

NEXT IAS

MAINS TEST SERIES 2.0 - 2025 (FLT)

(To be filled by candidate)

TEST CODE : FLT2503**Test No. : 03**Name of Candidate: Muhammed Suralah Ta Mobile No. XXXXXXXXXX

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

Date of Examination: 25-6-25 Medium : English ☒ Hindi ☐

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

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

GRAND TOTAL -/ 250**EVAL CODE:** **EVAL DATE:****GENERAL INSTRUCTIONS**

1. Immediately on receipt of the QCA booklet, please check that this QCA booklet does not have any misprint or torn or missing pages or items, etc. If so, get it replaced by a fresh QCA booklet.
2. Candidates must mention all relevant details like Name, Email, Roll No, Mobile, etc. in the space allocated.
3. Candidate is expected to attempt all 20 questions within the given timeline.
4. Answers must be written in the medium authorized at the time of admission.
5. Candidates must write answers for the specific question under the respective question itself. Any answer written outside the space allotted may not be given credit.
6. Please write neatly. Avoid illegible writing.
7. Do not write/mark irrelevant matters in the QCAB.

सामान्य निर्देश

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

REMARKS:**FOR OFFICE USE ONLY**

<u>Student Concerns / Query</u>	<u>Evaluator's Feedback / Response</u>
1. Please check factual accuracy.	1.
2. Let me know the questions where I can use Constitutional articles.	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.

<u>IMPORTANT QR CODES</u>	
 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





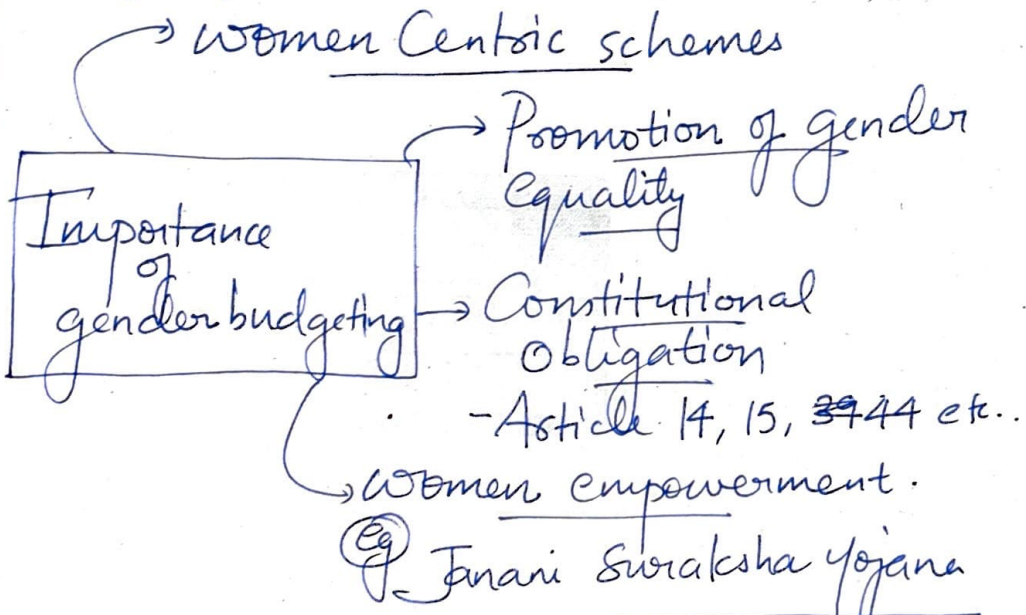
1.

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

The recent push towards gender budgeting in the Government Budget reflects its importance for women empowerment. What are the recent initiatives towards gender budgeting in India and their importance?

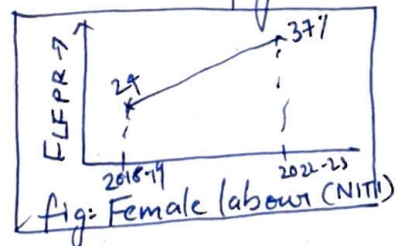
(Answer in 150 words) 10 Marks

India increased its gender allocations under gender budgeting to 6.1% of total budget (Eo Survey 2023-24).



Recent initiatives

① State level



① Gender budgeting at State level.

Eg. Karnataka budget.

② State level initiatives

Eg. Mahalakshmi Scheme of Karnataka.

II / Central

- ① Mo women and Child development initiated Gender budgeting from 2005-06
- ② women specific allocations
 - ⓐ Lakhpati didis, ~~Drone~~ Didi's
- ③ Gender allocations with Schemes
 - ⓐ 40% reservation for women in Standup India.

Wayforward

- ① Raise the share of gender budget in total budget
- ② Incorporation of Sexual minorities
 - ⓐ SC in Narve Singh Johar care

India should focus on female empowerment to move from women development to women led development (PM Modi)

2.

बंदरगाह आधारित विकास को भारत में आर्थिक विकास और क्षेत्रीय एकीकरण के प्रमुख चालक के रूप में देखा जाता है। चर्चा कीजिए कि सागरमाला पहल किस प्रकार बंदरगाह आधारित विकास और तटीय अर्थव्यवस्था को बढ़ावा दे सकती है।

(उत्तर 150 शब्दों में दीजिए) 10 अंक

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

(Answer in 150 words) 10 Marks

India's Sagarmala initiative focuses on port led development where 85% of trade by volume and 70% by value is carried out.

Role of Sagarmala

I Port led growth

① Landlord approach

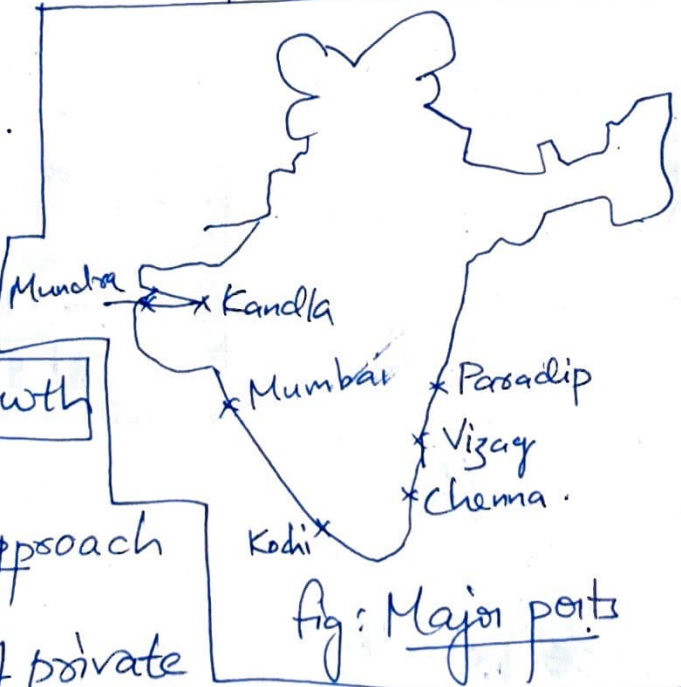
- Promotion of private outsourcing contributing local economy.

② Major port trusts

- decentralisation of power.

③ Incorporation of State government.

④ Reduction Target reduction of turn around time



- Improve Market Competitiveness

eg India's Mumbai has turnaround time of 62 hours. against 24 hrs in Japan.

Coastal economy

① Rail and road development
- Integrates markets.

eg Northern and Eastern freight corridors.

② Promotion of exports

eg Current 14% to 8-9%.

③ Reduction of logistics cost

eg Inland water ways like NWT from Allahabad to Haldia.

④ Promotion of MSMEs

eg INS Vikrant employed 500 MSMEs.

Way forward

① Integrate Sagarmala with Bharat Mala.

② Promotion of Integrated Cargo hubs.

For a sustainable port led development, Sagarmala should incorporate elements of Blue economy.

3. गैर-कृषि अर्थव्यवस्था में पशुपालन के महत्व पर चर्चा कीजिए। पशुपालन को बढ़ावा देने के लिए हाल ही में प्रस्तावित पशुधन जनगणना की क्या आवश्यकता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक
- Discuss the importance of livestock farming in a non-farm economy. What is the need for the recently proposed livestock census in promoting animal husbandry?
- (Answer in 150 words) 10 Marks

Livestock and Cattle
 Constitutes the ~~around~~ farming
 Contributes 5% of all farm income in
 Country.

Importance of livestock
 farming in non farm

Livestock
 Sector

→ 534 mn Cattle
 → 70% women

① Alternative income

Source. in low income non farm employees

② World's largest producer of Milk.

③ Women Empowerment and rise in female labour force participation (FLFP)

④ 70% employees are women.

⑤ Established Supply networks

⑥ 5th largest exporter of milk.

⑦ Promotes transition to non farm sectors

⑧ Less requirement of land.

⑤ Nutritional Security

eg Milk and Meat to fight hidden hunger.

⑥ Government Support and Initiatives

eg National Dairy development board.

Need for Livestock Census.

① To ensure targetted approach of schemes.

eg Rashtriya Gokul Mission.

② ~~Miss~~ Measure the impact of epidemic.

eg Brucellosis, FMD.

③ Ensure the growth and profitability in the sector.

Wayforward

① Increase ~~ve~~ the number of Veterinarians.

eg 1 lakh Veterinarians for 534 mn Cattle (Agri Census).

② Development of Cold Storage ^{infrastructure}.

We should incorporate White revolution as an essential part of Evergreen revolution.

4.

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

How can minimum support prices help in promoting farmers' income? What are the challenges faced by farmers in accessing the benefits of minimum support prices?

(Answer in 150 words) 10 Marks

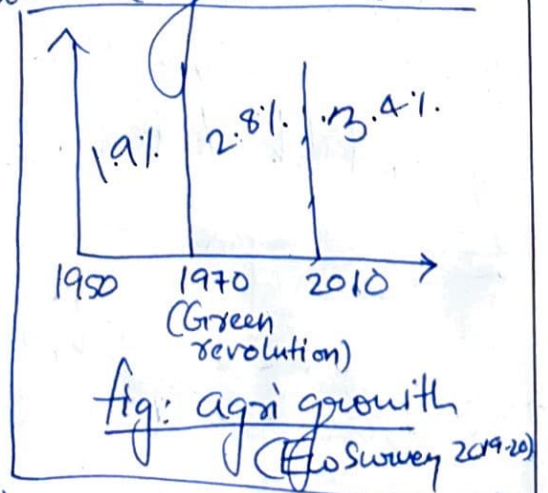
Minimum Support price (MSP)
Ensures assured price and assured market for farmers (M.S. Swaminathan)

Benefits

- ① Reduce market variability
 (a) Recession in producer prices.
- ② Protects farmers from illegal hoarding and middlemen
- ③ Ensures food security
 (a) FCI procurement in MSP.
- ④ Promotes agricultural growth

⑤ Reduce rural poverty

(a) 10/24 48% of rural households in agriculture (CNABARD).



Challenge in accounting benefits

① State wise differences

eg FCI procurement in Punjab & Haryana.

② Cereal Centric nature

- Disincentivise millet varieties

③ Benefits Large farmers

eg Subsistence nature of farming in Eastern India.

④ Does not benefit landless labourers

eg 104mn Landless labourers (Census 2011).

Wayforward

① Universal Basic Income

eg PM KISAN-

② Private investment

eg Private procurement and Stockists scheme.

③ ~~Add~~ Acknowledge women's contribution

eg 33% of labour and 12.8% cultivators (Oxfam).

MSP should focus on market intelligence to make Indian agriculture globally productive.

5.

कृत्रिम तंत्रिका नेटवर्क क्या हैं? मशीन लर्निंग और कृत्रिम बुद्धिमत्ता में उनके महत्व पर चर्चा कीजिए।

(उत्तर 150 शब्दों में दीजिए) 10 अंक

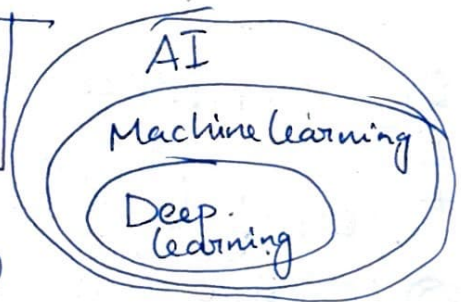
What are artificial neural networks? Discuss their importance in machine learning and artificial intelligence.

(Answer in 150 words) 10 Marks

Artificial Neural Networks.

(ANN) are a form of Generative Adversarial Network. in deep learning that mimics human brains and take decisions.

Importance in Machine Learning & AI



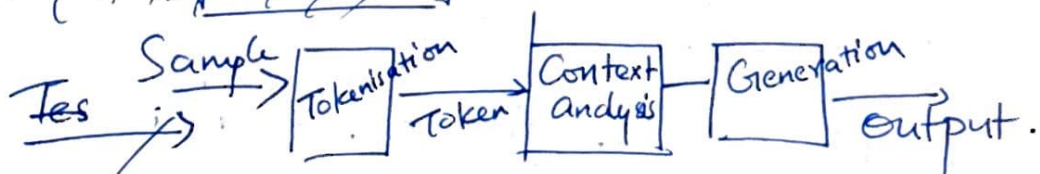
① Ability to deal with unstructured data

eg 8mn data processed by AI in my Grov App.

② Self Learning and Self Correction
- improving AI's overall accuracy.

③ Generate new content

Sample



eg Musenet which can create new songs.

ANN

- Subset of Machine Learning
- Text, ~~or~~ Visual and auditory output
- Mimics human brain

Machine Learning

- Includes other models like normal discriminators.
- ML involves the ability to learn

Challenges

- Job loss @ 70% of jobs will be replaced by 2050
- Explainability
 - lack of explainability of decisions
- Biases
 - based on the data
- Patent Violation

~~AI~~ Deep learning algorithm

like ~~AI~~ ANN can replace human intellect but it will take more time to challenge human Consciousness.
(Yuval Noah Harari)

6. रक्षा क्षेत्र और आधुनिक युद्ध में मानव रहित हवाई वाहनों (यूएवी) के महत्व पर चर्चा कीजिए।

(उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss the importance of Unmanned Aerial Vehicles (UAVs) in the defense sector and modern warfare.

(Answer in 150 words) 10 Marks

UAVs are the new entrant
in the lexicon of ~~Ass~~ warfare challenging
Conventional weaponry.

Importance of UAVs

I Defence Sector

① Surveillance due to low detectability

② India's Ground during Surgical strike.

③ Cost effective

④ Low Cost of production.

⑤ No loss of human lines

II Modern Warfare

① Asymmetric warfare

② Iran's Shaheed drones challenging
Israeli Airpower (2025).

③ Precision attacks

④ Harpy Harop munitions during
Op. Sindoor

③ Faster production and development

eg Iran's Kamikaze drones.

Challenges

① Cross border terrorism

eg Drones in P. Uri attack 2016.

② Disproportionate damage.

eg Anonymity of operator.

③ Evade missile defence systems

eg Iranian Kamikaze neutralising
Iran dome

Like every technology,

★ UAVs are a double edge sword.
its use should be regulated
within legitimate states and under
International Law

7.

समुद्री और तटीय पारिस्थितिकी तंत्र पर तेल रिसाव के पर्यावरणीय प्रभावों की जांच कीजिए। तेल रिसाव की सफाई के लिए इस्तेमाल की जाने वाली विभिन्न विधियाँ क्या हैं?

(उत्तर 150 शब्दों में दीजिए) 10 अंक

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

(Answer in 150 words) 10 Marks

Oil spills threatens the Marine ecosystem, Coastal population as well as pollute the larger environment.

Environmental impact of oil spills.

I Marine

① Affects fisheries

eg ~~A~~ Clog their fins and affects respiration.

② Bleaching of coral reefs

eg Due to water pollution.

③ Bioaccumulation and Biomagnification

eg ~~Affects~~ +

II Coastal ecosystem

① Affects Carbon Sequestration

eg Oil spills forming a layer.

② Harmful Chemical infusion in Coastal areas.

③ Reduce Affects Water cycle

⑨ Reduced evaporation.

④ Various measures to tackle oil spills

① Trained manpower for quick response

⑨ Indian Coast guard to deal with oil spills.

② Technological measures

⑨ Oil Zapper bacteria by Teri

③ Traditional method

⑨ Wood powder, Chalk etc.. to absorb oil

In addition to these,

Global agreements like Bunker Convention, White Shipping ~~e~~ agreements etc.. helps to reduce this menace.

8.

भूकंप संबंधी आपदाओं के प्रति उत्तरी भारत की संवेदनशीलता पर चर्चा कीजिए। उनके प्रभावों को कम करने में भारत की तैयारियों पर प्रकाश डालें।

(उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss the vulnerability of northern India to earthquake-related disasters. Highlight India's preparedness in mitigating their impacts.

(Answer in 150 words) 10 Marks

Around 58% of India's land area are vulnerable to earthquakes (NDMA).

Vulnerability in Northern India

① All Himalayan States: Ladakh, J&K, Himachal, Uttarakhand, Sikkim, and North East



Fig:- Earthquake vulnerable areas

② Gangetic plains: Northern part of Bihar and Darjeeling in West Bengal

③ North East India

④ Earthquake swarms in Delhi NCR.

→ Plate margins eg Himalayas.

→ Reservoir induced

eg Dams in Uttarakhand

Reasons

→ Press Unplanned Urbanisation

→ Unsustainable infrastructure

eg Delhi
eg Chandham.

Preparedness in dealing earthquake

- ① Indiaguake app -- for dissemination of alerts.
Comprehensive
- ② National Earthquake Risk Mitigation project, 2015
↳ for addressing Vulnerabilities
- ③ National Retrofitting Mission
↳ To retrofit structures to reduce
④ Base dampening of building Vulnerability
- ④ Ecologically Sensitive areas under EPA, 1986 to reduce ~~Gov~~ unsustainable Construction in vulnerable areas.

Earthquakes Cannot be prevented, So the focus should be on risk reduction through proactive measures.

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

(उत्तर 150 शब्दों में दीजिए) 10 अंक

Discuss how cryptocurrency and other emerging technologies contribute to the menace of money laundering and terror financing. What steps have been undertaken by the Government of India to tackle this issue?

(Answer in 150 words) 10 Marks

4 Home Minister pointed out Terrorism shifted from 'AK-47 to Crypto assets', underlying its threat in Money laundering (ML)

Technologies aiding ML and terror financing

1) Lack of Ungovernability of Cryptocurrencies → Easier transfer

eg) Drug money through Crypto transfer.

2) Conversion of Crypto into dollars

eg) Ecuador accepting Crypto as currency.

3) Lack of traceability → Pseudoanonymity

↳ leading to difficult in law enforcement

4) ~~eg~~ Challenges State Sovereignty

eg) Crypto transfer by Hawala agents.

⑤ Bogus transfers for reintegration

eg Purchase of
Non Fungible
Tokens.

Steps undertaken by
Government



① Financial Intelligence Unit — to monitor large transactions

② Introduction of Central Bank digital Currency

③ Global Cooperation

eg 1) FATF 2) Eurasian group.

Crypto currency and ML can be effectively curbed only through transnational Collaboration than any national initiative due to its cross border nature.

10. हाइब्रिड युद्ध क्या है? यह पारंपरिक युद्ध से किस प्रकार भिन्न है? भारत हाइब्रिड युद्ध की चुनौतियों का सामना किस प्रकार कर सकता है? (उत्तर 150 शब्दों में दीजिए) 10 अंक
- What is hybrid warfare? How is it different from conventional warfare? How can India navigate the challenge of hybrid warfare? (Answer in 150 words) 10 Marks

Hybrid Warfare is a form of greyzone warfare which is a form of Confrontation between anywhere between a mere threat to direct Conflict.

Hybrid Warfare

- ① Lack of Common definition
- ② Use of Unconventional tools
e.g. drones, legal.
- ③ Intellectual warfare, Legal warfare, Psychological warfare etc.
- ④ No differentiation between Civil and Military infrastructure

Conventional Warfare

- ① Defined under UN
- ② Use of Conventional tools
e.g. Airpower, Guns.
- ③ Border skirmishes
- Total war etc.
- ④ Differentiation between Civil and Military.

⑤ Low entry threshold

⑤ High entry threshold.

④ Deniability for damages.

⑥ More accountability under International law.

Measures that India need to take

- ① Development of Cyber Offensive Capacities
- ② Cyber warrior force of Israel.
- ② Counter measures for Cartographic and intellectual war
- ③ India naming places in Tibet.
- ③ ~~At~~ gapping of Critical infrastructure
- ④ Direct military action
- ④ Op. Sindoor..

India showed resolute response to hybrid warfare of adversaries, but the focus should be on long term information and perception warfare to protect national interests.

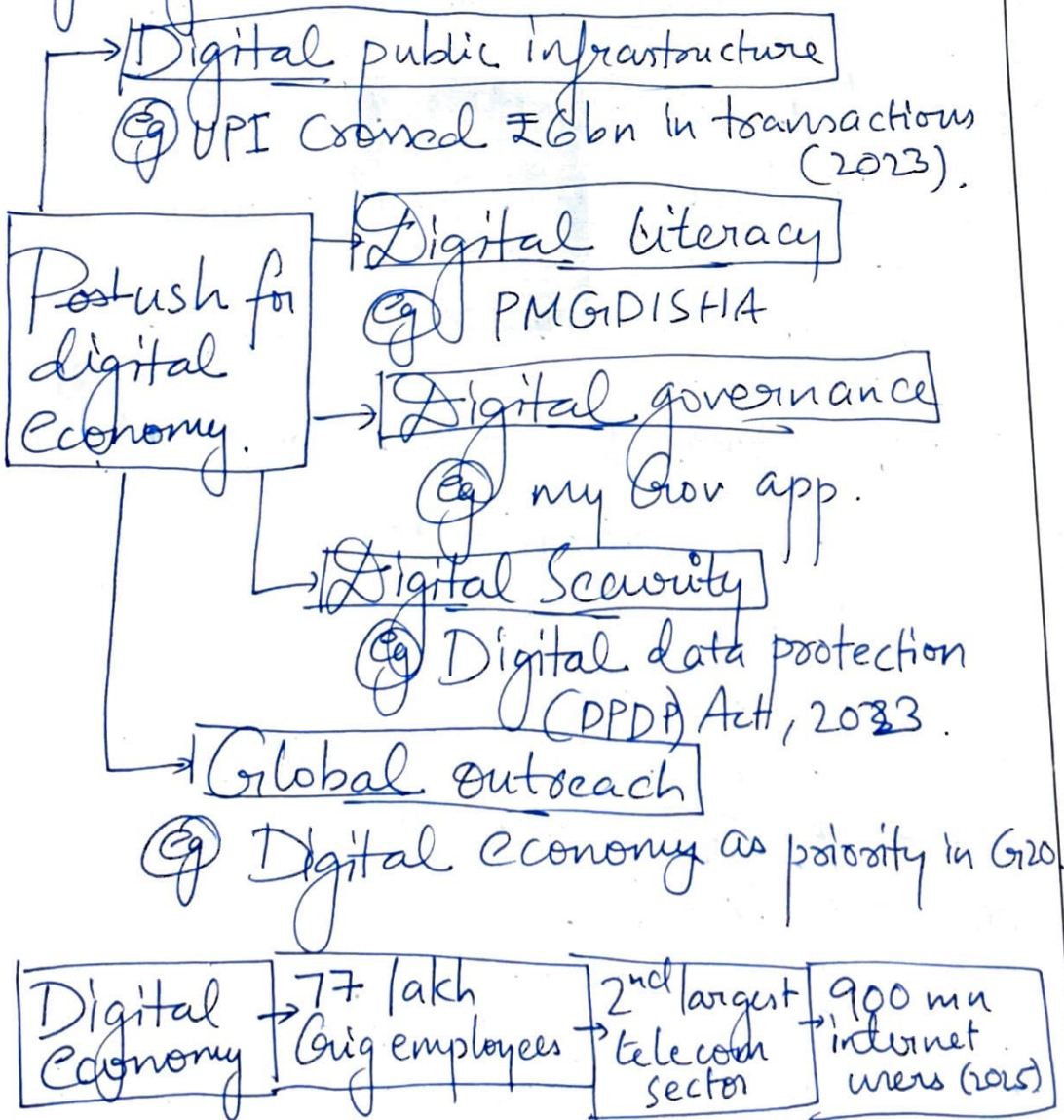
11.

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

Despite India's push for a robust digital economy, India faces challenges with regard to digital inclusion. Discuss. Suggest measures to ensure equitable access to digital resources.

(Answer in 250 words) 15 Marks

India's average internet Consumption reached 24.1 GB per Capita (2023) (Nokia report), underlying the growth of digital economy in country.



Challenges in digital inclusion

① Rural - Urban divide

② Tele density — $\begin{cases} \text{Rural} - 34\% \\ \text{Urban} - 134\% \end{cases}$

② Gender gap

③ Women are less likely to use than men by 70% (MOWCD).

③ Lack of Internet shutdowns

④ 84 documented Shutdowns in 2022 (Accenow).

④ Digital illiteracy

— due to ~~economy~~ overall literacy.

⑤ Geographic access

⑥ Lack of network access in Himalayas.

⑥ Demographic divide

⑦ Older people has lower access to digital internet

⑧ Overall 44% literacy for adults above 60 years

Suggested measures for equitable access

- ① Right to internet as Fundamental
- ② SC in Anuradha Bhasin case ^{right}
- ③ State provision of internet
- ④ K+FON of Kerala.
- ⑤ Digital literacy from school
- ⑥ Satya e-paathshala scheme.
- ⑦ Robust execution of data protection law.
- ⑧ Ramp up Digital In Bharatnet initiatives
- ⑨ Digital Bharat Nidhi funds for is development of backward areas.

We should focus on

Data for the people, by the people and
of the people as a right to ensure
inclusive digital economy (Eo Survey)



12.

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

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

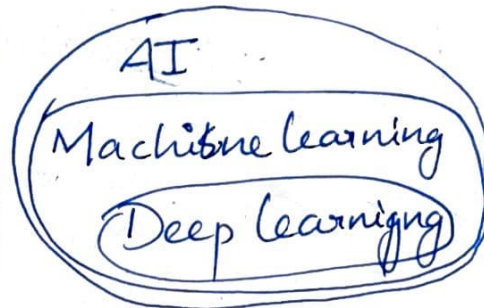
Artificial Intelligence has the potential to make 70% of existing jobs obsolete by 2050 (ILO).

General Adversarial networks

AI

LLMs

Big data analysis.



Impact of AI in ~~economy~~ employment

① Replace redundant jobs

② AI in Amazon warehousing.

② Affects Creative industries and jobs

③ Musenet can create music scores.

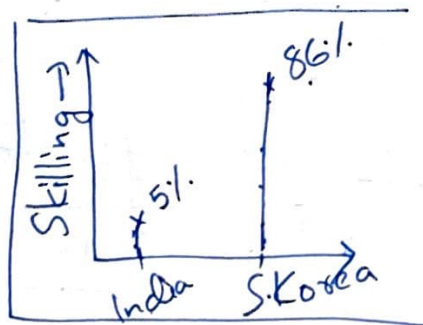
③ Ability to Self learn deal with Unstructured data

↳ Jobs loss in IT and Consultancy.

- ③ AI analysis 8mn responses in my GroV app.
- ④ ~~AI~~ Autonomous cars and flights
- ⑤ India will not introduce autonomous vehicles due to loss of jobs of drivers (Minister Nithin Gadkari)
- ⑥ Role in Medicines and Surgery
- Replacing medical professionals
- ⑦ e-Sanjeevani incorporates AI
- ⑧ 'AI + Robotics' used in defence
leading to defence job losses
- ⑨ Killer robots.
- ⑩ AI in Content Creation and Literature - leading to loss of jobs in literary sector.
- ⑪ AI in Software development
- ⑫ Infos uses AI with 80% accuracy.

Suggested measures

- ① Promote Sectors with employment elasticity
- ② Apparel Industry can produce 80 times more jobs than Automobile (Eco Survey 2017+18)
- ② Employment linked Incentive Scheme
- ③ Address Skill gap.
- ④ B Tech in AI at IIT Hyderabad.
- ④ Promote R&D in AI
- ⑤ Promote AI based Startups
- ⑥ 45% Startup in India uses Deep Learning (NASSCOM).
- ⑥ Ensure AI regulation to limit its adverse impact.



We should incorporate AI as into our public policy as AI is an essential part of India tomorrow (PM Modi)

13.

भारत में फसल-उपरांत होने वाला नुकसान प्रतिवर्ष लगभग ₹1,52,790 करोड़ है। भारत में फसल-उपरांत होने वाली हानियों के लिए किस हद तक कृषि उत्पादों के परिवहन और विपणन में आने वाली बाधाओं को जिम्मेदार ठहराया जा सकता है?

(उत्तर 250 शब्दों में दीजिए) 15 अंक

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

(Answer in 250 words) 15 Marks

Despite being the largest producer of horticulture, 2nd in Rice and Wheat, and first in milk, Post harvest losses increases countries land equivalence ratio.

Reasons for Post harvest losses

I Transport

① Lack of linkages

ⓐ 70% of transport thorough Roads with high costs.

② Lack of Cold storage infrastructure

ⓐ Lack of Value addition in milk.

③ Weak Storage infrastructure

ⓐ Brick and mortar structures.

④ State monopoly in procurement
- lead low private participation.

Q Open ended procurement of FCI.

I Marketing

① State Controlled markets.

Q Mandi System with low storage facilities

② Low market intelligence leading to losses.

Q 30% food inflation for Onion in 2024.

③ Essential Commodities Act

depromoting private procurement

- leading to less post harvest losses.

④ 'First in first out' Scheme of FCI

- leading to ^{loss} wastage of quality

III Other factors

① 'Wastage of food' at Consumers end.

Q An average Indian wastes 52kgs of food in an year (WHO).

② Subsistence & Lack of Food processing

- due to govt State dominance.

③ Natural Calamities

Q Flooding.

Suggested measures

- ① Development of Cooperatives
- better price realisation and warehousing
 - ② IFFCO.
 - ③ Incorporation of Food processing
- better shelf life sector (Shanta Kumar Committee)
and higher price realisation
- Industrialisation of Rural areas
 - ④ Transition to high value crops
(Ashok Dalwai)
 - ⑤ 134% growth in Honey sector between 2014 & 2023
 - ⑥ Private participation in Storage infrastructure
(Shanta Kumar Committee)
- Government has identified the need to address this challenge and came up with initiatives like Mega foodpark scheme, PM KISAN, PM FASAL (for insurance) etc..



14.

भारतीय कृषि में प्रत्यक्ष और अप्रत्यक्ष सब्सिडी क्या हैं? इन सब्सिडी ने देश की फसल विविधता और कृषि अर्थव्यवस्था को किस प्रकार प्रभावित किया है?

(उत्तर 250 शब्दों में दीजिए) 15 अंक

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

(Answer in 250 words) 15 Marks

India introduced
subsidies in 1960s to ensure the
assured goals of rural prosperity and
food security

Direct

① Cash incentives for consumption

eg PM KISAN

② ~~Credit Support~~ Minimum Support price

③ Fertilizer Subsidies

eg Urea Subsidy.

④ Sub

Subsidies
in
Agriculture

Indirect Subsi

① Power Subsidies

eg 79% ground water in
irrigation.

② Subsidised Insurance

eg PM KISAN.

③ Subsidised transport

eg Agri Udaan

NEXT IAS

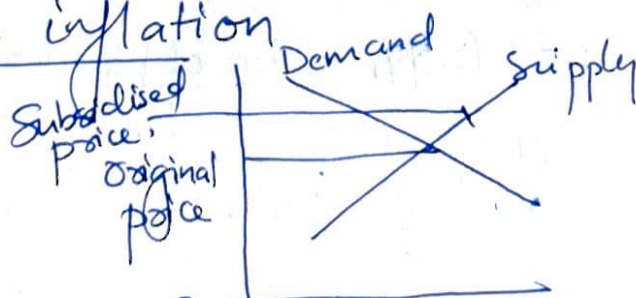
Pg 31

Impact of SubsidiesI Cropping diversity

- ① Ensures assured price and Market (M.S. Swaminathan)
- ② Nudge to adopt sustainable practices
- ③ Subsidies to shift from stubble burning
- ④ Promote mechanisation of agriculture
- ⑤ ~~54%~~ ^{45%} profitable mechanisation in India (54% - China).

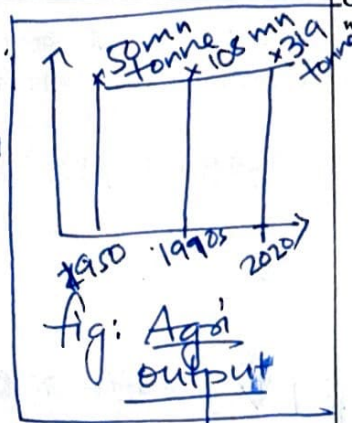
Challenges

- ① Shift to Cereal Centricity
- ② Shift from Millets to Rice in Punjab
- ③ Artificial inflation
- Crowd out private sector
- ④ Salinisation of Soil & loss of fertility
- ⑤ Saline soil in Punjab
- ⑥ Perpetual dependency.



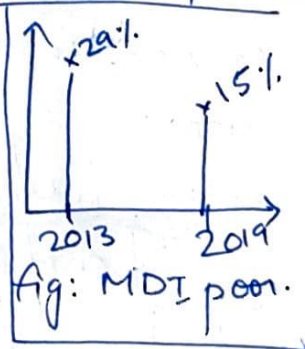
II Farm Economy

- ① Increase in food production
- ② Improvement in irrigation
- ③ Less than 20% (1950) to less than 50% (2020).
- ③ Prosperity Poverty alleviation



Challenges

- ① Unequal access.
- ② MSP is favours rich farmers.
- ② Fiscal squeeze
 - ③ 98000 Cr ₹ on fertilizer subsidy (2018).
- ③ Corruption and Leakages
 - ③ 36% Urea Subsidy is wasted (Shanta Kumar Committee)



Wayforward

- ① Promote private participation
 - ③ Model Contract farming (NITI)
- ② More Targetted subsidies
 - ③ JAM Trinity
- ③ Promote FPOs (Budget 2023 goal).

we should focus on better integration of agriculture with the Global Supply chains to ensure its growth and sustainability

15.

भविष्य के अंतरिक्ष संचालन और मिशनों में पुनः प्रयोज्य प्रक्षेपण वाहनों की क्षमता पर चर्चा कीजिए। पुनः प्रयोज्य प्रक्षेपण वाहनों के विकास की दिशा में भारत की क्या पहल है?

(उत्तर 250 शब्दों में दीजिए) 15 अंक

Discuss the potential of reusable launch vehicles in future space operations and missions. What are India's initiatives towards the development of reusable launch vehicles?

(Answer in 250 words) 15 Marks

Reusable launch Vehicles

(RLV) ~~are~~ return to the earth or can be used in space for other productive purposes after being used for the initial launch.

→ Partially Reusable LVs

RLVs
Types

→ Fully Reusable LVs

→ Reusable Space crafts.

→ Single Stage RLVs

→ Double Stage RLVs.

Potential of RLVs

① Reduces space debris

↳ Address the threat of Kessler Syndrome

② Cost effective

③ Can replace disposable launch Vehicles.

③ Reduced turn around time after each launch

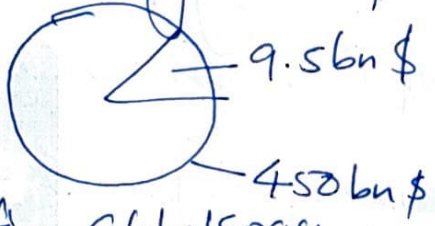
- ④ Promotion of space tourism
 - Continuous transport betw between earth and Space.
- ⑤ Spillover effects in other sectors
 - ⑨ Defence - Ballistic missiles.
- ⑥ Technological developments
 - ⑨ Advances in aviation.
- ⑦ Human Space program
 - ⑨ SpaceX in use RLVs to transport Crews to ISS.

India's initiatives

- ① Reusable Launch Vehicle program of ISRO.
- ② Dev Development of RLVs.
 - ① ~~R~~ RLV-TD - Vertical take off horizontal landing

- ② Pushpak - Vertical takeoff and vertical landing.
- ③ Test and demonstration of RLV-TD.

Challenges

- ① Low private participation
 - ② Limited share in global space economy.
 - ③ Limited budgetary allocation
- Fig: Global Space
- 
- ④ ₹ 20,000 Crore for Gaganyaan.

Wayforward

- ① Tech transfer and private participation
 - ② Agribaan by Agrikul.
 - ③ Promotion of space tourism.
 - ④ Blue origin to use RLV TDs
- India should incorporate Space Economy in its quest to grow into a 5tn \$ Economy by 2030.



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

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

BioE3 policy focuses on development of ~~Bio~~ Biofuels of 3rd generation in our country.

Bio E3 of ~~Mo Petroleum~~

Aims and Objectives

① Development of Biofuel from non food crops.

② Promotion of R&D in Biofuel generation

③ Promotion of Skilling and Capacity development

④ Infrastructure development to promote biofuel production.

Promotion of Green growth

① Sustainable agriculture

② Consumption of agricultural waste.

② Complement farmers income

eg 43% farmers are indebted.

③ Reduce pollution

eg Stubble burning cause 10-15% pollution in Delhi (CAQMB, 2023).

④ Food Security (as it is based on non food product)

eg 2° Biofuels needed 6% of agri land for biofuel (MoA MoEFCC)

⑤ Ability to meet Global goals

eg 20% Ethanol blending goals.

Challenges

① Heterogenous nature of Source

eg 20-30% recovery compared to (UNDP)

② Costly technology

③ Higher Cost of Ethanol

eg ₹60/kg.

- ④ Competition with food crops
- ⑤ Cultivation of non food crops.
- ⑥ Variability in demand
- ⑦ Only 6% Ethanol blending achieved by 2022.

Wayforward

- ① Blended finance
 - eg Government providing seed fund.
- ② Promotion of Collection Centres
- ③ R&D Investment in R&D for 4th generation biofuel.

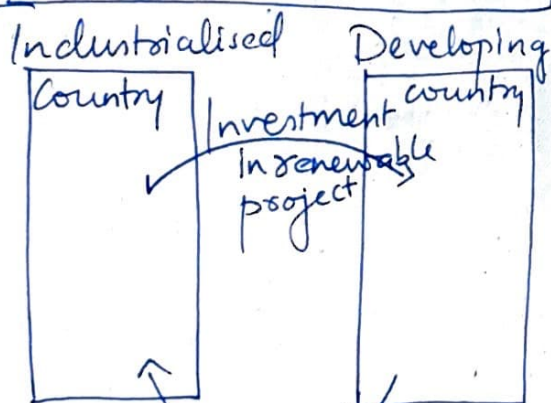
We should focus on Sustainability along with economic development to achieve our Climate goals with agricultural prosperity.

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

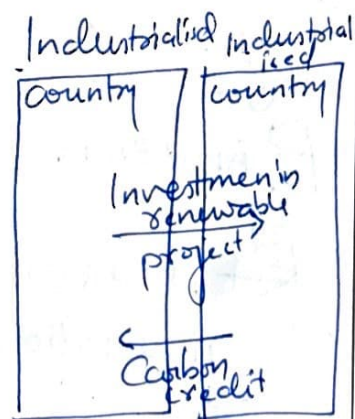
(Answer in 250 words) 15 Marks

Kyoto protocol had two implementation periods from 2007-2012 and 2013 to 2020 and introduced market mechanisms to deal with Climate Change.

Market Mechanisms



Clean Development Mechanism



Joint Implementation

Goal - Reduced emission reduction by ~~50~~ 5% in 1995 levels by 2020.

→ Mandatory goals only for Annex I countries with historic emissions

Challenges

→ Didn't operationalise Carbon market

→ Non achievement of Goals.

Article 6 of Paris Agreement came into force it was signed in 2015 replacing Kyoto protocol with Voluntary targets.

Article 6 → Establishment of
Intra Nation Carbon markets
→ Promotes financial flow into developing nations.
→ ~~Operate~~ Rules formulated at UNFCCC in Glasgow.

Significance

- ① Climate justice
 - Address historical emissions.
 - ② by Industrialised countries
 - ③ US has 25% of historic emissions (UNFCCC).
- ② Climate equity
 - Fund flow into Sustainable projects in dev Global South
 - ③ JICA in Metro projects in India.
- ③ Address mitigation and adaptation needs
 - ④ GCF Remunerate LDCs which like pro

Suriname, Bhutan etc.. which are Carbon neutral.

~~④ Achievement of net zero~~

④ Reduced Sustainable industrial practices

⑨ UK Closed all Thermal power plants.

Challenges

└ Double Counting

└ Climate denialism

⑨ US President withdraws from Paris

└ Concentration of Carbon Credits with China & India

└ Climate Inequality

⑨ 1 person in US = 108 in Ethiopia in terms of emission.

Wayforward

① Bottom up approach

⑨ Lifestyle changes under LIFE

② Operationalisation of Carbon markets.

Climate Change mitigation is the most urgent priority as there is no plan B, as we have no Planet B
(UN Gen Sec)

जलवायु परिवर्तन और तेजी से हो रहे शहरीकरण ने भारत में गर्मी की लहरों के प्रभाव और आवृत्ति को तीव्र कर दिया है।
चर्चा कीजिए। हीट एक्शन प्लान (एचएपी) भारत में हीटवेव प्रबंधन को कैसे बेहतर बना सकते हैं?
(उत्तर 250 शब्दों में दीजिए) 15 अंक

Climate change and rapid urbanization have intensified the impact and frequency of heat waves in India. Discuss. How can Heat Action Plans (HAPs) improve heatwave management in India?
(Answer in 250 words) 15 Marks

Around 24000 people died due to heat related strokes between 1991 and 2005 in India (NCRB).

Intensification of heat waves

I. Rapid Urbanisation

- ① Urban heat island effect
 @ 5% temperature higher than normal
- ② Encroachment of wetlands than regulate heat
 @ Kanadi river in Mumbai
- ③ Rampant deforestation leading to less low Albedo
 @ Save Aarey forest protest in Mumbai

④ Exhaust of air conditioners and Vehicular emissions

~~② 397~~

II Climate Change

① Highest temperature recorded in 2016, 18, and 2019.

② Rise in Global temperature

② 1.6°C above ~~the~~ Pre Industrial period (IPCC GAR)

③ Reduced precipitation

② 80% of Monsoon rain limited to 100 days (IPCC).

④ Lack of Urban forests

② Intensification of Loo in Delhi causing heat stroke.

Heat Action Plans are prepared to manage heat related stress when the temperature is predicted to go above 5°C or above than the average.

Benefits of HAP

① Reduce economic losses

⑨ India loses 5% of its working hours due to heatstroke (IPCC).

② Protection of life and livelihoods

⑨ Adjust School timings.

③ Better heat governance

④ Protection of Vulnerable Sections

⑨ Elderly, Street-dwellers etc.

Some other measures required

① Development of Urban forests.

⑨ Nagar Van Yojana

② Extension of public transport

⑨ DEVI Scheme of Delhi

Long term disaster management plans should incorporate heat waves and Marine heatwaves.

19.

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

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

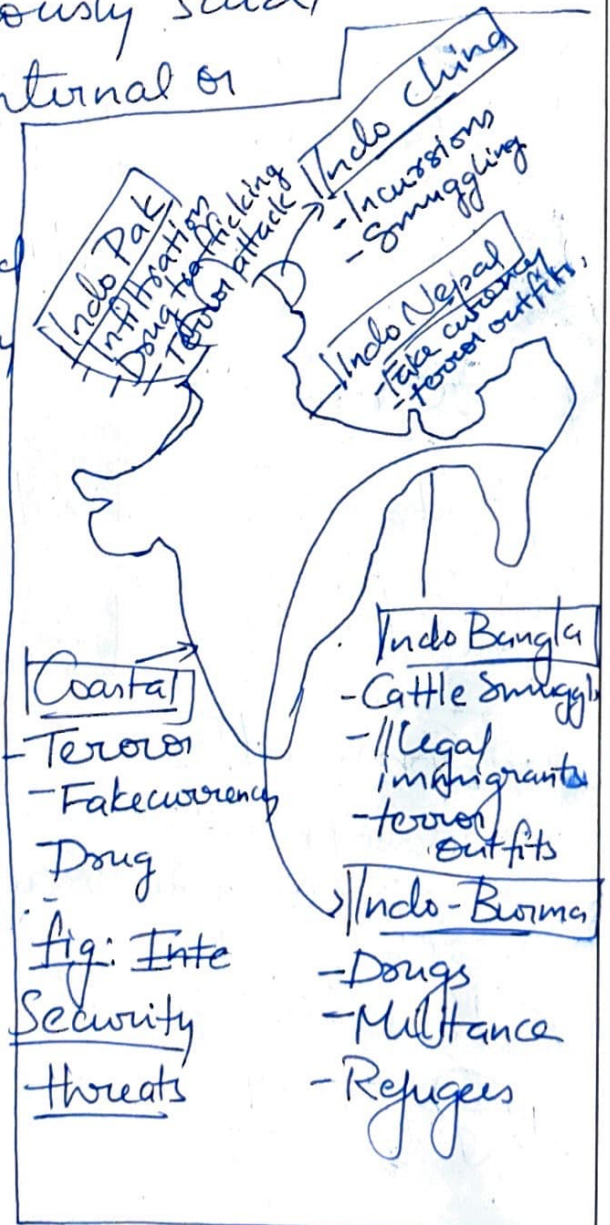
As Kautilya famously said, threats can be internal or external, as well as internally aided external or externally aided internal.

Security threats.

Western and North

- ① I-2 diplomacy
 - Incursions by China
 - Infiltration by Pak
- ② 2020 Galwan.

- ② Militant attacks
 - ③ 2019 Pulwama by Lashkar-e-Taiba



③ Drug trafficking

eg BSF downed 144 drones in 2022.

East and North East

④ Salami Slicing policy of China

- Encircling ~~Ch~~ India around borders

eg CPEC through Kashmir

East and South

① Illegal immigration

eg Rohingyas of Myanmar.

② Terror Safe havens across borders

eg Op. Sunrise by India in NE SK(K)
hideouts in Myanmar.

③ Drug trafficking

eg Myanmar, part of Golden Triangle.

④ Fake currency

eg ISI sending Fake currency through Nepal.

Strategies

① Graded escalation

eg Surgical Strike in Pakistan
Hotpursuit in Myanmar.

- ② Promotion of democracy in Hyp and Stability
- ⑨ Terrorism survives through Ungoverned and Conducive states
- ③ Advanced border Surveillance
- ⑨ BOLD RIT.
- ④ Development of border villages
- ⑨ Vibrant Village program.
- ⑤ Border tourism in Indo Chinese borders
- ⑥ Global Collaboration to address fake Currency
- ⑨ FATF grey listing of Pakistan.

To Safeguard our Sovereignty,
We need impenetrable borders
and indomitable spirits to in
our border areas.

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

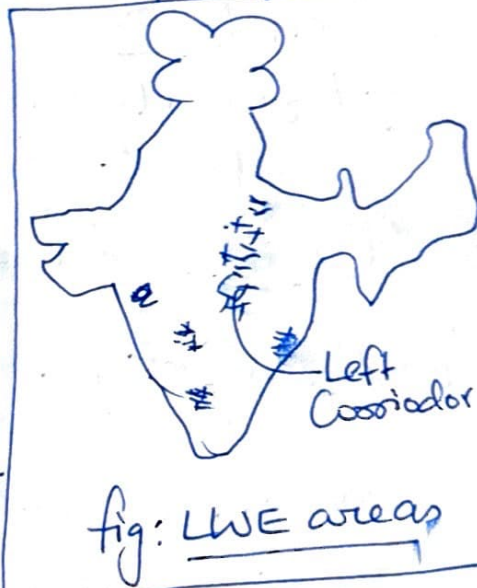
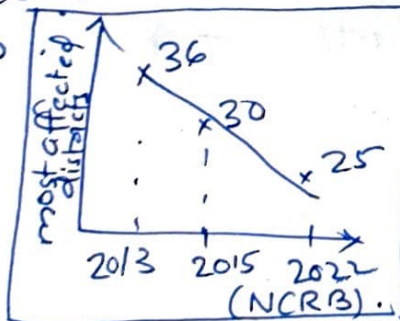
Left-wing extremism (LWE) continues to remain a challenge to India's internal security. Discuss the Government of India's approach towards solving the issue of LWE in the country.

(Answer in 250 words) 15 Marks

LWE has affected 40% of
our land mass and 35% of our
people since 1970s
(NCRB).

Status of LWE

① Reduction in Casualties and areas



② 46% reduction in casualties.

③ Development of LWE areas.

④ LWE districts in Aspirational districts programme.

⑤ Success of Counter insurgency

⑥ Black panther of Andhra Pradesh

LWE as a Continuing Challenge

- ① Collusion of LWE ~~is~~ with other
insurgents
- ② LWE with Kashmiri militants
- ③ Urban Naxalism
 - Promotion of intellectual influence
 - Activist route
- ④ Bhima Koregaon case.
- ⑤ Involvement in drug trade
- ⑥ Naxal incidents at new areas
 - ⑦ Conjunction of Telanga, Chattisgarh and Maharashtra.

Government's approach

- ① Carrot and Stick approach.
- ② Counter insurgency
 - ③ Op. All Clear in 2008
- ③ Welfare schemes for marginalised
 - ④ PM PVTG mission,

- ④ Effective Surrender and Rehabilitation
- ⑤ Telangana model.
- ⑥ SAMADHAN Scheme to coordinate different Operations.
- ⑦ Infrastructure developments
- ⑧ Road Requirement project 1 & 2.
- ⑨ Address Dutch disease
- ⑩ District Mineral Foundation Funds for local development needs.

Wayforward

- ① Address development induced displacement
- ② Effective implementation of FRA
- ③ Promotion of local self government
- ④ Graam Sabha under PESA, 1996.

LWE is in its last legs and will be history, once the country addresses the development and trust deficits in its backward regions.