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NEXT IAS

MAINS TEST SERIES 2.0 - 2025 (FLT)

(To be filled by candidate)

TEST CODE : FLT2503

Name of Candidate: PRATEEK YADAV Mobile No. [redacted]

Roll No. : MT25FLTRA038 Start Time 9:22 AM End Time 12:22 AM

Date of Examination: 26/6/2025 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 is the method of disaggregating budgetary resources & accounting on basis of gender, to lead to women empowerment

Recent initiatives towards gender budgeting

(1) Gender Budget laid in Parliament since 2005-06

(2) 30% of Budget allocated to Gender Budget in FY 26

(3) Gendered schemes - (eg) Mission Shakti for women safety

(4) Convergence of schemes in budget for efficiency (eg) Mission Sambhal

(5) Increased Centre share for

Candidates must not write on this margin

gendered objectives in schem budget

⇒ POSHAN 2.0 higher Resources to women-centric health

Importance of such initiatives

① Improves health of women ⇒ MMR through ICDS

② Financial independence of women

⇒ Working Women's Hostel

③ Entrepreneurial skills built in women

⇒ Drone Didi Scheme

④ Women safety ensured ⇒ One Stop police Stations, Link Booths

⑤ Upholds Dignity of women ⇒ Mission Sambhal provides rehabilitation to victims of sexual harassment

⑥ From Women development to Women-led-Development achieved

In line with ancient Indian adage "Yatra Naryastu Pujyante, Ramante Tatra Devata"

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 aims to :

(a) Build modern port infrastructure

(b) Promote port connectivity to hinterland

(c) Connect Sagarmala with export schemes like RoDTEP

How it promotes port-led growth ?

(1) Exports increases due to better trade facilitation

(2) India as trans-shipment hub develops

(3) Shipbuilding creates jobs (Highly employment elastic)

(4) Steel & Metallurgy sector boosted in ship building & port-led infrastructure

(5) Waterways (inland) connected to ports trickles down growth in hinterland (eg) From Kolkata to Patna

Candidates must not write on this margin

How it promotes Coastal economy?

1. Promotes services sector (handling, transport, transit) in coastal areas
2. Increases ancillary service like warehouse near ports
3. Tourism in coastal areas promote
4. Better road connectivity to port improves "effective labour market"
5. FDI destination in Coastal states
   ⇒ Gujarat FDI attracted through Mundra
6. SEZs near ports give employment
7. Modernised port infrastructure promotes modernised fisheries (mechanized boats, jetties at these ports)
8. Enhance Coastal Security through increased investment near coasts.

Sagarmala needs to be linked to new initiatives like IMEC, IMT, Kaladan Project to truly realise potential

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 पशुधन 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

India has largest livestock population (5.3 crore +) in world.

Importance of Livestock farming in Non-farm economy

1. Alternate source of income
2. Provides raw materials for fertilizer industries
3. Biotechnology-based economy through livestock farming, genetic improvement
4. Promotes mixed & integrated farming.
5. Food Processing industries boosted by raw material availability (milk etc)
6. Improves productivity of livestock by economies of scale (eg) Mass milk production to cheese
7. Export potential (eg) Denmark, New Zealand grows due to dairy industries

Candidates must not write on this margin

Need for Livestock Censers -

1. Data-driven policy for animal husbandry
2. Data about Disease Susceptibility of livestock
3. Insights on sectoral potential in food processing ⇒ Dairy or poultry or Meat industry be incentivised?
4. First step towards genetic improvement of breeds
5. Targeted interventions in veterinary ⇒ MAITRIs to be allocated based on local livestock population
6. Formalize animal husbandry by enumerating cattles
7. Understands scope of related industries like leather -
8. Links Animal husbandry to Agro farming by collating data of Livestock Census & Agriculture Census

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 Prices (MSP) are declared for 22 crops by CCEA to incentivise production, income security to farmers & food security

How MSP promotes farmer's income?

1. Prevents distress sales at bottom prices for farmers
2. Guarantees procurement by government
3. Incentivises investment into land by farmers based on 'assured prices'
4. Prevents price volatility
5. Prevents farmers falling into Cobweb Trap
6. Market indications & signals about crop prices set by government

Candidates must not write on this margin

Challenges faced by farmers in accessing MSP benefit

1. Limited procurement → Only 6% farmer's produce taken by government at MSP
2. Cartelization of traders → reduces MSP transmission to farmers due to intermediaries
3. Limited regional procurement → MSP procurement in Punjab, Haryana, Andhra only
4. Benefits tilted to large farmers.
5. Small farmers lack transport facility to reach APMCs
6. APMCs per area limited → 1 APMC per 450 sq. km, but 1 APMC per 80 sq. km Recommended by MS Swaminathan Committee
7. Traders buy at farm-gate
8. Poor farm-gate infrastructure

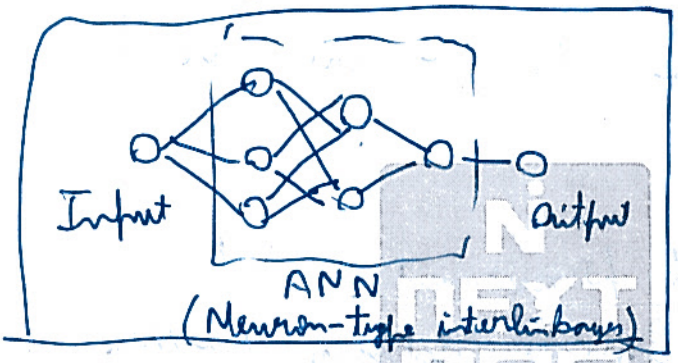
Government can look at success of Bhavantar Bhugtan Abhiyan of MP & PM-KISAN to reform MSP regime.

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

Artificial Neural Networks (ANN) are architecture of AI algorithms that replicate human brain neurons working to generate human-like intelligence



Importance of ANN for ML & AI

1. Makes Deep Learning possible
2. Critical to Boltzmann Machines that are central to AI algorithms
3. Memory, ~~minima~~ maxima through energy minima ingrained in ANN architecture
4. Allows AI to reason
5. ML learns patterns faster through ANN

Candidates must not write on this margin

(6) Enables Computer Vision algorithms requiring quick computation

(7) Natural Language Processing of wide variety of languages with different grammatical structure possible

(8) Central to Generative Adversarial Networks architecture

(9) Allows feedback in algorithms

(10) Makes AI algorithms interactive

(11) Feedback provision in ANN allows AI Models to continuously improve

(12) More accurate prediction than regression & black forest based algorithms

(13) Allows AI usage in critical industries like Space, Banking, Defence that require quick computation

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

Recently, Operation Sindoor & Operation Spider Web have shown UAVs are the future of modern warfare.

Importance of UAVs in Defense & Modern Warfare :-

① Allows Undetected reconnaissance

② Sabotage attacks possible through loitering munitions ⇒ Shahed Drones

③ Air & Naval domain linked through UAV - Underwater vehicle hybrid

④ Kamikaze attacks through endurance drones ⇒ Nagastra

⑤ Combines missile lethality with drone precision ⇒ in Bahawalpur mosque - precise attack

Candidates must not write on this margin

(6) Brings warfare deeper into territory
eg Operation Spider Web in Siberia

(7) Automates battlefield through autonomous decision-making

(8) Undetected by RADAR, AWACS

(9) Cheap, can be mass-produced

(10) Kinetic as well as Electronic Warfare possible by UAVs eg MQ-9B

(11) Civil-military fusion through UAVs
eg Sagar Defence produces hybrid UAVs for Defence as well as disasters

(12) Modernises labour market eg New jobs in "Remote Pilot" - Drone Didi

UAVs are future of warfare. India must reduce its drone dependence on Israel, USA, Russia etc for true Atmanirbharta. Stronger Customs enforcement needed to prevent Operation Spider Web type attack.

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

Recently, near Kerala coast, a Liberian ship collapsed with dangers of oil spill

Environmental Impact of Oil Spills

1. Poisons sea-water
2. Aphotic conditions ⇒ reduces oxygen in marine condition
3. Oil on surface Restricts sunlight
4. Threatens ~~Coasts~~ Corals by increasing turbidity
5. Changes pH of water ⇒ risks several sensitive Organisms
6. Seeps into Beaches = makes beach/coastal land infertile
7. Oil fires in Sea risk Thermal Pollution ⇒ ~~Sea~~ exothermic Organisms threatened

Candidates must not write on this margin

(8) Reduces nutrient uptake by seaweeds, kelp forests

(9) Threatens Mangroves

Methods for Cleaning Oil Spills :-

(1) Adsorption on special materials

(2) Burning out oil on surface

(3) Trawlers to pull out oil masses from sea

(4) Bioremediation through micro-organisms that quickly degrade oil

Despite these methods, it's very difficult to remove all traces of oil from water. Better stability of ships, sealing of oil tankers, quick rescue communication needed to prevent ~~dissat~~ oil spill disaster.

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

Over 12% of India is vulnerable to Earthquakes. Of this, most lies in Northern India along Himalayan belt



→ Category 5 Earthquake Hazard Zones

Vulnerabilities of Northern India to Earthquake-related disasters

① Threat to lives → Huge population in Delhi, UP, Bihar

② Infrastructure collapse threatens economic centres like Delhi, Dehradun

③ Threat to Biodiversity of Hills → landslide, avalanche risk due to earthquake

⇒ Snow leopard risk

Candidates must not write on this margin

④ River Pollution in Ganga, Yamuna through debris fall in upstream (Uttarakhand, Himachal)

⑤ Risk Strategic assets ⇨ Tehri Dam vulnerable ⇒ flooding downstream risk

⑥ Nuclear Vulnerability at Narora Nuclear Plant, Bulandshahr

Preparedness to Mitigate these impacts

① Earthquake-resilient buildings mandatory in vulnerable states

② Regular mock drills in schools, colleges

③ Early Warning System (EWS) developed by IIT Roorkee

④ EWS signals protocol implementation of safety measures at dams, nuclear plants

⑤ Controlled Breaching of GLOFs in Uttarakhand

⑥ Landslide Mitigation through Sachet App, Shotcreting, etc.

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 (eg Bitcoin, Ethereum have failed financial networks out of government regulation & surveillance, contributing to Money laundering.

Contribution to Money Laundering & Terror Financing - How?

(1) Anonymity in blockchain transactions

(2) Global networks → Single nation cannot tackle.

(3) Global cooperation lacking (eg Trump encouraging Cryptocurrency)

(4) Operates on Dark Web ⇒ Untraceable to government

(5) Easy financing route → ~~allows~~ enables Crypto-based funding through Social Media

Candidates must not write on this margin

⑥ Source of Black Money Investment

⑦ Used to "layer" black money & "integrate" back to economy

⑧ Crypto-funding through Random, Wastes

⑨ Funds unregulated regions terrorist networks Eg "Zakat" coin funds ISIS

Steps Undertaken by Indian government to tackle this issue -

① Virtual Digital Assets included in Income Tax Bill, 2025

② 30% tax on all virtual digital assets transaction (Finance Act, 2021)

③ CBDC by RBI (e-₹) to provide crypto-alternative that is safe, legal

④ Global Cooperation Eg Project NEXUS between India & ASEAN to cooperate on crypto-regulation

However, India needs to double down efforts as USA, Pakistan have collaborated to establish a Crypto Fund. R&D in Blockchain can help!

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 is warfare through non-military tools that remain in sub-kinetic domain & integrate multiple channels of offense (finance, banking, electricity grid, cyberspace etc)

	Hybrid Warfare	Conventional Warfare
Tools	Non-military	Military
Space of warfare	Civil Society, Civilian spaces like Social Media	Mainly borders
Nature	Non-Kinetic	Kinetic
Accountability	Plausible Deniability	Clear-cut accountability of aggressor
Legal status	Undefined by international conventions	Defined in several Conventions ⇒ Geneva Convention etc
Nature of loss	Economic loss, Psychological defeat	Human lives lost, infrastructure lost

Candidates must not write on this margin

How to navigate challenge of Hybrid Warfare?

1. Develop own tools of Hybrid Warfare for deterrence ⇒ Indian hackers penetration in Chinese electricity grid
2. Civil-Military fusion as a doctrinal approach for economic growth
3. National Security Strategy to train civilians for security threats
   { As Ajit Doval said "Civil Society is the new frontier of war" }
4. Global cooperation to define grey zone tactics, hybrid warfare, - fixing accountability of aggressor through tracking mechanisms
5. Technologies development for hybrid warfare like IACCS, Bhargavastra, NETRA for social media monitoring etc.

India faces a 2-front situation in real, now. Collaborating with like-minded partners like EU, Japan can help tackle this challenge.

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 सुनिश्चित् करने के उपाय सुझाएँ।
(उत्तर 250 शब्दों में दीजिए) 15 अंक

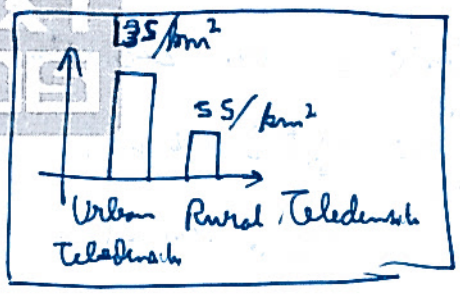
Despite India's push for a robust digital economy, India faces challenges with regard to digital inclusion. Discuss. Suggest measures to ensure equitable access to digital resources.
(Answer in 250 words) 15 Marks

India's digital economy is worth $320 billion in FY 24. However, digital inclusion remains challenge

Challenges in Digital inclusion –

① Lack of literacy → just 78% literate (Census 2011)

② Rural deficit →



③ Generational divide
↳ Elders, senior-citizens excluded from digital literacy

④ Digital literacy in India just 24% in age-group 29-59 years

⑤ High Device Cost - expensive smartphones

⑥ Insufficient CSCs at Villages

Candidates must not write on this margin

(7) Prone to fraud ⇒ Digital Arrest

(8) Women lack ownership of digital devices ⇒ only 5% of rural women use personal mobiles for internet

Measures to Ensure Equitable Access of Digital Resources :-

(1) Youth ambassadors to promote digital literacy of elderlies

(2) Digital network penetration through Bharat Net be fastened

(3) Multilingual interface in Phones needed - Hindi, Bengali, Marathi etc.

(4) More resource allocation to PMGDISHA

(5) Strengthen Cyber-security infrastructure

(6) Legal reforms like Digital India Bill be passed

(7) Data localisation to prevent frauds like Chinese digital lending apps

Candidates must not write on this margin

(8) Women-centric digital space to prevent cyber-stalking etc

(9) Techno-legal solutions for digital literacy ⇒ Collaborate with Meta to make digital literacy courses through internet

(10) Culturally-aligned devices (not English keypads, but local language keypads)

India has revolutionised digital payments landscape (UPI) through slew of measures like carrot (~~demonetisation~~ PM-SVANidhi) & stick (demonetisation). It can conceive similar approach to spread digital literacy.

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

AI is reported to cause layoffs of 14% of global workforce (McKinsey, 2027) - vulnerable sectors are accounting, writing, cinema, manufacturing etc

Impacts of AI on Employment -

(1) Job losses in sector with repetitive nature of job Eg Accounting

(2) New Skills needed to survive AI shock
Eg "Data Annotators" skills

(3) New jobs being created in computer, services sector for AI applications
Eg TCS job openings for "prompt engineers".

(4) AI - reduces hiring rate of companies
Eg Google scaled down hiring in 2024.

Candidates must not write on this margin

(5) Non-digital sectors like labour, plumbing etc. not at threat due to AI

(6) Education sector ⇒ Teachers being replaced by AI Tutors (eg) White Hat Jr.

(7) Increase productivity of those who know AI

(8) Risk of Biasness in decision-making due to algorithmic, data bias

(9) ~~Many~~ ~~Many~~ Managerial jobs at risk (eg) through Agentic AI

Measures to Navigate this AI Challenge & Promote Job growth:-

(1) Identify sectors with future potential

(2) Collaborate with AI Companies to develop skilling course (eg) NASSCOM Future Skills Program

Candidates must not write on this margin

(3) Integrate AI courses into degree programs (ie) B Tech in AI, B.A. On AI impact on societs

(4) Link Educational institutes, ITIs to AI industries for bridge

(5) Mandatory upskilling of workers in all AI-affected sectors needed

(6) Create AI Centers of Excellence to lead the change in AI domain

(7) Indigenous AI models needed to prevent Cultural ~~conflicts~~ exclusion

(8) Multilingual models needed to promote linguistic inclusivity in AI age

(9) Reskilling Fund in Code on Social Security 2020 needs to be Operationalised

(10) Train government officials to understand AI

(11) "AI is the new electricity" - Andrew NG

Those who do not adapt to it may face challenges - something that can India with dream of Viksit Bharat cannot afford.

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

Post-harvest losses account for over 40% of the foodgrains produced in India (Shanta Kumar Committee)

Constraints in Transport leading to Post-Harvest losses :

(1) Inadequate Reefer trucks ⇒ fruits & vegetable losses

(2) Farmgate infrastructure inadequate ⇒ losses at farmgate (moisture, pests)

(3) Transport losses due to pilferage on Road, trucks

(4) Unhygienic transport infrastructure (eg through Tempos, Autos) makes harvest fungus-prone, unusable for food

(5) Expensive logistics makes farmgate distress sales a reality

Candidates must not write on this margin

Constraints in Marketing leading to Post-Harvest losses :-

1. Ineffective grading, sorting reduces remuneration of farmers
2. Lack of Warehouse modernisation causes immobility of produce
3. Negotiable Warehouse Receipts used less ⇒ increases transport time & increases losses
4. Informal & unorganised retail chain
   ↳ lack of refrigerated storage at retail
5. Market rigidities due to poor storage infrastructure

Other Constraints apart from the two

1. Poor penetration of retail chains to farmgate

Candidates must not write on this margin

(2) Cover & Plinth technique of storage at FCI

(3) Harmful chemicals sprayed in warehouse
↳ Makes harvest unusable ⇒ Everest Masala case

(4) Customs & Trade Facilitation lacking
↳ Loss of Mangoes' exports to USA due to improper trade documents

Post-harvest losses not just reduce farmer's income, but also increase food inflation & threaten security. Schemes like Agriculture Infrastructure Fund & PACS as Grain Storage centers need to be backed by holistic strategy (logistics + marketing + hygiene standards + Agriculture reforms + Crop-centric farmgate infrastructure) needed.

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

Indian agriculture gets over 2% of Indian GDP as subsidies - both direct & indirect

Direct Subsidies are those that directly subsidise price at the farmer-level

Eg Water/Irrigation Subsidy, Electricity Subsidy, Seed Subsidy, Fertilizer Subsidy, (Nutrient-based) MSP

Indirect Subsidy that subsidise the production at intermediate level to reduce prices at farmer-level

Eg Urea Subsidy, PM-FBY, Interest Subvention Scheme

Impact of Subsidies on Cropping Diversity

(1) Race-Wheat monocropping due to MSP distortion

Candidates must not write on this margin

(2) Reduced Water table due to electricity subsidy ⇒ Difficult to grow Sugarcane, Rice in Punjab, Haryana

(3) Crop-centric agriculture (55% of GVA of agriculture) due to Subsidy distortion favouring cropping over animal husbandry

Impact of Subsidies on Farm Economy

(1) Rising input costs due to degrading soil

(2) Degrading Soil due to Overuse of fertilizers

(3) Import-dependency in pulses & Oilseeds due to MSP distortion (rice-wheat)

(4) Virtual Water Trade in Rice exports due to Water/Electricity subsidies

(5) Disincentives to improve fertilizer production efficiency (Urea subsidy)

Candidates must not write on this margin

(i) Prevents private players in agriculture market due to MSP price distortion

(ii) However, few subsidies have benefitted farm economy also

↳ (eg) Interest Subvention Scheme reduces dependence on money-lenders

↳ (eg) P.M-FBY Crop insurance provides reform in agriculture practices by safety net in case of losses

Subsidies are largely misutilized & not focussed on productive sectors.

Over 8% of agricultural GVA is on ineffective subsidies & Only 3% of Agri GVA on productive investment in agriculture.

- Better targetting
- Shift from subsidies to Capital investment
- Nutrient-Based subsidy in Urea also

} are few suggestions to improve India's subsidy regime.

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 (RLVs) are launch vehicles that return back (fully or partially) to earth, to be reused in subsequent space launch

Potential of RLVs in Future Space Missions

1. Reduced cost of launches by Amortizing costs
2. Development of Spaceship technology possible if RLV successful
3. Chandrayaan-4 sample return mission needs return vehicles → RLV technology
4. Increases Safety of missions by directing trajectory of aborted missions
5. Quicker launches as RLV need not be built for each new mission

Candidates must not write on this margin

(6) Useful in Gaganyaan Human Spaceflight Mission

(7) Fosters Space economy in India by reducing commercial costs of launches of satellites

(8) Promotes scope for Startup-led innovation ⇨ Agnikul, Skyroot

(9) Competes with global cutting edge of space technology ⇨ Falcon-9, Starship of SpaceX are reusable

India's initiatives towards RLV development

(1) RLV-TD - Technology Demonstrator vehicle experimented

(2) Vertical Takeoff Horizontal landing (VTHL) reusable vehicles tested

(3) Skyroot developing 'returnable rockets'

(4) Autonomous navigation of returning

Candidates must not write on this margin

vehicle tested after dropping from Chinook helicopter

(5) Collaboration with RosCosmos, ESA, NASA & JAXA for human spaceflight (Gaganyaan) – which requires a returnable Crew Module

(6) Courses on reusable vehicle technologies in IIST, Thiruvananthapuram

If India needs to increase its share in global space economy from 2% to over 20% in next three decades, RLVs technology is the key to 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

Bio E3 policy - Bio-Economy
- Bio-Ecology
- Bio-Employment

Aims & Objectives :-

① To create bio-led economy in India

② To foster Biotech R&D

③ To spread Biotech R&D benefits to Pharma, Agriculture, Animal Husbandry, Waste Management

④ To achieve sustainable development through Bio products like Bio plastics

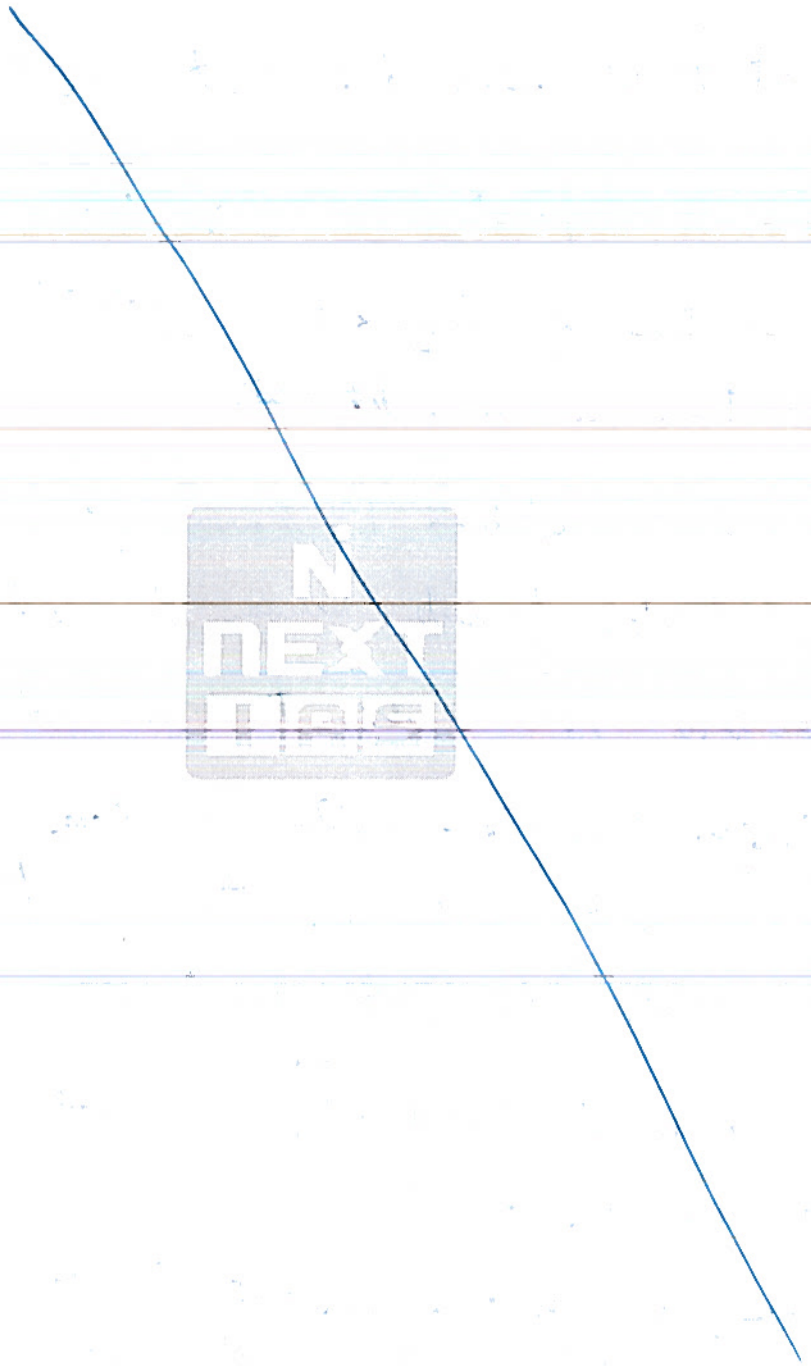
⑤ To create employment around biotech, bio-waste, biodiversity sectors

Candidates must not write on this margin

Bio E3 helps in green growth

1. Fosters circular economy through biodegradable products
2. Climate Sustainable Agriculture possible through R&D in crop genes
3. India as Pharma Hub possible through Bio-based medicines, not chemicals
4. Benefit Sharing to Indigenous Communities (☞ Biodiversity Act 2002)
5. Community engagement reduces biodiversity losses
6. Bio economy increases stakes in bio-conservation, thus promoting green growth.

Candidates must not write on this margin



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

Market Mechanisms in Kyoto Protocol

① Clean Development Mechanism for collaboration of Annex B & non-Annex countries in Clean projects

② Joint Implementation Mechanism → collaborative projects between Annex B countries for emission trading units

③ Emission Reduction Units Trading
↳ Market mechanism to comply with Kyoto Binding Targets

Article 6 of Paris Agreement is about market mechanisms -

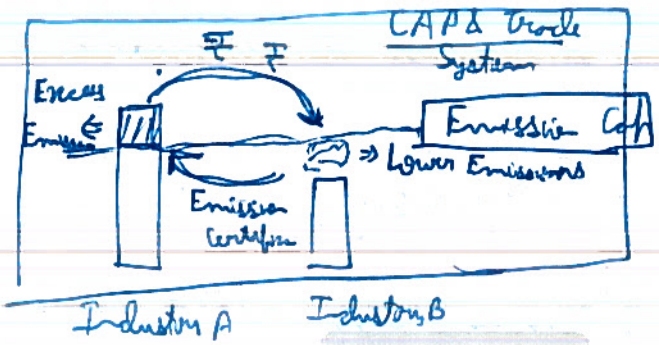
Article 6.2 ⇒ Bilateral market trading mechanisms between 2 countries to achieve NDCs

Article 6.4 ⇒ Global carbon market under UNFCCC framework where companies, governments - all can participate to

Candidates must not write on this margin

Trade & reduce carbon emissions

Significance of Global Carbon Market in Achieving Net - Zero



(1) Incentivises industries to reduce emissions by selling ~~E.C.~~ Emission Units

(2) Penalises over-emitters

(3) Finances R&D in clean technology

(4) Countries achieve NDC cumulatively - Article 6.2

(5) Establishes Monitoring, Reporting, Verifying Frameworks

(6) Allows Private Sector to participate in fight against Climate Change

Candidates must not write on this margin

(7) Non-Coercive way to Reduce emission

However, countries of Global South claim these market mechanisms as "Carbon Colonialism" in absence of technology transfer & climate finance.

What is needed is Nature-based Solutions & focus on Adaptation in addition to Market Mechanisms.

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

Over 50 cities of India vulnerable to heatwaves in 2025 as per CSE.

How Climate Change intensifies Impact & frequency of Heatwaves?

① Global warming increases average temperature

② Erratic rainfall patterns causes prolonged days of no rains

③ Vehicular emission further raise heat

How Rapid Urbanisation intensifies frequency of Heatwaves?

④ Urban Heat Island Effect

Candidates must not write on this margin

(5) Poor aerodynamics of cities trap heat

(6) Concretization & Black roofs / roads trap heat

(7) Nights remain hot due to pollution in air

Intensifying impact of heatwaves

(1) Reduces labour productivity

(2) Threat of Heatstroke

(3) ~~Data~~ More suffering for women (in kitchen)

(4) Disproportionate impact on Shelter-less / slum-dwellers

(5) Deepening inequalities with use of Air Conditioners offices, cars, but oppressive heat outside

Candidates must not write on this margin

HAPs improving Heatwave Management in India

① Increase Preparedness through
- public cooling spots
- more beds in hospital

② Mitigate heatwave through
- Reflective roofing
- Shelters on roadside

③ ~~Institutionalise~~ Heatwave Management through
- Nodal Officers
- Contingency Plans

④ Compensation to Heatwave Victim delineated

Only 30-31 states of India have HAPs despite rising heatwave threat - This needs to be universalised to all 780+ districts of India

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 faces multiple internal security threats - North east insurgency, Left wing Extremism, Drug / Organised Crime / Trafficking

All these threats magnified by Terrorism.

Role of External State & Non-state actors

Threats posed by External State ~~&~~ ~~Non-state actors~~ -

① 2-front strategy ⇒ collaboration of China & Pakistan to increase strains on Indian security forces

② Pakistan's ISI uses drones to drop drugs in Punjab

③ Radicalisation Punjab youth towards Khalistan - by ISI information warfare

④ Canada as safe harbour to Khalistan radicals ⇒ prevents Indian

Candidates must not write on this margin

law enforcement agencies from arresting / extradition

(5) Fake Currency Notes by Pakistan through Nepal to weaken Indian economy

(6) Chinese support, funding to North-east insurgents through Yunnan, Myanmar

(7) Demographic change threat from Bangladesh illegal immigrants

(8) Afghanistan's Taliban as source of instability in Kashmir

Threats by Non-State Actors :-

(1) Destroy India's youth potential through drugs by organised cartels (Golden Triangle + Golden Crescent)

(2) Civilian population threat eg 26/11 Bombay

(3) Weaken Trust in Indian economy

Eg Pahalgam terrorists motive to weaken Kashmir tourism

(4) Foreign funding of radical groups like PFI, Naxalites etc

Candidates must not write on this margin

Strategies to tackle these threats -5

1. Strengthen cross-border intelligence
2. Deepen Inter-agency coordination
3. Intelligence Sharing across all law enforcement agencies on a secure platform
4. Strengthen Border Infrastructure, Comprehensive Integrated Border Management System
5. Establish deterrence through cross-border strikes like Operation Sindoor
6. Regional Cooperation on tracking illicit financial networks
7. Community engagement for human intelligence
8. Doctrinal shifts like "Act of Terror now an Act of War" needed in other spheres also like trafficking

India's Viksit Bharat Yatra must be secured from both internal & external security threats through Diplomacy & Military strength

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

LWE continues to strike back in hinterlands like Abujhmad, killing civilians, restricting development.

Indian Government's approach to solving LWE issue -:

① Surrender incentives with cash of ₹ 10,000 - 50,000 & skilling for employment of surrendered people

② Para-Military operations ☞ CRPF operations in Kaveguttu Hills 2025

③ Deepening Intelligence Network in Abujhmad, Gadchiroli, Bijapur - Human intelligence, Signals Intelligence etc

④ Developmental initiatives in LWE-affected districts - Telecom towers, schools,

Candidates must not write on this margin

roads, hospitals in these areas

(5) Supporting NGOs working in LWE areas
eg Prakash Amte's works in Himalbasa supported by Indian government

(6) Psychological operations eg Home Ministers declaring end of LWE by (March 31, 2016)

(7) Crack down on external influence
eg Chinese routes to fund Maoism tracked through FIU

(8) Collaboration with Nepal, Bangladesh to prevent LWE forces from evading police by crossing borders

(9) Inter-state collaboration to tackle administrative deficit at intersections (Maharashtra - Chhattisgarh - Telangana)

(10) Social Media bans on Naxalite channels

Candidates must not write on this margin

eg on Youtube, restricted channels

(11) Political messaging against "Urban Naxals" to contain spread of Naxalist ideas

(12) Winning Hearts & Minds Strategy (WHAM) through community engagement initiatives of CRPF eg Operation Sadbhav in Dantewada

(13) Job opportunities to orphans of killed Naxalite leaders to prevent radicalisation

(14) Sports as route to de-radicalise youth in LWE areas eg Softball tournaments by Odisha government

LWE was once termed "biggest internal security threat" to India. The success of these approaches reflected in dwindling LWE districts from 106 in 2009 to just 38 in 2021, to less than 10 in 2025

Space for Rough Work

Space for Rough Work

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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.
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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2. Please scan the QCA booklet in ample light. Copies scanned under moderate light can hamper evaluation quality.
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5. Candidates not using the QCA booklet must follow the sequence of the answer as per the question paper.
6. Please check the sequence of the answer and total number of pages in the scanned version. Make sure it is in consonance with the physical version of the same.

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-	क्या करें-
1. इस प्रश्न-सह-उत्तर पुस्तिका के भीतर कहीं भी अपना नाम या पंजीकरण संख्या न लिखें।	1. कवर पृष्ठ पर दिए गए निर्देशों को ध्यान पूर्वक पढ़ें और उनका सख्ती से पालन करें।
2. अपनी QCA पुस्तिका में कहीं भी प्रश्नों के वास्तविक उत्तरों के अलावा कुछ भी न लिखें।	2. QCA पुस्तिका के कवर पृष्ठ पर दिए गए स्थान पर अपना पंजीकरण नंबर और अन्य विवरण 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।	3. स्पष्ट और पठनीय तरीके से लिखें। खराब/अपठनीय लिखावट में न लिखें।
4. अपनी QCA पुस्तिका को अपनी टेबल पर न छोड़ें, परीक्षा समाप्त होने के पश्चात इसे निरीक्षक को सौंप देना चाहिए।	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।