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NEXT IAS

MAINS TEST SERIES 2.0 - 2025 (FLT)

(To be filled by candidate)

TEST CODE : FLT2503

Name of Candidate: Suprantha Gupta Mobile N [redacted]

Roll No. : QC25D1B47127 Start Time ..... End Time.....

Date of Examination: 22-6-25 Medium : English ☑ Hindi ☐

Q. No.	Maximum Marks	Marks Obtained
1.	10	
2.	10	
3.	10	
4.	10	
5.	10	
6.	10	
7.	10	
8.	10	
9.	10	
10.	10	
TOTAL MARKS - 100		

Q. No.	Maximum Marks	Marks Obtained
11.	15	
12.	15	
13.	15	
14.	15	
15.	15	
16.	15	
17.	15	
18.	15	
19.	15	
20.	15	
TOTAL MARKS - 150		

GRAND TOTAL - ...../ 250 EVAL CODE: ..... EVAL DATE: .....

GENERAL INSTRUCTIONS

1. Immediately on receipt of the QCA 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.
2. Candidates must mention all relevant details like Name, Email, Roll No, Mobile, etc. in the space allocated.
3. Candidate is expected to attempt all 20 questions within the given timeline.
4. Answers must be written in the medium authorized at the time of admission.
5. Candidates must write answers for the specific question under the respective question itself. Any answer written outside the space allotted may not be given credit.
6. Please write neatly. Avoid illegible writing.
7. Do not write/mark irrelevant matters in the QCAB.

सामान्य निर्देश

1. QCA पुस्तिका प्राप्त होने पर कृपया तुरंत जांच लें कि इस QCA पुस्तिका में कोई पृष्ठ या सामग्री आदि गलत छपी हुई या फटी हुई या गायब तो नहीं है। यदि ऐसा है, तो इसे एक नई QCA पुस्तिका से बदल लें।
2. अभ्यर्थियों को सभी प्रासंगिक विवरण जैसे नाम, ईमेल, रोल नंबर, मोबाइल नंबर आदि का आवंटित स्थान पर उल्लेख करना होगा ।
3. अभ्यर्थियों से अपेक्षा की जाती है कि वह आवंटित समय-सीमा के भीतर ही सभी 20 प्रश्नों के उत्तर-लेखन का प्रयास करें।
4. प्रत्येक उत्तर, प्रवेश के समय चुनी गयी भाषा के माध्यम में ही लिखे जाने चाहिए।
5. अभ्यर्थियों को विशिष्ट प्रश्न के उत्तर संबंधित प्रश्न के नीचे ही लिखने होंगे। आवंटित स्थान के बाहर लिखे गए किसी भी उत्तर को क्रेडिट नहीं दिया जाएगा।
6. कृपया साफ-सुथरा लिखें। अपठनीय लेखन से बचें।
7. QCAB में अप्रासंगिक तथ्यों को न लिखें / न ही चिह्नित करें।

REMARKS: .....

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FOR OFFICE USE ONLY

Student Concerns / Query	Evaluator's Feedback / Response
1	1 .....
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2	2 .....
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3	3 .....
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MARKING SCHEME *

Marks Per Ques	Below Average	Average	Above Average
10 Marks	Below 3.00	3.00 - 3.75	4.00 and above
15 Marks	Below 4.50	4.50 - 5.75	6.00 and above

* Subject to change without prior notice.

IMPORTANT QR CODES

Topper's Copy	Common mistake and Correct Filled QCAB
Copy Scanner App	Next IAS Test Centre Location

MACRO COMMENTS

The Purpose of MTS 2.0 Score Improvement Program (SIP) is to provide constructive suggestions on 'How to improve Answer Writing and thereby score better marks.

Q1.

Introduction	Body	Conclusion

Q2.

Introduction	Body	Conclusion

Q3.

Introduction	Body	Conclusion

Q4.

Introduction	Body	Conclusion

Q5.

Introduction	Body	Conclusion

Q6.

Introduction	Body	Conclusion

Q7.

Introduction	Body	Conclusion

Q8.

Introduction	Body	Conclusion

Q9.

Introduction	Body	Conclusion

Q10.

Introduction	Body	Conclusion

Q11.

Introduction	Body	Conclusion

Q12.

Introduction	Body	Conclusion

Q13.

Introduction	Body	Conclusion

Q14.

Introduction	Body	Conclusion

Q15.

Introduction	Body	Conclusion

Q16.

Introduction	Body	Conclusion

Q17.

Introduction	Body	Conclusion

Q18.

Introduction	Body	Conclusion

Q19.

Introduction	Body	Conclusion

Q20.

Introduction	Body	Conclusion

Candidates must not write on this margin

1. सरकारी बजट में जेंडर बजटिंग की ओर हाल ही में किए गये प्रयास महिला सशक्तिकरण के लिए इसके महत्व को दर्शाता है। भारत में जेंडर बजटिंग की दिशा में हालिया पहल और उनके महत्व क्या हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक

The recent push towards gender budgeting in the Government Budget reflects its importance for women empowerment. What are the recent initiatives towards gender budgeting in India and their importance? (Answer in 150 words) 10 Marks

Gender budgeting refers to method of procuring allocations and budget disbursements towards gender equality. India recorded its highest ever gender budget in FY25 at 4% of GDP.

GENDER BUDGETING IN INDIA

(1) India has divided its gender budget to 3 categories

Part A
Allotted to women participation of 100%
Eg PM-Awas, Matru vandana Yojana

Part B
30-99% women centred
Eg MGNREGA

Part C
Less than 30% women centric schemes
Eg PM-Kisan

Candidates must not write on this margin

(2) The government has stressed on women's role in self entrepreneurship by schemes like Dena Didi, Early Patent granting to women patentees, SHG Bank linkage program etc

(3) The move towards reducing women grievances and enhancing their LFPR are SHe-Box, POSH guidelines etc

IMPORTANCE

(1) Ensures equitable opportunities to women in all fields.

(2) Breaks societal, mental and professional barriers.

(3) Essential towards economic growth of nation

The World Bank estimates India's GDP could rise by 1-2% if 50% women are part of workforce. Gender budgeting is a step to ensure this -

Candidates must not write on this margin

2. बंदरगाह आधारित विकास को भारत में आर्थिक विकास और क्षेत्रीय एकीकरण के प्रमुख चालक के रूप में देखा जाता है। चर्चा कीजिए कि सागरमाला पहल किस प्रकार बंदरगाह आधारित विकास और तटीय अर्थव्यवस्था को बढ़ावा दे सकती है। (उत्तर 150 शब्दों में दीजिए) 10 अंक

Port-led development is seen as a key driver of economic growth and regional integration in India. Discuss how the Sagarmala initiative can promote port-led growth and the coastal economy. (Answer in 150 words) 10 Marks

Sagarmala initiative, launched in 2015, is a step towards making India a leading player in port led development and marine shipping.

PORT LED DEVELOPMENT

(1) India has 12 major ports and more than 300 minor ports due to vast coastline.

(2) It accounts for largest ship breaking industry in Gujarat.

(3) The New Trade Policy, 2023 highlights India's intent to boost its shipping which accounts for 70% ~~tot~~ value and 90% volume of goods.

(4) It is a step towards promoting coastal economy and GDP

Candidates must not write on this margin

SAGARMALA INITIATIVE

(1) Provides for centrally sponsored support for development of ports, waterways to reduce the turn around time.

(2) The Jal Vahak scheme enhances port led growth and exports and employment.

(3) Sagarmala also promotes inland shipping and commercial tourism eg NW1 and 2 used commercially.

(4) Boost to cruise shipping eg Ganga Vilas from Benaras to Dibrugarh.

(5) Major success of Sagarmala include Vizhingam Port, Kerala, under construction Galathea Bay transhipment hub, Vadhavan etc

Thus, ports and waterways are lifelines of India's exports. Sagarmala is ensuring India emerges as a major water power.

Candidates must not write on this margin

3. गैर-कृषि अर्थव्यवस्था में पशुपालन के महत्व पर चर्चा कीजिए। पशुपालन को बढ़ावा देने के लिए हाल ही में प्रस्तावित पशुध न जनगणना की क्या आवश्यकता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss the importance of livestock farming in a non-farm economy. What is the need for the recently proposed livestock census in promoting animal husbandry?
(Answer in 150 words) 10 Marks

Livestock census in India has been held since pre-independence times. India accounts for largest buffalo population and 2nd largest livestock population essential to sectors of economy

LIVESTOCK FARMING IMPORTANCE

(1) Enhances yield and efficiency in agriculture especially in small & marginal farmers (80% of Ind)

(2) Enhances agri-allied sectors like dairy, animal keeping, manuring etc and boosts farmers' income.

(3) Reduces disguised unemployment in agriculture and ensures workforce is better placed.

Candidates must not write on this margin

(4) Improves women's economic independence and success of women cooperatives and SHGs eg Amul

NEED OF LIVESTOCK CENSUS

(1) Livestock census is essential to enumerate the no. of cattle, goat, cows, sheep etc the country has and their economic potential.

(2) The census aims at recording the no.s by Go Chip and Mahishi Chip for cow for buffalo

(3) It is important to ensure timely vaccination, feeding and scientific housing of the animals.

(4) It is aimed to promote indigenous breeding, prevent foot and mouth diseases and Starting white revolution 2.0

Thus, livestock census will ensure that India is better placed to utilise its animal husbandry sector. It can be a boost to farm and non farm economy.

Candidates must not write on this margin

4. न्यूनतम समर्थन मूल्य किसानों की आय को बढ़ाने में कैसे मदद कर सकते हैं? न्यूनतम समर्थन मूल्य का लाभ प्राप्त करने में किसानों को किन चुनौतियों का सामना करना पड़ता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक

How can minimum support prices help in promoting farmers' income? What are the challenges faced by farmers in accessing the benefits of minimum support prices? (Answer in 150 words) 10 Marks

Minimum support price (MSP) refers to the price paid by FCI to the farmers via APMC markets for procurement of food grains. Unfortunately, only 6% farmers availed MSP benefits as of 2014.

MSP role in Farmer's Income

(1) Govt of India provides MSP on 24 crops of Rabi, Kharif and Plantation crop.

(2) MSP, though not legally binding, protects farmers from distress selling during times of scarcity and emergency.

(3) Ashok Dalwai Committee for enhancing farmer income highlighted MSP at $A_2 + FL$ formula essential for profitable agriculture

Candidates must not write on this margin

(4) MSP protects farmers from market volatility and provides options to diversify due to wide range of crops supported by govt.

CHALLENGES TO MSP

(1) Almost 80% of top farmers avail MSP benefits while vulnerable remain unaware.

(2) Unawareness about farming farmers producers organisations and cooperatives sometimes leads to not being able to find proper storing, warehousing etc which leads to low quality yield being sold

(3) Reliance on rice wheat economy prevents farmers from investing in high value crops like horticulture, pulses, oilseeds etc which have higher MSP growth.

Thus, there is a need to slowly open farmers to market selling and at same time ensuring equitable access to MSP to make agriculture yield and profits rise

Candidates must not write on this margin

5. कृत्रिम तंत्रिका नेटवर्क क्या हैं? मशीन लर्निंग और कृत्रिम बुद्धिमत्ता में उनके महत्व पर चर्चा कीजिए।
(उत्तर 150 शब्दों में दीजिए) 10 अंक

What are artificial neural networks? Discuss their importance in machine learning and artificial intelligence. (Answer in 150 words) 10 Marks

2024 Nobel Prize in Physics went to Hopfield and Jefferson for their work on Hopfield Neural Network and Boltzmann Machine. Artificial Neural networks (ANNs) have become important amid rising use of AI.

ARTIFICIAL NEURAL NETWORKS

(1) ANNs are mechanical counterparts of neural linkages of brain which provide for connection between 2 gate lengths in a GPU and help in message transmission.

(2) ANNs are based on various patterns of machine learning such as

- Unsupervised learning
- Supervised learning
- Deep learning etc

Candidates must not write on this margin

(3) ANNs form the basis of Artificial Intelligence which helps the AI learn from data
↓
fine-tuning on new data
↓
discovery and generative tasks
production by AI

IMPORTANCE IN ML AND AI

(1) Artificial Neural Networks provide linkages and underlying set up for AI and Machine learning to work.

(2) They allow learning from previous data and generating similar patterns on new data by reinforcement learning.

(3) Eg RoseTTAfold helps to analyse the patterns of protein interaction and chances of cancer like diseases

(4) Eg CottonBall App in Maharashtra analyses the soil and climate conditions to forecast best arrival.

Thus ANNs help in faster and efficient data processing in AIs and help to build on the potential of machine learning.

Candidates must not write on this margin

6. रक्षा क्षेत्र और आधुनिक युद्ध में मानव रहित हवाई वाहनों (यूएवी) के महत्व पर चर्चा कीजिए।
(उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss the importance of Unmanned Aerial Vehicles (UAVs) in the defense sector and modern warfare.
(Answer in 150 words) 10 Marks

The recent Ind-Pak conflict saw rising use of unmanned aerial vehicles (UAVs) in the conventional and non-conventional warfare. They have become important for a nation's defense and offense.

UAVs AND IMPORTANCE IN DEFENSE

(1) UAVs refers to aerial objects capable of staying in airspace for long without any human intervention.

(2) Many UAVs are battery or solar powered eg High Altitude Pseudo Satellite and slowly move in the air to calculate ground data or conduct rapid attacks.

(3) They are important in inflicting harm to enemy facilities and resources without any human loss of self.

Candidates must not write on this margin

(4) Egs of modern UAVs include Shared Drones, (Turkish) Israel Barak drones (Israel) etc

IMPORTANCE IN WARFARE

(1) UAVs can easily shoot down ground, air obstacles and enter the offence's airspace without detection

(2) Multiple UAVs can be launched at a time ensuring effective attack and overburdening of enemy defense system.

(3) They can be used to destroy critical infrastructure and resources eg Israel shooting Natanz nuclear facility of Iran via UAVs

(4) They can gather preliminary and strategic information for the conventional army to then launch full fledged attack on enemy security lapses.

Thus, UAVs are rising imminently in the modern warfare. India needs to step up its indigenous defense production to compete with globe.

Candidates must not write on this margin

7. समुद्री और तटीय पारिस्थितिकी तंत्र पर तेल रिसाव के पर्यावरणीय प्रभावों की जांच कीजिए। तेल रिसाव की सफाई के लिए इस्तेमाल की जाने वाली विभिन्न विधियाँ क्या हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Examine the environmental impacts of oil spills on marine and coastal ecosystems. What are the various methods used for cleaning-up of oil spills?

(Answer in 150 words) 10 Marks

Oil spills refer to leaking of oils in coastal and marine environment due to ship breakage, deserving of cargo, leakages etc. Recent show incidences at Kerala coast show their evident impact on ecosystems.

IMPACTS OF OIL SPILLS

(1) Major cause of water pollution as oil being petrochemical based and non degradable

(2) Impact on marine flora and fauna by cutting off of O_2 supply as oil floats on water

(3) Oil spills along with hazardous chemicals on reaching shore can lead to plastic pollution, damage to coastal soil by grease, microplastics etc

(4) Removal of oil spills being difficult leads to their long presence thus deteriorating

Candidates must not write on this margin

water quality and chances of fire.

METHODS TO CLEAN-UP

(1) Use of oil-eating bacteria such as oilzapper created by TERI institute of India which can degrade the oil.

(2) If oil spill is near the coast, trying to contain water contamination to treat it.

(3) Burning up oil by igniting fire on surface to consume it.

(4) Treatment with other chemicals which can degrade oil, filteration and treatment of water before putting back to sea.

(5) Thus, oil spills can be excessively dangerous if not controlled - with rising global shipping it is important to ensure that such incidences don't affect the nature.

Candidates must not write on this margin

8. भूकंप संबंधी आपदाओं के प्रति उत्तरी भारत की संवेदनशीलता पर चर्चा कीजिए। उनके प्रभावों को कम करने में भारत की तैयारियों पर प्रकाश डालें। (उत्तर 150 शब्दों में दीजिए) 10 अंक

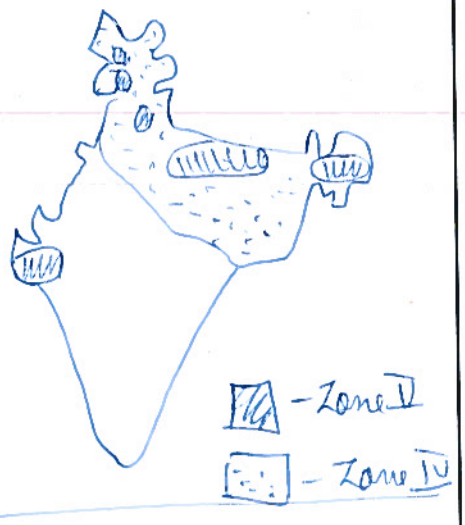
Discuss the vulnerability of northern India to earthquake-related disasters. Highlight India's preparedness in mitigating their impacts. (Answer in 150 words) 10 Marks

Earthquake refers to sudden shaking of the Earth and structures above due to internal collision of plates. Most of north India is highly or very highly vulnerable to quakes.

EARTHQUAKE VULNERABILITY

(1) Northern India is mainly made of Himalayan formations and sedimentary rocks

(2) Being less hard it is highly vulnerable to any quakes from beneath



(3) Places like Srinagar, Ladakh, Himachal, Uttarakhand, Gujarat lie in Zone V - Very high risk while rest northern India is mostly at high risk (Zone IV)

Candidates must not write on this margin

(4) Earthquakes in North India can also trigger floods, tsunamis, glacial lake outbursts etc
eg Kedarnath floods 2013, 2024 Teesta-IV dam breach etc

(5) The fragile ecosystem and population are highly vulnerable.

INDIA'S MITIGATION

(1) National Earthquake Risk Mitigation Plan divides regions from Zone V (most risk) to Zone II (least risk)

(2) NDRF and SDRF teams and funds are readily available to ensure immediate rescue and relief

(3) ISRO and IMD have led coordinated efforts towards possible early detection.

(4) Special building standards in areas of high risk eg Chardham project, hydropower projects in Arunachal etc

Thus, earthquakes can bring unmeasured danger in any form to the population. Early preparedness is better than later reconstruction.

Candidates must not write on this margin

9. चर्चा करें कि क्रिप्टोकरेंसी और अन्य उभरती प्रौद्योगिकियां मनी लॉन्ड्रिंग और आतंकवाद के वित्तपोषण के खतरे में कैसे योगदान करती हैं। इस समस्या से निपटने के लिए भारत सरकार द्वारा क्या कदम उठाए गए हैं?

(उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss how cryptocurrency and other emerging technologies contribute to the menace of money laundering and terror financing. What steps have been undertaken by the Government of India to tackle this issue? (Answer in 150 words) 10 Marks

Cryptocurrency refers to virtual digital assets based on blockchain which are without any sovereign control. Their anonymous use puts national security and economy at risk.

CRYPTO IN MONEY LAUNDERING, TERROR FINANCING

(1) Crypto assets like Bitcoin, Ethereum are not in sovereign authority and hence can be easily exchanged across national boundaries.

(2) They provide new means for flushing and placing of illegal proceeds, money laundering and providing support to terror and unlawful actions.

(3) Since their value is based on demand, they can prove risky to national regular finances and currency by putting high black money in the system.

Candidates must not write on this margin

④ They can help in tax evasion, cyber thefts and financing militancy via complex channels often unnoticed in regular economy.

STEPS BY GOVT OF INDIA

① The RBI has imposed 30% capital gains tax and 1% TDS on cryptocurrency to deter its evident usage.

② The Income Tax Bill, 2024 declares them as digital assets which are not CBDC or e-rupee.

③ While not outrightly banned, crypto and its mining is regulated by RBI and SEBI to detect any fraud investment in economy.

④ Agencies like CERT-Fin, ED etc under PMLA and UAPA ensure that cryptos are not able to disrupt the national economic security.

Use of cryptos has been rising with India accounting for largest market for crypto exchange. The govt must control it before it overwhelms the national financial system.

Candidates must not write on this margin

10. हाइब्रिड युद्ध क्या है? यह पारंपरिक युद्ध से किस प्रकार भिन्न है? भारत हाइब्रिड युद्ध की चुनौतियों का सामना किस प्रकार कर सकता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक

What is hybrid warfare? How is it different from conventional warfare? How can India navigate the challenge of hybrid warfare? (Answer in 150 words) 10 Marks

Hybrid warfare refers to combination of warfare in conventional and non conventional means. With rising geopolitics, it has become highly precarious to handle.

HYBRID WARFARE	CONVENTIONAL
(1) Includes warfare and technologies based on cyberspace, aerospace etc.	(1) Based on basic arms and ordnances based on air, ground, water.
(2) Not easily identifiable and controlled causing cyber attacks, digital frauds etc	(2) Can be controlled by means of defense like anti missile systems, radars etc
(3) Much cheaper with easier penetration of enemy defences anonymously	(3) Costly to both nations causing infrastructural and resource damage.
(4) Dual front attack	(4) Single front attack

Candidates must not write on this margin

WHAT CAN INDIA DO?

(1) India needs to strengthen its indigenous defence sector and experts to boost financial outlay and R&D in defence

(2) Alongside, its cyber security and space diplomacy should be strong to navigate the geopolitics of modern war.

(3) Awareness and education to population and children to develop measures of prevention and action in time.

(4) Strengthening of institutions like NCIIPC, Cert-Fin, RBI, Cyber Defence Warriors etc alongside global cooperation.

India has declared 2025 as year of defence self reliance. It is important for the nation's security and rise as 4th largest economy.

Candidates must not write on this margin

11. भारत द्वारा मजबूत डिजिटल अर्थव्यवस्था के लिए प्रयास करने के बावजूद, भारत को डिजिटल समावेशन के संबंध में चुनौतियों का सामना करना पड़ रहा है। चर्चा कीजिए। डिजिटल संसाधनों तक समान पहुँच सुनिश्चित करने के उपाय सुझाएँ।
(उत्तर 250 शब्दों में दीजिए) 15 अंक

Despite India's push for a robust digital economy, India faces challenges with regard to digital inclusion. Discuss. Suggest measures to ensure equitable access to digital resources.
(Answer in 250 words) 15 Marks

India currently accounts for 2nd largest telecom market and largest digital market for data of the world. But many inherent challenges harm India's digital rise.

DIGI ECONOMY - CHALLENGES

(1) India has robust digital economy in terms of rising infrastructure of satellite and ground networks, preparedness for 6G, and promotion of digital entrepreneurship and orange economy

(2) But various challenges include dependence on foreign for manufacturing of digital infrastructure and data storage.

Candidates must not write on this margin

(3) Lack of awareness about digital technologies with only 30% rural women knowing how to use internet.

(4) Rising cyber frauds, digital arrests and poor cyber security network.

(5) Overburdening and population of Internet Service Providers in urban areas with lack of digital access in villages.

(6) Only 30% optic fibre laying results in costly or no network signals in far reach areas than recommended 80%.

MEASURES TO EQUITABLE ACCESS

(1) Programmes like PM-DISHA and PMDISHA (Grameen) are ensured to promote digital literacy and awareness among masses.

(2) Boost to rural economy to boost digital analgig employment and creative avenues.

Candidates must not write on this margin

(3) Services like BOT-Cleaning centres, Indian Cyber emergency response team, National Fusion Centre Gurugram to ensure safe cyber space.

(4) Initiatives like PM-WANI for wide area network interface and Meghraj for indigenous data cloud storage.

(5) Digital Personal Data Protection Act ensures data sovereignity and ensures that data principals are not exploited.

(6) Missions like National AI mission, National Quantum Mission to boost digi economy.

Indian market is replete with opportunities to access the digi potential - An equitable access will ensure a developed India 2047.

Candidates must not write on this margin

12. जैसे-जैसे कृत्रिम बुद्धिमत्ता अर्थव्यवस्था के विभिन्न क्षेत्रों में प्रवेश कर रही है, वैसे-वैसे नौकरियों का खत्म होना एक वास्तविकता बनती जा रही है। रोजगार पर एआई के प्रभावों का विश्लेषण करते हुए, इस चुनौती से निपटने और रोजगार वृद्धि को बढ़ावा देने के उपाय सुझाएं। (उत्तर 250 शब्दों में दीजिए) 15 अंक

As artificial intelligence penetrates into various sectors of the economy, job losses are becoming a reality. Analysing the impacts of AI on employment, suggest measures to navigate this challenge and promote job growth. (Answer in 250 words) 15 Marks

Rise of AI is ~~tak~~ expected to take away more than 200 million jobs by 2050. This requires a labour surplus nation like India to fortify against the losses.

AI ON EMPLOYMENT

(1) Artificial Intelligence is based on skill of machines to learn from mass data and produce similar results on new data

(2) This is seen to reduce dependence on human labour for monotonous jobs like accounting, clerk service, data consultancy, coding-decoding etc

(3) AI can swiftly detect new algorithms, viable deep solutions and predict unbelievable mysteries thus exceeding human intellect

Candidates must not write on this margin

④ Impact of AI will be most catastrophic on low end semi-skilled jobs with advent of AI into gig economy and hospitality sector.

⑤ AI has potential to seamlessly deliver services globally thus raising fear among 50% Indians in service sector about losing job to AI

⑥ If the population is not skilled and prepared for future roles, AI can easily take over mundane tasks as seen by automatic Tesla cars, GPT services etc

MEASURES TO OVERCOME

① Mr Kamakoti suggested revaluation of Indian education and skilling sector by -

Establishing new skill centres

↓

Fostering innovations

↓

Candidates must not write on this margin

Protect IPRs

↓

Analyse impact on industry and jobs

↓

Evaluate for changes.

(1) Skilling the population in creative economy, digital skills and research and development can ensure preparedness for new industry.

(3) Thematic hubs, Incubation centres and regulated yet unobstructive R&D on AI to capitalise on its benefits and develop a sovereign AI
Eg National AI Mission

(4) Preparing unskilled and semi skilled workers for new types of jobs along side strengthening social security and labour reforms.

The AI is yet to take over the world due to its nascent growth. The world, especially India can build its skills to prevent job loss of ~900 million Indian workforce by 2030

Candidates must not write on this margin

13. भारत में फसल-उपरांत होने वाला नुकसान प्रतिवर्ष लगभग ₹1,52,790 करोड़ है। भारत में फसल-उपरांत होने वाली हानियों के लिए किस हद तक कृषि उत्पादों के परिवहन और विपणन में आने वाली बाधाओं को जिम्मेदार ठहराया जा सकता है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

India's post-harvest losses amount to approximately ₹1,52,790 crore annually. To what extent can post-harvest losses in India be attributed to the constraints in the transport and marketing of agricultural products? (Answer in 250 words) 15 Marks

Currently logistics account for 13% of nation's GDP which makes it highly costly to export and compete. India despite being 4th largest economy holds merely 2.9% share in global trade.

POST HARVEST LOSSES

① India is known for 2nd largest production of rice, wheat, fruits etc but its export is lower than other nations due to post harvest losses.

② Farmers experience declined incomes and distress selling due to spoilage of produce due to lack of storage, transport, processing facilities

Candidates must not write on this margin

(5) India's agri exports stand at less than $52 B due to many sanitary and phytosanitary Complaints registered by world.

(6) Moreover lack of resilient seeds, R&D and extension services to farmers leads to low yield and loss of value addition.

(7) Other factors like reliance on wheat-rice (staple income) and lack of awareness of MSP on market selling delays to food grains sales and leads to losses.

WHAT CAN BE DONE

(1) Educating farmers about formation of cooperatives, FPOs, SHGs to provide better market access and income
Eg Sahyadri FPO sells 30% of grapes exports of India

(2) Preconditioning of post harvest infrastructure like warehousing, storing, processing

Candidates must not write on this margin

facilities in easily perishable goods.

(3) Schemes like PM-FME, processing food megaparks, Mahaya sampada yojana etc provide for facilities of processing, value addition and formalisation for export boost.

(3) Agriculture Produce Export Development Agency (APEDA), National Exports Cooperative Ltd etc promote access to export of local produce.

(4) Enhancement of formal crediting like Faisal Bima Yojana, PM-KISAN etc provide collateral free credit and insurance for post harvest crisis

(5) National Logistics Policy and ~~Bharatmala~~ Bharatmala project aim to reduce logistics cost to 7% of GDP.

Thus, it is essential that India can change the GDP yield of its largest employing sector by preventing post harvest losses.

Candidates must not write on this margin

14. भारतीय कृषि में प्रत्यक्ष और अप्रत्यक्ष सब्सिडी क्या हैं? इन सब्सिडी ने देश की फसल विविधता और कृषि अर्थव्यवस्था को किस प्रकार प्रभावित किया है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

What are the direct and indirect subsidies in Indian agriculture? How have these subsidies impacted the cropping diversity and farm economy of the country?

(Answer in 250 words) 15 Marks

Subsidies account for 4% of Indian budget

These include many direct and indirect subsidies which positively and negatively impact the farm economy.

SUBSIDIES IN AGRICULTURE

(A) DIRECT SUBSIDIES

(1) FOOD SUBSIDY - Around 2 lakh cr is spent every year in food subsidy as

MSP / Procurement cost + cost of transport + cost of Incidentals − Issue Price

(2) IRRIGATION SUBSIDY - 75% of irrigation subsidy goes to borewells and electric pumps and only 2-3% towards micro-irrigation.

Candidates must not write on this margin

(3) FERTILISER SUBSIDY - India gives flat price subsidy on urea and nutritional price on DAP and MOP

(B) INDIRECT SUBSIDIES

(1) PM KISAN - Provision of ₹6000 in 6 equal installments from 2018 to farmers

(2) GARIB ANNA KALYAN YOJANA - Provides foodgrain to 67% of total population by procurement from farmers by FCI.

IMPACT ON AGRICULTURE

(1) Open procurement of wheat - rice by FCI has reduced crop diversity and lead to monoculture with wheat rice accounting 52% of food grain produce.

(2) This keeps farmers away from getting benefits of growing value addition crops

Candidates must not write on this margin

like pulses, horticulture, oilseeds etc.

(3) India has been biggest oilseeds importer, large DAP & MOP importer and dependent on pulses imports despite being its largest producer.

(4) Irrigation subsidy has led to overuse of groundwater and heavy losses on Discoms due to free electricity

(5) Fertilizer subsidy has disrupted the soil health and changed NPK ratio to 14:3:1

(6) MSP dependence has stayed farmers from benefits of contract farming, market competition, better exports and yields.

Thus, subsidies while essential for lower strata have led to overdependence of farming on govt support. Rationalisation is must to change farming to profitable venture.

Candidates must not write on this margin

15. भविष्य के अंतरिक्ष संचालन और मिशनों में पुन: प्रयोज्य प्रक्षेपण वाहनों की क्षमता पर चर्चा कीजिए। पुन: प्रयोज्य प्रक्षेपण वाहनों के विकास की दिशा में भारत की क्या पहल है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

Discuss the potential of reusable launch vehicles in future space operations and missions. What are India's initiatives towards the development of reusable launch vehicles?
(Answer in 250 words) 15 Marks

Reusable launch vehicles are those whose stages can be recovered and used for future use. India has efficient plan for such RLVs

POTENTIAL OF RLVs

(1) RLVs help in reducing cost of operations and time involved in creation of space modules for each mission.

(2) RLVs help in reducing space debris by ensuring minimal loss of unrecoverable modules.

(3) They also provide a cost for sample return mission and reentry vehicles from space to earth.

Candidates must not write on this margin

(4) They provide avenues for space tourism, making space as next home of sapiens and unravelling mysteries of space and planets.

(5) RLVs being more fuel efficient and tech savvy also enhance the R&D potential in space and promote interplanetary missions and commercial launches

INDIA'S INITIATIVES IN RLV

(1) India is set to develop its Reusable launch vehicle called Pushpak as 2 stage 2 orbit which will include 2 engines

Cryogenic → to fall back to earth

Semi-cryogenic → help in launch

(2) India is set to upgrade its GSLV MK 3 by making its stage I (solid fuel) and stage II (liquid fuel) as reusable.

Candidates must not write on this margin

(3) HLVM-3 for Gaganyaan and Next Generation launch vehicle for Bharatiya Antariksh Station are set to be reusable for human missions.

(4) With missions like Spadex, India is planning sample return missions on Chandrayaan-IV

(5) Many private startups like Skyroot, Agnikul etc have been working on reusable and commercial launches.

Thus, space sector is set to grow to $600B by 2050. India with its ambitious plans must make ~10% of it.

Candidates must not write on this margin

16. हाल ही में शुरू की गई BioE3 नीति के लक्ष्यों और उद्देश्यों की व्याख्या कीजिए। यह नीति अर्थव्यवस्था के "हरित विकास" को सुनिश्चित करने में किस प्रकार सहायक हो सकती है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

Explain the aims and objectives of the recently launched BioE3 policy. How can the policy help in ensuring "green growth" of the economy? (Answer in 250 words) 15 Marks

BioE3 policy launched by Dept of Biotechnology

Aims to strengthen 3Es - Economy, Employment and Environment

OBJECTIVES OF BIOE3 POLICY

(1) BioE3 policy launched in 2024, aims to strengthen biotechnology and environmental sectors of economy

(2) It aims at boosting universities and startups aligned to harnessing bio potential for economic benefit.

(3) It has also aimed to create more than 50 lakh jobs with new sectors of employment and industry rising.

Candidates must not write on this margin

(4) It facilities funding and R&D for environment friendly and economically potential ideas to leverage them into profitable ventures.

(5) It aims to utilise the rich resources of biological world of India by tapping knowledge of local and indigenous communities eg Traditional knowledge digital library

ROLE IN GREEN GROWTH

(1) More than 60% of India's energy is currently aligned with fossils

(2) Green Growth aims to reduce monetary and environmental costs of rising energy demand of India.

(3) Missions like National Green H2 Mission and aims of 20% ethanol blending in

Candidates must not write on this margin

petrol and 10% in diesel aim to reduce reliance on fossils.

(4) Bio E3 policy focuses green @ startups to strengthen green GDP of India and provide employment in unconventional sectors

(5) Bio E3 policy boosts green growth to achieve unlocking of electrolyser manufacturing, Solar PV construction etc avenues in Indian manufacturing.

Bio E3 policy and Green Growth can help in achieving Net 0 by 2070 to India

Candidates must not write on this margin

17. क्योटो प्रोटोकॉल के अंतर्गत विभिन्न बाजार तंत्र क्या थे? पेरिस जलवायु परिवर्तन समझौते का अनुच्छेद 6 क्या है? नेट-शून्य लक्ष्यों को प्राप्त करने में वैश्विक कार्बन बाजार के महत्व की व्याख्या कीजिए।(उत्तर 250 शब्दों में दीजिए) 15 अंक
What were the various market mechanisms under the Kyoto Protocol? What is Article 6 of the Paris Climate Change Agreement? Explain the significance of the global carbon market in achieving net-zero targets. (Answer in 250 words) 15 Marks

The COP to UNFCC at Baku saw finalising of Global Carbon market. It plays essential role in ensuring climate sustainability.

KYOTO PROTOCOL

(1) Kyoto Protocol aims to reduce concentration of GHGs in terms of carbon footprint and emissions per capita.

(2) It provides for various market mechanisms like -

a) Joint Implementation - ~~Action~~ Developed countries invest in developing nations in green energy and earn Carbon certificates in exchange.

b) Investing of developed nation in other developed nation to earn carbon credits.

Candidates must not write on this margin

c) Investing of developed nation in developing to get carbon certificates.

ARTICLE 6 OF PARIS AGREEMENT

(1) Article 6 provides for implementation of global carbon market by establishing mechanisms for exchange of carbon credits.

(2) Carbon credits to be exchanged at price of demand and supply of credits

(3) When a nation invests in climate resilience in other developed nation or caps its Greenhouse gas emissions, it can earn carbon credits which can be used for offsetting own emissions or on selling in world.

SIGNIFICANCE OF CARBON MARKET

(1) Global carbon market will help in keeping checks on GHG productions by developed nations.

Candidates must not write on this margin

(3) It will not affect ease of developing economies who can attract green investments or earn credits to offset emissions.

(4) Mechanisms like PAT in India and Green Energy Certificates ensure that each industry caps its emissions or pays for pollution.

(5) It will help in controlling GHG rise and preventing breach of 1.5°C limit

Thus, global carbon market is an efficient means of balancing economic needs with net zero targets.

Candidates must not write on this margin

18. जलवायु परिवर्तन और तेजी से हो रहे शहरीकरण ने भारत में गर्मी की लहरों के प्रभाव और आवृत्ति को तीव्र कर दिया है। चर्चा कीजिए। हीट एक्शन प्लान (एचएपी) भारत में हीटवेव प्रबंधन को कैसे बेहतर बना सकते हैं?

(उत्तर 250 शब्दों में दीजिए) 15 अंक

Climate change and rapid urbanization have intensified the impact and frequency of heat waves in India. Discuss. How can Heat Action Plans (HAPs) improve heatwave management in India?

(Answer in 250 words) 15 Marks

India once again in 2025, is experiencing rapid heatwaves due to solar maxima and rapid climate change. There is need to improve management of this silent disaster before it causes significant damage.

HEAT WAVES IN INDIA

(1) India due to its rising urbanisation is poised to have 50% urban population by 2050



Heat zones

(2) This is leading to deforestation, green lands encroachment and rapid loss of wetlands and flora which could manage the heating effect.

Candidates must not write on this margin

(3) Indian cities are turning into urban heatlands due to high heat reflection by concrete, infrastructural complexes allowed and rising industrial pollution.

(4) India is 3rd largest GHG producer which emits high burden of CO_2, CFCs, CH_4 etc in atmosphere leading to high heating.

(5) The coastal temperatures have risen from 25-28°C to 35°C which are most affected to heatwaves due to high humidity.

HEAT ACTION PLANS

(1) Ahmedabad Municipal Corporation was the 1st to have a heat action plan to reduce impact of heatwaves on citizens.

(2) Urban lands need to reinstate its lost wetlands via Amrut Sarovar Yojana and

Candidates must not write on this margin

increase its green cover by techniques like Miyawaki forests.

(3) Informal labour and gig workers need to be protected by ensuring provision of shades, cooling spaces etc.

(4) IMD and local municipalities can ensure heat advisories to citizens so as to avoid going out to prevent heat stroke.

(5) Social security and additional job avenues to those who are affected economically by heat waves including farmers.

India should consider Heat waves as an impending disaster. It requires planned urbanisation to prosper with economy and ecology.

Candidates must not write on this margin

19. बाह्य सरकारी एवं गैर-सरकारी तत्वों द्वारा भारत की आंतरिक सुरक्षा के लिए उत्पन्न खतरे क्या हैं? इन खतरों से निपटने के लिए आवश्यक रणनीतियों पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

What are the threats posed to India's internal security by external State and non-state actors? Discuss the strategies necessary to tackle these threats. (Answer in 250 words) 15 Marks

~~India's~~ Internal security refers to protection of sovereignty, territoriality and best interests of nation. India's neighbourhood and universal law and order often provide challenges to the same.

THREATS TO INDIAN INTERNAL SECURITY

(A) STATE ACTORS (EXTERNAL)

1. Proxy wars like terrorism, cyber war attacks by hostility of Pakistan towards India are threat to indian economy and national interests.

2. The encroachment of PoK by Pakistan and salami attack policy of China are threat to Indian territoriality

Candidates must not write on this margin

3. Further boundary disputes with Nepal, Sri Lanka also act in favour of India's enemies in derailing peace in Indian landmass.

(b) NON STATE ACTORS

(1) External funding and support to insurgent elements and ethnic conflicts to disrupt law and order eg as in Manipur

(2) Non state actors resulting in terror attacks, smuggling, trafficking etc also threat India's social and economic order.

(3) Actors such as Left Wing Extremists in Red Corridor in India and insurgents in Northeast often affect developmental processes and lead to development of fear and exclusion among tribal and Eastern population.

STRATEGIES TO TACKLE

(1) Recent Operation Sindoor has shown that India won't tolerate terror and water flowing together.

Candidates must not write on this margin

(2) Provision of special developmental and humanitarian efforts to the affected population eg Sahayata initiative and Sadhbhavana initiative of Indian army to reach out to terror affected families, Vibrant village programme along LAC etc

(3) Strengthening conventional and non-conventional offences and defences to deter any threat to territory

(4) Diplomacy and discussions at bilateral and multilateral levels to disengage.

(5) Samadhan doctrine is well present to ~~ban~~ eradicate Naxalism by 2026.

Thus, India's geography and global politics provides many hurdles to its internal security. It must stay prepared to put national interest ahead.

Candidates must not write on this margin

20. वामपंथी उग्रवाद (एलडब्ल्यूई) भारत की आंतरिक सुरक्षा के लिए चुनौती बना हुआ है। देश में वामपंथी उग्रवाद के मुद्दे को हल करने के लिए भारत सरकार के दृष्टिकोण पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

Left-wing extremism (LWE) continues to remain a challenge to India's internal security. Discuss the Government of India's approach towards solving the issue of LWE in the country. (Answer in 250 words) 15 Marks

Left Wing Extremism is an extremely Radical leftist ideology Rooted in Maoism which Started in Naxalbari village of West Bengal.

CHALLANGES OF LWE

(1) The Maoists have continued to disrupt peaceful, law and order and tribal development especially in mineral rich zones of India.

(2) External support via funds and arms had resulted in LWE once being spread as a red corridor from Pashupati to Tirupati

(3) It has led to creation of distrust among local populations and has affected livelihood of many residents as well as future of children by throwing them to exploitation

Candidates must not write on this margin

(4) LWE poses threat to internal security by creating a narrative of exclusion and violence to take up arms against law and order.

(5) Many naxalite camps are present in Nepal, China, Myanmar which continue to fuel conflicts and violence in the mainland.

APPROACH TO SOLVING LWE

(1) Govt of India developed a National Strategy and Action Plan in 2011 to counter naxalism

(2) It has 2 fronts

- Security front → to strengthen struggle against naxalism
- Development front → to uplift the affected

(3) Programmes like Special Central Assistance in LWE Areas Management via providing

Candidates must not write on this margin

developed ammunitions, Emergency rescue facilities etc to the forces

(4) Eastern Bn of Chattisgarh, Greyhounds of Andhra etc are effectively countering naxal violences.

(5) Programmes like LWE Mobile Tower Scheme and Special Outreach Plan to enhance trust and developmental outreach to the tribal areas.

(6) SAMADHAN doctrine is efficient strategy of timely and actionable countering of Naxalism.

(7) Govt promotes surrender and talks alongside handpower to mitigate the damage to civilians and police.

In last year, naxal violence has dropped by 17% and now it is limited to 26 districts. With efficient ~~tech~~ to soft and hard power, India is set to eradicate naxalism by 2026.

Space for Rough Work

Space for Rough Work

IMPORTANT INSTRUCTIONS

CANDIDATES SHOULD READ THE UNDERMENTIONED INSTRUCTIONS CAREFULLY. VIOLATION OF ANY OF THE INSTRUCTIONS MAY LEAD TO PENALTY.

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2. Do not write anything other than the actual answers to the questions anywhere inside your QCA Booklet.
3. Do not tear off any pages from your QCA Booklet, if you find any page missing do not fail to notify the supervisor/invigilator.
4. Do not leave behind your QCA Booklet on your table unattended, it should be handed over to the invigilator after conclusion of the exam.

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1. Read the Instructions on the cover page and strictly follow them.
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.
4. For rough notes or calculation, the last two blank pages of this booklet should be used. The rough notes should be crossed through afterwards.
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महत्वपूर्ण निर्देश

अभ्यर्थियों को निम्नलिखित निर्देशों को ध्यानपूर्वक पढ़ना चाहिए। किसी भी निर्देश का उल्लंघन करने पर दण्डित किया जा सकता है।

क्या न करें-

1. इस प्रश्न-सह-उत्तर पुस्तिका के भीतर कहीं भी अपना नाम या पंजीकरण संख्या न लिखें।
2. अपनी QCA पुस्तिका में कहीं भी प्रश्नों के वास्तविक उत्तरों के अलावा कुछ भी न लिखें।
3. अपनी QCA पुस्तिका से कोई भी पृष्ठ न फाड़ें, यदि आपको कोई पृष्ठ गायब लगे, तो पर्यवेक्षक/निरीक्षक को सूचित करना न भूलें।
4. अपनी QCA पुस्तिका को अपनी टेबल पर न छोड़ें, परीक्षा समाप्त होने के पश्चात इसे निरीक्षक को सौंप देना चाहिए।

क्या करें-

1. कवर पृष्ठ पर दिए गए निर्देशों को ध्यान पूर्वक पढ़ें और उनका सख्ती से पालन करें।
2. QCA पुस्तिका के कवर पृष्ठ पर दिए गए स्थान पर अपना पंजीकरण नंबर और अन्य विवरण लिखें।
3. स्पष्ट और पठनीय तरीके से लिखें। खराब/अपठनीय लिखावट में न लिखें।
4. रफ नोट्स या गणना के लिए, इस पुस्तिका के अंतिम दो खाली पृष्ठों का उपयोग किया जाना चाहिए। रफ नोट्स को बाद में क्रॉस कर देना चाहिए।
5. यदि आप किसी कार्य को रद्द करना चाहते हैं, तो उस पर अपना पेन चलाएं या उस पर "रद्द" लिखें, अन्यथा उसका मूल्यांकन किया जा सकता है।
6. परीक्षा हॉल छोड़ने से पहले अपनी QCA पुस्तिका व्यक्तिगत रूप से निरीक्षक को सौंप दें।

ऑनलाइन सुविधा का लाभ उठाने वाले अभ्यर्थियों के लिए विशेष अनुरोध

1. QCA पुस्तिका को ठीक से स्कैन करें। हम चाहेंगे कि आप स्कैनिंग के लिए कैमस्कैनर ऐप (CAM SCANER) का प्रयोग करें। (यह कोई प्रमोशन नहीं है)।
2. कृपया QCA पुस्तिका को पर्याप्त रोशनी में स्कैन करें। कम रोशनी में स्कैन की गई पुस्तिकाएं, उनके मूल्यांकन की गुणवत्ता को बाधित कर सकती हैं।
3. स्कैन के दौरान छाया वाले किसी भी पृष्ठ/पीडीएफ को फिर से स्कैन किया जाना चाहिए। कृपया सुनिश्चित करें कि आपके द्वारा अपलोड की गई पीडीएफ यथा संभव स्पष्ट हो ।
4. QCA पुस्तिका का उपयोग नहीं करने वाले उम्मीदवारों को अपना विवरण पहले पृष्ठ पर देना चाहिए और मैक्रो टिप्पणियों के लिए अगला पृष्ठ खाली छोड़ दें। यह समझना चाहिए कि उत्तर स्कैन की गई पीडीएफ में पृष्ठ नंबर 3 से शुरू होना चाहिए।
5. QCA पुस्तिका का उपयोग नहीं करने वाले उम्मीदवारों को प्रश्नपत्र के अनुसार उत्तर के अनुक्रम का पालन करना चाहिए।
6. कृपया स्कैन किए गए संस्करण में उत्तर के अनुक्रम और कुल पृष्ठों की संख्या की जाँच करें। सुनिश्चित करें कि यह उसी के भौतिक संस्करण के अनुरूप है।