NEXT IAS

anubhav-2025

(To be filled by candidate)

TEST CODE : ANV2503 **Test Date : 03/08/2025**

Name of Candidate: Anan Jhanwar Mobile No. [redacted]

Roll No. : ANM25900 1102 Start Time ..... End Time.....

Date of Examination: 3/8/25 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, 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, 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. आपके विचार में भारत के कर ढाँचे में सुधार के हालिया प्रस्ताव भारत के कर उत्प्लावकता और कर आधार को बेहतर बनाने में किस सीमा तक सहायक होंगे? (उत्तर 150 शब्दों में दीजिए) 10 अंक

How far do you think the recent proposals to reform India's tax structure will help in improving India's tax buoyancy and base? (Answer in 150 words) 10 marks

In the recent budget, Finance minister announced ~~refor~~ tax reforms, ~~ine~~ increasing exemptable income upto ₹12 lakhs per annum.

Recent Proposals
- Upto ₹12 lakh income untaxable for service class
- ₹50,000 deductions
- Rationalisation of Tax slabs

Improving Tax Buoyancy and base

(1) Better reporting of income and filing ITR
→ only 7 crore people file ITR in India

(2) Reduction in Tax avoidance and evasion by micro & small enterprises Owners

Candidates must not write on this margin

③ ~~Indirect~~ Improved Tax collection in long-run
→ Due to rationalisation of slabs

④ Simplifying Tax laws will encourage citizens in reporting their income

⑤ ~~Formalisation of economy~~
→ Improved ITR filing

Economic development & growth

Better Tax revenue collection

Digitisation and boost to economy

Formalisation of Economy

Challenges Persist
- → ~~High~~ Huge black economy existing in India
- → Tax complexity
- → High no. of deductions & provisions leading to Tax avoidance.

India must reform its tax laws ~~in~~ on the similar line of corporate tax reforms which led to double tax revenue to ₹10 lakh crore within 8 years of reforms.

Candidates must not write on this margin

2. आर्थिक राष्ट्रवाद और संरक्षणवाद की बढ़ती प्रवृत्तियाँ भारत की वैश्विक व्यापार प्रतिस्पर्धात्मकता को कैसे प्रभावित करती हैं? इन चुनौतियों से निपटने के लिए भारत ने हाल ही में क्या उपाय किए हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक

How do the rising trends of economic nationalism and protectionism affect India's global trade competitiveness? What recent measures has India taken to navigate these challenges? (Answer in 150 words) 10 marks

The comeback of Donald Trump as US president has triggered Tariff wars, Economic Protectionism and Nationalism all over the world.

Impact on India's Trade Competitiveness

① Increased tariffs on Indian goods

Eg: US ~~&~~ put 25% Tariff on India

② May need to diverse our export basket. ~~Other~~

Eg: Major dependence on US and EU for exports

③ Rise in Market prices of Indian goods may impact adversely to Indian businesses

④ Major employment generating sectors like textiles, Chemicals, etc. will impacted more

Candidates must not write on this margin

Measures taken by India

(1) Accelerated talks with many countries for FTA (free trade agreements)

→ Recent India - UK FTA signed

→ India - EU FTA to be signed by September

→ India - EFTA trade deal ~~dit~~ last year

(2) Improved Port connectivity

→ To reduce logistics cost

→ To improve price competitiveness

(3) Diversifying export baskets

→ PM Modi recent visit to Namibia, Argentina, Ghana — boos to trade co-operation

(4) Pro-active Diplomacy with USA to solve our grievances

In the rising trend of De-Globalisation, India must focus on exports as well as domestic demand as our GDP is driven 70% by domestic demand unlike USA or China.

Candidates must not write on this margin

3. कृषि उत्पादकता में सुधार लाने और कृषि के पर्यावरणीय प्रभाव को न्यूनतम करने में एकीकृत कृषि प्रणाली (IFM) की भूमिका का परीक्षण कीजिए। (उत्तर 150 शब्दों में दीजिए) 10 अंक

Examine the role of Integrated Farming System (IFM) in improving agricultural productivity and minimizing the environmental impact of agriculture. (Answer in 150 words) 10 marks

Integrated Farming System refers to agricultural system which is integrated with animal husbandry, or fisheries or bee keeping or any other allied services.

How it improves productivity

① Low dependence on market inputs reduce cost

Eg: Cowdung can be used instead of Artificial fertilisers.

② Inter-stimulus of different species

Eg: ~~Bees kept~~ Bees will improve pollination while floriculture will improve honey quality.

③ ~~Better utl~~ Economies of Scale can be achieved — improving bargaining power of farmer

④ Increased soil fertility as it use organic inputs in farming

Candidates must not write on this margin

Minimising Environmental Impact

① Protecting soil erosion

Eg: Agroforestry along with farming

② Carbon Capture and Nitrogenisation of soil

Eg: IFM often involve multi-cropping and inter-cropping

③ Reuse and better utilisation of resources

Eg: water used Aquaponics or fisheries can be reused for irrigation

④ Challenges to IFM

① Initially productivity may dip

② High initial cost - discourage marginal and small farmers (90% of Indian farmers)

③ Needs large area of land ~~and area~~ (Avg size in India - 2-5 acres)

~~⑤~~

④ Lack of awareness and R&D.

IFM can ensure India's nutritional security as well as help in Doubling Farmers Income

Candidates must not write on this margin

4. हाल ही के वर्षों में, भारतीय कृषि बेहतर उत्पादकता और किसानों की आय में सुधार की दिशा में एक परिवर्तन का साक्षी रही है। कृषि को अधिक लाभकारी और संधारणीय बनाने के लिए सरकार द्वारा कौन-से संस्थागत और संरचनात्मक सुधार किए गए हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक

In recent years, Indian agriculture has been witnessing a transformation towards better productivity and improved farmer incomes. What institutional and structural reforms have been undertaken by the Government to make agriculture more rewarding and sustainable? (Answer in 150 words) 10 marks

Indian agriculture is increasing with 4.5% - 5% growth rate p.a. which is one of the highest in our history.

Institutional and Structural Reforms

① Better Targetted Subsidies through DBT — eliminating leakages

Eg: Govt report → ₹3.5 lakh saved through DBT

② Standardisation of fertilisers - DAP

Eg: Nutrient based subsidies
: "Bharat" Brand

③ Integrating modern technology in Agriculture

→ Using Nano-Urea and Nano DAP can improve productivity by 35-40% while farmer's income may increase by 60%

Candidates must not write on this margin

④ Irrigation area increased to 54% from 45% (2013) under "Per drop more crop" scheme

⑤ Better credit schemes and insurance penetration.
→ PM-Fasal bima yojana provides for post harvest losses

⑥ Income through solar energy generation under PM-KUSUM
- Free electricity to farmers
- Boost to renewable energy (target - 10GW)
- Side income by selling surplus unit

⑦ Improving drip irrigation and micro-irrigation
→ improves productivity and prevent soil salinity.

⑧ Digitising markets like 1400+ mandis added on e-NAM in 2024
→ Giving more market access

Indian agriculture contributes to 19% of GDP and 45% employment — thus needs major reforms to attain "sabka vikas"

Candidates must not write on this margin

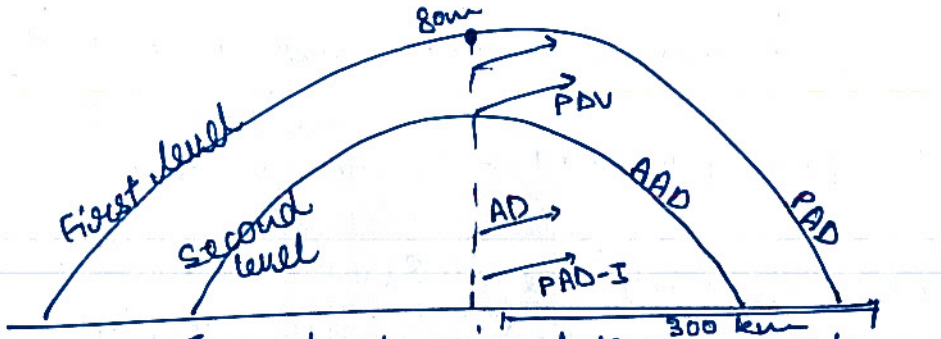
5. वायु रक्षा प्रणालियाँ कैसे कार्य करती हैं? भारत के पास वर्तमान में कौन-कौन-सी विभिन्न वायु रक्षा प्रणालियाँ हैं?

(उत्तर 150 शब्दों में दीजिए) 10 अंक

How do Air Defence systems work? What are the various air-defense systems that India currently possesses?

(Answer in 150 words) 10 marks

Recent, India – Pakistan ~~&~~ military face-off after operation Sindoor – shows the importance & need for effective air-defense systems.



Two level air defence system of India.

Mechanism Of Air Defence System

① Radars detect any incoming threat through electromagnetic or infrared waves

② Signal to computer system to calculate speed, co-ordinates, etc.

③ ~~Hits~~ Counter-Missile launched by first level using Prithvi Defence vehicle

Candidates must not write on this margin

④ In case it misses of fails to intercept, second level activates

⑤ Prithvi Air Defence and Advanced Defence intercept threat to destroy it in air.

Various Air defence Systems

① Short Range Ground to Air

(a) QRSAM → Quick response surface to air missile

(b) AKASH → Can intercept multiple threats

② Medium Range Ground to Air

(a) BARAK → with support of Israel

(b) MRSAM → Mid Range Surface to Air Missile

③ Long Range Ground to Air

(a) S-400 → Bought from Russia, can intercept 64 threats at a time

India is developing more S-400 triumf systems and simultaneously developing indigenised systems like Prithvi to reduce foreign dependence

Candidates must not write on this margin

6. आनुवंशिक विकारों के उपचार में आरएनए संपादन (एडिटिंग) की क्षमता पर चर्चा कीजिए। डीएनए संपादन की तुलना में इसके क्या लाभ हैं? (उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss the potential of RNA editing in treating genetic disorders. What are its advantages over DNA editing? (Answer in 150 words) 10 marks

RNA editing is the new technology which edits ~~RNA~~ microRNA to solve genetic disorders.

Potential of RNA editing

- Cancer treatment like CAR-T cell
- mRNA vaccines
  - quick development for multiple variations
- Precision guided ~~Therapeutics~~ Therapeutics
- Better efficiency in CRISPR / Cas-9
- Climate resilient seeds of Agriculture
- Prevention of passing of Genetic disorders to next generation

Advantages over DNA editing

① RNA is specific to some genes preventing its engagement

Candidates must not write on this margin

with untargetted genes.

② Temporary changes — chance for rectification in case of error

③ Body kills RNA once used unlike DNA

④ mRNA based vaccines can be evolved in very short time to make effective against different variations.

Thus RNA editing have huge potential to combat rising health issues amid climate change and to attain SDG-3 : Health sustainability.

Candidates must not write on this margin

7. अनियोजित विकास और बुनियादी ढाँचे के ढहने के कारण नगरीय क्षेत्र आपदाओं के प्रति अधिक सुभेद्य होते हैं। चर्चा कीजिए। ऐसी आपदाओं के प्रति नगरीय समुत्थानशीलता बढ़ाने के लिए आप कौन-सी रणनीतियाँ प्रस्तावित करते हैं?

(उत्तर 150 शब्दों में दीजिए) 10 अंक

Urban areas are more vulnerable to disasters due to unplanned growth and infrastructure collapses. Discuss. What strategies do you recommend to enhance urban resilience to such disasters? (Answer in 150 words) 10 marks

Urban areas often due to high growth rate leads to unplanned settlements ~~to~~ making them prone to disasters.

Reasons behind ~~the~~ infrastructural collapse

1. Overburdened infrastructure
2. High population Density
3. Administration failure to main Infrastructure resilience
4. creation of urban heat islands & Heat domes amid climate change
5. Untreated sewage release in water bodies
6. Encroachment of water bodies due to ~~to~~ lack of residential area

Candidates must not write on this margin

Strategies to enhance urban resilience

① National urban planning framework
to provide macro guidelines

② Developing Rapid Transit systems
to decongest urban areas
Eg: Namo Metro

③ Revamping water bodies
Delhi's Plan to revamp 100+ lakes

④ Modern technology integrated buildings
Eg: Rooftop gardens to improve green infrastructure

⑤ Improving sewage Treatment Mechanism
72% ~~was~~ sewage is released untreated in India

~~For Viks~~ NITI aayog — 40% citizens will be living in urban areas by 2030
- urgent need to enhance urban resilience for viksit Bharat

Candidates must not write on this margin

8. स्वच्छ भारत मिशन की सफलता के लिए इसकी महत्ता के बावजूद, भारत में ठोस अपशिष्ट प्रबंधन अब भी उपेष्टतम (Sub-optimal) स्तर पर है। इस संदर्भ में, प्रभावी ठोस अपशिष्ट प्रबंधन हेतु दीर्घकालिक प्रौद्योगिकीय और संस्थागत समाधान सुझाइए। (उत्तर 150 शब्दों में दीजिए) 10 अंक

Despite its criticality for the success of the Swachha Bharat Mission, solid waste management in India remains at a sub-optimal level. In this context, suggest long-term technological and institutional solutions towards effective solid-waste management.

(Answer in 150 words) 10 marks

According to Lancet, only 28% of sewage & solid waste is treated in India.

Reasons for sub-optimal efficiency

1. Dominance of informal sector in waste collection
2. Lack of Sewage Treatment Plants (STP) and solid waste Plants (SWP) infra development
3. Unawareness among people
4. Political and Administrative apathy at Local level
5. $ lack of funds at Rural areas and rampant corruption

Candidates must not write on this margin

Long-term solutions

① Formalisation of waste sector

Eg: Car collectors of waste "Kachra Gaadi"

② Establishment of efficient STPs & SWPs

③ Adding waste management in education curriculum

④ Recycling - reusing ~~to raise~~ waste to raise funds for viability gap funding.

Proper effective solid-waste ~~mag~~ management can enhance healthcare, standard of living, swacchata (cleanliness) and circular economy empowering vulnerables.

Candidates must not write on this margin

9. "सोशल मीडिया आधुनिक युद्ध में एक नए आयाम के रूप में उभरा है, जो अभिभाष्यों को आकार दे रहा है, धारणाओं को प्रभावित कर रहा है तथा राष्ट्रीय सुरक्षा को प्रभावित कर रहा है।" इस संदर्भ में, समकालीन संघर्षों में सोशल मीडिया की भूमिका का विश्लेषण कीजिए। (उत्तर 150 शब्दों में दीजिए) 10 अंक

"Social media has emerged as a new frontier in modern warfare, shaping narratives, influencing perceptions, and impacting national security". In this context, analyse the role of social media in contemporary conflicts. (Answer in 150 words) 10 marks

During operation Sindoor, various fake news, images and speeches were circulated to influence perspectives & narratives through social media

Role of Social Media — new theatre

1. May lead to public outcry over misinformation
2. Social media activism based on malafide intentions can fuel communal tensions.
3. Social media warfare to create global narrative & global support

As seen by Israel in Gaza.

Candidates must not write on this margin

④ Social Media - as medium of surveillance for Govt.

⑤ Awareness campaigns and authentic info sharing

⑥ ~~To spread~~ used as medium to collect~~s~~ information

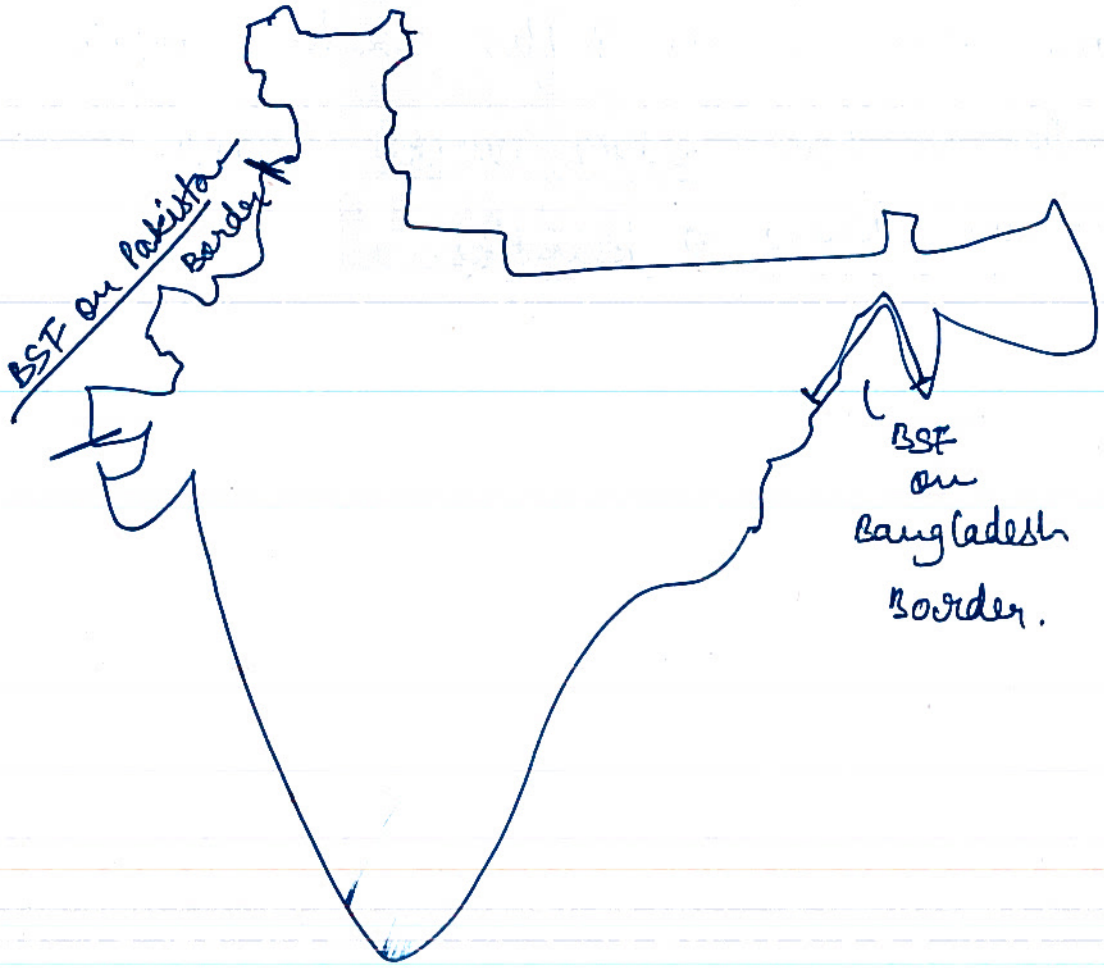
Rising social media influence in warfare is like a double edged sword - having its own issues & benefits.

Candidates must not write on this margin

10. सीमा सुरक्षा बल (BSF) ने अपने क्षेत्राधिकार और रणनीतिक महत्त्व, दोनों में ही सीमा प्रबंधन और आंतरिक सुरक्षा ढाँचे के संदर्भ में उल्लेखनीय विकास किया है। BSF की भूमिका और अधिदेश की व्याख्या कीजिए। सीमावर्ती राज्यों में कार्य करते समय बीएसएफ को किन समस्याओं का सामना करना पड़ता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक

The Border Security Force (BSF) has evolved significantly in its jurisdiction as well as its strategic importance in border management and the internal security framework. Explain the role and mandate of BSF. What are the issues BSF faces while operating in the border States? (Answer in 150 words) 10 marks

Border security Force Administer under Ministry of Defence to regulate and Patrol at International Boarders



Challenges faced by BSF

① Multiple boarders

Candidates must not write on this margin

② ~~Feel~~ Perceived feeling that unequal treatment ~~is~~ in comparison to Indian army.

③ Lack of holiday access and workload burden

BSF plays a crucial role in border mgt. — BSF Prahari app and filling vacancies can help in filling gaps.

Candidates must not write on this margin

11. भारत की संवृद्धि गाथा असमानता और मध्यम आय-जाल की दीर्घस्थायी चुनौतियों से प्रभावित है। चर्चा कीजिए। मध्यम आय के जाल से बाहर निकलने और समावेशी एवं सतत् आर्थिक संवृद्धि सुनिश्चित करने के लिए भारत को किन उपायों का पालन करना चाहिए, इस पर प्रकाश डालिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

India's growth story is marred by persistent challenges of inequality and the middle-income -trap. Discuss. Highlight the approaches India should follow to escape the middle-income trap and ensure inclusive and sustainable economic growth.

(Answer in 250 words) 15 marks

According Oxfam report, 2023, Top 5% of Indians own 60% of nations wealth — highlighting persistent challenges of Inequality and Middle Income Trap.

Middle Income Trap refers to a cycle where ~~nation fail repeatedly~~ middle income group repeatedly fails to enter Higher income bracket due to structural barriers.

Challenges of inequality

① High dependence on Agriculture
45% workforce employed in agriculture

② Low growth of industrial and manufacturing sector in India (only 16% of GDP)

③ Lack of rural industrialisation in India

Candidates must not write on this margin

Approach to ensure Inclusivity and sustainable growth

① Capacity - building (Amartya Sen)

→ by developing human resource quality and their employability

(World Bank → 51% Graduates Unemployable)

② Market Demand based education & training

→ PM Vishwakarma scheme has trained 23 lakh artisans

③ Boosting industrialisation to absorb excess workforce in agriculture :

→ Reforming labour laws

→ Reducing unnecessary and outdated provisions & conditions on industries

(Eg: ₹ 100,000+ compliances in India for a normal industry (factory))

④ Boosting MSMEs growth and increasing their growth from Micro enterprises to Small and Medium

Candidates must not write on this margin

⑤ Boosting Renewable energy capacity

Target 500 GW under Panchamrita

→ create job opportunity
(1 lakh + surya mitras trained)

→ also ensure sustainable development

⑥ Investing in emerging technologies

→ R&D is less than 1% of GDP (0.67%) while developed countries have 6-7%.

⑦ Boosting Private Participation of Investment

Only 40% in India out of Total R&D while US - Japan have more than 70%.

⑧ Improving healthcare facility

→ PM Arogya Bharat Yojana

Government must follow "whole of society" and "whole of Government" approach to attain true "Sabka saath, sabka Prayas and Sabka Vikas".

Candidates must not write on this margin

12. MSMEs (सूक्ष्म, लघु एवं मध्यम उद्यम) "मेक इन इंडिया" पहल की सफलता के केंद्र में हैं, फिर भी उन्हें आमाप वर्धन और औपचारिक आपूर्ति शृंखलाओं में एकीकरण में चुनौतियों का सामना करना पड़ रहा है। चर्चा कीजिए। MSMEs (सूक्ष्म, लघु एवं मध्यम उद्यमों) को अधिक समुत्थानशील और प्रतिस्पर्धी बनाने के लिए आवश्यक संरचनात्मक सुधार प्रस्तावित कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

MSMEs are central to the success of the Make in India initiative, yet they face challenges in scaling up and integrating into formal supply chains. Discuss. Suggest structural reforms needed to make MSMEs more resilient and competitive. (Answer in 250 words) 15 marks

Recently, classification of MSMEs have been reformed to expand its ambit and relieve industries from rule compliance leading over 6 crore MSMEs now.

MSMEs as central to Make in India

- contributes to 40% of goods exports
- Employment to over 23 crore people
- 30% of GDP
- 40% of Industrial GVA
- ~~Boost~~ Promoting other industries by providing raw material

Challenges faced by MSMEs

① ~~the~~ Credit accessibility

Due to lack of collateral or formal channels.

Candidates must not write on this margin

② Dominance of Micro-enterprises in MSME sector
→ 70-80%. Micro enterprises

③ Perceived fear of harsh rule compliance burden in case of up-scaling

④ Lack of technology integration and use of outdated technology

⑤ Problem of high labour attrition and lack of availability of skilled competent labour.

Structure reforms needed

① Improving credit guarantee schemes

Eg: Revamped credit guarantee scheme has disbursed ₹ 10 lakh crore worth credit.

② Registeration of MSMEs for Policy support under UDYAM and UDYA-Assist portal
Specific to Micro.

Candidates must not write on this margin

③ ~~Reducing~~ Reforming industrial guidelines & rules to encourage upscaling of MSMEs

Eg: GoI has reduced compliances by 13,000 in last decade.

④ Increasing share of MSMEs in PSL lending to ensure credit availability.

⑤ Training of labours for semi-skilled in nature.

Eg: PM ~~Vishwa~~ Kaushal Vikas Yojana

⑥ Schemes like TREADS must be promotes to ensure working capital.

⑦ Reducing time payment by PSEs to MSMEs

⑧ Prohibiting foreig bidders in projects worth less than ₹200 crore.

⑨ Fixed 5% purchase ~~by~~ from MSMEs under GEM portal.

MSMEs are the driving force for Indian economy — they must be encouraged to upscale for rural industrialisation and Global supply

Candidates must not write on this margin

13. "प्रधानमंत्री कृषि सिंचाई योजना (PMKSY) का लक्ष्य 'प्रति बूँद अधिक फ़सल' प्राप्त करना है, फिर भी भारत में सिंचाई दक्षता अभी भी उपेक्षतम बना हुआ है।" आलोचनात्मक विश्लेषण कीजिए। इसके कार्यान्वयन को सुदृढ़ बनाने के लिए किन सुधारों की आवश्यकता है? (उत्तर 250 शब्दों में दीजिए) 15 अंक

"The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) aims to achieve 'more crop per drop', yet irrigation efficiency in India remains suboptimal." Critically analyse. What reforms are needed to strengthen its implementation? (Answer in 250 words) 15 marks

Despite schemes like "More crops per Drop" – Drip irrigation remained less than 20% in ~~the~~ irrigation – showing limited success.

Reasons for suboptimal irrigation efficiency

① Unscientific agricultural practices
Farmers over-irrigating leading to soil salinity

② Free electricity → Over-use of pumps leads to over ~~ut~~ extraction of ground water.

③ Ground water ownership based on land – leads to poor irrigation practices

④ Lack of modern practices like Micro-irrigation leads to suboptimal irrigation.

Candidates must not write on this margin

Eg: Israel has 80% land covered under micro-irrigation

Reforms needed to strengthen irrigation efficiency

(1) ~~Better~~ Inter-linking of rivers to provide access to water in water stress area Eg: KBRL project in Bundelkhand

(2) Rationalisation of free electricity to prevent unnecessary use of pumps and over-extraction of ground water.

(3) Subsidies & incentives to promote Drip irrigation
↳ Improves productivity by 30-40%

(4) Better access to ~~credit~~ Credit availability
Eg: PSL lending to Agriculture

(5) Increasing amount under PM-~~SA~~KISAN which is not updated since 2019.

Candidates must not write on this margin

⑥ Inclusion of Civil service organisation for better efficience of ~~public~~ policy success

⑦ Integrating Fertigation i.e. using fertiliser and irrigation together

Eg: Nano-urea through drip irrigation.

⑧ Learning and applying Israel model – which have succeed in implementing Micro-irrigation

Initiatives taken by Govt
- → PM-RISAN Scheme
- → PM-SAMRADA yojana
- → PM-KUSUM scheme
- → Empowering NABARD credit capability

Climate change ~~its~~ will impact ~~for~~ crop productivity by 10-15%. In this light, we need to actively improve agricultural productivity for not only economic growth but nutritional security

Candidates must not write on this margin

14. तिलहन और दलहन के बढ़ते आयात ने इनकी कृषि को अलाभकारी बना दिया है। इस कथन के आलोक में, भारत में तिलहन और दलहन के उत्पादन और उपभोग को बढ़ावा देने के लिए आवश्यक कदमों का विशदीकरण कीजिए।

(उत्तर 250 शब्दों में दीजिए) 15 अंक

The rising import of oilseeds and pulses has made their cultivation unremunerative. In the light of this statement, elucidate the steps needed to promote the production and consumption of oilseeds and pulses in India.

(Answer in 250 words) 15 marks

~~East~~ India imports (60%) more oilseeds than its domestic production (40%) — only foodcrop where we import more.
— highlighting need to develop domestic production.

Reasons behind unremunerative nature

① Cheaper imports from countries like South-East Asia

② Increased demand for Palm oil which India produce minimal.

③ Open Procurement for Rice & wheat
— making them more attractive

④ Lack of GM seeds — lower productivity than imports
Eg: GM Mustard not allowed in India while we import GM Mustard oil from Canada.

Candidates must not write on this margin

Steps to promote oilseeds promotions

① National Mission for Edible Oils
aims to ~~increase~~ reduce imports in oilseeds such as soybean, mustard and oil palm

② Boost to production of oil-palm
which demand is being increasing due to rising snacks culture

③ Allowing GM crops Eg: GM Mustard, Dhara-11
However health concerns must be addressed.

④ Providing ~~essential~~ additional incentives to farmers — ~~like~~ similar to PM-PRANAAM scheme

⑤ Setting up Food processing industries for better demand of oilseeds and pulses

⑥ Establishing dedicated supply chains to stabilise and facilitate oil industry and pulse based products.

Candidates must not write on this margin

Steps to promote consumption of Oilseeds & pulses

(1) Awareness campaigns – highlighting health benefits Eg: Under Fit India Campaign

(2) Improving and promoting pulses based packed items : Eg: Moong dal, etc

(3) Marking & labelling of nutrition share over packed food items

(4) Encouraging use of ~~india~~ ~~&~~ climate suitable oil like Mustard and Ground nut unlike Palm oil.

(5) ~~Integrating Pulse~~ ~~Providing more~~ Integrating Pulse diet specially in vegetarian diet for Protein intake

Oilseeds and Pulses are nutrient rich as well as ~~too~~ can cater higher income to farmers — boosting production will also ensure reduction in import bills.

Candidates must not write on this margin

15. मेघ बीजन के पीछे के वैज्ञानिक सिद्धांतों की व्याख्या कीजिए। वायु प्रदूषण और वैश्विक तापन के उपशमन में इसकी भूमिका पर प्रकाश डालते हुए, इसकी संभावित सीमाओं पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

Explain the scientific principles behind cloud seeding. Highlighting its role in alleviating air pollution and global warming, discuss its potential limitations.

(Answer in 250 words) 15 marks

Recently, UAE conducted cloud seeding resulting into flash floods — highlighting the double edge sword nature of cloud seeding

Principles of Cloud seeding

① Precipitation requires two conditions

- Saturation of Humidity to to 100% +
- Hygroscopic nuclei which creates rain drops

② Cloud seeding use Silver Iodide or other related salts

③ To create # artificial hygroscopic nuclei

④ which ~~treat~~ accumulates moisture in the air leading to cloud formation and rainfall.

Candidates must not write on this margin

Role in Alleviating Air Pollution

(1) Due to rain fall, Aerosols falls to ground through rain droplets

(2) Reducing aerosol concentration in air

(3) It also reduces ~~Smog~~ smog in the air

(4) Makes ~~soil~~ sand wet — preventing ~~soil~~ sand storms or sand winds.

Delhi Government is planing to use the technology to reduce pollution in NCR in winters with help of IIT - Delhi

Role in Global warming

(1) Cloud seeding leads to Global Dimming

→ By forming dark clouds — it increase albedo on earth.

(2) Precipitation moderates temperature through latent heat mechanism.

Candidates must not write on this margin

③ Reduced GHG effect due to reduction in aerosol concentration in air. reducing Global warming.

④ ~~GHG~~ Cloud seeding also helps in plant growth which counters Global warming.

Limitations of Cloud seeding

① Require certain amount of moisture existing in the air of the region

② May disturb nature climate cycle

③ Lack of control over its efficiency may lead to flash floods

Eg: UAE in 2024.

④ The cost of cloud seeding is too high — discouraging its usage.

Cloud seeding is not a nature tech till now. ~~Act~~ Promoting R&D and using it optimally can help in reducing pollution, heatwaves etc.

Candidates must not write on this margin

16. भारत के त्रि-चरणीय परमाणु ऊर्जा कार्यक्रम के क्रमिक विकास का विवरण दीजिए। थोरियम-आधारित तृतीय चरण को साकार करने के क्या लाभ और रणनीतिक अनिवार्यताएँ हैं? (उत्तर 250 शब्दों में दीजिए) 15 अंक

Give an account of the evolution of India's 3-Stage Nuclear Power Programme. What are the advantages and strategic imperatives of realising the thorium-based third stage?

(Answer in 250 words) 15 marks

India was the first country to develop a 3-stage nuclear power programme and first asian to install nuclear research reactor in 1960s.

India's 3-Stage Nuclear Power Programme

Stage	Fuel to be used	Reactors
I	~~Boiling water~~ Uranium-235 and Enriched Uranium	Boiling water reactor, PHWR, PWR
II	Plutonium-239	Fast Breeder Reactor
III	Thorium-232 and Uranium-233	Molten salt Reactor (MSR), AHWR, CHTR, ADR.

NPCIL is operator of Phase I reactors

Candidates must not write on this margin

BHAVINI ~~is~~ is operator for Phase - II

- India installed 2 BWR in Tarapore
- India has 23+ PHWR installed at various sites
- Developing 14++ IPHWR (indigenised) at Gorakhpur, Mahi-Banswara, Kalga, etc.
- ~~Developed~~ Installed Prototype FBR $
- Developing Jaitapur nuclear station with 9GW$_e$ — largest in world

Advantages of Thorium based stage

① Thorium has higher efficiency / unit than U^{235} or Pu^{239}.

② It produce less solid waste than other fuels

③ Low chances of nuclear accidents.

Candidates must not write on this margin

Strategic Imperative

① India has huge reserves of Thorium
→ 1.07 million tonnes

② Reduced dependence for nuclear fuel on foreign supply.

~~Eg: India~~

③ To attain target of 100 GW_e under Nuclear energy mission.

④ Used under ANEEL which can be used in PHWR also.

⑤ India will require 15% of Global uranium production by 2047 $ to produce targetted 20000 TWH — Thorium can help in reducing such demand.

Challenge) — Lack of Enrichment Technology
— 3rd stage ~~Fast~~ reactor like MSR is only developed by China.

Thorium based reactors will help India to achieve its NDC and Panchamrit goals and attain LiFE

Candidates must not write on this margin

17. हाल ही के अध्ययनों से संकेत मिलता है कि 2014-2024 का दशक अब तक का सबसे गर्म दशक और 2024 अब तक का सबसे गर्म वर्ष रहा है। तेज़ी से बढ़ते वैश्विक तापन के आलोक में, जलवायु परिवर्तन का जैव-विविधता पर क्या प्रभाव पड़ेगा? पारिस्थितिक समुत्थानशीलता और प्रजाति विविधता के संरक्षण को सुनिश्चित करने के लिए आवश्यक उपायों पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए) 15 अंक

Recent studies indicate that the 2014-2024 decade is the warmest decade and 2024 is the warmest year on record. In the light of rapid global warming, what are the impacts of climate change on biodiversity? Discuss the measures needed to ensure ecological resilience and conservation of species diversity. (Answer in 250 words) 15 marks

According to IPCC, if trend ~~to~~ of efforts continued with same pace, Earth temperature may increase 3.5°C by 2100.

Impacts of Climate Change on Biodiversity

① Impact on reproduction system

Eg: Turtles sex depends on the ambient temperature — rising temp. has increase female turtle population

② Loss of natural habitat due to erratic climate changes

③ Rise of forest fire — destroying wildlife

Eg: Uttarakhand experience highest no. of wildfires this decade.

Candidates must not write on this margin

(4) Thawing of Permafrost

may lead to emergence of new viruses — Immune system unknown

(5) Melting of snow & cryosphere

Impacting polar wildlife like Polar bears & penguins

(6) Increase ~~in~~ Ocean temperature

Eg: Beaching instances by sharks increased in australia

(7) Global warming leading to coral bleaching → impacting whole coral ecosystem

(8) Destruction of Mangroves due to increased frequency of cyclones due to climate change

Eg: 7 km^2 reduction in Indian mangroves — acc to ISFR '23

Candidates must not write on this margin

Measures needed

① Expanding boundaries of Protected areas to give protection and provide natural habitat

② In-situ & ex-situ conservation depending on population and habitat requirement

③ Increasing ~~the~~ rate of Afforestation

④ ~~Not~~ Efforts to fulfill SDG goals under Paris convention to restrict global warming.

⑤ Transition from non-renewable to renewable energy

⑥ Strengthening laws like WPA, 1972 and EPA, 1986 — to provide provisions on climate change.

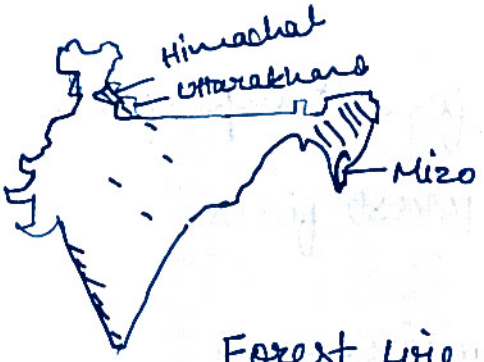
Earth is our homeland — protecting ~~to~~ biodiversity not only a moral duty but imperative necessity for survival.

Candidates must not write on this margin

18. भारत में वनाग्नि की आवृत्ति और तीव्रता में वृद्धि हो रही है, जिससे गंभीर पारिस्थितिक और आर्थिक चुनौतियाँ उत्पन्न हो रही हैं। वनाग्नि के विभिन्न कारणों का वर्णन कीजिए। भारत में वनाग्नि की रोकथाम और प्रबंधन के लिए क्या उपाय किए जाते हैं?
(उत्तर 250 शब्दों में दीजिए) 15 अंक

Forest fires in India are increasing in frequency and intensity, posing severe ecological and economic challenges. Describe the various causes of forest fires. What measures are followed to prevent and manage forest fires in India?
(Answer in 250 words) 15 marks

2024 was the ~~first~~ warmest year on earth — fuelling one of the highest number of forest fires in India.



Forest fire prone areas

Ecological challenges
- → Destruction of wildlife habitat
- → Deforestation & Global warming
- → Adverse effect on ~~budge~~ endangered species

Economic challenges
- → Loss of Forest produce
- → cost of reconstruction & rehabilitation
- → Loss of infrastructure and human life.

Candidates must not write on this margin

Causes of Forest Fire

① Erratic Monsoon

Irregular monsoon leads to fires.

② Availability of Dry vegetation like leaves and grass acts as fuel

~~Eg:~~

③ Dry Desert winds fuel temperature and may lead to forest fires

④ Irresponsible tourism

Eg: Burnt cigarettes or camp fires

⑤ Tribal communities practices

Eg: Slash & Burn

⑥ Lack of Administrative policy implementation

⑦ Colonial Plantation replaced natural vegetation Eg: Pine trees in Uttarakhand in place of oak trees.

Candidates must not write on this margin

Measures followed to prevent & Manage

① Encouraging eco-tourism to prevent accidents

② Burning slash & burn on ground level — allotting fixed lands for agriculture

③ Promoting natural vegetation growth in hilly regions

④ Proactive mitigation policy and ready infrastructure
Eg: Fire brigades or Air fire brigades.

⑤ Training local communities to build first line of rescuers.

⑥ R&D on solutions to control wildfires as soon as possible

Integrating community participation, Active administration and expenditure of R&D and infrastructure — paves the way ahead.

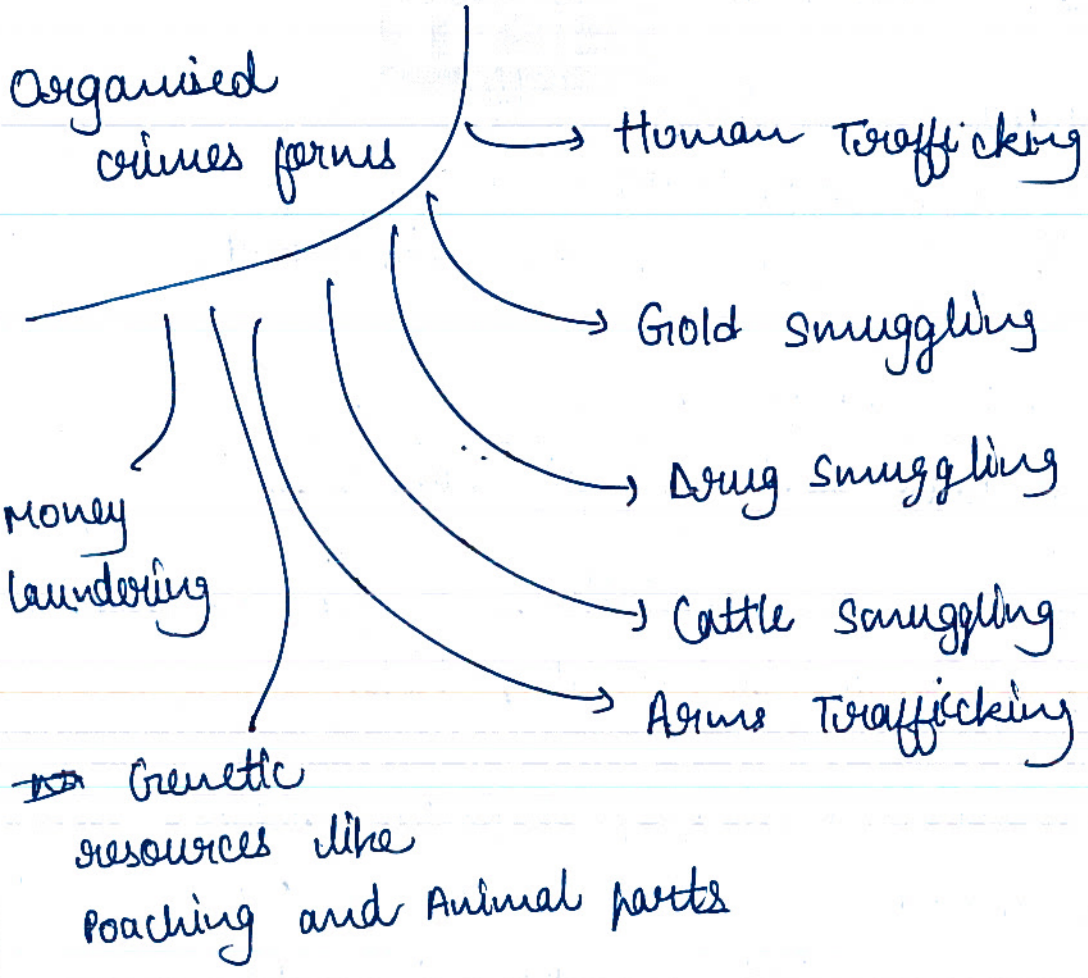
Candidates must not write on this margin

19. संगठित अपराध क्या हैं? संगठित अपराध और आतंकवाद के बीच संबंधों पर चर्चा कीजिए। ये संबंध भारत के लिए आंतरिक सुरक्षा संबंधी चुनौतियाँ कैसे उत्पन्न करते हैं? (उत्तर 250 शब्दों में दीजिए) 15 अंक

What are organized crimes? Discuss the linkages between organized crime and terrorism. How do such linkages pose internal security challenges to India?

(Answer in 250 words) 15 marks

Organised crimes as defined under BNSS refers to continuance of illegal activity by a person or group of person using ~~to~~ illegal means like violence or threat of violence for economic & financial benefit.



Candidates must not write on this margin

Linkages between Organised crime & terrorism

(1) Organised crime provide finances to terror organisation

(2) Help in recruitment and other resource & acquisition for terrorism

(3) Terrorism deviate state authorities to provide space for organised crimes.

Eg: Before manipur violence, in February, state authorities cracked down on drug smugglers and in April, violence started.

Challenges to Internal security

(1) Fuel insurgency and militancy
→ leading to violence

(2) May provoke separatist tendency
Eg: Greater nagaland or Azad Kashmir

Candidates must not write on this margin

③ ~~Run para~~ Revenue loss for State ~~loss~~ by eroding customer.

④ Influence over youth

Deviance Drift in youths
case in Kashmir

Drug-addicts
case in Punjab

⑤ Terrorism challenges sovereignty & integrity

⑥ May lead to ~~to~~ Human loss & ~~Global~~ erode public trust
Eg: Pahalgam attack (2025)

⑦ May lead to lapses in Military mechanism

⑧ May fuel ethnic conflicts or communal riots
Eg: Kashmiri Pandit or Manipur violence

Terrorism and organised crimes have been a challenge for internal security. Community participation and engaging youths are long term solutions to the issue

Candidates must not write on this margin

20. भारत का उत्तर-पूर्वी क्षेत्र विवादास्पद मुद्दों और सुरक्षा चुनौतियों से परिपूर्ण है। इस क्षेत्र में वर्तमान में व्याप्त विभिन्न सुरक्षा चुनौतियों का परीक्षण कीजिए। इन चुनौतियों से निपटने हेतु किए जाने वाले उपायों पर चर्चा कीजिए।

(उत्तर 250 शब्दों में दीजिए) 15 अंक

India's north-eastern region is fraught with contentious issues and security challenges. Examine the various security challenges currently prevailing in the region. Discuss the steps to counter these challenges.

(Answer in 250 words) 15 marks

Recently Justice Ajay Lamba committee has been appointed to review manipur violence and recommend suggestion for stability in North-East.

Security Challenges

1. Insurgency in ~~Ass~~ Border states like Nagaland, Manipur and Mizoram

2. Ethnic conflicts
   Eg: Kuki v/s Meiti and Naga, etc.

3. Prevalence of Organised crimes
   Eg: Human trafficking, Arms smuggling and Drug smuggling

4. Immigration and illegal migrants
   May contention in Assam

Candidates must not write on this margin

⑤ Hostile neighbourhood

like China supporting such issues

⑥ Unstable borders

Eg: Myanmar civil war

: Recent regime change in Bangladesh

⑦ Religion Differences ~~also~~ misused by insurgents & organised crime cartels also leads to security issues.

Steps taken to counter

① Improved connectivity

under UDAN and Bharatmala and Gatishakti scheme

② Establishment of dedicated Ministry for the region

MoDoNER → Ministry for Development of North-Eastern Region

Candidates must not write on this margin

③ PM - DIVINE scheme

To provide financial assistance

④ VI schedule for districts in - Assam
Tripura, Mizoram, Meghalaya

for local self governance

⑤ Inner line Permit system

to facilitate ethnic cohesion

⑥ Roshni scheme

To skill & train youth

⑦ International connectivity to connect North - East

Eg : Trilateral Highway between India - Myanmar - Thailand
: Kaladan Project
: using Bangladesh waterways.

⑧ Signing of Peace Accords with several organisations : Eg : Mizo Accord with Lal Denga.

"North East is our way to act - East policy"
~ PM Modi - highlighting socio-economic benefits of North - East.

Space for Rough Work

Space for Rough Work

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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-

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।