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Exam Centre : Old Rajinder Nagar ☐ Bhopal ☐ Online ☑

**Test - 7**

**Code : TC077**

# MTS IGP 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. : ........................

[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

## 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.

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 of import of gr and export of goods & services in the country.

Difference.

| Capital Account | Current Account |
|---|---|
| ① Account of influx and outflux of capital investments | ① Account of influx & outflux of goods & services of different kinds. |
| ② It involves FDIs, FPIs, Masala bonds, foreign bonds exchange, NRI deposits | ② It involves visibles and invisibles such as compensations, Transfer payments, remittances, etc. |

Currently, India suffers a BOP deficit due to suboptimal export of goods and higher import dependence.

**Ways to minimize BOP Deficit**

① Reducing Import.

- ↳ limits on Defence FDI
- ↳ Stopping of Computer parts import
- ↳ Import substitution

② Export Promotion

- ↳ PLI scheme
- ↳ Make in India
- ↳ Single window clearance
- ↳ Boost to MSMEs in import.

Thus, Given India's strength of services, it largely compensates the deficit. However, India still needs to close the deficit.

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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 refers to the transport of Goods and raw material to fulfill the needs of supply and demand.

Importance of Logistics in Manufacturing industry.

① It connects the industry to Raw material to the market (eg) → Steel industries located near ports.

② It reduces the Transport cost currently it acquires 20% of manufacturing cost.

③ Facilitate quick movement of Goods & facilitate faster production & Output.

④ It leads to creation of Agglomeration and Conurbation (eg) → NCR region.

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(5) It expands the market and demand base

(6) Generate new Employment in manufacturing

## Components of National logistics Policy 2022

(1) Creation of logistics park → both at ports and inland.

(2) Focus on Multimodal Connectivity of Rail, Road, waterways and marine shipping.

(3) Focuse on Ease of doing bussiness measures.

(4) Greater Integration with International markets → Harmonised system.

(5) Integration with ICT and GIS Tagging.

Thus, the logistics reform could be a catalyst for India's Industrialization and Economic growth.

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 comprise of one of the highest value export of Agri commodity of India and given vast coastline, it also important for livelihood of fishermen.

WTO Agreement on Fishery Subsidies

① Its objectives were to curb trade distorting for subsidies to fishermen and curb Illegal and unregulated fishing in open waters due to declining fish stocks.

② India was opposed to the ban on subsidies on the basis that India's fishermen were marginalized and depended upon fisheries for livelihood.

Significance of fishery sector.

① Additional income to farmers.

② Support the food security of coastal areas.

③ Increasing demand due to protein based diet preference.

④ Increase in share of export in India's agri basket

## Steps taken by Govt.

① PM Matsya Sampada Yojana to promote the fishery processing infrastructure

② promotion to inland aquaculture.

Thus, India upholds the welfare of poor farmers at WTO and pushes to promote the fishery sector in India.

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 distribution has been one of historic issues of India to deal with owing to its legal complexities

Constraints hindering Land Reform.

① Land fragmentation due to inheritance laws making the exercise of land consolidation practically useless.

② Very low average holding of land = 1.15 ha.

③ Issues of Land Record Management.

④ Complex legal cases that have rendered the lands unusable since years.

⑤ Emerging issues of desertification, Tribal Rights and Displacement due to land related policies.

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Solution for equitable distribution of land.

① Implementing Model land ceasing Act, 2017 at grassroot level.

② Digital land Record management eg → PM Swamitva Scheme.

③ Promoting mixed land use.

④ Putting waste and barren land to use.

⑤ Promoting cooperatives and pooling of land. eg → Farmer Producer Organization

⑥ Allowing renting of land simplification of its rules

⑦ Working to settling the land disputes.

Thus, for grassroot land development and inclusive growth, land Governance needs to be streamlined.

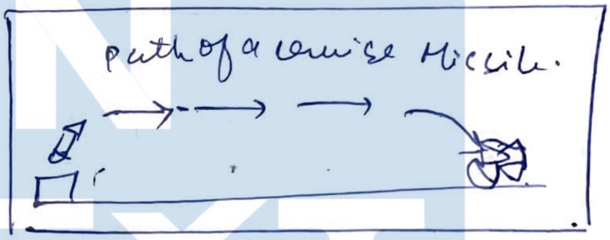
5. ब्रह्मोस सुपरसोनिक क्रूज मिसाइल की अद्वितीय विशेषताएँ और क्षमताएँ क्या हैं,और इसने भारत की रक्षा क्षमताओं और सामरिक स्थिति के क्षेत्र में किस प्रकार योगदान दिया है? (150 शब्दों में उत्तर दीजिए) 10 अंक

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 missile has been developed by cooperation of Russia and is the outcome of efforts of several years.

Unique features of Brahmos.



① It has ability to be launched both by air and ground.

② Capacity to carry a nuclear war head

③ It is attains the speed of greater than Mach 2, hence difficult to intercept.

④ Wide Range of Missile

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Contribution of Brahmos.

① Defence capabilities.

→ Largely Indigenous Technology and components → achievement of India

→ Create a strong deterrent effect

② Strategic position in region.

→ India's range of defence has greatly increased

→ The recent buying of Brahmos by Phillippines promoted strategic defence cooperation and credibility in the region.

Thus, Brahmos helps to bolster the security efforts and displays efficacy of India's capabilities

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

The Samdurayaan project aims at exploring the Indian sea bed of upto 75,000km permitted by International Sea Bed Authority.

project

① Creation of a 3 member mission to undertake exploration in a submersible into depth of 6000m

② Creation of Desalination plants

Contribution of the Mission to India

① Exploration of Polymetallic Nodules, helps to understand their formation and use in Industries.

(2) understanding the Benthic ecology and deep sea ecosystem, the kind of organisms found there

(3) promote the mapping of the floor and understanding the marine geology

(4) promote research and development in the emerging frontier.

(5) Exploration of ocean based energy eg - OTEC

Thus, the samudrayaan mission holds a lot of significance in exploration of new resources and use them for sustainable development.

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 new initiative launched at COP26 to minimize the emission & impact of Methane which is one of most potent GHG gases.

Global Methane pledge as positive step

Yes it is a positive step because:-

① It addresses the issue of Methane and its multiple issues

② According to recent IPCC AR6 report, World will be reaching Temperature of 1.5°C by 2030, thus, emissions of methane needs to be curbed

③ Its based on collective cooperation of International Community.

## India's stance on Global Methane Pledge

India did not support the pledge:-

① It would be detrimental for India's paddy farmers and the livestock owners (Agriculture forms large part of methane emission)

② India is already taking accelerated steps through its pledge of panchamrit

③ Even if India agreed, there would be little reduction in overall methane stock.

Thus, India took the stand to protect the interests of marginalized section and also based upon pragmatic considerations.

8. कोविड–19 महामारी ने सार्वजनिक स्वास्थ्य में आपदा प्रबंधन के महत्त्व 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

The Covid pandemic has 1st such disaster of unprecedented scale which demand new and novel approach to disaster management.

importance of Disaster Managmt in Public Health

① Formulating strategies to minimize mortality

② Pandemics are pervasive unlike environmental disaster

③ large scale population affected

[Strategies for for managing Pandemic]

① Framework for Centre - State Cooperation

② Reforms and amendment to Epidemic Act of 1800s to make it relevant in present context

③ Increasing network of testing labs

④ Fixing standard operating procedures.

⑤ Incorporating Genome Sequencing to Regional Centres to understand virus.

⑥ Strengthening communication systems

Challenges

① Lack of awareness

② Fake news and misinformation

③ High rate of evolution of strains

④ Overburdening of health facility

⑤ Issues of securing vulnerable sections

Thus, there needs to radical changes in the law and overall strategies to better handle events of Pandemic

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

Resource curse refers to the presence of abundant resource but lack of any development to utilize them rendering the region backwards.

Reasons for Resource curse.

① Political

↳ lack of adequate grass root empowerment

↳ Poor political representation of tribals

② Social

↳ Discrimination and low social indicators of people.

③ Economic - diversion of economic resources to metros → rendering lack of infrastructure.

## Measures for sustainable and inclusive development

① Civic Action programme by CRPF to bring development to region

② Empowering & proper implementation of PESA, 1996 Act

③ Road Requirement Plan to improve connectivity of region.

④ Creation of Primary health centres, Schools and community participation.

⑤ Promoting skill development and Tribal empowerment through FRA, 2006.

Thus, the overall strategy must be based upon Development, decentralization, Dialogue and Devolution.

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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 (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

AFSPA is a central law that gives high handedness to military forces in establishing public order to an area by use of brute force.

Decline Trend of violence.

North East

Withdrawal of AFSPA

Manipur = ~~50~~ personally

Assam = 50%

Nagaland = 20%

J&K region.

(1) Reduction in

↳ Security forces death from 57 → 32 from 2020-21

↳ Reduction in disturbing incident = 302 → 180.

AFSPA Outlining its Utility

YES

① Reducing cases of violence.

② It was brought 50 years ago, times have changed a lot.

↳ AFSPA has low support of public

↳ Other methods of establishing Order now → UAPA, CRPF, increased efficiency of police.

NO, it has not

① Persisting cases of militancy in some pockets of J&K, Terrorism, Insurgency in LWE areas

② Persisting threat to National security and integrity of India.

According to Jeevan Reddy Committee and 2nd ARC, AFSPA must be repealed because people today have greater trust in Rule of law based order rather than Order by force.

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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

The Recent Russia - Ukraine War and the Oil sanctions & SWIFT issue created the need for exploring alternative to the dollar imperialism.

Importance of Hard Currency in International Trade.

① Significance-

↳ helps to. create standardization of commodity value.

↦ It facilitates easy estimation of exchange rate

↦ There is a global acceptance of hard currency in foreign trade.

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② Disadvantages.

↳ It could link the domestic currency to the economy of other country

↳ Harder impact on exchange rate in case of global disruption

↳ The hard currency could be manipulated thus creating the issues of inflation, lower purchasing power and forex reserves.

Acceptance of Rupee in Global Trade

① Potential benefits

↳ De-link the fluctuation of rupee with dollar.

↳ Strengthening of rupee → more countries could trade with India

eg → Recent rupee settlement of bilateral agreements

↦ further India's agenda for economic diplomacy

↦ India can counter economic hedgemony of China too.

↦ Inclusion of Ruppee to SDR of IMF

(2) Potential Challenges.

↦ Resistance by USA and China.

↦ Difficult to establish stability in current polycrisis.

↦ lack of adequate gold reserves to back the rupee.

Thus, while lots of opportunities exist for India in Global Trade dynamics, Rupee as an alternative could prove to be in India's favor.

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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

The demographic dividend refers to the high percentage of working age population in country (15-59 years) which could propel the economic growth forward.

Potentials of Demographic growth

① Improve the labour force participation rate

② increased investment and expansion of manufacturing

③ increased demand and consumption expenditure

However, the demographic dividend only ensures these benefits once the youth and workers are capable of making contribution.

## Steps taken by Government for Demographic Dividend

① Education

↳ Sarv Siksha Abhiyan, Madhyamik and Uchhatar Siksha Abhiyaan.

↳ National Education Policy, 2020

② Health

↳ Ayushman Bharat & Digital Health Mission. → For Tertiary & Secondary Treatment

↳ PM Jan Aushidhi Yojana → Generic Drugs.

③ Gender Empowerment

↳ Maternal Benifit Act

↳ PM Matru Vandana Yojana

④ Social Security

↳ Atal Pension Yojana.

Similar iniatives have been taken in field of Skill development & Employment also

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## Efficacy of Efforts

① Benefits

↦ Increased Enrollment rate in school → 98%

↦ Increased subscription to health insurance

↦ Improvement in IMR, MMR and decline in child nutrition issues.

② Gaps remaining

↦ low women participation 17.9% (LFPR)

↦ High unemployment rate - 7.8%

↦ High level of informalization → 90%

↦ Poverty of 14.9% (NMPI)

Thus, for realizing the potentials of Demographic dividend the benefits of govt. policies need to be percolated to achieve vision of "Viksit Bharat"

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

The GEAC under Ministry of Science and Technology monitors the Genetic modific-ation programs for Agriculture and has recently released new guidelines

**Potential of Genome Editing in Crop Improvement**

① Improve yield of crops → ensure food security

② Greater drought tolerance → Require less water

③ Resistant to pests - Bt Cotton to pink ballworm.

④ Higher nutrition value → address nutrition and malnutrition issues.

⑤ Faster growth and multiple crops in single year → greater food production

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## Ethical and Safety concerns.

① They may sideline the traditional or local varieties

② Introduction and cultivation without safety standards → HT bt Cotton.

③ They could be costly → only rich farmers could afford → widen inequality

④ May lead to unintended environment impacts (eg) become invasive.

⑤ They could require higher resource input → rising cost of cultivation → hence food inflation.

⑥ They could alter the local ecology and food chains.

## Significance of New Guidelines.

① The new guidelines create additional safety nets for ~~[illegible]~~ quality testing and data collection.

→ The guidelines put new parameters and frameworks before approval of crop.

However, the guidelines do not address the ethical concerns of environmental impacts, socio-economic consequences and long term impact on traditional market.

Thus, the new guidelines are a ~~welcome~~ welcome move to show greater attention to sector, but there also needs to be improvement in farm practices too.

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

Given that Indian Agriculture employs 55% of population while contributing only 16%, there needs to be some sort of handholding, which Government provides in form of Agriculture subsidies.

Impact of farm subsidies

① Direct subsidies

→ Loan waiver schemes like PM KISAN to endure the debt burden.

→ It creates an attitude of non repayment of loans and has led to ~~a~~ high percentage of NPAs.

→ It does not create any incentive for improving agriculture.

② **Indirect Subsidies.**

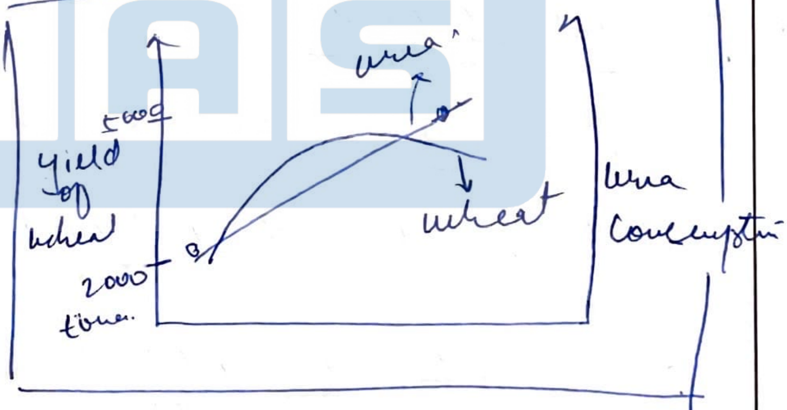
→ Diesel subsidy → for ~~us~~ operating Tube wells → led to large scale depletion of groundwater → Almost 80% of groundwater used in flood irrigation

(eg) Ground water Table fell by 70ft in region of Punjab.

→ Fertilizer subsidy → led to overuse of fertilizer in wrong proportion & contamination of soil & reduction of yield.

→ Recommended = 4:2:1

used: $\frac{8}{7}:\frac{4}{3}:1$



**Impact of MSP on Agricultural Economy**

① led to market price distortion

② crowding out of private sector investment

③ lack of incentive for modernization

④ Agri economy focussed around rice & wheat only → neglect of other crops.

⑤ Created issues of shortage of storage and excess buffer stock.

⑥ Manipulation and corruption during time of procurement → low price for farmers.

Way Forward

① Subsidy rationalization → funding the programmes of sustainable Agriculture

② An MSP + Approach → focus on integrating MSP with Agro Climatic planning and greater emphasis on Millets (PM AASHA)

Thus According to Arvind Subramaniyan Committee, there needs to be a subsidy engine focusing on empowerment rather than dependence.

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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 बढती 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

Anti microbial resistance refers to the phenomena when disease causing germs develop immunity against the 1st and second line of treatment and evolving.

AMR as a crisis.

① MDR & XDR Tuberculosis not responding to the treatment at all.

② Creation of superbugs that have high Mortality rate.

③ Increased disease burden

④ Increased Out of pocket Expenditure

Major contributing factors to AMR.

① poorly regulated sale of medicine over the top pharmacies.

② Administering antibiotics to livestock to treat them → Colistin, which is Reserve Antibiotic.

③ Not following the prescription and schedule by doctor → missing dose

④ self medication without medical expertise.

⑤ Increased biomedical waste → Antibiotics present in sewage make their way up the food chain

Steps to address the health Concern.

① Strict regulation of sale of medicines over the counter → keeping digital record of sale and supply chain

② imposing strict penalties for use in livestock

③ Promoting greater awareness towards the proper schedule of medicine &

against self medication.

④ promoting alternative methods like AYUSH.

Thus, there needs to be a holistic effort along with global cooperation in Research and development to find new cures towards fighting the new upcoming global health issue

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 Innovation refers to the new innovation that completely change the present technological engine and underfending and facilitate transition to a new one.

Disruptive Innovation in recent times

① 5G and 6G Technology → improved the ~~fo~~ speed of internet, lower latency and increased bandwidth. Speed upto 100 GbPs.

② Generative Artificial Intelligence → Ability to create new, unique content and process complex data.

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(3) Block chain Technology → It allows enhanced security by creating shared and interlinked data blocks.

(4) Web 3.0 → Created an open and decentralized internet with greater control over data.

(5) Genome Editing → Creation of new seed varieties and products like plant & lab grown meat & creation of new creatures.

(6) ~~Minite~~ Miniaturization of Technology → making the existing technology smaller and compact

Changing the operation of Industry

(1) Greater Automation of industrial operations. (eg) → faster assembly lines.

② Reduction of human interface → the clerical and labour intensive task done by AI.

③ Creation of new products → discovery of new medicine and chemical structures impossible uptil now.

④ Increased the volume of production

⑤ led to emergence of dominance → China acquiring greater share in electronics, Taiwan in semiconductors

⑥ Enhanced communication and finance sharing among industries (e-commerce)

Thus, the emerging Technology is changing the daily lives but we need to be cautious while proceeding to integrate with them.

17. हानि और क्षति (L&D) कोष के क्रमिक विकास को चिह्नित 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

The principle of loss and damage fund is based upon common but differentiated responsibility. It is a fund to compensate the losses incurred by Climate Change hit the countries.

Evolution of loss and damage fund.

(1) Kyoto protocol → Emergence of the concept about compensating the losses of Climate change.

(2) Paris Agreement (2015) → Talks about setting up of the mechanism and framework of L&D fund

③ COP26- Glasgow Conference → Breakdown of talks about finalizing the Loss & Damage Fund due to disagreements over financing

④ COP 27, Sharm al Sheikh - finalization of L&D fund

Major developments regarding loss & damage fund in COP 27

① Countries finally agreed to setting up of the fund and pledged their contribution and financing mechanisms which involved diverse stakeholders.

② Finalization about the rules and areas of compensation and situation of expenditure

Commitments made by India

① Reaffirms its INDC of carbon neutrality
② supported the mangroove Alliance
③ Emphasised upon the seriousness of IPCC AR6 report.

Thus, the COP 27, though many initiatives were envisaged but the success of L&D fund could help to provide ~~some~~ some mitigation and adaptation to climate change.

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 refers to the combination of institution, policies and strategies put in place for disaster response, mitigation and adaptation.

aspects of Disaster management

→ ① understanding the disaster and impact

→ ② Preparing response to disaster event

→ ③ Building infrastructure and Community resilience

## Strategies for Disaster Management

① Building Community Resilience.

→ involving Community in disaster planning

↳ A bottom up planning that involves the grassroots (eg)→ Disaster Management plan for Panchayati Raj Institution.

↦ Involving the local expertise to understand extent of possible damage and impact on community (eg)→ 'Aapda Mitras'.

↦ Multilevel disaster planning that involves Centre, State and District along with 3rd tier.

② Reducing impact of Disaster.

↦ Sustainable mitigation practices (eg)→ mangroves act as breakwater for cyclones.

↦ Frequent mock drills

↦ Involving ICT for enhanced communication (eg)→ Emergency broadcast messaging on ~~mob~~ mobile phone.

↳ Using structural measures like storm shelters, embankments, emergency water storage

↳ Creating standard operation procedure that involves interests of marginalized people.

Thus, a multipronged effort is needed and as a common framework, Sendai Framework could be followed with community modifications

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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 referred to as the use of violence for achieving ideological or political goals. The rise of radicalization on online platform raises a concern of Technology and Terrorism.

Concern of new technologies used by Terrorists

① Metaverse

→ It is allowing → Communication, recruitment and training of Radicalized youth and OGWs.

→ It is creating an Online safe haven for Terrorists → Transcending the security of boundaries.

→ It is facilitating the sharing of information and planning of attacks.

② VirtualAssets

↦ Creating alternative path of Terror financing

↦ Countries unable to regulate Crypto Assets due to security of blockchain.

↦ It is increasing facilitation of money laundering, Narco Terrorism and financial contribution to terrorists.

Counter to new & Emerging Tech.

↗ ① Globally accepted principles of Crypto Regulation

→ ② Strengthening of FATF, RATS.

→ ③ ~~trace~~ Increasing the intelligence network and information sharing.

→ ④ Central bank Digital Currency to replace Virtual Assets

↓ ⑤ Making it mandatory to declare virtual asset to all citizen.

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## Significance of Delhi Declaration

It was the recent conference for NO Money for Terror Financing.

Significance:-

① Global acceptance and recognition of the issue.

② Platform for global cooperation over tackling misuse of Technology.

③ Setting up of globally acceptable norms for National steps towards reducing digital footprint of Terrorists

Thus, the evolution and adaptation of Terrorists need to be halted and only Global cooperation could counter it.

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 introduced to lower the median age of armed forces and expand the recruitment pool for personnel.

**Benifits of Agnipath scheme.**

① It improves the efficiency of armed forces → younger soldiers are more active and adaptable.

② The younger recruits could be more deeply trained towards the emerging threats and responses (eg) cyberwarfare.

③ They have higher potential and capacity towards learning the tactics, right ~~strong~~ from young age.

④ The personnel at younger age are more versatile and innovative towards new challenges (eg)→ Drone warfare

## Challenges posed by Agnipath Scheme

① Retention of a limited trainees and no provision about the ones who are not

② It is a rationalization exercise, the people in older age bracket do not get chance of recruitment

③ Criticisms of creation of indirect conscription

## Way Forward.

① Creating other channels of recruitment for non field army works.

② Creation employment opportunities for the non army trainees

Though the Agnipath scheme has a good intent of improving efficiency of army and inculcating discipline in the youth along with expanding career opportunities, however, it needs to also balance the social aspiration too.

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