doesn't need to be guided.

③ hits the target precisely and accurately.

④ Ramjet fuel is used.

⑤ higher range is covered.

Contribution to India's Defence Capabilities

① Strengthens the military image of India.

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(2). Strengthens maritime capabilities
↳ to counter string of pearls of China.

(3). Creates a good deterrence
↳ avoid twin borders war.

(4). Complements Army and Navy.

(5). Move towards indigenisation of defence industry.

(6). Boost exports of India.
↳ Eg: Brahmos to be exported to Indonesia.

Defence indigenisation is needed to increase defence exports ~~by~~ to $5 bn and turnover to $25 bn by 2025-

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6. समुद्र की गहराई का पता लगाने और उसमें मौजूद संसाधनों का दोहन करने के देश के प्रयासों के अनुरूप, भारत सरकार ने गहरे समुद्र में अन्वेषण मिशन 'समुद्रयान' का प्रस्ताव रखा है। यह मिशन देश में समुद्र विज्ञान और प्रौद्योगिकी की प्रगति में किस प्रकार योगदान दे सकता है?
(150 शब्दों में उत्तर दीजिए) 10 अंक

In line with the country's efforts to explore the depths of the ocean and harness the resources it holds, the Indian government has proposed a deep-sea exploration mission Samudrayaan. How can this mission contribute to the advancement of ocean science and technology in the country?
(Answer in 150 words) 10 Marks

Deep-sea Ocean Mission refers to the exploration of deep sea for polymetallic nodules which if harnessed about 10% will gives 100 years of energy supply.

Country's efforts in Samudrayaan Mission

① Manufacturing of Deep sea Submersible vehicles.

② Training of personnel.

③ Exploration of Polymetallic nodules on ocean floor.

④ Gauging impacts on marine biodiversity

Contribution to advancement of ocean Science and Technology

① Measures oceanic features
↳ temperature, pressure, etc.

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(2). Development of material which can withstand oceanic pressure
↳ to avoid accidents like Titan.

(3). Exploration of ocean floor
↳ for critical minerals.

(4). Potential of energy from deep ocean.

(5). Give Boost to knowledge and research and development.

(6). Also assesses the impact on biodiversity

Samudrayaan Mission has to be worked upon by assessing all the factors and making it a success like Chandrayaan-3.

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7. वैश्विक मीथेन प्रतिज्ञा क्या है? क्या आपको लगता है कि वैश्विक मीथेन प्रतिज्ञा मीथेन उत्सर्जन को कम करने की दिशा में एक सकारात्मक कदम है? इस मुद्दे पर भारत का रुख स्पष्ट कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

What is Global Methane Pledge? Do you think the Global Methane Pledge is a positive step toward mitigating methane emissions? Explain India's stance on this issue. (Answer in 150 words) 10 Marks

Global Methane Pledge refers to the commitment to reduce methane emissions by a particular timeline. It has been agreed to by countries in Glasgow summit.

Positive step towards mitigating methane emmisions

(1). will align domestic policies with reduction of CH_4 emissions

(2). Focus on waste-to-energy projects
eg: use of stubble for energy creation

(3). Make agriculture climate friendly
eg: System of Rice Intensification

(4). Scientific management of waste.

(5). Mobilisation of funds from developed countries.

However, other measures also

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needed →

1. Achieving renewable energy targets.
   ↳ 50% energy from renewable sources by 2050.
2. De-carbonisation of industries & transport.
   ↳ use of EVs.
3. Funding mechanisms needed
   ↳ eg: Green Climate Fund.
4. expenditure on R&D to be increased
   ↳ (0.7% of GDP, at present)

India's stance

- India has made commitment to this pledge.
- Panchamrit goals of India cover it.
- focus on common but differentiated responsibility

Global methane pledge is a step in right direction to achieve Paris Agreement Goals.

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8. कोविड–19 महामारी ने सार्वजनिक स्वास्थ्य में आपदा प्रबंधन के महत्व पर प्रकाश डाला है। महामारी और अन्य संक्रामक रोग के प्रकोप के प्रबंधन के लिए प्रमुख रणनीतियों और चुनौतियों पर चर्चा कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

The COVID-19 pandemic has highlighted the importance of disaster management in public health. Discuss the key strategies and challenges for managing pandemics and other infectious disease outbreaks.

(Answer in 150 words) 10 Marks

Covid-19 Pandemic was managed under Disaster Management Act, 2005 as it resulted in loss of lives pan-India and created havoc in healthcare sector.

Key strategies to manage pandemics

① Robust disease surveillance mechanisms

② Test, Trace and Track strategy
↳ to prevent the spread of infection.

③ focus on developing vaccines and Immunisation in universal manner.

④ Data sharing → b/w states
→ b/w nations.

⑤ Collaboration with other countries
↳ developing vaccines & others like import of APIs, masks, etc.

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⑥. Regularly sequencing the genome
↳ for checking mutations.

Challenges in managing pandemics

①. Poor base of knowledge
↳ about new virus & mutations.

②. Inadequate health infrastructure
↳ Rural - urban gap.

③. lack of trained health personnel.
↳ WHO — 1500:1
↳ India — 1000:1

④. Vaccine nationalism
↳ vaccines not afforded by Global south.

⑤. Creating social acceptability
↳ about masking, distancing, vaccine, etc

Robust Disease Surveillance mechanisms are needed along with national digital Health Mission.

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9. "पूर्वी और मध्य भारत का संसाधन अभिशाप वामपंथी उग्रवाद का एक महत्वपूर्ण चालक रहा है"। इन क्षेत्रों के सतत और समावेशी विकास के लिए उपायों को विस्तार से बताइए और सुझाव दीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

"The resource curse of Eastern and Central India has been a crucial driver of LWE". Elaborate and suggest measures for sustainable and inclusive development of the region.

(Answer in 150 words) 10 Marks

Central and Eastern India have been facing the brunt of Resource Curse i.e. issues due to mining of minerals in these regions.

Resource Curse causing LWE

1. Creates demand for Jal-Jangal-Jameen
   - due to alienation from tribal lands.
   - due to environmental degradations
   - loss of livelihoods.
2. Alienation from distinct culture.
3. Deaths caused due to mining.
   - Eg: Rat-hole mining in Meghalaya.
4. Lands given to mainstream.
   - Laissez-faire economy.
5. Poor socio-economic indicators of

Candidates must not write on this margin

locals.

⑥ exploitation by Companies → Forced labour, Child labour

Measures for sustainable development

① Skill development of locals
↳ Eg: UDAAN, Samadhan scheme.

② Operations to tackle LWE
↳ Eg: Operation Greyhound in Telangana.

③ Creation of Infrastructure
↳ Eg: Aspirational Districts Programme

④ Collaboration b/w affected states.
↳ Eg: Chhattisgarh & Odisha.

⑤ Unique efforts → Eg: Community Participation by IAS Saurabh Kumar.

Multi-pronged measures with multi-stakeholder approach is needed to effectively curb the issues.

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10 उत्तर पूर्व और जम्मू–कश्मीर क्षेत्र में हिंसा की घटती प्रवृत्ति के आलोक में क्या आपको लगता है कि एएफएसपीए (अपरपा) अपनी उपयोगिता बरकरार रख पाया है? टिप्पणी कीजिए (150 शब्दों में उत्तर दीजिए) 10 अंक

In light of the declining trend of violence in the North East and J&K region do you think that AFSPA has lived its utility? Comment. (Answer in 150 words) 10 Marks

AFSPA refers to the use of military forces to aid the civil govt in a disturbed area declared as such by the Governor or the Govt.

Utility of AFSPA –

① to handle law & order in disturbed areas. Eg: Manipur.

② still pockets remainning of disturbed areas in N-E & J&K.
↳ Eg: Poonch violence

③ Aid local police.

④ Continous check on anti-national elements.

⑤ Deterrence effect on Terrorist activities.

Candidates must not write on this margin

Outlived its Utility

① has remained ineffective despite being in operation for 50 years.

② Breeds public distrust.
↳ Eg: Meira Paibis & mother's nude protest in N-E.

③ Violation of human rights.
↳ Santosh hegde committee

④ 2nd ARC recommended to repeal this law.

⑤ No accountability of armed forces.

AFSPA needs to be made much more humane & accountability mechanisms have to be increased.
↳ Santosh Hegde Committee

Candidates must not write on this margin

11. अंतर्राष्ट्रीय व्यापार प्रमुख मुद्रा प्रतिमान (डीसीएम) पर केंद्रित है। अंतर्राष्ट्रीय व्यापार में हार्ड करेंसी (दुर्लभ मुद्रा) के महत्त्व का आलोचनात्मक विश्लेषण कीजिए और डॉलर साम्राज्यवाद के विकल्प के रूप में वैश्विक व्यापार में रुपये की स्वीकार्यता की संभावना पर चर्चा कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

International trade is centred on the dominant currency paradigm (DCM). Critically Analyze the importance of Hard currency in international trade and Discuss the potential of rupee acceptance in global trade as an alternative to dollar imperialism. (Answer in 250 words) 15 Marks

Hard currency refers to the currency which is dominant in international transactions and which has higher acaptance in international economy.

Importance of hard currency

① Provides credible tool for trade.

② stability and less volatility.

③ Used by International Institutions (Eg: backing to dollar by WB, IMF.

④ Protects from vulnerability of developing countries. (Eg: ILFS crisis in India.

⑤ A global benchmark for other currencies.

Candidates must not write on this margin

However, overplayed value of hard currency

1. **strength of dollar**
   - more due to sentiment & less due to its own value.

2. Creates **hegemony of countries**.
   - e.g. US Fed Reserve's decisions affect decisions of other economies.

3. Vulnerability in **times of crisis**:
   - e.g. Fragile supply chains during Russia – Ukraine war.

4. **Global recession** due to globalisation.
   - e.g. Banking crisis in US.

5. **Other currencies** not given due representation in **world agencies**.

Potential of rupee acceptance in global trade as an alternative to dollar Imperialism

Candidates must not write on this margin

① Deepening of financial market
↳ Eg: Masala Bonds.

② Bilateral arrangements of India.
↳ Eg: VOSTRO account with Russia.

③ Increasing faith in rupee.
↳ Eg: Rupee - Dirham exchange.

④ Use of Public Digital Infrastructure.
↳ Eg: Singapore can use UPI for payments to India.

⑤ Stability of Indian Rupee.

⑥ Humanitarian efforts.
↳ Currency swap & LOC given to Sri Lanka

Rupee has to go miles before it can become hard currency to reduce dollar imperialism.

Candidates must not write on this margin

12. जनसांख्यिकीय लाभांश संवृद्धि सुनिश्चित नहीं करता है; यह केवल सामर्थ्य उत्पन्न करता है। जनसांख्यिकीय परिवर्तन से उत्पन्न अवसरों का लाभ उठाने के लिए सरकार द्वारा उठाए गए कदमों पर चर्चा कीजिए।

(250 शब्दों में उत्तर दीजिए) 15 अंक

A demographic Dividend does not ensure growth; it only generates potential. Discuss the steps made by the government to take advantage of the opportunities presented by the demographic transition.

(Answer in 250 words) 15 Marks

Demographic Dividend refers to the cohort of population b/w the age of 15-59 years which can contribute towards economic growth by active participation.

Demographic Dividend doesn't ensure growth but only generates potential

① Skill development of population is needed. Eg: SANKALP, PMKVY-3.0.

② Creation of robust infrastructure.
↳ PM-GATI shakti plan.

③ Smart cities → for high quality of living
↳ transit oriented development.

④ Need of Good Governance
↳ for quality delivery of services

Candidates must not write on this margin

⑤. Need to increase expenditure on education to 6% of GDP.

⑥. Need to increase expenditure on health to 3% of GDP.

Steps taken by Govt to take advantage of demographic transition

①. Govt's focus on skill development and employment. Eg: ASEEM portal, Rozgar Mela.

②. Focus on women empowerment.
↳ Eg: to increase the no. of SHGs.

③. To create multi-modal connectivity.
↳ Eg: Sagar Mala project.

④. Focus on healthcare.
↳ Eg: Ayushman Digital Bharat Mission

⑤. Paradigm shift in education
↳ Eg: NEP, 2020

Candidates must not write on this margin

⑥. Giving a push to MSMEs.
↳ eg: ZED scheme, PLI, etc.

Way Forward

① Bridging the Gender Gap in Labour Force Participation Rate. (Female LFPR ⇩ 32%)

② Providing social security net to elderly. eg: monthly pensions.

③ Implementing NEP, 2020 in true spirit.

④ Convergence of schemes → POSHAN, PMAY.

Whole-of-the society approach is needed for inclusive growth & leveraging demographic dividend.

Candidates must not write on this margin

13. 'जीनोम एडिटिंग (जीनोम संपादन) में फसल सुधार की अपार संभावनाएँ हैं, लेकिन यह नैतिक और सुरक्षा संबंधी चिंताओं को भी जन्म देती है।' भारत में जीनोम-संपादित पादपों के सुरक्षा मूल्यांकन के लिए नए दिशानिर्देश आनुवंशिक रूप से संशोधित फसलों की सुरक्षा को कितना सुनिश्चित करते हैं? (250 शब्दों में उत्तर दीजिए) 15 अंक

'Genome editing holds immense potential for crop improvement, but it also raises ethical and safety concerns'. How far do the new guidelines for the safety assessment of genome-edited plants in India, ensure the safety of genetically modified crops? (Answer in 250 words) 15 Marks

Genome editing refers to the ~~the~~ biotech-nology which involves editing a gene either by recombinant technology or using CRISPR Cas-9 and other methods.

Potential for Crop Improvement

1. Increases resistance to pests.
   - Eg: cry-cotton against bollworm.
2. Increases productivity
   - Eg: cry-mustard by cross-pollination
3. Decreases weeds & increases tolerance to herbicides. Eg: HT-BT cotton
4. Can add important nutrients.
   - Eg: Fortified rice → Golden rice
5. Can increase fertility of soil.

Candidates must not write on this margin

⑥. Can be drought-resistant, heat-resistant, etc.

Ethical and safety concerns

①. Alters the natural genes and natural species.

②. Adverse impact on traditional knowledge of farmers.

③. Reduces genetic diversity
↳ potential for superbugs & super weeds

④. Might alter the micro-biome of soils

⑤. Unassessed harms about impact on human health.

⑥. Adverse impact on pollinating agents
↳ Bees, Butterflies, etc.

Benefits of new guidelines for safety assessment of GM crops

①. Need of proper trials before commercial release.

Candidates must not write on this margin

② Approval of expert bodies needed
↳ apart from GEAC.

③. Need of EIA and social Impact Assessment.

④. Proper genomic sequencing needed

However, the efficacy of new guidelines will depend upon its strict implementation. Need is of to main-tain a balance b/w crop productivity and environmental & human health.

Candidates must not write on this margin

14. भारत में कृषि क्षेत्र पर प्रत्यक्ष और अप्रत्यक्ष कृषि सब्सिडी के प्रभाव की चर्चा कीजिए। न्यूनतम समर्थन मूल्य (एमएसपी) ने कृषि अर्थव्यवस्था को किस प्रकार प्रभावित किया है? (250 शब्दों में उत्तर दीजिए) 15 अंक

Discuss the impact of direct and indirect farm subsidies on the agriculture sector in India. How have Minimum Support Prices (MSP) affected the agricultural economy? (Answer in 250 words) 15 Marks

Farm subsidies refer to the one-way payments given for increasing the farmers' income and decreasing the cost of production.

Impact of Direct and Indirect farm subsidies on agriculture sector

Positive Impacts →

(1). Decline in input cost.
↳ eg: subsidy on urea, power tariffs

(2). Availability of working capital.
↳ eg: PM-KISAN.

(3). Reduction in debt of farmers.
(52% farm households under debt)
↳ eg: farm loan waivers.

(4). for proper irrigation needs.
↳ eg: free electricity to farmers & free water.

Candidates must not write on this margin

⑤. Subsidies on loans.
↳ soft loans given under Priority sector lending.

Negative Impact

①. Creates moral hazard and fiscal deficit — farm loan waivers.

②. excessive use of fertilizers → N:P:K 8:3:1
↳ Balanced use → N:P:K 4:2:1

③. Environmental degradation → Depletion of groundwater
→ eutrophication

④. Shifts focus from needed investment in agriculture.

⑤. Leakages & inequalities.
↳ only 6% farmers get MSP
↳ Shanta Kumar Committee

Impact of MSP on Agriculture Economy

Positive Impacts

①. Remuneration to farmers in times of bumper crop.

Candidates must not write on this margin

② Avoids distress sale.

③. Regulates market price.

Negative Impacts

①. Adverse Cropping Pattern
↳ Rice farming in semi-arid Punjab

②. Inequalities due to unequal storage infrastructure → 64% in large states ↳ Punjab, Haryana, UP
NITI Aayog.

③. Not given to all farmers.

Way Forward

① Decentralised Procurement (NITI Aayog)

②. Investment → PPP (Vijay Kelkar Committee)

③. MSP to millets
Eg: Jowar, Bajra, Ragi

④. Rationalising subsidies on food, fuel and fertilizers.

PPP investment is the need of the hour in Agriculture sector to achieve growth rate above 16% of GDP.

Candidates must not write on this margin

15. रोगाणुरोधी प्रतिरोध (एएमआर) एक तेजी से बढ़ता संकट है जो दुनिया भर में सार्वजनिक स्वास्थ्य के लिए एक गंभीर खतरा है। रोगाणुरोधी प्रतिरोध की बढ़ती समस्या में योगदान देने वाले प्रमुख कारक क्या हैं, और इस वैश्विक स्वास्थ्य खतरे से निपटने के लिए कौन से कदम उठाए जा सकते हैं? (250 शब्दों में उत्तर दीजिए) 15 अंक

Antimicrobial resistance (AMR) is a rapidly escalating crisis that poses a grave threat to public health worldwide. What are the major contributing factors to the growing problem of antimicrobial resistance, and what steps can be taken to address this global health threat? (Answer in 250 words) 15 Marks

Antimicrobial resistance refers to the resistance of microorganisms like bacteria or virus against the antibiotics or medicines due to their evolution.

Antimicrobial resistance : Grave threat to Public health

1. Extensive resistance against life-threatening disease. Eg: MDR against TB & XDR
2. Reduces supply of medicines (Eg: Penicillin.)
3. Weakens the immune system.
4. Gives way to fast mutation of viruses and bacteria.
5. Can cause frequent epidemics & pandemics.

Candidates must not write on this margin

⑤. Issue of affordability due to IPRs.
↳ for Global south.

Contributing factors to antimicrobial resistance

①. Availability of over-the-counter medicines w/o presciption.

②. Use of drugs for growth of livestock.
↳ eg: Oxitocin.

③. Not completing the course prescribed by doctos.

④. Use in Agriculture for crops growth.

⑤. emergence of infections diseases.
↳ eg: AIDS, TB.

⑥. Prevalence of Tropical neglected diseases and ineffective diagnosis.

⑦. Drug Abuse & illicit smuggling

Candidates must not write on this margin

Steps Needed

1. Strict action against sale of schedule H drugs w/o prescription.

2. Enforcement of rules
   - by Drugs Standard Controller General of India.

3. Ban of drugs use for livestock sector

4. WHO mechanisms → ACCESS for drugs accessibility
   - GLASS.

5. ease availability of drugs
   - for palliative care.

Antimicrobial resistance has to be stopped by measures like preventive healthcare and focus on the concept of "One Health"

Candidates must not write on this margin

16. विघटनकारी नवाचारों से आप क्या समझते हैं? हाल के दिनों में विघटनकारी नवाचार के कुछ उदाहरण बताइए और यह भी बताइए कि इन नवाचारों ने उद्योगों के संचालन के तरीके को किस प्रकार परिवर्तित किया है?
(250 शब्दों में उत्तर दीजिए) 15 अंक

What do you understand by Disruptive Innovations? What are some examples of disruptive innovation in recent times, and how have they changed the way industries operate?
(Answer in 250 words) 15 Marks

Disruptive Innovations refers to the science and technology discoveries which have the potential to disrupt the economic, political and social spheres.

Examples of Disruptive innovations

① **Blockchain** → helps in decentralisation of currency
- use of ledger for recording digital transactions.

② **AI** → simulates human intellect by data feeding.
- uses the technology of Machine learning, Deep learning

③ **Chat GPT** → refers to generative

Candidates must not write on this margin

AI based on language models.

↳ q based on huge data fed to it.

④. Internet of things → seamless connectivity b/w cyber-physical systems.

⑤ Genome editing and Genome Sequencing

↳ using tools like ZFNs, TALENs, CRISPR-CAS9

Changes in the way industries operate

①. Chat-GPT → ability to generate → text, audio/video, coding

→ disruption of healthcare, education, agriculture & so on.

→ automation of many processes

②. Blockchain & Cryptocurrency

↳ altered the Role of banking from regulator of currency to provider of digital currency as a Competitor

③. Revolution in healthcare & diagnosis

Candidates must not write on this margin

through genome editing.
↳ eg: Gene-edited babies Lulu & Nana.

④. Prediction of weather, etc.
↳ using AI.

⑤. **Challenges associated**

①. Issues related to
- Plagiarism
- Deep-fakes
- ethical biases
- morphed videos

↓
Chat-GPT.

②. ethical concerns in genome editing.
- consent
- safety
- of natural order

③. Increase of
- Black money
- cyber-financing
- human trafficking

↓
Blockchain & cryptocurrency

Disruptive technologies require disruptive norms in order to prevent cultural lag and uphold protection of human rights.

Candidates must not write on this margin

17. हानि और क्षति (L&D) कोष के क्रमिक विकास को विदित कीजिए। COP27 में हानि और क्षति कोष से संबंधित कौन–से प्रमुख घटनाक्रम हुए हैं? इस सम्मेलन में भारत ने क्या प्रतिबद्धताएँ व्यक्त की हैं?

(250 शब्दों में उत्तर दीजिए) 15 अंक

Trace the evolution of the Loss and Damage fund. What are the major development related to loss and damage funds in COP 27?, What are the commitments made by India in this conference?

(Answer in 250 words) 15 Marks

Loss and Damage fund refers to the funding mechanism which provides for the losses suffered by the developing countries and has to be paid by the developed countries.

Evolution of Loss and Damage Fund

① Indirectly stated under Earth Summit, 1992 → through principle of common but differentiated responsibility.

② Mentioned in various COPs to UNFCCC
↳ Warsaw, Paris, etc.

③ Was agreed upon in COP-27 i.e. Glasgow Summit finally.

④ mobilisation of funds under it by developing countries like India.

Candidates must not write on this margin

Developments related to loss and damage fund in COP 27

1. Countries agreed upon loss and damage fund.
2. Gave way to principle of equity and climate justice.
3. Some countries did not agree upon it. Eg: US.
4. Fund established for various purposes. Eg: Green transition.
5. Shows historical injustice done to the developing countries.
6. Present issues suffered by developing countries also included.
   - Eg: waste transferred from developed world to Asia and Africa.

Candidates must not write on this margin

Commitments made by India

1. India committed to this fund.
2. will work with Global South for mobilisation of funds under it.
3. work in alignment with Panchamrit principles. e.g. Lifestyle for environment.
4. Use of fund to enable net-zero emissions by 2070.
5. Use of fund for → Coalition for Disaster Resilient Infrastructure
   → International solar alliance

Loss and Damage fund is crucial to enable smooth transition of countries towards green growth and stop the temperature rise to 1.5°C above pre-industrial level.

Candidates must not write on this margin

18. आपदा प्रबंधन सिर्फ आपात स्थिति से निपटने के बारे में नहीं है, बल्कि लचीले समुदायों के निर्माण के बारे में भी है। उन प्रमुख रणनीतियों पर चर्चा कीजिए जिनका उपयोग सामुदायिक लचीलापन बनाने और आपदाओं के प्रभाव को कम करने के लिए किया जा सकता है। (250 शब्दों में उत्तर दीजिए) 15 अंक

Disaster management is not just about responding to emergencies but also about building resilient communities. Discuss the key strategies that can be used to build community resilience and reduce the impact of disasters. (Answer in 250 words) 15 Marks

Disaster Management has become crucial in wake of frequent and intense extreme weather events. It involves a number of steps for building effective resilience.

Key strategies needed

To build community resilience

1. Capacity building of communities
   - safety drills, mock drills.

2. Fail-safe communication
   - recommendation by NDMA for early warning about disasters like floods, cyclones, etc.

3. Building infrastructure after proper assessment. Eg to prevent crisis like Joshimath.

Candidates must not write on this margin

④. Involvement of community in
↳ Traditional knowledge

⑤. Community participation in measures like mangrove afforestation, wetlands restoration. Eg: MISHTI scheme, Amrit Dharohar scheme.

To reduce the impact of disasters

①. Building disaster resilient infrastructure
↳ shock absorbers, cyclone shelters, etc.

②. Hazard zonation and mapping
↳ Eg: use of satellites for mapping of Earth quakes zones (60% India prone to it).

③. During response → Deploying all the major forces as per the impact of disaster Eg: NDRF, SDRF, local volunteers

Modus operandii based upon SRs
- Relief
- Rescue
- Rehabilitation.

④. Collaboration with countries. Eg: IORA, ↳ with Srilanka, Maldives.

Candidates must not write on this margin

Information Fusion Centre
↳ for disseminating information about disasters.

(5). Exchange of best practices using the platforms of Coalition for Disaster Resilience

(6). Long-term efforts
- Afforestation to prevent landslides
- Wetland restoration to prevent urban floods - eg: Delhi, Chennai
- Sponge cities using blue-green infrastructure.

Sendai Framework, 2015 has to be the guiding light for effective disaster preparedness and reducing the vulnerability to disaster.

Candidates must not write on this margin

19. मेटावर्स और वर्चुअल एसेट्स जैसी नई और उभरती प्रौद्योगिकियों के उपयोग के माध्यम से आतंकवाद का परिवर्तन चिंता का विषय है। हम आतंकवादी उद्देश्यों के लिए नई और उभरती प्रौद्योगिकियों के उपयोग का मुकाबला किस प्रकार कर सकते हैं? इस संबंध में "दिल्ली घोषणा पत्र" के महत्व को स्पष्ट कीजिए।

(250 शब्दों में उत्तर दीजिए) 15 अंक

The transformation of terrorism through the use of new and emerging technologies like metaverse and virtual assets is a matter of concern. How can we counter the Use of New and Emerging Technologies for Terrorist Purposes and Elucidate the importance of the "Delhi declaration" in this regard?

(Answer in 250 words) 15 Marks

Terrorism as defined by UNGA refers to the use of violence to instill fear in minds of people for political purposes.

Use of new and emerging technologies for terrorism

① Use of deep fakes.

② for High Octane Radicalisation
↳ Eg: By ISIS in India

③ for sponsoring of terrorism.
↳ Eg: using cryptocurrency.

④ for human-trafficking based terrorism. Eg: Al Qaeda & ISIS.

⑤ leading to gravest threats like cyber-terrorism. Eg: Attack on

Candidates must not write on this margin

Kudankulam Nuclear Power Plant.

⑥. Incidents of honey-trapping
↳ to extract strategic intelligence
eg: DRDO scientist.

⑦. Scams like extortion & ransomware
↳ eg: CCTA. named against Akira Ransomware.

Emerging technology has transformed terrorism

①. no need of physical presence.

②. Increase in hybrid terrorists
↳ Boys next door.

③ Attack on critical information infrastructure → crippling the economy.

④. Multi-farious issues
↳ Cryptocurrency → money-laundering
↳ terrorism.

⑤. trapping of vulnerable people
↳ eg: narco-terrorism

Candidates must not write on this margin

Steps needed and importance of Delhi Declaration in this regard

1. Collaboration and consensus among countries
   - on definition of terrorism (2nd CCIT)
   - on data sharing.
2. strengthening capabilities
   - of cyber-personnel
   - in emerging technologies.
3. Adherence to Delhi declaration
   - zero tolerance against terrorism.
   - data sharing
   - no fund for terror
4. Engaging with social media platforms
   - to bust terrorist efforts of radicalisation
5. Awareness and education of public
   - fake news, deep fakes, etc.

Terrorism is a threat to India's global aspirations and human rights and thus, have to nipped in bud.

Candidates must not write on this margin

20. "अग्निपथ योजना हमारे सशस्त्र बलों के लचीलेपन और प्रभावकारिता के लिए आवश्यक एक कड़वी गोली है।" प्रासंगिक तर्कों के साथ कथन का आलोचनात्मक विश्लेषण कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

"The Agnipath scheme is a bitter pill needed for the resilience and efficacy of our armed forces." Critically Analyze the statement with relevant arguments. (Answer in 250 words) 15 Marks

Agnipath scheme is a govt programme aimed at shortening the age of armed forces and providing employment to the youth.

Agnipath needed for resilience and efficacy of our armed forces

1. Modern and agile force
   - young and disciplined force.
2. having knowledge of IT & other technologies.
3. Inclusion of women as well
   - in combatant positions.
4. Giving opportunity to youth to serve the nation.
5. Creating as modern-day force

Candidates must not write on this margin

versed with various technologies

⑥. will be able to effectively counter new age threats
- Drones
- Cyber Terrorism
- Use of satellites (Space warfare)

Agnipath is a bitter pill

①. Created resentment amongst armed forces serving for years.

②. Differentiation in pension benefits given to agniveers and other armed personnel.

③. Difference of selection criteria

④. Short tenure of agniveers
↳ won't contribute much to army's strength.

⑤. Merely an employment programme
↳ for short tenure.

Candidates must not write on this margin

Way Forward

1. engaging all the stakeholders on board to generate consensus.
2. assessing the impact of scheme on larger armed forces.
3. Ironing out the issues & contentions
4. Making the scheme for modernisation of armed forces.

Modernisation & Resilience of armed forces should be done on the lines of recommendations given by Shekhatkar Committee and Kargil War Committee.

Candidates must not write on this margin

Space for Rough Work

