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NEXT IAS (Head Office) : 27-B, Pusa Road, Metro Pillar no. 118, Near Karol Bagh Metro, New Delhi-110060
Bhopal Centre: Plot No. 46, ZONE-2, M.P. Nagar, Bhopal-462011
Ph: 8081300200, 8827664612 | E-mail : mts@nextias.com | **Web:** www.nextias.com

(To be filled by candidate)

Name of Candidate : MD ASIM MUJTEBA

Roll No. : MT23RCAPA081

Registration Number : ..... Date of Examination : .....

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

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

.....

SUBJECT/PAPER
GENERAL STUDIES

Invigilator's Sign. : .....

[To be filled by the STUDENT]

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

[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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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.

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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 is the sum total of total exports and imports a nation undertakes in its trade relation with ~~world~~ world

Capital Account	Current Account
(1) It involves Asset creation	(1) It involves capital flow
(2) It brings investment Ex:- FDI, FPI	(2) It brings remittances
(3) It is mainly about foreign country & multilateral	(3) It is about Imports & export of goods & service Ex:- Gold, Petrol, Crude,

Candidates must not write on this margin

Institution funding

④ It involves NRI deposits

④ It involves income, transfer, Dividends, a nation seek from other countries (both by trade & from citizens)

Measures to Balance BOP deficit

India has $91bn Balance of Payment → Measures to deficit like

① Increase exports → ① PLI scheme
② MEIS scheme
③ export substitution scheme

② Reduce imports
- ① crude oil → by Renewable capacity development
  - Alternative source like H_2 fuel cell
- ② Gold → Gold bond scheme.

③ Liberalise remittance scheme & exchange via currency swap agreements

④ Rupee Rouble agreements → with Russia

Thus by maintaining BOP stability India's fiscal & monetary policy certainty can be augmented

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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।

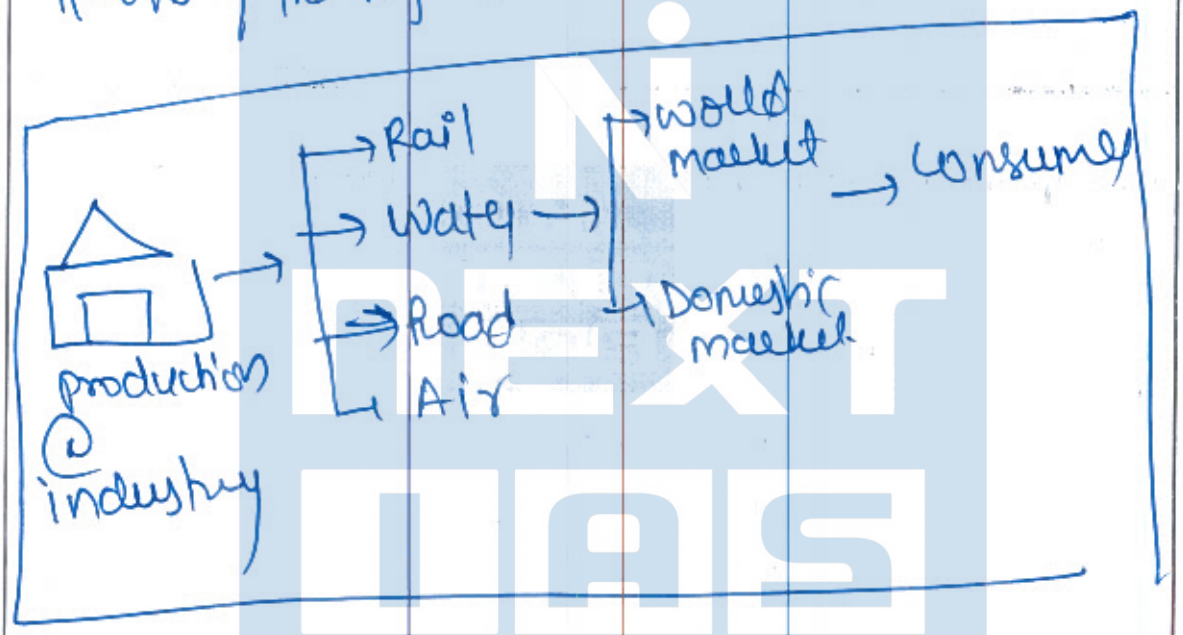
(150 शब्दों में उत्तर दीजिए) 10 अंक

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

Logistic sector is backbone of economic activity

India's logistic cost is 14% of GDP, making it one of the highest in the world



Importance

(1) Supply chain development helps last mile connectivity Ex:- Dal Bahadur in Tamil Nadu

(2) Increase business
Increase share of industry from 25 → 30% by 2030

(3) Promote multiplier effect
Increase profitability

Candidates must not write on this margin

To ~~address~~ realize the logistic potential, National Logistic policy 2022 was launched.

(1) To reduce logistic cost to 10% of GDP
(2) To promote multidimensional connectivity
Nehodly → funding by government
(3) Promote private participation in the logistic support
(4) Converge with schemes like PM Gati Shakti for maximisation of logistic benifits
(5) Ease of doing business along with promoting Ease of Logistic Index

challenges	solutions
(1) Poor infrastructure	(1) faster completion via Asset monetising -tion,
(1) Poor interagency coordination	(2) PPP as per Vijay Kelkar committee
(2) Delayed projects Ex:- Sagarmala	(3) HAM model for faster project completion
(4) funding issue	

Logistic play the vicing. A strong and hassle free vicing will help bodyeconomy to be healthy & function efficiently

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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

WTO in 12th ministerial conference called for Agreement on fisheries as a major component of sustainable Trade

New Agreement on Fisheries subsidies

① Ending of subsidies for fishery
② Focusing on sustainable fishing techniques & avoid Bottom trawlers
③ Maximum 2 years leeway for countries like India to subsidize fisheries sector

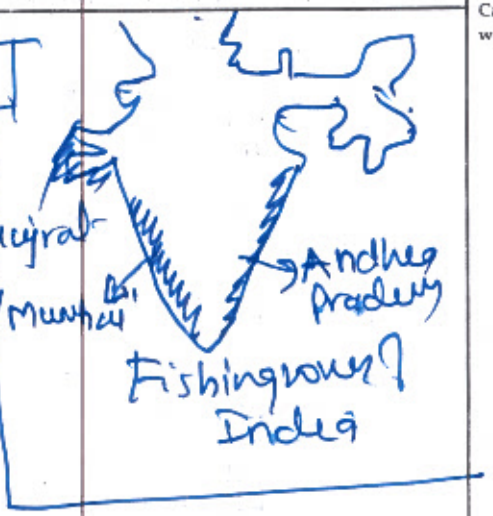
India's stand

① welcome step → sustainable development
② Yet wanted more time considering (around 12 years)
   - ① poverty
   - ② Most coastal fishermen/fisheries are small and marginal

Candidates must not write on this margin

Significance of fisheries sector

1. sector comprise of 5% of agri GDP and employs around 1 Crore fishermen across India
2. Beneficial for Food processing industries
3. May lead to doubling of farmers income



Fishing zones of India

Challenges

1. Reduce fish catch
2. WTO regulation
3. Absence of new Technologies
4. Information asymmetry to Fishermen

Steps

1. National policy on fisheries
2. Fisheries infrastructure development board for funding
3. GAGAN satellite provide information about schools fishermen
4. sustainable fishing
   - Aqua farming
   - marine fisheries
5. Integrated farming techniques

India needs to promoted "Meena Kranti" committe recommendation of Credit availibity, technological support for faster growth of sector

Candidates must not write on this margin

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 reform is a institutionalised method of bringing land distribution to small and marginal farmers to achieve the goal of Inclusive Growth



Systemic issues

1. Absence of clear land titles → more litigations
2. Bureaucratic Zamindar Nexus
3. Formally giving divorce to wife → Hindu ~~Undivided~~ Undivided family law → to save land

Candidates must not write on this margin

(4) Poor land ~~~~ Consolidation

Institutional constraint

(1) Government not able to distribut land properly → due to bureaucratic cholesthol (less than 10% distributed)

(2) Poor cooperative formation (mainly in Maharashtra)

(3) Poor paper & documentation → lead to fore evichion of Tillers

Solutions

(1) Land mapping → PM SWAMITVA

(2) Bureaucratic empathy → focus on land to tillers

(3) NGO/Pressure groups to create pressure on Government for land distribution

(4) legalization of land records → National Land Record Digitization mission

(5) Promote Technological usage → Land marking

Land reform is a unfinished business. Need to fasten it to prevent spillage to Red revolution (LWE) — President KR Narayan

Candidates must not write on this margin

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 is a Joint initiative of India and Russia to develope state of Art capabilities in missile system



unique features & capabilities

(1) 80% developed by Indian Indegenously
(2) use of cryogenic engine
(3) Nuclear capabled Missile
(4) Range → 600 km
(5) Speed → Super sonic (Mach 3 > true)
(6) Cruize missile → difficult to detect by Radar
(7) Fire and forget technology

Candidates must not write on this margin

Contribution

Defence capability

① India among few countries to develop own supersonic Nuclear capable missile (After US, Russia, China, France, UK)

② Reduce Import dependency

③ India can export Brahmos under MTCR / Australian group → To Vietnam Philippines

Strategic position



① Edge against pakistan's shaheen missile

② Counter Chinese Threat

③ Net security provider in Indopacific

④ Indian Armed force → strategic command secured

Placements of Missiles

Thus BRAHMOS can help in strengthening India's Defence capability and security in case of two front war

Candidates must not write on this margin

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

Recently, UNCLOS permitted India via International Sea bed Authority to explore deepsea mining in Indian ocean

Deep sea exploration mission

(1) samudrayaan

(2) Permission to explore in India's exclusive economic zone



(3) Samudra Maitri → Vessel will go 6km down for exploration

(4) 3 trained men will accompany for the mission

Contribution

(1) Ocean science & Technology

(a) Exploring the unexplored area

Candidates must not write on this margin

(2) Energy → Polymetallic Nodules can meet India's energy needs for Next 100 years (Arvind Pangariya)

(3) Technological advancement → technology to harness potential of sea → (1) ocean tech (2) energy

(4) Economic Growth → exploration can boost economic growth which can contribute for R&D → Now only 0.7%

(5) Employment → New minds/scientists collaborate akin to Chandrayaan

(6) Hydromapping & Ocean mapping → get knowledge about secrets of ocean

Challenges → (1) Harmful to ocean flora & fauna
→ (2) life threat to persons working → Ex OCEAN GATE tragedy
→ (3) Sustainability issue

Yet if sustainable and Harmonic way of exploration is done, then deep sea exploration can bring new horizon for Technological & Economic Growth

Candidates must not write on this margin

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 is a initiative taken in COP26 where global efforts will help in mitigating Methane release to environment

Methan pledge → Binding

① Reducing emission of methane by 30% by 2030 to achieve paris deal

② Agriculture & Netland to be specially considered as they are the largest source of methane

Yes, Global methan pledge is positive step

① As in last decade, 113% increase in methane emission across globe (Methane monitoring group)

Candidates must not write on this margin

(2) Global warming potential → methane can live more than carbon dioxide

(1) lead to Global warming → Heatwave, melting ice → Rising affect on life & property

India's Stance

(1) India has be negotiating & not joined the pledge

(2) considering agricultural dependency of ~~methane~~ India, any Binding agreement would be counterproductive

(3) may lead to Impovishment of Agriculture and economy

(4) India gave own "Updated INDC target" & "Long term low emission strategy"

India's stance in methane is a Neutral rationale. But considering Long term perspective, working on Climate Smart Agriculture can help reduce methane emission

Candidates must not write on this margin

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

COVID19 pandemic declared by WHO as Global disaster showcased the importance of Disaster management in public Health

Ex:- USA, Italy dealing

Importance

1. Neglected of Health in disaster management
2. Absence of clear cooperation on Health
3. Opaqueness → China on origin of COVID19
4. Infrastructure → India → 1bed/1000 people

Key strategies

1. Preparedness

Preparing via Doctors, beds,

Candidates must not write on this margin

hospitals along with equipments for emergency usage

(2) mitigation
To prevent escallation of any such incident if it happens in future

(3) Adoption
by upgrading present infrastructure
Ex :- Focus on Primary Health Care

(4) Ensure International collaboration
Depoliticize organs like WHO

challenges	solution
(1) funding issue	(1) Global pool for funding
(2) last mile connectivity	(2) use of ASHA, for villages, Also LSG
(3) Awareness → many NOT wearing	(3) Attitudinal change WASH strategy
(4) Absence of innovation	(4) Innovation as done by Mumbai mayor
(5) Patents issue	(5) Patent pool

Disaster mangement in Health need a mixture of "One Health" alongwith Sendai framework to ensure better preparedness of disaster

Candidates must not write on this margin

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

Left wing extremism is a ideological driven initiative to counter goverenmet legitimacy and overthrow government for establishing own goverenmet. It is based on Maoism

Resource curse of India



Resource curse

① Exploration by private sector
↳ poor living conditions → locals take arms against foreign interventions

Candidates must not write on this margin

① Bureaucratic Nexus → Bureaucracy Not implementing FRA 2006, PESA rightly

② Eviction of locals

④ Poor development → as land to be used for mining

⑤ Land reforms not completed as it will lead to consolidation → challenge for mining

To address this

① strengthening of Gram sabha → FRA 2006

② Hearts & minds strategy

③ Surrender cum rehabilitation to reduce LWE

④ Development → Internet, Road, Health, Education

⑤ Civic Action plan & modernisation police force.

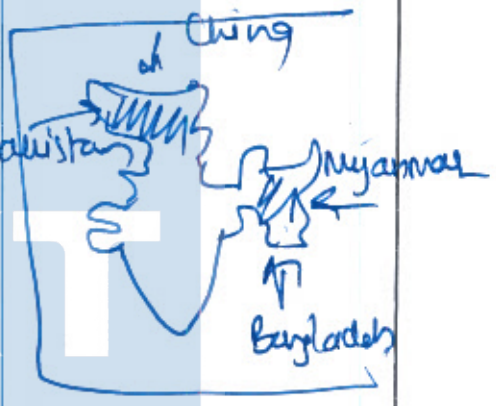
Need of hour is SAMADHAAN doctrine to ensure that developmental be Inclusive and not counter to Human rights

Candidates must not write on this margin

10. उत्तर पूर्व और जम्मू–कश्मीर क्षेत्र में हिंसा की घटती प्रवृत्ति के आलोक में क्या आपको लगता है कि एएफएसपीए (अफस्पा) 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

North East India & J&K is the case of violence with increase in hybrid warfare, underground warfare, Terrorism Ethnic violences



Yet there has been decline

North east

(1) Reduction in human civilian casualties
1300 → 179
2017 2024

(2) Reduction in Army deaths

(3) Reduce instance of violence

J&K

(1) Reduction in Terror attacks
>50 in 2001 → less than 10

(2) Reduce civilian and army conflicts

Candidates must not write on this margin

AFSPA

① Give special power to Army for maintaining Law & order in the region

② Power to check, kill or arrest

Outlived utility

Yes	No
① Reduced violence	① Increase violence Punch in 2023 Manipur crisis
② Human centric approach	② Disturbances Infiltration from Myanmar & Pakistan
③ Development leading to surrender of armed groups Ex:- NAGAs	③ Need show State presence as NEIS part of Act East policy
④ Jeevan Reddy committe called for removal	

Need to Humanise AFSPA with Accountability and winning Heart & mind to reduce violence in Northeast & J&K

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

International trade is >$1.3 million across the world, of which 60% of Global trade is dominated by US dollar - Dominant currency paradigm.

Dominant currency paradigm

(1) US dollar is dominant currency accepted globally

(2) Influence the global supply chain
Ex:- Taper Tantrum by USFed created costly imports for India

(3) Value of currency
Turkey Lira & Indian rupee depreciation
1$ = 81 Rupee due to dominance of dollar

Candidates must not write on this margin

In this backdrop, Hard currency in international currency finds significance



US dollar forcing Pakistan to accept terms for sup pol.

⑥ Acceptability leads to increase global power
Ex:- China Renmibi controlling supply chains

⑦ Promote connect in Trade & commerce
Ex:- Rupee-Rouble agreement will help India can enhance trade

~~Yet it has several challenges~~

Potential of Rupee acceptance

① India 5th largest economy & 3rd largest by PPP

② India's export form 3-4% global

Candidates must not write on this margin

basket

③ India's economic & market stability has gained soft power

Ex:- Stable GDP growth during COVID19 pandemic

④ Inflation stable vis a vis USA, United Kingdom

Yet challenges

① Indian currency → 1.5-2% Global currency
USA → 57% Global currency

② Acceptability → Russia is apprehensive of accumulating rupee due to less acceptance @ global level

③ Chinese Renminbi challenging → India uses Yuan to pay to Russia for oil.

④ Issues of moneylaundring, counterfeiting affecting currency

way forward

① Capital account convertibility (Taraporevala committee)

② promote currency swap agreement

③ Bilateral agreement → CECA with Australia

Internationalization of rupee can help India to become developed nation & maintain growth & stability by 2047

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

India became most populous nation with 1.45 billion Indian citizen bypassing china in 2023 (world population Report 2023)

Demographic dividend involves the productive population contributing to economy. It involves age between 19-59

Demographic Dividend not ensure growth but potential

potential

(1) largest workforce → 84 crore
(2) large market
(3) cheap availibilty of labour with diverse skill set
(4) Investment opportunities
(5) Promote Growth & economic development of Nation

Candidates must not write on this margin

⑥ lead to Inclusive Growth

Yet doesnot ensure growth

① As Growth depends on → Consumption pattern
→ Inclusiveness
→ government Handholding & Investment
→ New skillset updated
→ Ease of Doing business

An unutilised demographic dividend will lead to Demographic Disaster

① India → 5% formally skilled

② 90% population in informal sector

③ Skillset → Azim premji foundation → Indian student are unemployable post degree / graduate

④ unemployment → Unemployment rate is 6.7%

⑤ Archaic labour laws → leads to poor working conditions

⑥ Regional disparities → BIMARU states

Candidates must not write on this margin

with highest population are highly under developed as compared to Southern states.

Steps by Government

(1) Skills → PM Kaushal Vikas yojana
↳ National skill qualification Framework.

(2) Formalization → Budget 2023 → Saptarishi
target → Power Youth → employability

(3) Job Melay → PM Modi launched in MP

(4) Production Linked incentive scheme for creation of 60 thousand jobs

(5) Budget 2023 → Capital Intensive expenditure
↳ 4-5% of GDP → Vishwakarma → employment Generation

(6) promoting sector ↳ Tourism
↳ Green energy → National Hydrogen mission

(7) Industrial Revolution 2.0 → updated skills

India's demographic dividend is an opportunity for India to leverage its potential & become Global power in "Knowledge economy"

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

Recently GEAC gave new Guidelines for the safety assesment of genome edited plants.

Potential of genome editing

'Potential'

(i) food security → India has issues in accessibility, availibity, affordability

(ii) Productivity → GM cotton increased productivity of cotton by ~~three~~ two

(3) Pest management → can control pest like Red ball worm, white fungus on fruits & vegetables

(4) Promote agriculture income → Ashok Dalwai x2 farm income by 2028

Candidates must not write on this margin

Yet ~~Ethi~~ Challenges

(1) ethical issue
- (1) challenge the authority of creator or God
- (2) various religious ethos in conflict. with the genome editing
- (3) may be misused → COVID 19 mystry
- (4) may lead to spiralling effects → future unknown

(2) Safety concern
- (1) Future potential → HTBT GM mustard is tested for short term only
- (2) may lead to invasive alien species
- (3) Affect food security in long term → many pests all ~~still~~ resistance cop with Genome edited crops

Hence GEAC Guidelines
- (1) Bring safety and security in experimentation
- (2) consider all stakeholders before experimental
- (3) Report and permission for specific authority → approval

Candidates must not write on this margin

④ Guidelines on Lab testing & field testing
↳ to be done in isolated places

⑤ ~~May lead~~ GEAC and FAO as nodal agencies for Gene editing crops and GM Food
↳ certification from GEAC & FAO

Yet several challenges

① No clear guidelines on which type of Genetic editing · permissible

② Inter agency cooperation → GEAC (VS) FAO

③ Absence of over sight mechanism
↳ GEAC lack Human resources

④ Certification challenge → not acceptable in EU/ Europe

Way forward

① Follow Nagoya protocol on Biosafety

② Bring consensus on Genome editing terms

③ R&D → only 0.7% · ICAR

④ Promote funding to

Gene editing is the future of food security.
Follow Biodiversity Act & Environment protection act 1986 will help in positive use of Genome technique

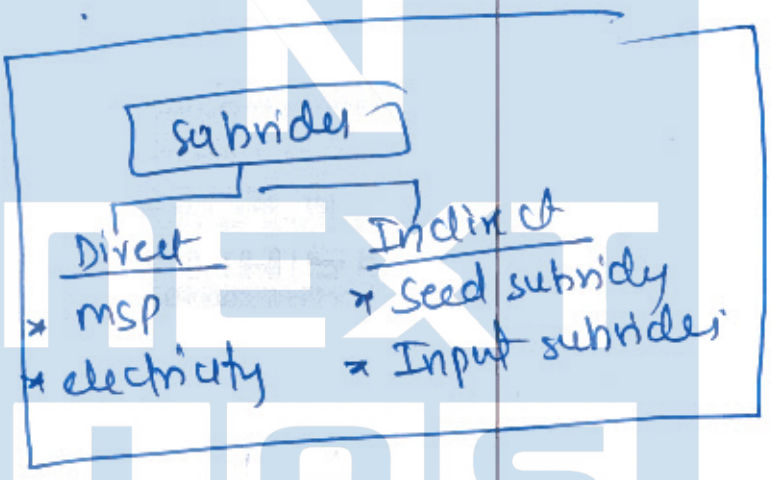
Candidates must not write on this margin

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

Agricultural subsidies account for Glakh crore or 4% of GDP in India.

It involves both direct and Indirect subsidies.



Impact

Direct subsidies → It involves giving monetary assistance to farmer directly in his bank account.

Positive

① Additional Income

Farmers earn 8500 Per Annum in India (NSSO)

PM KISAN - 6000 PA → additional source of income

Candidates must not write on this margin

② Input cost
paying subsidized electricity to farmers directly
↳ Reduce input cost per acre

③ Increase productivity
Farm mechanization through Happyseeder machines will bring increase output

④ Farm Distress → Interest subvention scheme
85% farmers are small & marginal → overbundy may lead to suicides

Negatives
① misuse → diversion of subsidies
② environmental → free electricity leads to cost to overuse Groundwater
③ Burden → fiscal deficit on government
④ unsustainable in long term

Indirect subsidies
subsidies given on the basis of Intermediate any / not directly to farmer

positive	Negative
① Easy input availibility Ex:- fertilizer from Retail shop @	① leakage issue Diverted to 3rd parties Ex:- fertilizer

Candidates must not write on this margin

Subsidised price → farmer will get at subsidised rate
Govt reimburse to Retail shop
(2) Promote infrastructure
Ex :- warehouse storage
(3) Increase soil quality
Free soil Health card

(9) Black marketing
(3) Fiscal Burden on government
(4) poor ~~government~~ checkup

(4) MSP
MSP is a market intervention scheme where in government will pay the farmer a minimum basic price in case of price crash

Affect agri economy positive	Negative
(1) Farmer income → assured income	(1) Cropping pattern distortion → only rice wheat
(2) Reduce Market distortion	(2) environmental impact ↳ Overuse of fertilizer
(3) Food security by promoting crops essential → rice, wheat, oil seeds	(3) Centralization → leading to forced price rise/drop
(4) Reduce inflation	(4) only 5% farmers benifitted (ASHOK DALWAI)
(5) Reduce farm distress	

Need of how is focusing on Infrastructure creation, crop diversification like PM Shramnidhi, supply chain reliance (Kisan Rail to ensure) assured income. For farmers.

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 is called the silent pandemic. It is created due to the prevalence of inadequate, excess of indisciplined use of Antibiotics and Antiviral

contributors

(1) Human
① Misuse of Antibiotics → taking for common cold
② Indiscipline → 3 days stop for 5 days course

(2) Animals
① Used in poultry → to prevent death of birds
② In Animals → for increasing productivity of milk.

Candidates must not write on this margin

② Agriculture

① Bioaccumulation of pesticides → food chain → Human consumption → Antimicrobial resistance

④ Poor classification

People not aware about MDR, XDR and normal resistance.

Threat to public health

① 1/5 people is in threat of AMR

② Lead to medicine ineffectiveness

③ may further exacerbate out pocket expenditure,

④ Against Animal ethics → may affect future generation from AMR

To curb the menace, Government has taken steps

① policy

National Anti microbial Resistance awareness policy

Candidates must not write on this margin

② Focusing on awareness
DSCI awareness through advertisement to people

③ National mission to bring AMR under control

Global

① India part of GLASS of WHO
↳ It classifies AMR into
- MDR → mild
- XDR → severe
- AMDR → haugh.

② Red line campaign to promote awareness

Wayforward
- ① Bring attitudinal change to prevent misuse
- ② Promote domestic ingredients → AYUSH
- ③ Bring down information asymmetry → USE CHAT GPT

ONE HEALTH APPROACH can help in bringing down concern of AMR and make India "Swasthya Bharat"

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 are those innovations which have capacity to implicate severe challenge to physical, mental and biological aspect of Human and also large implication on Human civilization & would

Recent examples

(1) Agriculture

firing of stubble is an innovation to faster clear land → but it has negative effect on environment and Health of people @ winter in Delhi

(2) Economy

use of Dabba Trading, Insider Trading and Algo Trading in stock markets

& lead to scams ie → Harshad Mehta scam
→ Ketan parekh Scam

Candidates must not write on this margin

③ Science

Use of chemical weapons → Agent orange which lead to killing of lakhs of Vietnamese in Vietnam war 1970's

Vietnamization

④ Drones

① Used as means for "Lone wolf attack"

② used for infiltrating Army
↳ 300 AK47 rifles sent in from Pakistan

③ Used by Terrorist for surveillance
④ Bukapal tragedy → LWE used to attack CRPF

⑤ crypto currency

① Leading to money laundring

② may destablize Monetary policy of a nation

③ may lead to Terror financing

⑤ cyber/internet → cyber attack ← AIIMS
Kudankulam Nuclear plant

Candidates must not write on this margin

Changes in industries

① Brought innovation in Agriculture → Happy seeder, bcom mechanization, IFFCO Nano fertilizer

② SEBI → New trading guideline like T+1 days

③ Science → (i) Ban on weapon of mass destruction (ii) Promoting ethical use of science

④ Drones → National Drone policy to regulate use of drones (by MoCivil Aviation)

⑤ crypto regulation by RBI
↳ promoting Digital currency

Way forward
① use ethical scientific codes
② Promote strong regulations
③ Strong infrastructure NICCP; CERT-In

Technology is a dual edge sword. Need to regulate it for maximising potential & minimising challenges of Jai Jawan Jai Kisan Jai Vigyan Jai Anusandhaan

Candidates must not write on this margin

17. हानि और क्षति (L&D) कोष के क्रमिक विकास को विहित 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 is a form of Climate Justice initiative which aims to compensate the Vulnerable Global south for Developed Historical responsibility

Evolution of loss & Damage fund

(1) First stated in warsaw conference

(2) India called for compensating developing world

(3) Consensus for L&D fund was formed in COP21 (Paris Agreement)

(4) Finally in COP27 → countries agreed to formulate Loss and Damage fund with contributions

Candidates must not write on this margin

from Developed & Developing nation.

COP27

Developments

(1) countries agreed for creation of loss and Damage fund

(2) It promotes helping ~~least~~ most vulnerable nation with mitigation and adaptation

(3) It will pave on Technological Transfer for Just Energy Transition

(4) It will ensure that Historical responsibility is shared among member nations

India's commitments

(1) India committed to pay ~~$~~ 300 mn in loss and Damage fund

Candidates must not write on this margin

(2) India also committed for Panchamrita Targets along with changes in INDC Targets

(3) India committed its Long Term low emission strategy for faster climate Transition

(4) India also committed for fastest Net Zero transition by 2070

Way Forward

(1) LS&D fund not clearly defined who will share the burden → Need to define it.

(2) Developed countries need to take extra burden for Justice

(3) Carbon Market mechanism need to be further explored to ensure that Developing nations are uplifted

COP27 is a next step towards Global Climate commitments. Countries must work towards consensus, cooperation for fulfilling the Climate Goals

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 is a process/phenomenon where in complete procedural method is applied to minimise impact of Disaster, minimise Hazard & Risk of a nation.

Disaster management

Respond + Resilient = Disaster management

Respond
1. Respond to occurance of disaster
2. Preparedness
3. mitigation of affects
4. minimize life threats

Resilient
1. strong infrastructure
2. Promote Hazard zonation & mapping
3. Long term affect for infrastructure creation

Disaster management
1. minimize economic loss
2. minimize casualties
3. Effectively deal with the challenges

Candidates must not write on this margin

Key strategies

① Community Resilience to reduce impact

(1) Preparedness → communities need to be prepared about disaster
- (1) Reasons for disaster
- (2) steps to be taken in time of disaster
- (3) mitigation efforts like Plantation, bunds, high slope houses for floods

(2) Prevention

Community training to minimise impact of disaster → (1) awareness about landslides

(3) During disaster

(1) Reduce Human casualties

(2) Maximise cooperation with the NDRF/Administration

Candidates must not write on this margin

⑨ Promote best practices Ex:- Odisha Tribes cooperation with district authorities @ time of Cyclone Amphan

⑩ Resilience

① Strong infrastructure → based on Hazard zonation

② Green infrastructure → Ex:- plantation of Trees in hilly (landslides)

③ Retrofitting to minimize impact of earthquakes

⑪ Promote stock of food in disaster prone areas

In this backdrop, to maximise no impact of Disaster management, follow 7 steps module of Sendai framework, Disaster resilience via CDRI for better Disaster management

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 is a violent use of force to propogate political agenda and challenge the legitimacy of government for political gains

Terrorism → Yemen Houthis
- Pakistan: (1) LeT (2) Jaishemohamed
- Sudan: (1) Boko Haram
- Iraq: ISIS

Transformation of Terrorism

(1) Metaverse
- (1) Use of virtual presence to spread propogandas

Candidates must not write on this margin

(1) Radicalization of youth using Metaverse Ex:- Kashmir

(2) limited check of governments on metaverse

(4) use of Dark web to bypass the Global security architechues leading to emerging threats of Terror activities Ex:- USA

Virtual Assets

(1) ~~Use~~ Use of crypto for money laundering and Terror financing

(2) Tracibility & Anonimity challenge of Virtual Asset leads to central Banks difficulties in countering New Terrorism

(3) Spread → Virtual Assets leads to increase reach & funding across globe → Ex:- sitting in Middle East/Afghan and fund Brazilian group for Terror attack in USA

Candidates must not write on this margin

Countering ~~Neo~~ Terrorism

① Domestic → ① Strong cybersecurity infrastructure like NICERT, I4C, Cert-in to counter propaganda

② Intermediatary Guidelines → Due deligence to Facebook/Telegram to report any such activity

③ Train people about terror activity along with skills, academy & Development

International

① UN convention to counter Terrorism needs to be strengthened for including emerging threats

② Good Friday agreement needs to be implemented by all nations

③ Intelligence coordination → CBI/Interpol

SP. Schmidt called for Hearts & Minds strategy where using Development, persuasion along with direct action to counter terrorism activities.

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 is a ~~Armed~~ forces recruit scheme with aim to increase young dynamic youth as "Tour of duty" in armed forces for serving the nation.

Agnipath

1. 17.5 - 24 years old
2. 25% returned after 4 years of service
3. 11 lakh & post insurance / post retirement award as Agnikosh

Bitter pill needed

1. Fiscal Burden
   Armed forces bcz expenditure is paid for salaries and pension
   Less room for innovation

Candidates must not write on this margin

② Disciplined ~~acted~~ youth
More working as Tour of duty will be better assets of society

③ Job employement
Defence ministry prefence for CAPF, along with Mahindra (Private sector) prefernce for Agniveer

④ Invention
In era of hybrid warfare, cyberwarfare, Nuclearwarfare and Technological warfare, huge army dependency could be country producing exi-china's → Mumbai Blackout

⑤ Resilience & efficacy
① Young & dyanimic armed force will be better for functioning
② Increase efficiency in army with young soldiers → better learning, better internalisation

Yet there has been criticism regarding the scheme

Candidates must not write on this margin

④ Cost reduction cannot be a panacea for army Modernisation

⑤ Uncertainity among youth → Riots in Bihar, UP

② PB Mehta → It may lead to "society becoming Army biased → weaponisation of society

④ Lack of clearity for those who are not recruited in 25%

① Rift in force → As it will lead to Reduce Nationalism, Dedication to service

Ex:- Russian faced reversal in Army Ukraine

⑥ Training only for 4 years → question mark on the quality of Training

Wayforward → ① Increase age limit from 24 to 26

② Clearity after completion of Tour of Duty

③ Increase budget allocation by increase Tax return

Need of how is rationalization of scheme to bring efficiency, reduce apprehension.

Debate & Dialogue is needed as it is matter of National Security (general VK Nirvane)

Candidates must not write on this margin

Space for Rough Work

NEXT IAS