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19 AUG 2024

NEXT IAS

GS MAINS ADVANCED COURSE 2024

(To be filled by candidate)

TEST CODE : GSMAC2403

Test No. : 03

Name of Candidate: DIKSHA RAI Mobile No. [REDACTED]Roll No. : GSMAC24A1593 Start Time 10:00 AM End Time 1:20 PMDate of Examination: 19.8.24 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		

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1	10	
2	10	
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4	10	
5	10	
6	10	
7	10	
8	10	
9	10	
10	10	
TOTAL MARKS - 100		

GRAND TOTAL - / 250

EVAL CODE: EVAL DTE:

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 10 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:

FOR OFFICE USE ONLY

Student Concerns / Query

Evaluator's Feedback / Response

1

1

2

2

3

3

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 evaluation@nextias.com is to provide constructive suggestions on 'How to improve Answer Writing and thereby score better marks.

STRENGTHS OF THE CANDIDATE

AREAS OF IMPROVEMENT



IMPROVEMENT SUGGESTIONS

1. भारत में उच्च राजकोषीय घाटे में योगदान देने वाले कारकों पर प्रकाश डालते हुए, ऐसे घाटे के संभावित परिणामों पर चर्चा कीजिए तथा राजकोषीय समेकन (Fiscal consolidation) सुनिश्चित करने के उपाय सुझाइए। (10 अंक, 150 शब्द)
Highlighting the factors contributing to high fiscal deficit in India, discuss the potential consequences of such deficit and suggest measures to ensure fiscal consolidation.
(10 marks, 150 words)

The Fiscal Deficit of India in the financial year 2023-24 was 5.8% of GDP.

Fiscal Deficit refers to the balance of Govt Expenditure and Receipts (sans borrowing).

Factors contributing to high Fiscal Deficit

1) Economic

- 1.1. + High inflation
- 1.2. + Increased cost of borrowing
- 1.3. → Unemployment and subsequent Fiscal Support

2) Political

- 2.1. + Freebies eg: free electricity.
- 2.2. + Debt waivers eg- farm loan waiver.
- 2.3. + Subsidies eg- power subsidies.

3) Structural

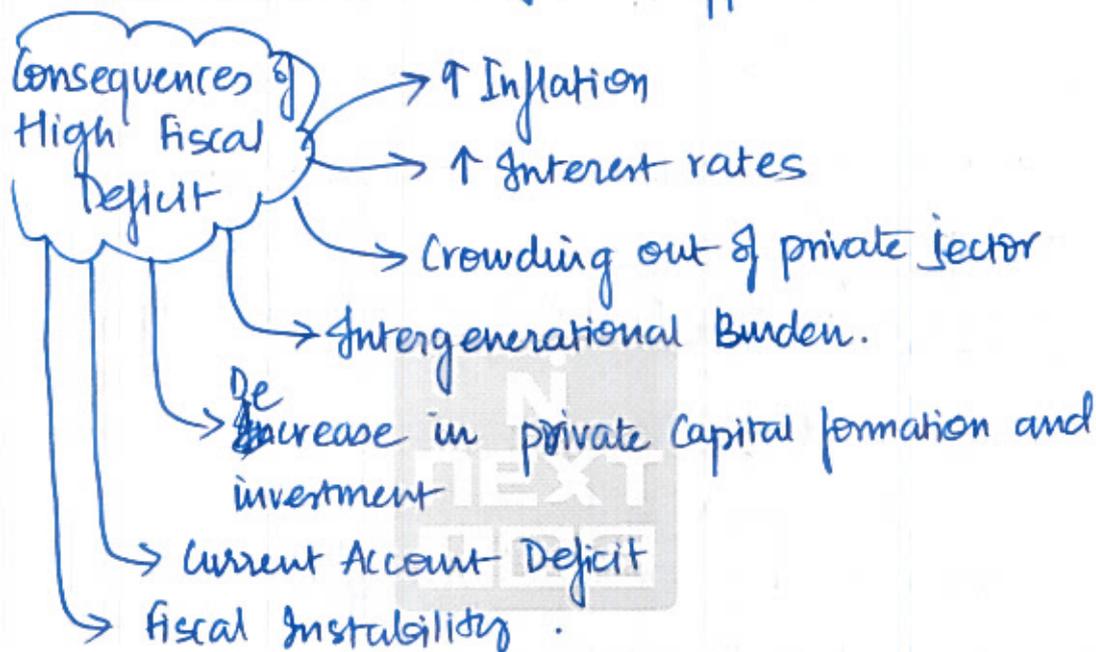
- 3.1. + Poverty and deprivation → govt support
- 3.2. + Increase in Capital Expenditure
- 3.3. + Pension and Salary burden for Govt Servants
- 3.4. + Import dependency for oil seeds etc

4) Geo-political

4.1) Middle East Tensions \rightarrow \uparrow Crude oil prices

4.2) Russia Ukraine War \rightarrow \uparrow Food Inflation.

5) Sudden shocks such as COVID-19 pandemic required Govt interventions & fiscal support.



Measures for fiscal consolidation

- \rightarrow Adhering to path laid out in FRBM Act
- \rightarrow Achieving target of 4.5% Fiscal Deficit by 2025-26
- \rightarrow Optimising revenue expenditure
- \rightarrow Rationalising subsidies
- \rightarrow Increasing tax net and buoyancy.

Fiscal Consolidation & Fiscal Prudence requires a whole of govt approach in enhancing receipts and minimising wasteful expenditure

2. 2047 तक भारत के विकसित राष्ट्र बनने की आकांक्षा महत्वपूर्ण पूँजीगत निवेश पर निर्भर है। इसके आलोक में, इस लक्ष्य को प्राप्त करने में पूँजीगत निवेश की संभावनाओं पर चर्चा कीजिए। इस संदर्भ में भारत के समक्ष क्या चुनौतियाँ हैं?

(10 अंक, 150 शब्द)

India's aspiration to be a developed nation by 2047 hinges on significant capital investment. In light of this, discuss the potential of capital investment in achieving this vision. What are the challenges India faces in this regard? (10 marks, 150 words)

PM Narendra Modi from the ramparts of Red Fort had called for making India a 'Viksit' country by 2047.

~~The Union Budget 2024-25 saw significant increase in capex.~~

Potential of Capital Investment in making India Developed

- 1) Job creation and ↓ decrease in unemployment
- 2) Increase in Per capita Income
 Current: 2400 \$ needed → 13,500 \$
- 3) Capacity creation in economy
- 4) ↑ Capital investment → Improved Infrastructure
- 5) Poverty alleviation, thus ↑ \$ aggregate demand.

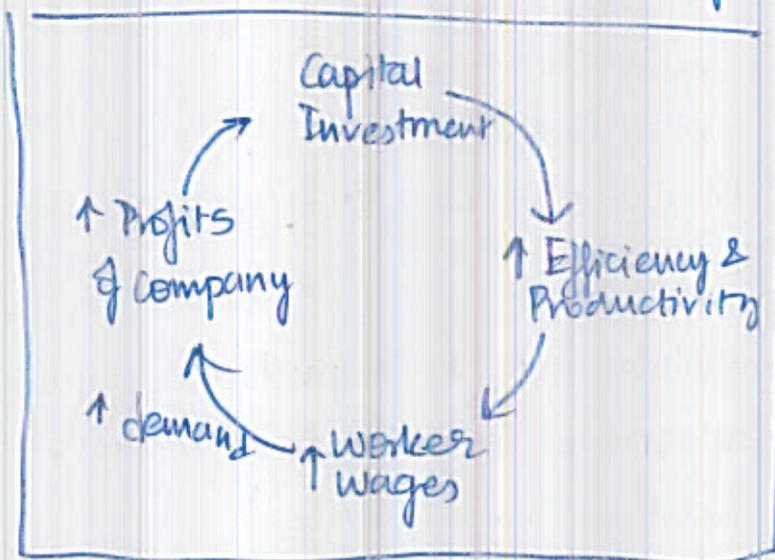


Fig: virtuous cycle of Capital Investment

Challenges

- 1) → Persisting inflation which decreases purchasing power of currency
- 2) → ↓ FDI due to Geo-political tensions
- 3) → High interest rates in Economy.
RBI kept interest rate unchanged at 6.5% for 9th consecutive time
- 4) → Jobless Growth and more focus on Capital-intensive sectors
- 5) → Less than optimum increase in private sector Investments
- 6) → Lack of strong corporate bond market.

Measures required

- 1) Incentivise capital creation by private sector through tax & other incentives
- 2) Strengthening availability of cheaper credit
- 3) Strengthen Corporate Bond market
- 4) Fiscal policies need to ~~not~~ make sure that investment from private sector is not crowded out
- 5) ~~not~~ Increased focus on sunrise sectors such as Food Processing.
- 6) Dealing with Dwarfism Syndrome in MSMEs.

Capitalist Policies such as PLI scheme, make in India, Atmanirbhas Bharat - one step in the right direction in this regard.

3. "नगरीकरण में वृद्धि के साथ, पेरी-अर्बन/परिनगरीय कृषि (Peri-urban agriculture) ताजा कृषि उपज की आवश्यकताओं के लिए एक महत्वपूर्ण योगदानकर्ता के रूप में उभरी है"। इस संदर्भ में, सतत रूप से पेरी-अर्बन कृषि को बढ़ावा देने से सम्बंधित अवसरों और चुनौतियों पर चर्चा कीजिए। (10 अंक, 150 शब्द)

"With growing urbanization, peri-urban agriculture is emerging as a significant contributor to fresh farm produce needs". In this context, discuss the opportunities and challenges associated with promoting peri-urban agriculture in a sustainable manner.

(10 marks, 150 words)

By 2030, 40% of Indian population will reside in urban areas.

Peri-urban agriculture refers to the growing phenomenon of producing fresh vegetables & other farm products suited to meet demands of urban population.

Factors Behind emergence of peri-urban agriculture

- ↑ Urbanisation → ↑ Demand of fresh fruits & vegetables
- ↑ Disposable income of consumers willing to pay more for fresh & healthy products
- Improved Transport and communication facilities
- Adjacent presence of market → ↑ Profits.
- Access to inputs and infrastructure.
- Increased concretisation hinders food production in urban centres.



Opportunities

- ↑ Farm Income
- ↓ Wastage as products are supplied fresh.
- thus less hassle of storage
- Opportunity of food processing due to access to market and other services such as credit.
- For consumers - access to relatively cheaper (less transportation cost) + healthier products

Challenges

- High cost of land in urban & peri-urban areas
- Access to credit - due to lack of land records
- Less profit margin due to competition
- Lack of storage facilities leading to distress sale
- ^{large} Difference between retail & wholesale prices
hence farmer income

"Agripreneurs" of Peri-urban agriculture, as envisaged by Dalwai committee ~~can~~ can lead to enhanced prosperity and income to farming community

8) low productivity due to technology & inputs employed
 a) lack of access to credit.

Measures ~~to~~ ~~at~~ required

- 1) Policy incentives through price support or input subsidies
- 2) Leverage Land Fragmentation Consolidation initiatives to reap dividends of Economies of Scale.
- 3) Encourage agro-climatic zone conducive agricultural production
 eg - oil seeds & pulses can be encouraged in Central India & North East
- 4) Improve integration of agriculture market
- 5) Using stockholdings limiting measures not frequently.
- 6) Improve storage infrastructure

Self sufficiency in pulses and vegetable oils is not only required for reducing import dependency but also to increase climate resilience of Indian agriculture

5. भारत को एक सतत हरित अर्थव्यवस्था बनाने में जैव-वित्तिर्माण (Biomanufacturing) और जैव-फाउंड्री (Bio-foundry) की संभावनाओं का मूल्यांकन कीजिए। (10 अंक, 150 शब्द)
Evaluate the potential of biomanufacturing and bio-foundry in driving India's future towards a sustainable green economy. (10 marks, 150 words)

Green Economy encompasses economic activities keeping in mind their effect on environment and efforts to minimize them.

Potential of Bio-manufacturing & Bio foundries

- ↑ Sustainable Development
- ↑ Climate Change mitigation
- ↑ ~~eco~~ Sustainable Economic growth.
- ↑ Job Creation and Income generation.
- meeting ~~SDG~~ commitments under Paris agreement.
-



6. पुनः प्रयोज्य प्रक्षेपण यान (RLV) की कार्यप्रणाली के पीछे क्या सिद्धांत हैं? भारत के अंतरिक्ष वाणिज्य में आर.एल.वी. के उपयोग के महत्त्व और संभावित लाभों की व्याख्या कीजिए। (10 अंक, 150 शब्द)
- What are the principles behind the working of Reusable Launch Vehicle (RLV)? Explain the significance and potential benefits of use of RLVs in India's space commerce. (10 marks, 150 words)





7. कार्बन क्रेडिट ट्रेडिंग स्कीम (CCTS) 2023 की प्रमुख विशेषताओं का परिक्षण कीजिए। भारत में हरित गृह गैस (Greenhouse gas) उत्सर्जन को कम करने की इसकी संभावनाओं का विश्लेषण कीजिए। (10 अंक, 150 शब्द)
Examine the key features of the Carbon Credit Trading Scheme (CCTS) 2023. Analyze its potential for mitigating greenhouse gas emissions in India. (10 marks, 150 words)

Under Paris climate Agreements, India plans to reach Net neutrality by 2070.

Features of Carbon Credit Trading Scheme 2023

- Carbon market to trade Carbon credits
- Aim
 - to ↓ GHG emissions
 - access to capital to firms
 - ↑ investment in greentechologies
- Electronic platform for carbon - credit trade.

Mechanism

firms who emitted less than their stipulated quota can trade the credit equivalent in the market whereas the firm deficient in such credit will purchase it.

Potential in mitigating GHG emission

India is the 3rd largest emitter of GHGs thus CCTS 2023 will bring following benefits

- 1) Decreasing industrial GHG emissions
- 2) Incentivising firms to invest in less ~~emitting~~ emitting technologies.
- 3) Efficient carbon market as envisaged under Paris Agreement -
- 4) ↑ Boost to Green Economy.

However challenges remain

- lack of access to technologies.
 - lack of adequate climate finance
 - Disproportionate burden on Developing countries (India's ~~current~~ percapita emission lower than global average.
 - CCTS only transfers quota to another firm it doesn't lead to cumulative decrease in ^{GHG} emission.
- Carbon Credit Trading Scheme 2023 is the step towards ~~at~~ climate mitigation and ~~so~~ sustainable development

8. पिछले दशक में हीट वेव की बढ़ती गहनता, आवृत्ति और अवधि के मद्देनजर, क्या "हीट वेव" को अब आपदा प्रबंधन अधिनियम, 2005 के तहत एक अधिसूचित आपदा के रूप में शामिल किया जाना चाहिए? (10 अंक, 150 शब्द)
In light of the increased intensity, frequency and duration of heat waves in the last decade, do you think the time has come to include "heat waves" as a notified disaster under the Disaster Management Act, 2005? (10 marks, 150 words)

With increase in Global warming the intensity & frequency of Heat waves has increased globally as well as in India. (IPCC)

Effect of Heatwaves

- Stroke, Heat stress
- loss of productivity
- Droughts and ↓ crop yield
- water stress
- ↑ Energy Demand

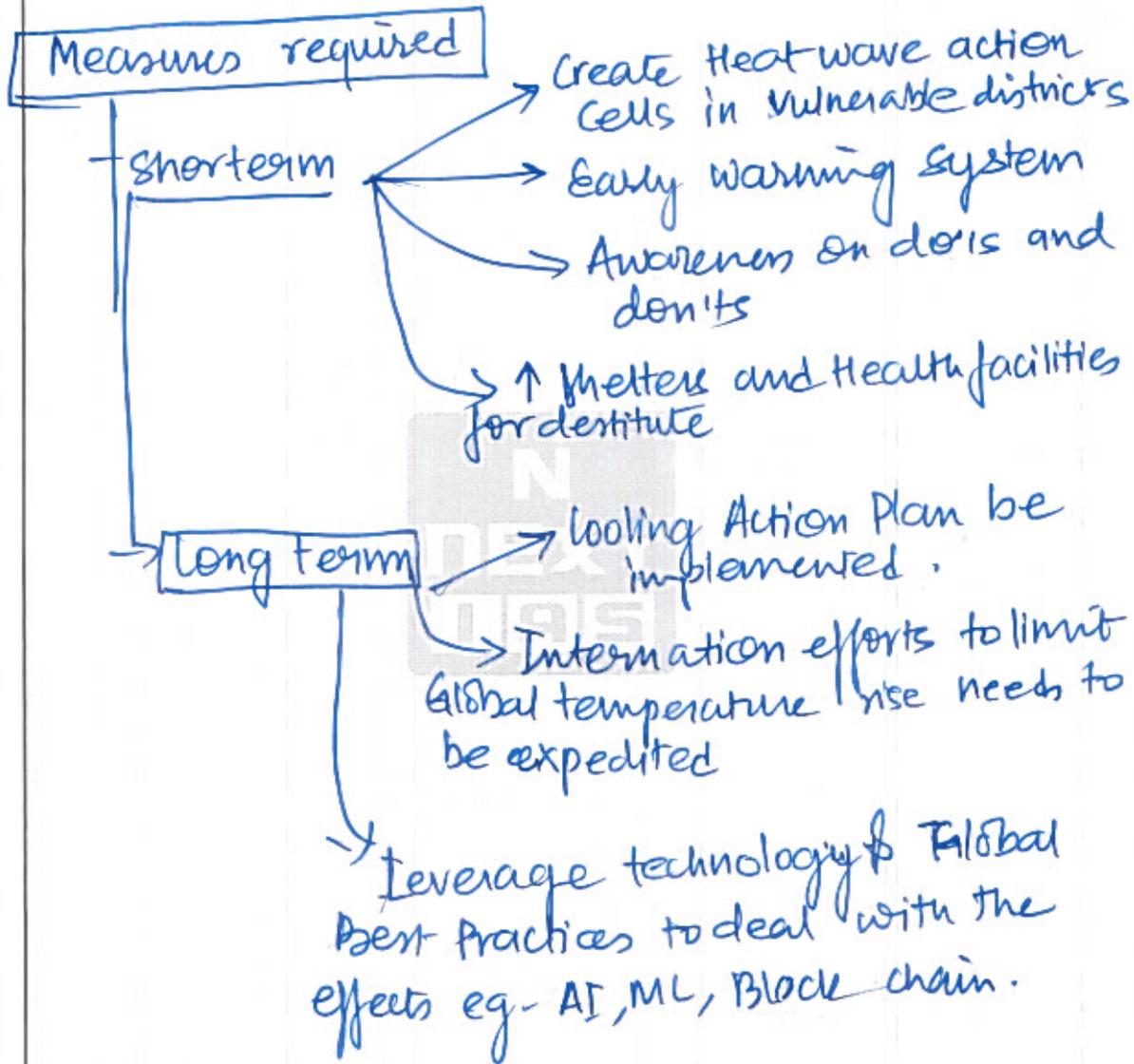


Fig: Heatwave prone zones

Need to notify heat waves as notified disaster

- will lead to ^{formulation} Heat wave disaster management plan
- availability of funds needed from SDRF & ADRF
- Coordinated efforts between local authorities & state governments
- will facilitate baseline surveys & mapping of vulnerable areas

- Knowledge sharing between states
- Notifying it as a disaster will attract urgency to the measures required.



Recurring Heat waves indicate the global urgency required to accelerate pace of climate change mitigation & adaptation.

9. भारतीय सशस्त्र बलों द्वारा हाल ही में तैयार किए गए 'साइबर-अंतरिक्ष अभियान (Cyberspace operations) के लिए संयुक्त सिद्धांत' से पारंपरिक ऑपरेशनों के साथ-साथ ग्रे जोन युद्ध दोनों के लिए साइबर-सुरक्षा स्थिति मजबूत होगी। परीक्षण कीजिए। (10 अंक, 150 शब्द)
- Recently formulated 'joint doctrine for cyberspace operations' by Indian armed forces will lead to strengthening of the cyber-security posture for both conventional operations as well as gray zone warfare. Examine. (10 marks, 150 words)

Cyber warfare is emerging as the 5th domain of warfare in current times.

Significance of joint Doctrine for cyberspace operations

→ Dealing with grayzone warfare

eg- A/c NYT report 2020 ~~attack~~ Mumbai Power outage was due to China cyber attack



→ Increasing offensive capabilities
eg- US cyber Command

→ Beefing up cyber security

→ protecting ~~Cyber~~ Critical Infrastructure from malicious attacks

→ Increased vulnerabilities of India requires counter attack measures as well as defence capabilities

- ↑ Digital Economy
- ↑ e-governance

attacks on such critical information infrastructure has security as well as economic ramifications.

Measures

Way forward

- Incentivising companies to invest in cyber security
- Increasing R&D on counter cyber crime technology
- International coordination.
- Dedicated division among forces to deal with threats

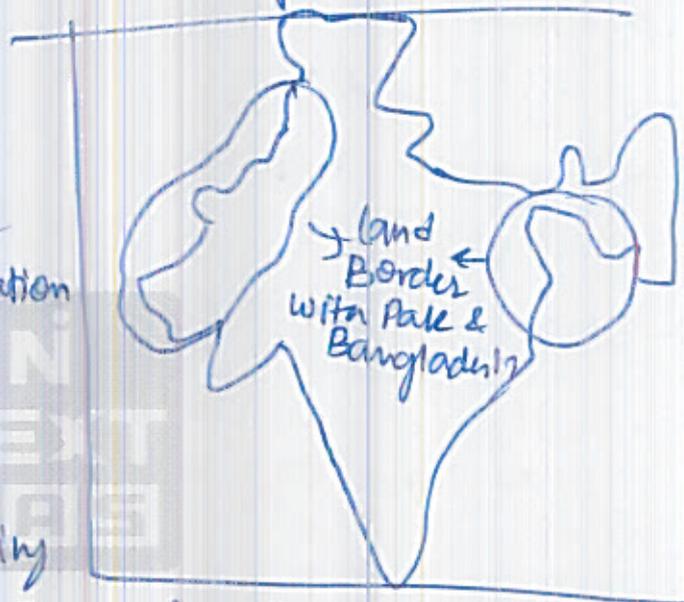
The age of ICT has made not only brought economic growth & prosperity but also has led various cyber linked vulnerabilities. Dealing with them requires urgent and comprehensive states.

10. पाकिस्तान और बांग्लादेश से सटे राज्यों में सीमा सुरक्षा बल (BSF) के प्रादेशिक क्षेत्राधिकार के विस्तार की आवश्यकता एवं संभावित मुद्दों पर चर्चा कीजिए। (10 अंक, 150 शब्द)
 Discuss the necessity and potential issues surrounding the extension of the Border Security Force's (BSF) territorial jurisdiction in states adjacent to Pakistan and Bangladesh. (10 marks, 150 words)

The Border Security Force's territorial jurisdiction was recently enhanced to a uniform extent of 25 km along borders.

Necessity

- To curb infiltration ex-terrorist infiltration along J&K border
- To effectively deal with drug trafficking eg-use of drones in Punjab border
- Cow smuggling - Bangladesh Border
- Illegal Immigration through Bangladesh Border
- Porous nature of border → illegal trade
- FICN smuggling through border



Potential Issue

- + Effect on Federalism
- + WB govt voiced criticism against the mode
- + appasent Incursion in domain of state
Police is in the state list
- + Increased ^{detrimental} effect on civilian population

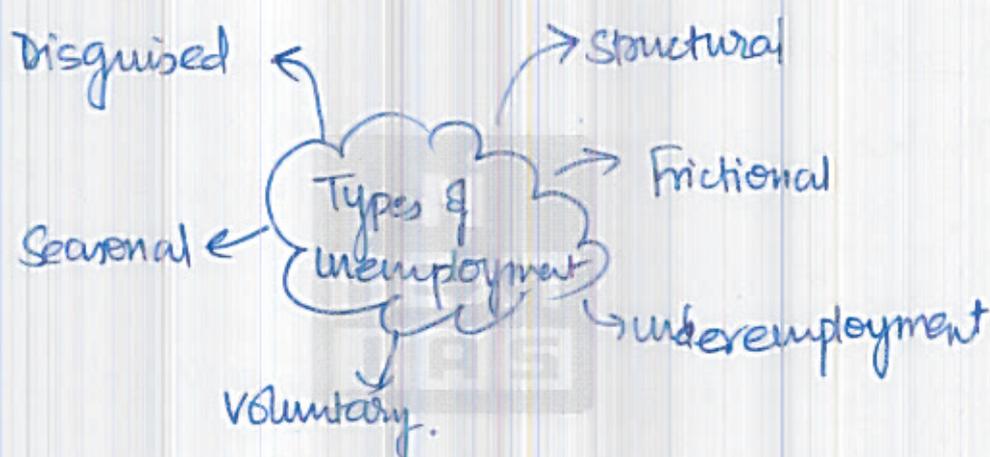
Way forward

- India's porous borders and hostile actors in the neighbours requires comprehensive efforts to boost border security
- Cooperative Federalism - The security measure shall not be politicised.

Border Security along ~~B~~ India ~~and~~ Pak and Bangladesh borders is imperative for peace and development in border areas.

11. भारत की आर्थिक विकास की कहानी प्रायः बेरोजगारी की निरंतर चुनौतियों से प्रभावित होती है। संरचनात्मक बेरोजगारी की अवधारणा का विश्लेषण कीजिए और भारत की वर्तमान आर्थिक स्थिति के संदर्भ में इसकी प्रासंगिकता पर चर्चा कीजिए साथ ही समावेशी रोजगार को बढ़ावा देने के लिए नीतिगत उपाय सुझाइए। (15 अंक, 250 शब्द)
- India's economic growth story is often overshadowed by the persistent challenges of unemployment. Analyze the concept of structural unemployment and discuss its relevance in the context of India's current economic situation. Suggest policy measures to promote inclusive job growth. (15 marks, 250 words)

Despite being the fastest growing major economy, India has been witnessing persistence of unemployment.



Structural unemployment refers to the situation when job seekers are unable to get employed by the virtue of structural issues in the economy such as:

- 1) → Gap in Skill available & required
- 2) → Lack of Technology
- 3) → Capital Intensive Investments
- 4) → Skewed contribution of sectors in GDP
manufacturing sector stagnating at
~17-18% GDP

dealing with Relevance of structural employment &

- 1) By 2041 59% of population will be in the age group of 15-59 years
- 2) Jobless nature of economic growth.
- 3) The aspiration of making India developed country can't be fulfilled with persisting unemployment
- 4) persisting cycle of poverty and deprivation
- 5) 4th Industrial revolution - leading to supply demand mismatch in skill set
 according to Economic Survey 2023-24, more than 50% of Indian Graduates are unemployable
- 6) → Unemployment → ↓ Demand Creation
 ↙ slowdown in economy ↘
- 7) → ~~Full~~ Attaining Sustainable Goals ~~report~~ and mandates in DPSP meet highlights significance of dealing with structural unemployment.

Policy measures required For Inclusive Growth.

- Achieve 25% share of manufacturing in GDP
- Focus on job intensive sectors such as
 - ◆ textile, automobiles etc.
- Tax incentives and fiscal support for employment creation ex- PM Garib Kalyan Rojgar Yojana
- Skilling, upskilling and reskilling.
 - eg: recent announcement in Union Budget is step in right direction
- Shift from focus on capital prod intensive investment to job creation.
- Increasing expenditure on R&D (currently 0.67% GDP)
- Increase in Availability of capital & robust corporate debt market.
- Balanced Regional Development through conducive policies
- Increasing the reach of open source skilling & Knowledge initiatives
- Focus on ~~the~~ rural job creation to curb distress migration
 - eg- Food Processing industries, Biofoundries.

Dealing with structural & unemployment is an imperative for realisation of Demographic Dividend.

12. भारत में क्षेत्रीय विकास को बढ़ावा देने में सूक्ष्म, लघु और मध्यम उद्यमों (MSMEs) की भूमिका पर चर्चा कीजिए। औद्योगिक विविधीकरण और उन्नत प्रौद्योगिकी प्राप्त करने में डैडमे किस प्रकार योगदान दे सकते हैं?

(15 अंक, 250 शब्द)

Discuss the role of Micro, Small, and Medium Enterprises (MSMEs) in fostering regional growth in India. How can MSMEs contribute to achieving industrial diversification and technological advancement?
(15 marks, 250 words)

MSMEs contribute to 11 Cr employment and thus are crucial for economic growth and socio economic development.

Current Scenario

- contributes to 30% of manufacturing GDP.
- contributes to 45% of exports.
- more than 6 Crore MSMEs in numbers.

Role of MSMEs in fostering regional Growth

- 1) Increase in Employment and Job creation.
- MSMEs are significant contributors in job creation in manufacturing sector.
- 2) Rural Development and rural Growth
significant share of MSMEs are rural area based leading to → rural demand creation
→ socio-economic upliftment.
- 3) Increase in Export Earning

- 4) Contribution
Increase in indigenisation of Defence production
- 5) Balanced regional growth
 → spread throughout India as against concentrated nature of bigger industries
 → provide semi-skilled to unskilled employment.
- 6) Empowerment of women
 - women have a major share in MSME job sector.
- 7) Forward and Backward linkages leads to Economic Growth in the region
 eg- MSMEs are suppliers to bigger industries.

Contribution of MSME in Industrial Diversification and Technological advancement

- ~~are~~ relatively easier to integrate & test new technologies
- Contribution of MSMEs in Defence and Space sectors as suppliers of parts and equipments
- Food processing industries, bio-refineries diversify manufacturing sector.

- + more near to market and thereby can produce goods according to local needs
- + Govt support to MSMEs through credit supply and skilling initiatives.

Issues

- Access to credit
- Need of slow integration of Technology.
- "Dwarfism" syndrome & reluctance to reach economies of scale
- Poor manufacturing practices
- Lack of comprehensive integration to markets

Way forward

- Increase credit availability (Economic Survey 2023-24)
- Skilling initiatives
- Handholding support eg - Champions portal.
- Comprehensive integration to Digital Economy eg - ONDC.
- Plug and Play model for MSMEs.

MSMEs are the backbone of manufacturing sector and thus appropriate measures need to be taken for leveraging it to ~~decrease~~ for job creation and economic growth.

13. "MSP का एकमात्र उद्देश्य किसानों को आकस्मिक मूल्य परिवर्तन के आघात से बचाना है"। क्या आपको लगता है कि MSP को वैधानिक बनाने से किसानों को आकस्मिक आघातों से बचाया जा सकेगा? MSP आधारित खरीद को प्रभावी बनाने के लिए अन्य कौन से उपाय किए जा सकते हैं? (15 अंक, 250 शब्द)

"The sole point of MSP is to protect farmers from sudden price shock". Do you think legalization of MSP can insure farmers from sudden price shocks? What are the other measures which can be taken to make MSP-led procurement effective?

(15 marks, 250 words)

For some sections of farmers have been demanding legalisation of Minimum Support Price in recent times!

The Govt of India announces MSP for 23 crops in order to prevent price shocks to farmers
However it doesn't have a statutory backing yet.

~~Arguments in F~~ → Provides cushion to farmers
MSP in times of Price shock } → Checks distress sale
→ Adequate remuneration to farmers.

Need Arguments in favour of legalisation

- 1) Statutory backing will increase reach of benefits to farmers throughout India.
- 2) Leads to Rural Growth.
- 3) Decrease in farmer debt burden.

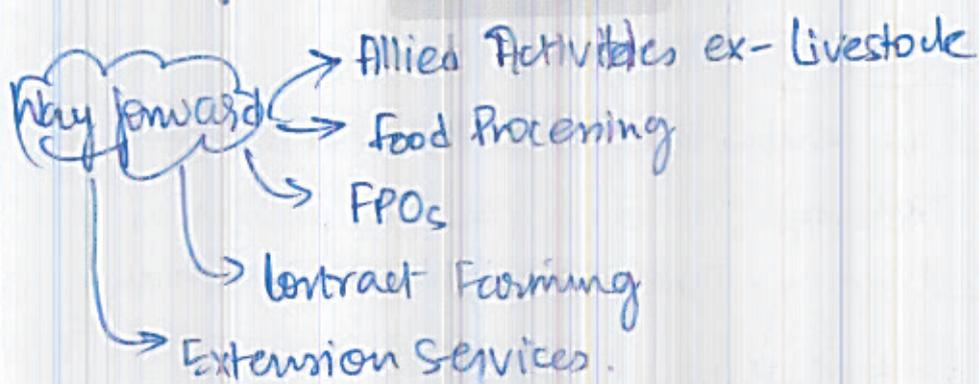
4. Cushion against climate change induced crop productivity loss.
5. Dealing with the menace of distress sale
6. ~~to~~ Can boost crop Diversification efforts.
7. Will lead to crop production in consonance with agro-climatic zones
8. Legal obligation to Govt will instill sense of trust & confidence among farm community.
9. Increase in farmers Income & realising the goal of doubling it (Dalwai Committee)
10. Can boost farm productivity and integration of Technology.

Arguments Against

- Increase in subsidy Bill. → ↑ Fiscal Deficit
- Market Distortion & disrupts the phenomenon of price discovery through supply and demand
- can lead to inflation
- can hurt ~~customers~~ consumers.
- ~~will lead to a underground m.~~
- Crop Diversification ~~can~~ may not be uptaken.
- Shanta Kumar Committee note how only 6% of farmers sell at MSP
- ↑ Administrative & logistic costs

Measures needed to make MSP led-program more effective

- Rationalising procurement & buffer stock otherwise leads to ~~Deficit~~ wastage
- Shanta Kr Committee recommended transferring responsibilities to states who have gained sufficient experience in procurement & distribution.
- Roping in Private participation.
- Focus on Crop Diversification.
- Enhancing procurement from other areas as well presently - concentrated in Punjab, Haryana, UP.
- Price deficiency support system
eg - Bhavantar Bhugtan Yojana.



Ashok Dalwai Committee envisaged farmer's prosperity through focussing on making them "Agripreneurs".

14. भारत में खाद्य सुरक्षा सुनिश्चित करने के लिए सार्वजनिक वितरण प्रणाली (PDS) में भारतीय खाद्य निगम (FCI) की भूमिका पर चर्चा कीजिए। भारतीय खाद्य निगम की दक्षता और प्रभावशीलता को बढ़ाने के लिए इसकी कार्यप्रणाली में आवश्यक सुधारों को सुझाए। (15 अंक, 250 शब्द)
- Discuss the role of the Food Corporation of India (FCI) in the Public Distribution System (PDS) to ensure food security in India. Suggest necessary reforms in the functioning of FCI to enhance its efficiency and effectiveness. (15 marks, 250 words)

National ~~the~~ Food Security Act 2013, made right to food a statutory right.

Food security refers to access to adequate and nutritious food to all the people, all the time (according to UN)

Role of FCI in PDS

- **Procurement** : FCI is responsible for procurement of food grains at MSP from the farmers
- **Distribution** : It supplies the same to the States at Central Issue Price.

FCI's role in ensuring food security

- 1) 67% of population (75% rural & 50% urban) are covered under the PDS system.

- 2) maintaining buffer stock for maintaining adequate supply.
- 3) Minimum Support Price to farmers helps them in getting remunerative prices for their produce.
- 4) The Antodaya Families get subsidised ^{35 kg/family} food grains ~~are~~ per month.
- 5) Played important role during economic distress caused by COVID-19 pandemic.

Issues with FCI & PDS

- 1) Leverages as noted by Shankar Committee
- 2) Poor Quality of food grains
- 3) Wastage due to ~~inadequate~~ poor storage ~~eg using tarpaulins~~ practices.
- 4) maintains Bufferstock more than needed.
- 5) leads to market-distortion.
- 6) Over-coverage (67% of population)
- 7) Economic costs of FCI is high.

Reforms needed

- + Roping in Private Players in Distribution and Storage
- Decreasing ~~the~~ Beneficiaries to 40% of population (Khanna Kr Committee)
- Leveraging technologies such as blockchain and digitisation to check leakage
- Handholding states and enabling them to take up the responsibilities.
- Increasing availability of fortified foods.

Thus, an efficient food Public distribution system requires systemic reforms in FCI and in order to reach Sustainable Goal of Zero Hunger

15. भारत में कृषि उत्पादकता और खाद्य सुरक्षा बढ़ाने में नैनो प्रौद्योगिकी की भूमिका पर चर्चा कीजिए। नैनो-उर्वरकों और नैनो-कीटनाशकों के उपयोग के हाल के विकास/प्रगति और संभावित लाभों एवं जोखिमों पर प्रकाश डालिए।
(15 अंक, 250 शब्द)

Discuss the role of nanotechnology on enhancing agricultural productivity and food security in India. Highlight recent developments and potential benefits and risks of use of nano-fertilizers and nano-pesticides.
(15 marks, 250 words)

Nanotechnology refers to use of ~~na~~ features and characteristics of nano-particles to solve various problems and enhancing productivity and efficiency.

Role of Agriculture in Food Security

- Increase in farm productivity
- Increase in shelf life of food
- Increase in disease resilience of crops
- Increase in efficiency of inputs
 - ↳ Nano fertilisers - ~~the~~ leads to less wastage of fertilisers & precise application
- Reduction in Input costs
ex - nano pesticides
- ~~It~~ Leads to less usage of chemicals and pesticides → ↑ Health & Nutrition ~~for~~ benefits.

Recent Developments

- IFFCO and other organisations have been leveraging nano technology in order to increase efficiency and precision of input application
- Advancement in food ~~st~~ storage systems by integrating nano-technology.

Benefits of Nanofertilisers & Nano-pesticides

- ↑ Farm Income (since ↓ quantity required)
- Precision farming → Sustainable agriculture
- Minimal health hazard due to less application of chemicals → ↓ residual fertilisers & pesticides.
- ↑ Crop resilience and productivity
- Improvement in soil health.
- ↓ ~~Pest~~ Pest Attacks and ~~Crop~~ Crop Damage.

Risks and Challenges

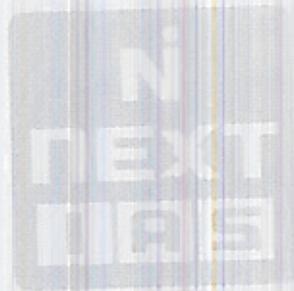
- Risk of on Health - lack of comprehensive studies on impact of use of nanotechnology in food system on human health
- may alter natural process of evolution of pests.
- Farmers reluctant on using it
- Apprehension on productivity losses
- Fertiliser subsidies disincentivises uptake.
- ~~Risk of food safety~~ &
Risk of effect on nutritional attributes of crop.

- Way Forward
- Extension services on Usage
 - Availability to farmers
 - Roping in SHGs in distribution of nano-fertilisers.

Emerging research on nanotechnologies highlights its immense potential in improving agriculture productive. However, studies need to be undertaken to assess potential risks involved.

16. 2023 का भौतिकी का नोबेल पुरस्कार क्वांटम डॉट्स के संश्लेषण की खोज के लिए एकिमोव, रुस और बावेंडी को संयुक्त रूप से दिया गया। इस संदर्भ में क्वांटम डॉट्स के अनुप्रयोगों पर चर्चा कीजिए। (15 अंक, 250 शब्द)
The Nobel Prize in Physics of 2023 was jointly awarded to Ekimov, Brus and Bawendi for the discovery of synthesis of quantum dots. In this context, discuss the applications of quantum dots. (15 marks, 250 words)





Candidates must not
write on this margin



17. भारत में जैव विविधता संरक्षण में आरक्षित क्षेत्रों (Protected areas) की भूमिका का मूल्यांकन कीजिए। भारत की जैव विविधता को संरक्षित करने में राष्ट्रीय उद्यान, वन्यजीव अभयारण्य और बायोस्फीयर रिजर्व (जैवमंडल निचय) कितने प्रभावी रहे हैं? (15 अंक, 250 शब्द)

Evaluate the role of protected areas in biodiversity conservation in India. How effective have national parks, wildlife sanctuaries, and biosphere reserves been in preserving India's biodiversity? (15 marks, 250 words)

~~India is endowed with~~

Biodiversity Conservation Act of 2002 provides the overall architecture for protection and preservation of biodiversity in India.

~~In situ Biodiversity protection involves~~

Biodiversity protection refers to the activities and processes undertaken to check ~~the~~ man-animal conflict, habitat destruction, poaching etc activities detrimental to survival of different species.



↓
Protection of Biodiversity in its Natural Habitat

Role of protected areas in Biodiversity conservation

- Habitat preservation of niche communities
- availability of prey and water.
- ~~the~~ Veterinary Health Services
- Constant monitoring & surveillance eg- radio collar
- Anti-poaching measures
ex- RSE → Kaziranga NP.
- Reduction in man-animal conflict.
- Improvement in numbers of endangered species eg- Tigers
- Special Rehabilitation programmes
eg Species recovery programme led to improvement in population of Vultures -
- Reintroduction of species
African cheetah intro sourced from SAfrica being reintroduced in Kuno ~~Forest~~ National Park

Evaluation

- Continued poaching
- wildlife trafficking
- Man-Animal conflict not ~~is~~ under control
eg - Elephant killing humans in Kerala
- lack of optimal manpower in forest administration
- Alienation of rights of indigenous people
- Lack of integration of knowledge of tribals
in biodiversity conservation.

The ~~ongoing~~ impending Anthropogenic mass extinction calls for urgent measures to ensure protection & survival of biodiversity in order to protect nature and the harmonious interaction among species.

18. भारत में पार्टिकुलेट मैटर (PM_{2.5} and PM₁₀) और ओजोन प्रदूषण के उच्च स्तर होने के क्या कारण हैं? पार्टिकुलेट मैटर और ओजोन प्रदूषण को कम करने के लिए सरकार द्वारा किए गए विभिन्न प्रयास कितने प्रभावी रहे हैं?

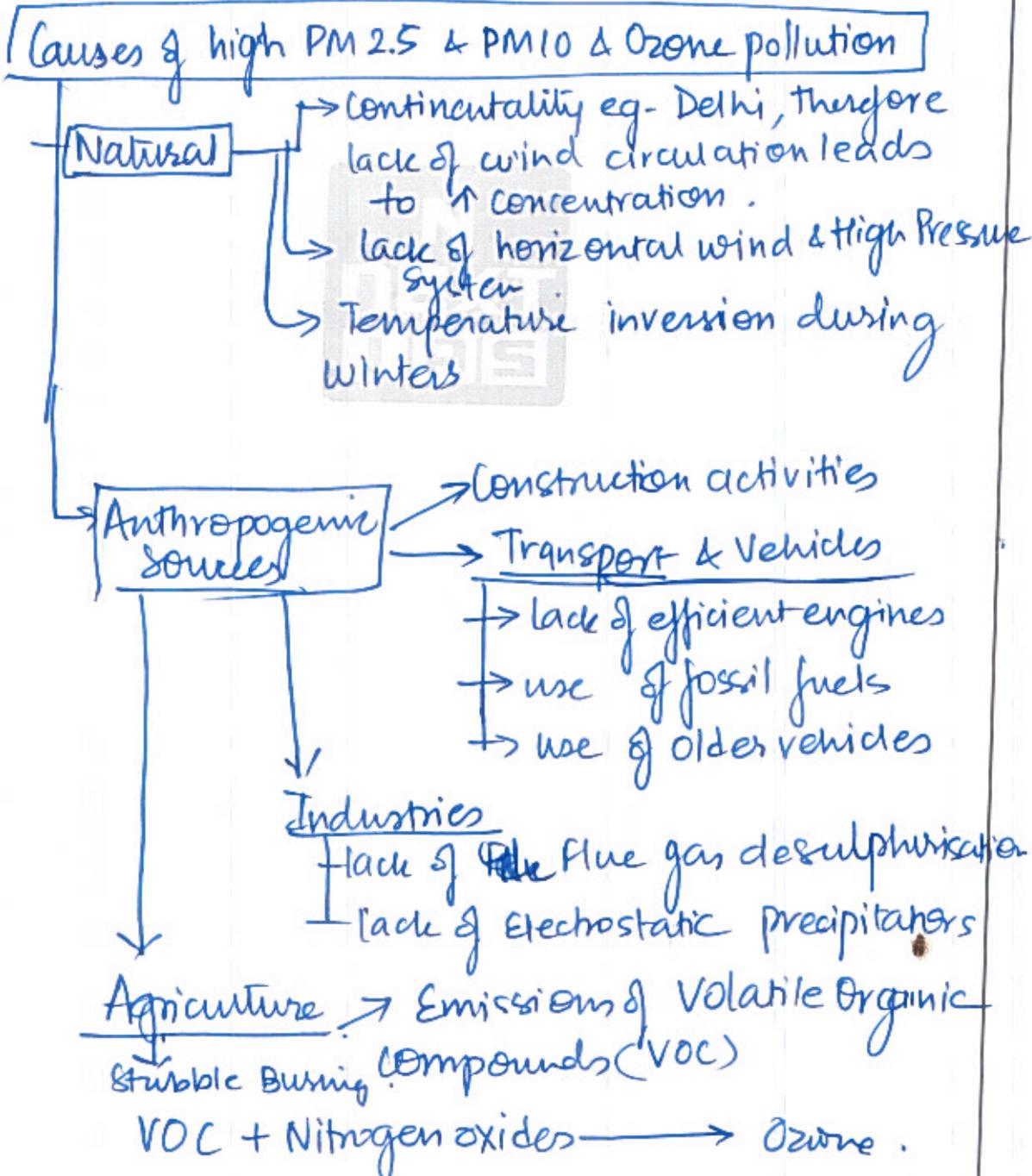
(15 अंक, 250 शब्द)

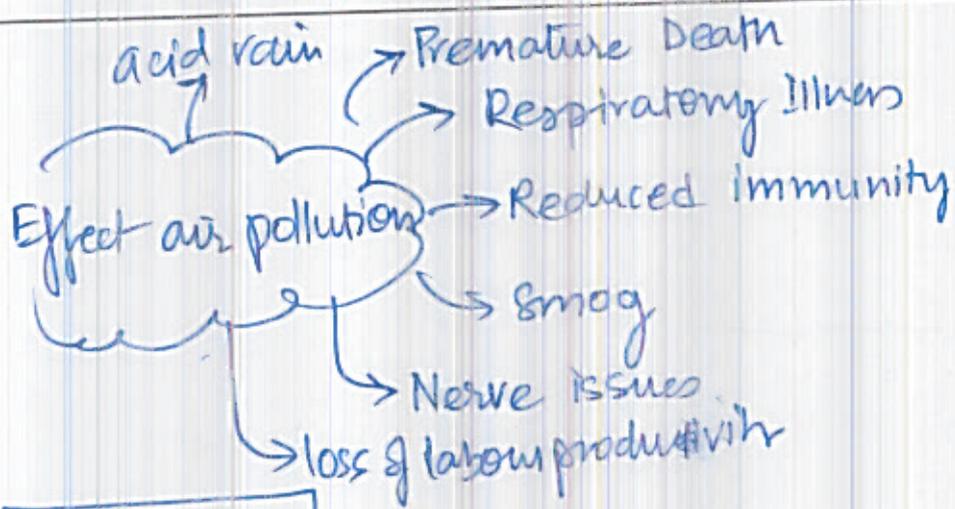
What the causes of high levels of particulate matter (PM_{2.5} and PM₁₀) and ozone pollution in India. How effective are the various steps taken by the government to mitigate particulate matter and ozone pollution?

(15 marks, 250 marks)

According to WHO,

India is home to 14 out of 20 most polluted cities in the world.





Steps taken

- Air Quality Index (8 parameters measured)
ex- ~~CO~~ carbon monoxide, methane etc.
- Graded Response action Plan (GRAP)
- National Capital Region Air Quality management Committee
- CPCBs & SPCBs
- Air Act 1981
- BS-6 Vehicle mandate

Effectiveness of steps undertaken

- Air pollution instead of abating, has been increasing
- according to WHO PM emissions in Indian Delhi is more than 10 times of what is permissible

- Thick layer of smog seen in major cities in winters
- Damage to crops and monuments due to ~~ex~~ acid rain
eg- Marble cancers.
- Increase in Respiratory issues among citizens especially urban residents.

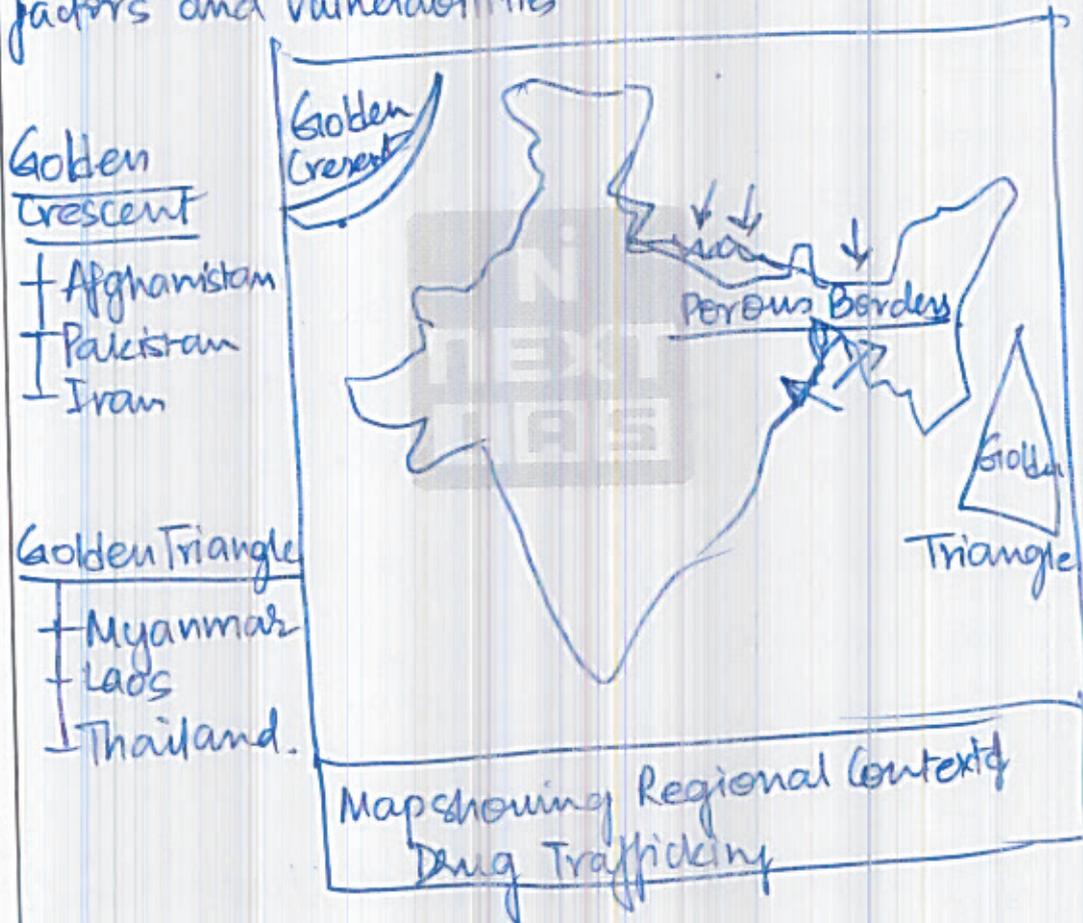
Way forward

- Strict implementation of regulations for industries such as construction and chemical industries
- ↑ Interdepartmental Coordination
- Cooperative Federalism in dealing with the issue collectively instead of blame game -
- ↑ Technologies of CCUS
- ↑ Electric vehicles
- ↑ R&D on Green Hydrogen Production
- Efficient Agriculture Practices
- use of Combine Harvesters, Happy Seeder etc to deal with stubble burning
- ↑ incentivise efficient & less polluting industries.

Comprehensive solution to the menace of air pollution lies in individual, community, and national and International cooperative efforts

19. अंतर्राष्ट्रीय नारकोटिक्स नियंत्रण बोर्ड (INCB) रिपोर्ट 2023 दक्षिण एशिया में मादक पदार्थों की तस्करी के बढ़ते खतरे को प्रदर्शित करती है, जिसका कि भारत एक प्रमुख केंद्र है। भारत के संदर्भ में इस चुनौती के विभिन्न आयामों का विश्लेषण कीजिए। साथ ही, इससे निपटने के लिए बहु-आयामी दृष्टिकोण भी सुझाए। (15 अंक, 250 शब्द)
- The International Narcotics Control Board (INCB) Report 2023 highlights a growing menace of drug trafficking in South Asia, with India being a major hub. Analyze the various dimensions of this challenge with respect to India. Also suggest a multi-pronged approach to address it. (15 marks, 250 words)

Drug Trafficking has been a major internal security challenge for India, due to various factors and vulnerabilities



Dimensions of the challenge

- National Security
 - ii) Linkages between drug trafficking and organised crime.
 - eg- Taliban involvement in poppy production.

- 1.2) Drug trafficking through porous borders
eg- FMR in Myanmar, riverine tracts in
Indo-Bangladesh Border
- 1.3) Money laundering and Terrorist financing
Drones from Pakistan carrying Drugs to
Punjab
- 1.4) Boost to internal actors in terms of financial
help.

2) Socio-economic

- 2.1) Drug ^{use} menace among youths of Punjab
- 2.2) Economic effects such as money laundering
and tax evasion
- 2.3) Can create law and order issues
- 2.4) Increase in internal security challenges.
- 2.5) Increase in security expenditure &
diversion of resources from development
needs.
- 2.6) Intimately linked with other crimes such as
human trafficking

Multi-pronged approach to address it.

- 1) Border security needs to be beefed up
especially along undemarcated borders
- 2) Increase in Border infrastructure
→ Floodlights
- Smart Fencing

→ 3) Anti-drone capabilities needs to be boosted

→ 4) Increased efficiency of customs checks.

→ 5) Gather sufficient intelligence about players involved

→ 6) Regional Cooperation

Leverage forums such as BIMSTEC, SAARC & ASEAN.

→ 7) Dealing with drug use among youths

→ Rehabilitation Centres ↑

→ Proper counselling apparatus

→ 8) Strengthen implementation of NDPS Act.

The drug menace is not only an ^{internal} security issue but has wide socio-economic ramifications. Concentrated efforts to choke the supply needs to be taken at war footing.

20. वामपंथी उग्रवाद के प्रति भारत की प्रतिक्रिया (कारवाई) में नक्सलवाद के मूल कारणों को दूर करने के लिए कठोर सुरक्षा उपायों के साथ-साथ सामाजिक-आर्थिक नीतियों और संवाद जैसे नरम दृष्टिकोणों/उपायों (Soft approaches) को एकीकृत करने की आवश्यकता है। चर्चा कीजिए।

(15 अंक, 250 शब्द)

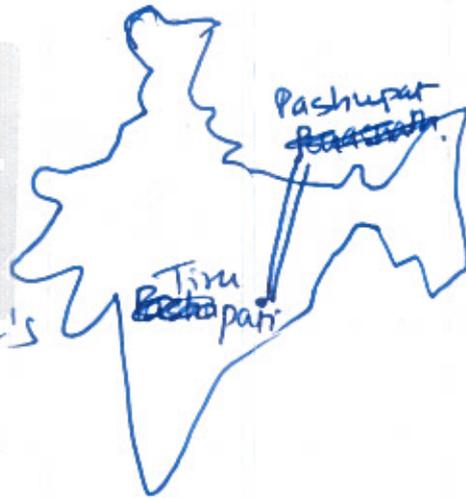
India's response to left wing extremism needs to integrate soft approaches like socio-economic policies and dialogue along with hard security measures to address the root causes of Naxalism. Discuss.

(15 marks, 250 words)

Ex Prime minister Dr Manmohan Singh had labelled LWE as the ~~single most~~ gravest internal security threat.

Naxalism began ~~with~~ in Naxalbari of WB in 1960s, espousing the ideals of Leninism, Maoism and Marxism.

Aim of Naxalism - to establish people's democratic rule through protracted people's war against the state



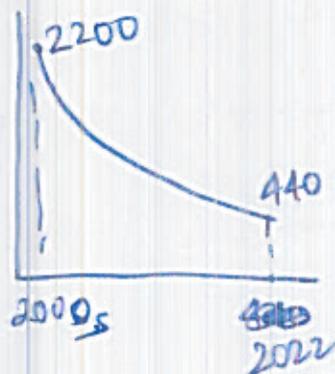
Causes

- Unfinished agenda of land reforms.
- underdevelopment
- Unemployment & Poverty
- Displacement (40% displaced are tribals)
- External support (Mao supports Naxalism in India.)
- Lack of access to land rights & land alienation.

Thus, since the causes of Naxalism is multidimensional—thus a blended approach is required to address root causes of it.

Soft-Approaches

- Development is the best disinfectant in terms of LWE
- Balanced regional economic growth
- Enhancing reach of democratic ideals in LWE affected pockets
- ↑ Sensitivity of Bureaucracy and Politicians
- Checking emergence of political vacuum in such areas
- Dealing with sympathisers of such ideology
- Displacement for national projects must take into account social impact and proper rehabilitation shall be ensured.
- Since the last decade these approaches along with security measures have been successful in decreasing LWE incidents



→ ↑ Connectivity eg- roads

→ Human development eg- ~~sch~~ Eklatanya Residential schools

Security measures undertaken

- + Deployment of CAPFs along with State Police
- + Specialised forces eg - Greyhounds of AP.
- + Interstate coordination among forces to flush out naxals.
- + Security related Expenditure scheme (MHA)
- + Offensive ~~capa~~ & Defensive capabilities of forces improved.
- Anti Naxal operations.

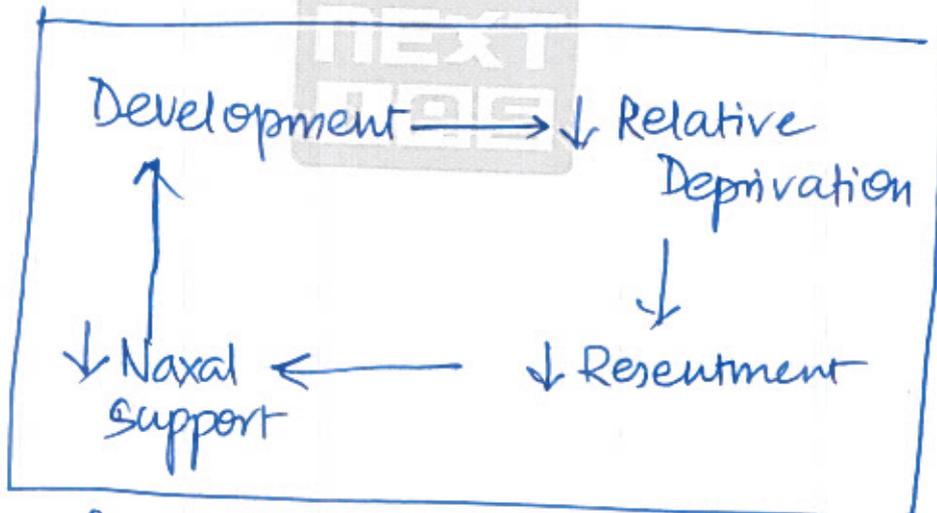


Fig: Development as facilitator of LWE eradication.

The vision of Viksit Bharat must realise the aims & aspirations of all sections of society which will nip ~~and~~ left wing extremism in the bud.

NEXT IAS

Space for Rough Work

NEXT IAS

Space for Rough Work

NEXT IAS

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2. Do not write anything other than the actual answers to the questions anywhere inside your QCA Booklet.
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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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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.
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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 SCANNER) 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।

