Prelims Qualified
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MAINS TEST SERIES 2.0 - 2025 (FLT)

(To be filled by candidate)

TEST CODE : FLT2507 **Test No. : 07**

Name of Candidate: Aman Jhanwar Mobile No. .....

Roll No. : GS25A1B39001 Start Time 11:25 AM End Time.....

Date of Examination: 10/8/25 Medium : English ☑ Hindi ☐

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

Q. No.	Maximum Marks	Marks Obtained
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
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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Student Concerns / Query	Evaluator's Feedback / Response
1	1 .....
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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

NEXT IAS

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


NEXT
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Candidates must not write on this margin

1. मेक इन इंडिया के एक दशक बाद भी, भारत का विनिर्माण क्षेत्र इसकी विकास गाथा में एक कमजोर कड़ी बना हुआ है। भारत जीडीपी वृद्धि और रोजगार सृजन में अपनी क्षमता का उपयोग करने के लिए अपने विनिर्माण क्षेत्र को मौलिक रूप से कैसे नया रूप दे सकता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Even after a decade of Make in India, India's manufacturing sector has remained a weak spot in its growth story. How can India fundamentally reset its manufacturing sector to utilise its potential in GDP growth and job creation? (Answer in 150 words) 10 Marks

"Make in India" launched in 2015, aimed to increase manufacturing share in GDP significantly however, it still stalls at around 16% according to Economic survey (2025-26)

Reasons behind weak spot

(1) Failure to industrialise rural areas.

(2) Delays in Policy implementations and scheme targets matching
Eg: ~~Ex~~ Bharatmala project shorts 30% of its target as per 2025.

(3) Covid-19 → Destabilised economy and migration to rural agriculture based economy.

(4) Lack of Proper Physical infrastructure (Road connectivity) and social infrastructure (Poor Human resource pool).

Candidates must not write on this margin

Measures to fundamentally reform manufacturing sector

(1) Mission mode schemes on sunrising sectors. Eg: PLI scheme for renewable energy sector manufacturing

(2) International collaboration for raw material. Eg: Mineral security Partnership for rare earth minerals.

(3) Streamlining legal norms & rules
Eg: Jan Vishwas bill - decriminalised 1400 provisions.

(4) Industry - academia collaboration for job creation: Eg: PM internship scheme

(5) Improved expenditure on R&D for indigenous technology development.
Eg: India only spends 0.67% of GDP (Budget '25.)

To become developed economy, by 2047, strengthening manufacturing ~~will~~ is imperative — it will also make India a significant partner in Global Supply chain

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2. भारतीय स्टार्टअप्स ने अपार संभावनाएं दिखाने के बावजूद नवाचार को आगे नहीं बढ़ाया है। चर्चा कीजिए। भारतीय स्टार्टअप को मूल्य श्रृंखला में ऊपर जाने के लिए उपाय सुझाएँ? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Indian startups, despite showing great potential, have not scaled up on innovation. Discuss. Suggest measures for Indian startups to go up the value chain.

(Answer in 150 words) 10 Marks

According to world Bank, India is now world's 3rd largest startup ecosystem after USA & China.

Reasons for inability to scale up innovation

① Most of startups ~~are~~ are inspired by developed economy's startups — and not focus on Indian demands
Eg: Uber in Europe, Ola in India.

② High focus on revenue generation rather risk-taking ability.
Eg: Piyush Goyal (Minister) expressed such concerns in a seminar.

③ Lack of funding for innovation based startups

④ ~~Sri~~ Scholars also argue that Indian startups don't find solution to Indian problems — rather ~~find~~ create problems in existing market.

Candidates must not write on this margin

Measures for improving value chain

① Shift from profit to innovation

- Govt. must provide viability gap funding (VGF) for such startups.

② Developing entrepreneurship culture in society — to encourage innovation

Eg: Musk idea of startup shower instead of baby shower.

③ Increasing expenditure of Human resource

→ only 4% of GDP on education (Target - 6%)

④ Supporting R&D through investing & providing funds to startups.

⑤ International Partnership for co-development

Eg: Skyroot associated with Pixel.

To attain the target of $30 trillion economy by 2047 — innovating & Private participation is a necessity and not optional.

Candidates must not write on this margin

3. एक मजबूत सार्वजनिक वितरण प्रणाली (पीडीएस) के बावजूद, खाद्य सुरक्षा भारत की जनसंख्या के लिए एक चुनौती बनी हुई है। वर्तमान पीडीएस प्रणाली में क्या कमियां हैं? प्रणाली में सुधार के लिए उपाय सुझाएँ।

(उत्तर 150 शब्दों में दीजिए) 10 अंक

Despite a robust Public Distribution System (PDS), food security remains a challenge to the Indian population. What are the deficiencies in the current PDS system? Suggest reforms to improve the system.

(Answer in 150 words) 10 Marks

PDS and FCI were established in 1965 to resolve food security challenge of India - however interplay of various factors has led to continued challenges.

Persisting challenges - Deficiencies in PDS

① High leakage vulnerabilities

Eg: Foodgrains are replaced with low quality or mixed with pebbles

② Lack of documentation

Eg: old people often lose fingerprints excluding them from Aadhar-identification and free ration.

③ Lack of proper storage infrastructure leads to rotting.

Eg: NITI aayog - ₹90,000 crore wasted in Fiscal year 2024.

Candidates must not write on this margin

Reforms required

1. Geo-tagging of Transport vehicles to prevent leakages of foodgrains.
2. Setting up storage facilities through PPP model for better storage & maintenance
3. Adopting schemes like PDPS (Price deficiency Payment system) under PM-AASHA to reduce govt. burden.
4. Allowing community certification for eligibility under PM-GKAY for old age and rare cases.
5. Setting up more ration shops for better reach and improving regional equity.
6. Streamlining & Digitising process for improved efficiency and Transparency.

Eg: Procurement through e-NAM

India should focus from food-security to nutritional security for "Healthy India, Fit India"

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4. हाल ही में शुरू किए गए डिजिटल कृषि मिशन के प्रमुख घटकों पर चर्चा कीजिए । यह मिशन किसानों के कल्याण में सुधार करने में कैसे सहायता करेगा? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss the key components of the recently launched Digital Agriculture Mission. How will this mission help in improving farmers' welfare? (Answer in 150 words) 10 Marks

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Candidates must not write on this margin

5. एक्सिऑम-4 मिशन क्या है? एक्सिऑम-4 मिशन में भारत की भागीदारी भारत के मानव अंतरिक्ष कार्यक्रम को कैसे सशक्त करेगी? (उत्तर 150 शब्दों में दीजिए) 10 अंक

What is the Axiom-4 mission? How will India's participation in the Axiom-4 mission help in bolstering India's human space programme? (Answer in 150 words) 10 Marks

Axiom-4 mission launched in July 2025 was a private spacecraft to ISS which also included India's Shubanshu Shukla - making him 1st Indian on ISS.

Axiom-4
- → 14 day stay at ISS
- → Private mission by Axiom Ltd.
- → India spent around ₹500 crore for this trip.

Boost to India's space Programme

① Conducted around 10 space studies
- (a) 6 types of crop plants
- (b) Microgravity
- (c) Muscle loss
- (d) Impact of electronic devices in space, etc.

② Lived experience to Shubhanshu will help in Gaganyaan mission — where shubhanshu is pilot.

Candidates must not write on this margin

③ Building institutional knowledge for future.
→ Succesful space programmes benefit when astronauts transfer their learning

④ Help in understanding scope of Sustainable agriculture and life support in space.

⑤ Experience for BAS – Bharatiya Antariksha station – learnt from ISS.

⑥ International collaboration and outreach – for succesful co-development of technology.

⑦ National Pride & Inspiration – boost participation by youth in future.

Challenges for India in Human missions
→ Reliability of launch vehicle
→ Protection from radiation
→ lack of experience.

~~To test~~ Axiom-4 will contribute significantly in India's ambitions for BAS by 2035 and Hydrogen extraction from South Pole of Moon.

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6. परिशुद्ध औषधि की अवधारणा का परिचय दीजिए। दुर्लभ एवं विशिष्ट रोगों के उपचार में परिशुद्ध औषधि की भूमिका पर टिप्पणी कीजिए। (उत्तर 150 शब्दों में दीजिए) 10 अंक

Introduce the concept of precision medicine. Comment on the role of precision medicine in the treatment of rare and specific diseases. (Answer in 150 words) 10 Marks

Recently, China cured Diabetes - Type 02 through precision medicine — highlighting its role in treatment of rare & specific diseases.

Concept of Precision Medicine

① Customised & Personalised Treatment based on individual body & disease.

② Influence genetic material unlike traditional conventional treatments

Eg: CRISPR / Cas-9 technology.

③ ~~Solution to~~ Sustained long-term solutions to diseases.

Eg: Sickle ~~cell~~ cell anaemia

Treatment of rare & specifics diseases

① Use of Car-T cell developed by

Candidates must not write on this margin

Tata Memorial to cure blood cancer.

② Zolgensma treatment to cure Spinal Muscular Atrophy disorder – which ~~Often~~ is genetic disorder.

③ Contribute in Transplantation
Eg: Human hearts developed in Pigs.

④ Can prevent transfer of genetic disorders Eg: Mitochondrial DNA from mother.

⑤ Can prevent spread of diseases like Dengue & Malaria through Pg Sit (Precision-guided - Sterilisation technology) on mosquitoes.

⑥ Functional food & Smart proteins for nutritional security Eg: Vegan Meats or GM Mustard.

Precision Therapeutics is expected to reach $5 Billion by 2030 in India. Active R & D and ~~fath~~ private participation can ensure healthy India & SDG1 -3

Candidates must not write on this margin

7. चर्चा कीजिए कि जैव विविधता अधिनियम, 2002 और हाल ही में अधिसूचित जैविक विविधता (पहुंच और लाभ साझाकरण) विनियमन, 2025 पारंपरिक उद्योगों की वृद्धि सुनिश्चित करते हुए पहुंच और लाभ साझाकरण को कैसे बढ़ावा देते हैं। (उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss how the Biodiversity Act, 2002, and the recently notified Biological Diversity (Access and Benefit Sharing) Regulation, 2025, promote access and benefit sharing while ensuring the growth of traditional industries. (Answer in 150 words) 10 Marks

Recently, Union ministry notified Biological Diversity regulation, 2025 * in allign with Nagoya protocol to strengthn ABS (Access & Benefit sharing) system in India

Recent Provisions

1. Result sharing with local population in case of non-IPR provisions.
2. Benefit sharing in case of commercialisation of IPR.
3. Benefit sharing in case of High value biological resources
4. Prior Informed consent (PIC)
5. Digital sequence information

How it Promote benefit sharing along with growth of traditional Industries

Candidates must not write on this margin

① Provides for PIC of native community for using their knowledge - boosting their traditional medicinal sharing.

② Benefit sharing in case of profit or commercialisation of traditional knowledge

③ Result sharing in case of Non-IPR use can provide for data to community to improve their traditional industry

Challenges persist

① Implementation remains challenging due to weak capacity

② Transboundary nature of traditional resources make harder for taking PIC.

③ Differentiating commercial v/s Academic research.

However, the recent regulations along with capacity building can ensure growth of traditional knowledge industry along with modern technologies.

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8. "आपदा जोखिम न्यूनीकरण की दिशा में तैयारी (तत्परता) पहला कदम है।" इस संदर्भ में, भारत में आपदा तैयारी और पूर्व चेतावनी प्रणालियों को सुदृढ़ बनाने में भारतीय मौसम विज्ञान विभाग (IMD) की भूमिका का आकलन कीजिए।
(उत्तर 150 शब्दों में दीजिए) 10 अंक

"Preparedness is the first step towards disaster risk reduction". In this context, assess the role of the Indian Meteorological Department (IMD) in strengthening disaster preparedness and early warning systems in India.
(Answer in 150 words) 10 Marks

India changed it responsive approach to pro-active approach after 2004 tsunami to strengthen disaster preparedness and reduce disaster risk reduction.

Role Of IMD

① Colour graded EWS during cyclones

- Red → act
- Orange → Be alert
- yellow → Be prepared
- Green → OK

② Micro Mapping of India over various disaster Eg: zoning for Earthquake and landslides

③ ~~Sp~~ sharing data with 23 + countries for collaborative actions and active diplomacy.

Candidates must not write on this margin

④ Using satellite to monitoring & surveillance of disasters like GLOF or cloud burst, etc.

⑤ Releases data & reports over predicting monsoon, rainfall - alerting dam operators to regulate water levels accordingly.

⑥ Provide predictions over Tsunamis - landfall and #intensity ~~to~~ - helps groundlevel authorities in preparedness.

⑦ Issues warning for heatwaves & coldwaves ~~to~~ - ~~act~~ for people to act accordingly.

The improved preparedness has reduced no. of deaths from thousands (2004 tsunami) to less than hundreds (cyclone asna) - the advance tech of IMD can be used to place India a global leader by extending data & info to other nations also.

Candidates must not write on this margin

9. भारत की लंबी समुद्री सीमा किस प्रकार आंतरिक सुरक्षा के लिए गंभीर चुनौतियाँ प्रस्तुत करती है? इन चुनौतियों से निपटने हेतु सुझाव प्रस्तुत कीजिए। (उत्तर 150 शब्दों में दीजिए) 10 अंक

How does the long maritime border of India present immense internal security challenges? Suggest measures to address these challenges. (Answer in 150 words) 10 Marks

Recent Survey by Home Ministry led to increased coastline length from 7,500 km to 11,000 + km due to use of newer technology — also ~~creat~~ calls for measures to improve internal security over maritime borders.

Internal security challenges

① Entry points for Terrorists
Eg : Taj Attack, 2008

② Organised crime
↳ Drug smuggling
↳ Human trafficking, etc.

③ Piracy in ~~the~~ sea → Harming trade & commerce.

④ Illegal fishing and ~~under~~reporting by foreign fishers may lead to social dissent in nation Eg : India - Srilanka fishers conflict

Candidates must not write on this margin

⑤ Dark Shipping i.e. surveillance by hiding ships over navigation radars.

Measure to address

① India has formulated coastal security scheme (2016)

② International collaboration ~~through~~ under treaties like UNCLOS

③ Multilateral Patrolling Eg: Recent QUAD initiative in Indo-Pacific

④ Bilateral military exercises to ensure co-operations.

⑤ Capacity building
Recent commissioning of indigenously developed INS NISTAR.

Maritime border security plays crucial role in internal security. Initiatives "Samudra Sahayata Dal" - involving local volunteers is a welcoming step.

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10. जम्मू और कश्मीर में आतंकवादी गतिविधियों में कमी के बावजूद, ओवर ग्राउंड वर्कर्स (OGW) और छद्म (परोक्षी) आतंकवादी समूह भारत की आंतरिक सुरक्षा के लिए गंभीर खतरा बने हुए हैं। इन खतरों को निष्क्रिय करने के लिए क्या रणनीतियाँ अपनाई जा सकती हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Despite decline in terrorist activities in Jammu and Kashmir, Over Ground Workers (OGWs) and proxy militant groups continue to pose a serious threat to India's internal security. What strategies can be adopted to neutralize these threats? (Answer in 150 words) 10 Marks

The recent Pahalgam attack in April 2025 again brought to rising OGW base and concerns over to address the challenge.

OGW support to Terrorist & Militancy

- Logistic support
  Eg: Arm smuggling
- Provides economic support
  Eg: Hawala System
- Ideological support
  Eg: spreading sympathy for militants
- Political support by influencing local political decisions
- Provides space for residence & stay
- Intelligence support
  Act as eye & ear for militants.

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Strategies to neutral these threats

① Bridging trust deficit between army and local population

Eg: Operation Sadbhavna.

② Involving youths in economic activities

Eg: Mumkin initiative & Parvaaz initiative

③ ~~Para~~ Perception building & dissemination of fake & malafide ~~&~~ intention

Eg: Nayi Roshni scheme.

④ Including community participation specially parents who are unknown of their child working as OGW.

⑤ Higher surveillance at borders and balancing hostile neighbours.

Neutralising OGW will have two benefits Firstly in countering internal security issues and secondly in ~~integrating~~ empowering J & K fully & economically.

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11. "अवसरंचना का विकास त्वरित और समावेशी आर्थिक विकास का एक प्रमुख चालक है"। दीर्घकालिक विकास को प्राप्त करने में अवसरंचना में निवेश के महत्व पर प्रकाश डालते हुए, अर्थव्यवस्था में अवसरंचना के नेतृत्व वाली वृद्धि को प्रोत्साहित करने में भारत की सफलताओं और विफलताओं पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

"Infrastructure development is a key driver of accelerated and inclusive economic growth". Highlighting the importance of infrastructure investment in achieving long-term growth, discuss India's successes and failures in stimulating infrastructure-led growth in the economy.

(Answer in 250 words) 15 Marks

India has created 60% of road network from 2014-2025 with respect to what it created between 1947-2013. — highlighting the shift ~~in~~ towards agressive infrastructure Development.

Importance of Infrastructure in Growth

① Boost to economy through improved connectivity Eg: Better access to markets.

② Boost to exports through port development (Sagarmala project) and reduced cost of ~~pro~~ logistics.

③ Improved productivity through better human resource development.

Eg: India ~~increa~~ Improved its employability from 46% to 54% (2013-24) — Economic survey (2025)

Candidates must not write on this margin

④ Establishing Supply Chain for better forward & backward linkages.

India's success in Stimulating growth

① India's ~~hold~~ target Digital Public Infrastructure through Aadhar - 1.4 Billion people.

② Boost to digitalisation of economy through NPCI's UPI

Eg: 50% of Global online payments happen in India (volume wise).

③ Improved Irrigation cover through "Per Drop More Crop" to 54%.

→ canal irrigation and Micro irrigation.

④ Just energy transition for sustainable economic growth

Eg: 46.8% energy from Renewables now.

⑤ Improved insurance penetration - contributing to health infrastructure

Eg: PM AB Vayoshree yojana.

Candidates must not write on this margin

Failures & limitations

① Only 2.5% road infrastructure is National highways in India.

② Low development of Freight corridors leading high freight prices of railways.

Eg: India - only 28% logistics through railways while USA - 67% and China - 70% +

③ Low & Human Resource Development

Eg: World Bank - 51% graduates unemployable in India.

④ Risk of Data breach & lapses in DPI

Eg: 80 crore addhar data was sold on dark web.

Way Forward
- Increased ~~use~~ capital expenditure (currently ₹ 11 lakh crore)
- Mission Mode Policies - timely completion (Bharatmala project)
- R&D expenditure (only 0.67% of GDP now)

To attain "Sabka Sath, Sabka Vikas" - India must need to improve on Infrastructure development

Candidates must not write on this margin

12. मौद्रिक नीति समिति (एमपीसी) की जिम्मेदारियाँ क्या हैं? एक स्थायी मुद्रास्फीति दर बनाए रखते हुए आर्थिक सुधार को व्यापक बनाने के लिए आरबीआई की मौद्रिक नीति पहल कितनी प्रभावी रही है?

(उत्तर 250 शब्दों में दीजिए) 15 अंक

What are the responsibilities of the Monetary Policy Committee (MPC)? How effective has the RBI's monetary policy initiatives been to broaden economic recovery whilst maintaining a sustainable inflation rate?

(Answer in 250 words) 15 Marks

Monetary Policy Committee was established in 2016 by ammending RBI Act, 1934 with aim to target inflation while balancing economic growth.

Responsibilities of MPC

① Inflation targetting

~~Target~~ Inflation range → 4% ± 2%.

② Fixing Repo rate and adjusting in response to market conditions.

③ ~~release Dat~~ Analyse market dynamics to accomodate economic growth.

④ In case, MPC fails to keep inflation within targetted range for 3 consequtive quarters → chairman must explain reasons to government.

Candidates must not write on this margin

Effectiveness of MPC initiatives

① Controlled food inflation

Eg: Recently food inflation hit < 3%.

increasing disposable income with public.

② Liquidity adjustment in market

by influencing Repo rate
Currently stands at 5.50%.

~~②~~

③ Quick recovery after covid-19 outbreak

unlike many developed economies.

④ Sustained consistent policy – improves trust among private players – leading to investment in economy.

⑤ Improved Transmission rates

through adopting external benchmark mechanism

⑥ Improved Banks financials

Eg: NPA – 0.6% Capital ratio > 16%.

Candidates must not write on this margin

⑦ Exchange rate management

Recent depreciation of ₹ to equalise its value — boosting exports.

⑧ Adjusting with International rates & changes.

Eg: ~~Eos~~ Monetary Policy influenced through Fed rates (USA).

⑨ Limitations of Monetary Policy initiatives

① Low control over supply side inflation as they are caused due to structural barriers

② High preference over Gold economy makes RBI's policies less effective in circulating money in banking channels.

③ Still low transmission rates by banks recently RBI governor flagged concerns.

RBI's monetary policy must aim to formalise and digitalise ~~and~~ economy to improve effectiveness and boost economic growth.

Candidates must not write on this margin

13. भारत में खाद्य प्रसंस्करण उद्योग के अवसर और चुनौतियाँ क्या हैं? अपार संभावनाओं के बावजूद इस उद्योग में कुल निजी निवेश कम क्यों रहा है? उपाय सुझाएँ। (उत्तर 250 शब्दों में दीजिए) 15 अंक

What are the opportunities and challenges of the food processing industry in India? Why has the overall private investment remained low in the industry despite immense potential? Suggest measures. (Answer in 250 words) 15 Marks

India's Food Processing Industry (FPI) crossed $12 Billion exports in 2024-25 — showcasing high potential of growth.

Opportunities of FPI in India

1. High abundance of Human resource for cheap production
   Eg: It employs 12% of total organised workforce.

2. create linkage between agriculture & manufacturing.

3. High potential to absorb disguised employment of Agriculture
   Eg: over 46% population dependent on Agriculture

4. Rural industrialisation & nutritional security by improving shelf life.

Candidates must not write on this margin

Challenges of FPI

① Low Private Base in India

→ lower private participation

② Lack of credit availability in market due to low value collateral.

③ Forward & backward linkage issues due to low connectivity and logistics.

④ Lack of skilled labour force

Eg: 18% of ~~unorganised~~ informal workforce employed by FPI.

⑤ Informal in nature

Majority of FPI are small scale industries and not registered.

Reasons behind low Private Investment

① Stringent rules & regulation

Eg: 100,000+ clauses for single industry in India.

Candidates must not write on this margin

② Lack of land availability to establish facilities
→ High land prices

③ Lack of Government support or Policy support towards FPI.
→ no national policy framework.

④ Lack of credit availability at subsidised interest rates of ~~low~~ poor technology available in market

Measures to be taken

① Setting up of FPOs for FPI growth
Eg: Honourable Home Minister suggested same.

② Easy subsidised credit facility
Eg: PMFME — for registration and policy support — ₹11,500 crore dispersed.

③ Supporting farmers through PM SAMPADA yojana

To attain nutritional security under SDG-2 "zero Hunger" and "Right to dignity of life"
→ FPI becomes important

Candidates must not write on this margin

14. सूक्ष्म-सिंचाई प्रणालियाँ भारतीय कृषि में क्रांति ला सकती हैं, किन्तु इसे अपनाना सीमित है। इस संदर्भ में, चर्चा कीजिए कि सूक्ष्म-सिंचाई सतत जल प्रबंधन में कैसे सहयता कर सकती है। इसके व्यापक रूप से अपनाए जाने में क्या बाधाएँ हैं? उन्हें दूर करने के उपाय सुझाएं। (उत्तर 250 शब्दों में दीजिए) 15 अंक

Micro-irrigation systems can revolutionize Indian agriculture, but adoption remains limited. In this context, discuss how micro-irrigation can help in sustainable water management. What are the barriers to its widespread adoption? Suggest measures to overcome them.
(Answer in 250 words) 15 Marks

Only 8% of cultivated area is under Micro-irrigation systems against 81% in Israel & 67% in USA — showcasing limited success.

Micro irrigation & sustainable water Manggemt

① ~~Impro~~ Reduced water demand for irrigation
NITI aayog → Micro irrigation reduces 30% of water demand for irrigation.

② Recharging groundwater tables
due to decreased need for irrigation

③ Prevent salinisation of water bodies
due to run-off water from over irrigation

④ Reduce soil erosion which contributes it holding rainwater and nutrient

Candidates must not write on this margin

recharge.

Barriers to widespread adoption

① High, skewed irrigation subsidy
- 70% - Ground water
- 18% - canal
- 12% - Micro-irrigation

② Unscientific agricultural practices leading to unawareness and preference over other irrigation methods.

③ Free electricity to farmers and rights on groundwater based on land discourage farmers to shift to micro-irrigation

④ High setup cost initially further discourage farmers

⑤ More productive on large scale farming while 87% farmers in India are marginal & small - making it economically unfeasible.

Candidates must not write on this margin

Measures to improve share of Micro-irrigation

(1) Rationalising irrigation subsidy to reduce groundwater extraction

(2) Pro-active govt. policy and ~~one~~ subsidised credit availability
Eg: PM Krishi Sinchayi Yojana.

(3) Training & awareness of farmers to highlight benefits of Micro-irrigation

(4) Adopting international collaboration
Eg: Israel Model to boost micro-irrigation

(5) Increasing expenditure on R&D to reduce ~~#~~ initial cost of such mechanisms.

According to NITI aayog - 2/3 cultivated area is drought prone — micro-irrigation can address such problems along with ensuring high agricultural productivity & Doubling farmers income (Ashok Dalwai committee)

Candidates must not write on this margin

15. 'मेजोराना 1 और विलो जैसे उन्नत चिप के विकास के साथ, क्वांटम कंप्यूटर अब केवल एक सिद्धांत नहीं, बल्कि वास्तविकता बन चुके हैं।' क्वांटम कंप्यूटिंग के सिद्धांत क्या हैं? भारत में क्वांटम प्रौद्योगिकियों के विस्तार (वर्धन) में राष्ट्रीय क्वांटम मिशन कैसे सहायक है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

'With the development of advanced chips like Majorana 1 and Willow, quantum computers are no longer a theory but a reality'. What are the principles of quantum computing? How does the National Quantum Mission help in scaling up quantum technologies in India?
(Answer in 250 words) 15 Marks

Recently, China unveiled its first quantum chip along with Google's willow, Microsoft Majorana-1 and Amazon's Ocelot — showing quantum computer changing reality.

Principles of Quantum Computing

Qubits

Basic foundational unit of Quantum computers — like bits in binary computing.

Entanglement

Invisible connection between two objects — changing one will have similar effect on the other.

Superposition

The probability of existing simultaneously in multiple state

Candidates must not write on this margin

National Quantum Mission

① ₹ 6000 crores allocated

② Aims for Quantum satellite to boost India's space programme.
→ Only China has succesfully launched MICIUS

③ Setting up 4 T-Hubs (Thematic)

(a) IIT - Madras — Quantum key Distribution
(b) IIT - Bombay — Quantum sensing & Meterology
(c) IIT - Delhi — Quantum Devices
(d) IISc - Banglore — Quantum computing

④ Aims to build 2000 km long Quantum key Distribution (QKD) in India.

⑤ Aims to boost R & D and private participation in Quantum computing.

⑥ Development of Atomic clock by IIT - Delhi

Candidates must not write on this margin

for space surveillance of intelligence.

Limitations of Quantum Computing

① Hardware Update

as Quantum relates to Photons – it is hard to update

② Quantum concept on Non-amplification unlike traditional computing.

③ Pollution may distort signals from satellites.

④ Susceptible to Hackers as they may not decrypt it – but by constant interruption – make ~~reciever~~ reciever unable to open as Qubits will break into bits.

However, Quantum computing benefits ~~to~~ outways its limitations. India must also focus on "Post Quantum Computing" – concept emerging in developed nations.

Candidates must not write on this margin

16. कार्य सिद्धांत, पहुँच, विस्तार क्षमता और सीमाओं के संदर्भ में फाइबर ऑप्टिक संचार के साथ उपग्रह संचार की तुलना कीजिए एवं अंतर बताइए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

Compare and contrast satellite communication with fiber optic communication in terms of working principles, accessibility, scalability, and limitations.

(Answer in 250 words) 15 Marks

Recently, GIOI allowed SpaceX to provide satellite based communication services in India.

Satellite Communication & Fibre Optic communication

① Working Principles

(A) Satellite communication uses

→ LEO satellites for providing services

→ Thousands of satellites are used to provide Internet

(B) Optic Fibre

→ Copper wires are used to provide services

→ India added 42 lakh km ~~route~~ optic fibre route in last 10 years ← PMO

Candidates must not write on this margin

② Accessibility

(a) Satellite based communication are more accessible and can reach remotest areas – however, speed & latency may get impacted.

(b) Optic fibre has limited accessibility to remote areas.

③ Scalability

(a) Initially high cost – but cover larger area and economies of scale in long run

→ Also can be helpful in Disaster struck regions

(b) Optic fibre cables ~~have~~ also high scalability – however time consuming & high capex.

→ It may get impacted due to disasters or times of war.

Candidates must not write on this margin

④ Limitations

(a) Satellite based

- Increased aerosols may disrupt connectivity
- Space LEO saturation
- Inter-operability among internet service providers
- Space debris
- Inter-Satellite beaming

(b) Optic fibre cables

- Low accessibility in remotest areas
- Susceptible to damage by Hazards, accidents or adversaries
- Need copper mining - which is environmentally degrading

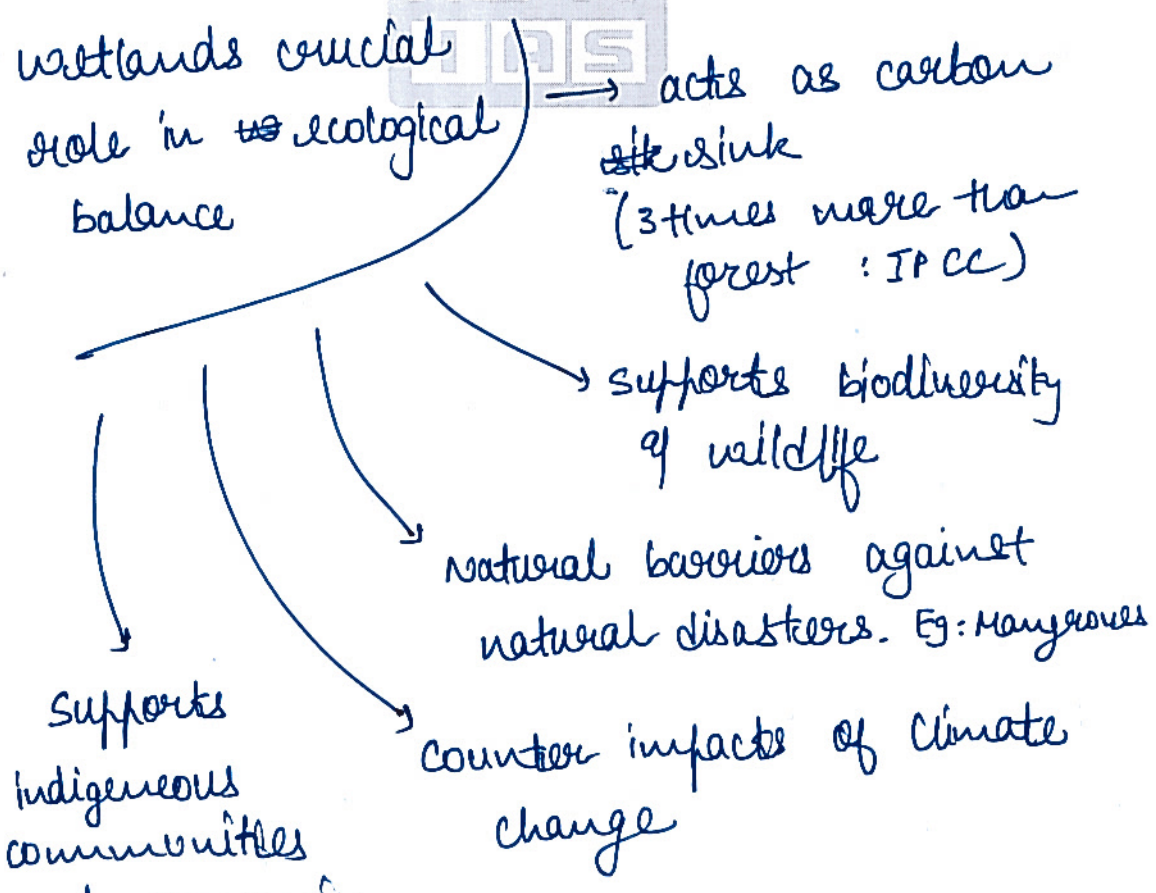
Thus, both technologies have pros & cons. India must adopt a balanced strategy to increase communication cover and balance growth of both technologies

Candidates must not write on this margin

17. आर्द्रभूमि पारिस्थितिक संतुलन बनाए रखने में महत्वपूर्ण भूमिका निभाती हैं, फिर भी उन्हें कई मानवजनित और जलवायु संबंधी खतरों का सामना करना पड़ता है। चर्चा कीजिए। आर्द्रभूमि के संरक्षण एवं संवर्धन के लिए भारत सरकार द्वारा क्या कदम उठाए गए हैं? (उत्तर 250 शब्दों में दीजिए) 15 अंक

Wetlands play a crucial role in maintaining ecological balance, yet they face several anthropogenic and climate-related threats. Discuss. What steps have been undertaken by the Government of India to conserve and promote wetlands? (Answer in 250 words) 15 Marks

Ramsar convention, 1972 defines wetlands as areas of marshes, fens, peat lands which are partially or fully submerged, natural or artificial, whole year or some part and have max. 6m depth during low tides.



Candidates must not write on this margin

Climate - related threats

① Global warming → increased evaporation Eg: reduced extent of vembanad lake.

② Rise in Sea level → Salinisation and disturbing natural cycle
Eg: Chilika lake

③ Natural Disasters → increased frequency
Eg: Sunderbans wetland due to increased cyclones.

Anthropogenic ~~&~~ Threats

① Deforestation → leading to loss of wetlands Eg: Mangroves lost in sunderbans

② Eutrophication → killing biodiversity and ~~sea~~ wetland productivity
Eg: Montreaux record flagged Koladeru wetlands

③ Encroachment → reduce extent of wetlands. Eg: Mumbai saltpans.

Candidates must not write on this margin

~~5~~

④ Land degradation also impacts productivity of wetlands

Eg: 30% land degraded in India : UNCD

Steps taken by GOI

① MISHTI → to improve mangrove density to protect Coastal wetlands

② Montreaux Record → under Ramsar convention ~~flags~~ maintains list and help in protecting vulnerable wetlands.

③ & National Coastal zone Regulation framework provides for EIA for projects to protect wetlands

④ Increased wetland protected under Ramsar Convention to 9%.

To attain goals under Paris convention and control climate change — wetlands play significant role; not only ~~in~~ environmentally but economically too.

Candidates must not write on this margin

18. अनुचित भीड़ नियंत्रण तंत्र के कारण होने वाली भगदड़, जो कि रोकी जा सकती है, भारत में लगातार लोगों की जान ले रही है। ऐसी आपदाओं के अंतर्निहित कारणों पर चर्चा कीजिए। कुशल भीड़ प्रबंधन के लिए कौन-से संस्थागत और प्रौद्योगिकीय उपाय किए जा सकते हैं? (उत्तर 250 शब्दों में दीजिए) 15 अंक

In spite of being preventable, stampedes due to improper crowd control mechanisms continue to claim lives in India. Discuss the underlying causes of such disasters. What institutional and technological measures can be taken for efficient crowd management?

(Answer in 250 words) 15 Marks

Recent Stampede in Kumbh Mela led to death of 100+ lives — showing rising incidences and highlighting pro-active approach for crowd ~~mgmt~~ management

Causes of Such Disasters

① Poor infrastructure facility

May lead to suffocation and lead to stampede

Eg: Haridwar stampede, 2025

② Anti-social elements

→ Eg: Pickpocketers or rumour mongers. spreading rumours.

③ Natural Hazard or Disaster

May provoke stampede due to fear and ~~of~~ increased vulnerability

Candidates must not write on this margin

④ Poor Management and lack of preparedness

Eg: Unexpected crowding

Institutional Measures

① Framing National level guidelines for organising events of crowd ~~mage~~ management

② Proper infrastructure set-up

Eg: Corridors, multiple entries & exit.

③ Proper clearance by Official authorities to organise such large scale events.

④ Training of Disaster response force for crowd management and Stampede crisis.

⑤ Engraving stampede protection guidelines in curriculum (or) similar line for earthquakes, etc.

Candidates must not write on this margin

Technological measures

① Integrating AI for crowd control

Eg: China's Metro stations closed entry in case overcrowding in stations

② Surveillance through CCTVs for any anti-social element.

③ Proper co-ordination between on ground workers through Radio devices, etc.

④ May create online portals for entry passes online to restrict ~~inf~~ indefinite crowd and to anticipate crowd intensity.

⑤ Digital campaigns to ~~restrict~~ discourage people in participating in such crowding activities.

Holistic, community-centric, and technologically driven approach is needed ~~for~~ for crowd control management.

Candidates must not write on this margin

19. भारतीय समाज के तेजी से डिजिटलीकरण के साथ, डिजिटल गिरफ्तारी जैसे साइबर अपराध में भी वृद्धि हुई है। साइबर सुरक्षा के प्रमुख तत्त्वों पर प्रकाश डालते हुए, भारत की साइबर सुरक्षा अवसंरचना को सुदृढ़ करने के लिए आवश्यक उपायों पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

With the rapid digitalization of Indian society, cyber crimes like digital arrest have also increased. Highlighting the major elements of cybersecurity, Discuss the measures needed to strengthen India's cybersecurity infrastructure. (Answer in 250 words) 15 Marks

According to ~~NCRB~~ I4C, over ₹1.5 lakh crore were lost due to cyber crimes like digital arrest in 2024.

Major ~~elements~~ threats of Cybersecurity

① Cyber terrorism
Using cyber space to spread fear among people Eg: Live telecast of terrorist attacks by terror groups.

② Cyber war Eg: Israel-Gaza perception building
~~Eg:~~ Using digital space as war theatre.

③ Cyber espionage: Unauthorised use of critical info of a nation

④ Cyber crimes → Digital arrest
→ Juice Jacking
→ Phishing
→ Salami Attack, etc

Candidates must not write on this margin

Major elements of Cybersecurity

① Application security

→ Protecting data ~~from~~ stored in apps like whatsapp

② Network security

Provide secured network connectivity

Eg: Free wifi at railway stations are often alleged to be unsecured.

③ Disaster recovery

i.e. recovery of data in case of unintended loss.

④ User control & safety

Ensuring control ~~of~~ over data by ~~to~~ its owner and not anyone else.

⑤ Financial security

Cybersecurity must ensure security for financial data and institutions due to increasing digital transactions.

Eg: security of NPCI database

Candidates must not write on this margin

Measures to needed to strengthen infra

① Creating a single umbrella institution

Currently multiple institutions — leads to overlapping & duplication

② Rapid evolution of cybersecurity infra due to rapid evolvement of technology by increasing R & D expenditure

③ Filling vacancies in such agencies and reduce burden for efficient working.

④ Education and Training of citizens specially illiterate digitally

(Over 62% population digitally illiterate - NITI aayog)

Steps taken by Govt.
- → Cyber crime reporting helpline - 1930
- → Defence cyber agency
- → I4C setup (Indian Cybercrime coordination centre)
- → CERT-Fin

Rise of Cyber space ~~as the~~ can create major threats as observed during operation Sindoor, thus international collaboration, active R&D and training workforce becomes imperative.

Candidates must not write on this margin

20. अवैध आव्रजन भारत के लोकतंत्र, संप्रभुता और आंतरिक सुरक्षा के लिए खतरा उत्पन्न करता है। इस कथन के आलोक में, चर्चा कीजिए कि हाल ही में पारित आव्रजन और विदेशी अधिनियम, 2025 अवैध आव्रजन के मुद्दे से प्रभावी ढंग से निपटने में कैसे सहायता करता है। इस अधिनियम से संबंधित संवैधानिक और संभावित मानवाधिकार संबंधी चुनौतियाँ क्या हैं?

(उत्तर 250 शब्दों में दीजिए) 15 अंक

Illegal immigration poses a threat to India's democracy, sovereignty, and internal security. In light of this statement, discuss how the recently passed Immigration and Foreigners Act, 2025, helps in effectively addressing the issue of illegal immigration. What are the constitutional and potential human rights challenges associated with the Act? (Answer in 250 words) 15 Marks

The rise of insurgency in North-East is often associated with illegal migration. To provide for systematic solution — Govt passed Immigration & Foreigners Act, 2025.

Provisions of ~~In~~ passed Act

1. ~~In~~ Increased centre's role in appointing state immigrants officials
2. Mandating registeration of immigrants at entry point.
3. Tracking of movement of Foreigners within nation through ~~Panchayats~~ education institution and ~~Municipals~~. hospitals
4. Making immigrant officers decisions binding and final

Candidates must not write on this margin

⑤ Specifically provides for clear guidelines for denial of entry and deportation.

How it address the issue

① Clarity over grounds for denial or deportation — reduce arbitrary powers.

② Stringent implementation of rules to reduce loopholes

③ Updated & ingrained newer provisions of colonial acts

④ Empower immigrant officers to take immediate actions.

⑤ ~~Poor~~ Provisions for registeration and tracking ~~co~~ helps in data driven actions

Potential constitutional violations

① Article 21 — Right to life & Privacy available to foreigners also

Candidates must not write on this margin

② Article 14 – equality of law as it differentiates between citizens & foreigners

③ Right to go to court as orders by immigrant officers are final

Potential Human Rights violations

① Ignores provisions of natural justice

② Restrictions on freedom of movement & residence

③ Privacy & ethical concerns.

④ Increased discretionary and arbitary power with authority susceptible to misuse & abuse

The Immigration & foreigners act, 2025 was brought to end colonial laws & legacy. However its implementation must ensure that it ends exploitative nature of state also.

Space for Rough Work

Space for Rough Work

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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।