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GENERAL STUDIES (TEST CODE : 1864)

Name of Candidate	MELVYN VARGHESE		
Medium Eng./Hindi	ENG	Registration Number	146971
Center	ONLINE	Date	20/12/2021

INDEX TABLE			INSTRUCTIONS
Q. No.	Maximum Marks	Marks Obtained	
1	10		1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code). उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
2	10		2. There are TWENTY questions printed in ENGLISH & HINDI इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
3	10		3. All questions are compulsory. सभी प्रश्न अनिवार्य हैं।
4	10		4. The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
5	10		5. Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other than the authorized one. प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
6	10		6. Word limit in questions, if specified, should be adhered to. प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
7	10		7. Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off. उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।
8	10		
9	10		
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16	15		
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18	15		
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20	15		
Total Marks Obtained:			
Remarks:			

16-B, 2nd Floor, Above National Trust Building, Bada Bazar Marg, Old Rajinder Nagar, Delhi-110060

Plot No. 857, 1st Floor, Banda Bahadur Marg (Opp Punjab & Sindh Bank), Dr. Mukherjee Nagar
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EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

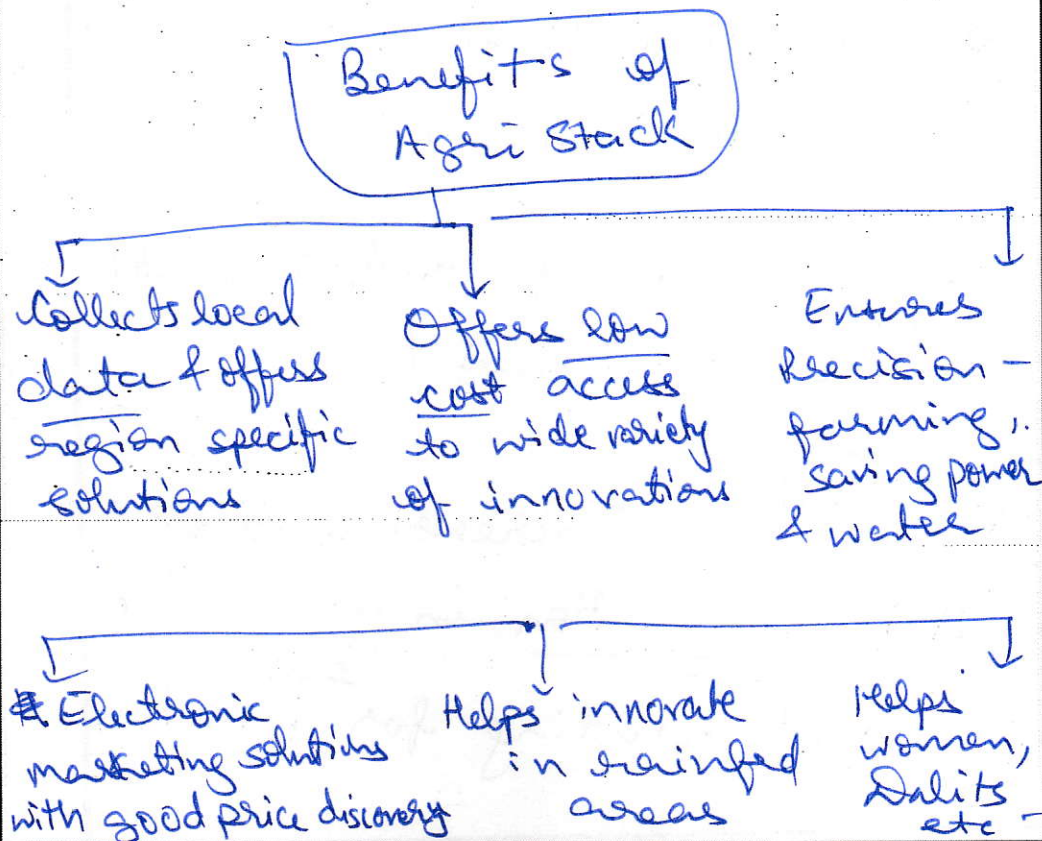
All the Best

1. AgriStack can serve as a foundation to build innovative agri-focused solutions, thus enabling creation of a better ecosystem for agriculture in India. Comment. Also, discuss the concerns associated with it.

(150 words) 10

एग्रीस्टैक अभिनव कृषि-केंद्रित समाधान प्रदान करने के लिए एक आधार के रूप में कार्य कर सकता है, इस प्रकार यह भारत में कृषि के लिए एक बेहतर पारिस्थितिकी तंत्र के निर्माण को सक्षम बनाता है। टिप्पणी कीजिए। साथ ही, इससे संबंधित चिंताओं की भी विवेचना कीजिए।

AgriStack refers to a collection of technology based solutions & programming interfaces, offering input savings & productivity gains for agriculture.



Concerns associated -

- ① Data security of farmers may be compromised
- ② Most farmers are digitally illiterate (can't harness it)
- ③ Lack of farming-related data released by government
- ④ Paucity of trained human resource to innovate
- ⑤ Only well off and irrigated areas may benefit

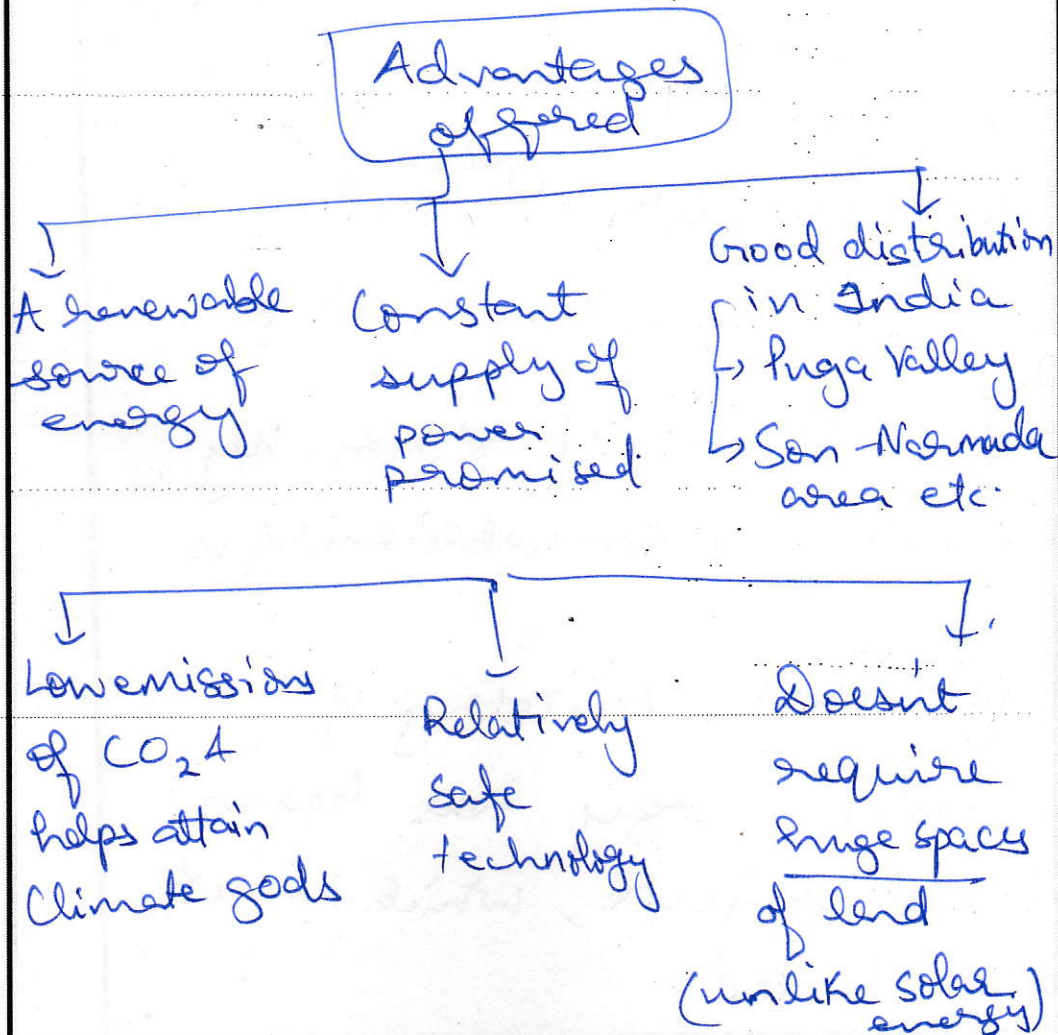
Way Forward

Increasing level of mechanization in agriculture with govt funding for ^{such} innovations

2. Despite the advantages of geothermal energy, it has not been adopted on a wide scale in India. Discuss. (150 words) 10

भूतापीय ऊर्जा के लाभों के बावजूद, इसे भारत में व्यापक पैमाने पर नहीं अपनाया गया है। चर्चा कीजिए।

Geothermal energy arises from heat within the earth's core, seen in forms of hot-springs, vents, geysers etc.



Problems causing lack of adoption

- ① Expensive technology required to harness it.
- ② Toxic gases may be released (like hydrogen sulphide).
- ③ Technical issues - corrosion of hot water pipes.
- ④ Inaccessibility of ^{such} locations in India (like Ladakh, Chhattisgarh).
- ⑤ Lack of priority shown by Ministry of Renewable energy.

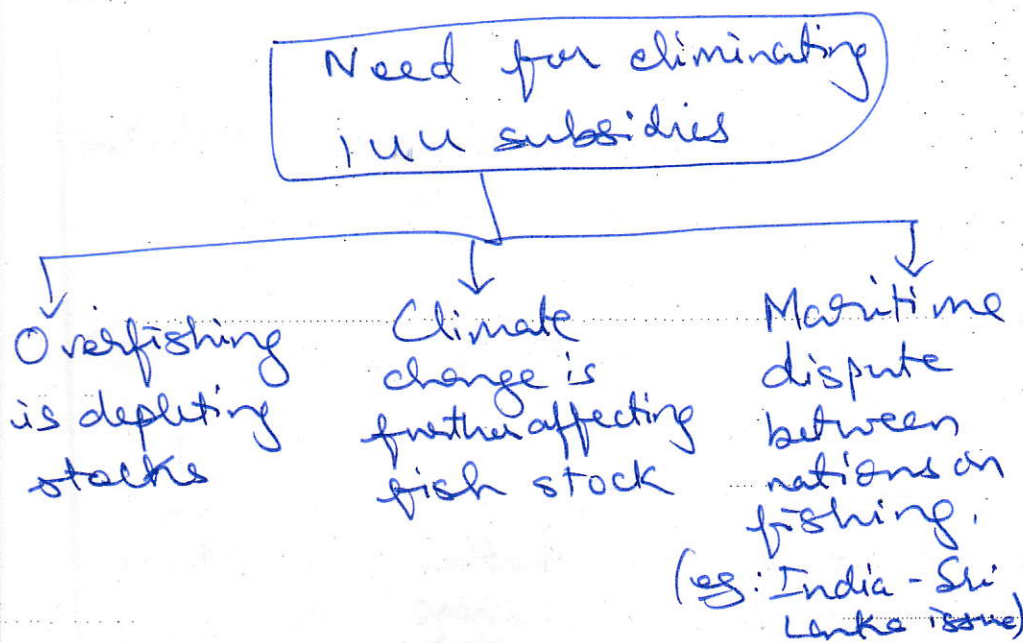
Way Forward - Ministry of Renewable energy has begun few pilot projects, which must be evaluated.

3. While the WTO seeks elimination of subsidies that contribute to IUU (illegal, unreported and unregulated) fishing, there are multiple concerns around it. Discuss while highlighting India's stand on the issue.

(150 words) 10

जहाँ IUU (अवैध, अनरिपोर्टेड या असूचित और अनियमित) मत्स्यन सब्सिडी को समाप्त करना संधारणीय मत्स्यन को सुनिश्चित करने हेतु परिकल्पित है, वहीं इसके इर्द-गिर्द अनेक चिंताएं विद्यमान हैं। इस मुद्दे पर भारत के रुख को रेखांकित करते हुए इसकी विवेचना कीजिए।

~~WTO~~ Declining global fishing stocks require action against IUU fishing, leading to debates on fairness & viability.

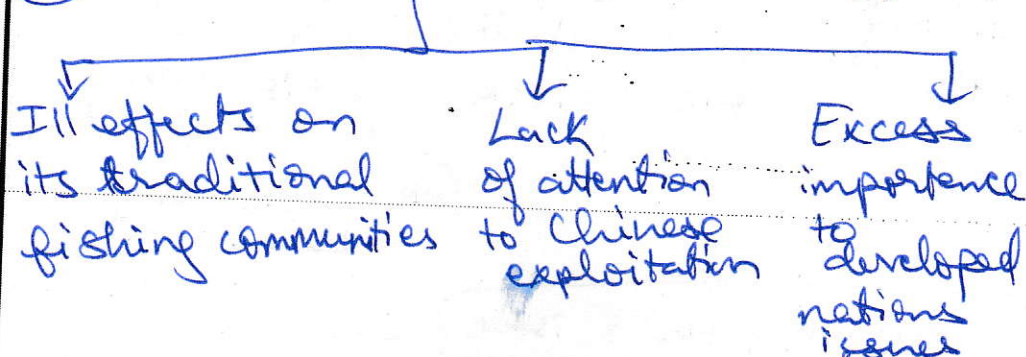


Concerns on this issue →

① Unfairly target small, marginal

fishermen etc

- ② Fail to curb fishing by developed countries like Japan
- ③ Hardly targets overfishing by China
- ④ Will increase expenses & render exports uncompetitive for smaller nations
- ⑤ Lack of an institutional mechanism on reporting & verification
- ⑥ India's concerns include



Thus a consensus based approach using Doha agenda is the way out.

4. There is a view that the current agricultural policies in India are biased against rained agriculture. Comment. Also, identify government initiatives in this regard. (150 words) 10

यह विचार दिया जाता है कि भारत में वर्तमान कृषि नीतियां सिंचित कृषि के पक्ष में हैं। टिप्पणी कीजिए। साथ ही, इस संबंध में सरकारी पहलों की पहचान कीजिए।

Rained agriculture takes place in ~~the~~ areas without assured irrigation, contributing to 48% of food crops & 60% of non-food crops

Bias against
rained agri

Assured procurement only for rice & wheat

Heavy public investment in irrigated areas

eg: 5.4 lac cr spent from 2013 to procure rice & wheat, but only 18000 cr spent to procure coarse cereals

Decline in ~~the~~ cropping area of rained crops

(48% to 25% for millets)

Low levels of agri-credit to rained areas

High yielding varieties ~~but~~ all require irrigation.

However, government is now attempting to bring 2nd green revolution, on sustainable lines to these areas.

Govt Initiatives on this

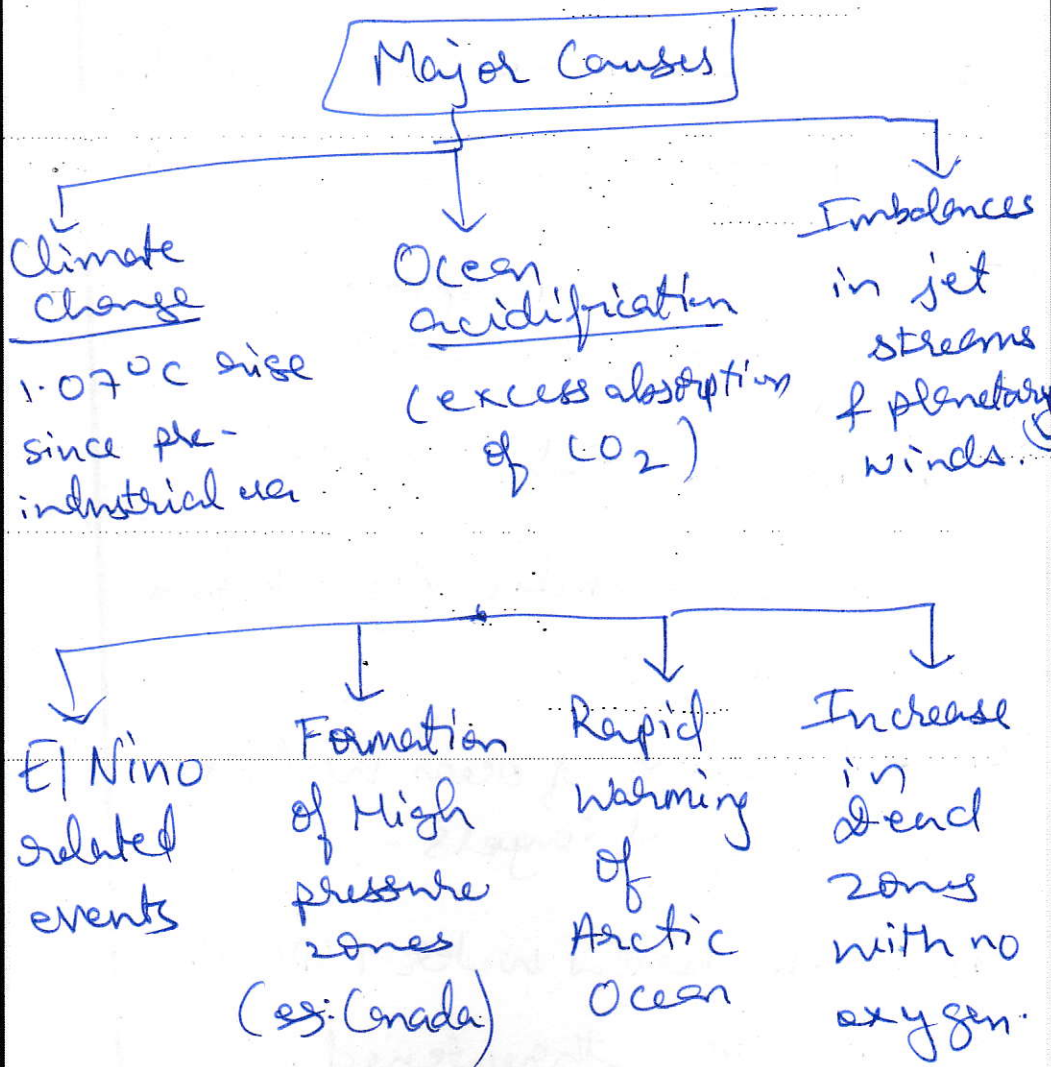
- ① Bringing green revolution to East India (part of RKVY scheme)
- ② PM Kishu Sishu Yojana & Watershed Development scheme to irrigate these areas.
- ③ Promotion of millets as nutri cereals.
- ④ Acquiring 1.5 lac tonnes of pulses as buffer stock.
- ⑤ Drought prone Area Programme

We require extension of micro-irrigation all such areas.

5. Enumerate the major causes behind marine heatwaves. Also, discuss their impact on the ocean ecosystem. (150 words) 10

एकल-उपयोग वाले प्लास्टिक क्या हैं और ये पर्यावरण के लिए खतरा क्यों हैं? भारत में एकल-उपयोग वाले प्लास्टिक को चरणबद्ध रीति से समाप्त करने से संबंधित चुनौतियों पर चर्चा कीजिए।

Recently marine heatwaves, which are abnormal rise in sea surface temperatures, were detected in Indian Ocean.



Impact (on oceans).

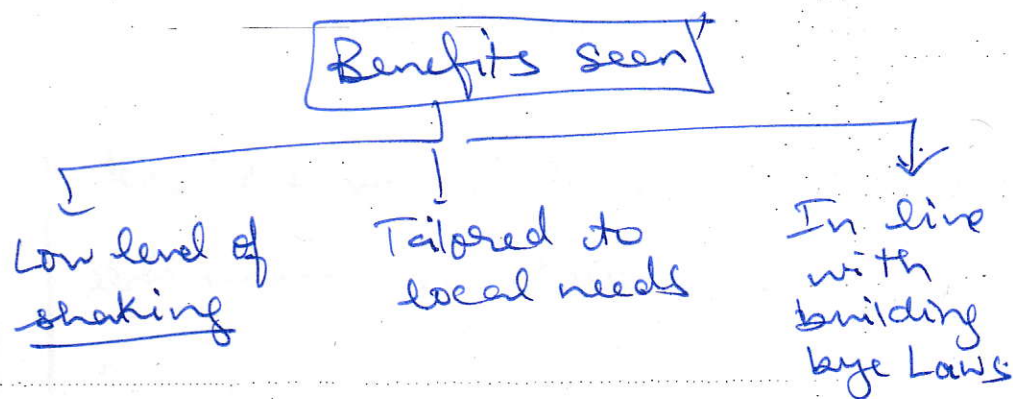
- ① Mass: bleaching of coral.
(eg: great barrier reef - 2018, 2019)
- ② Decreased productivity of ocean ecosystem.
- ③ Imbalances in species composition.
(Few species dominate over others)
- ④ Loss of endangered species
(eg: Dugong & whale)
- ⑤ Depletion of Fish stocks.
- ⑥ Increase in Harmful Algal Blooms & toxin release
- ⑦ Stratification of ocean waters, & non mixing of layers -

Threats life below water (SDG-14)
seems to be threatened.

6. Aseismic structures are touted as a viable solution to combat earthquake destruction. In this context, highlight the need of a National Program on Seismic Retrofitting of Buildings and Structures in India. (150 words) 10

भूकंप के विनाश से निपटने के लिए भूकंपीय संरचनाओं को एक व्यवहार्य समाधान के रूप में माना जाता है। इस संदर्भ में, भारत में भवनों और संरचनाओं के भूकंपीय पुनर्निर्माण पर राष्ट्रीय कार्यक्रम की आवश्यकता को रेखांकित कीजिए।

Aseismic structures are earthquake resistant structure, which tolerate seismic waves and prevent losses to property & life.



Need for National Schemes on Seismic Retrofitting →

- ① Dense urbanization in India
- ② Huge number of violators of Building Codes & bye laws.

- (3) Large no of old structures which cannot be demolished
- (4) Himalayan areas (tourist areas like Shimla) → witnessing explosion in construction
- (5) NDMA guidelines call for retrofitting of critical government buildings
- (6) Traditional knowledge on earthquake ^{related} strengthening exists in every area

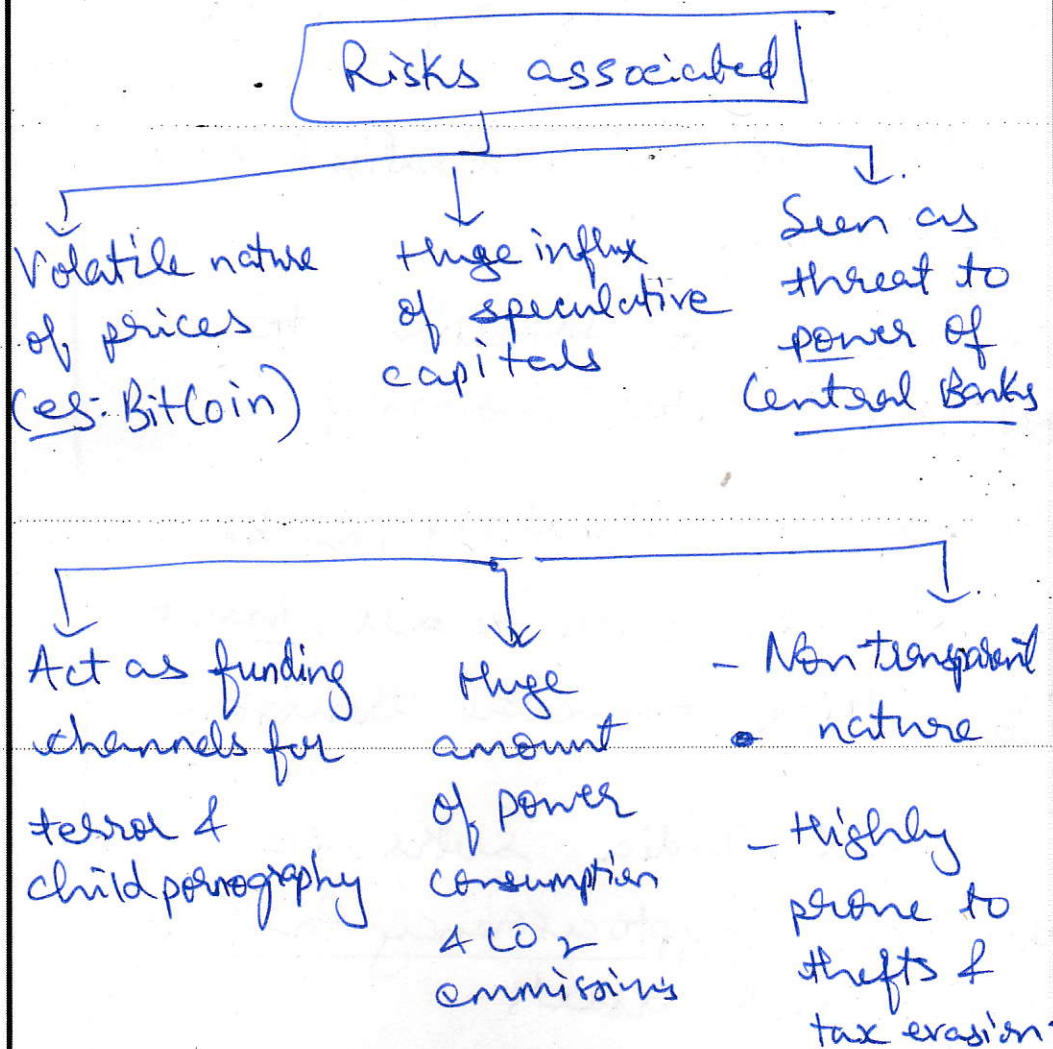
Concerns → Huge cost of retrofitting
↳ Creating awareness on retrofitting...

Way Forward — Harnessing of local knowledge & creating a fund for 'Earthquake Mitigation'

7. Despite the risks associated with cryptoassets, their underlying advantages should not be overlooked. Discuss. (150 words) 10

क्रिप्टो-एसेट्स से जुड़े जोखिमों के बावजूद, उनके अंतर्निहित लाभों की उपेक्षा नहीं की जानी चाहिए। चर्चा कीजिए।

Crypto assets refer to assets guarded with cryptographic techniques existing in decentralised databases and created by algorithms.



Advantages offered —

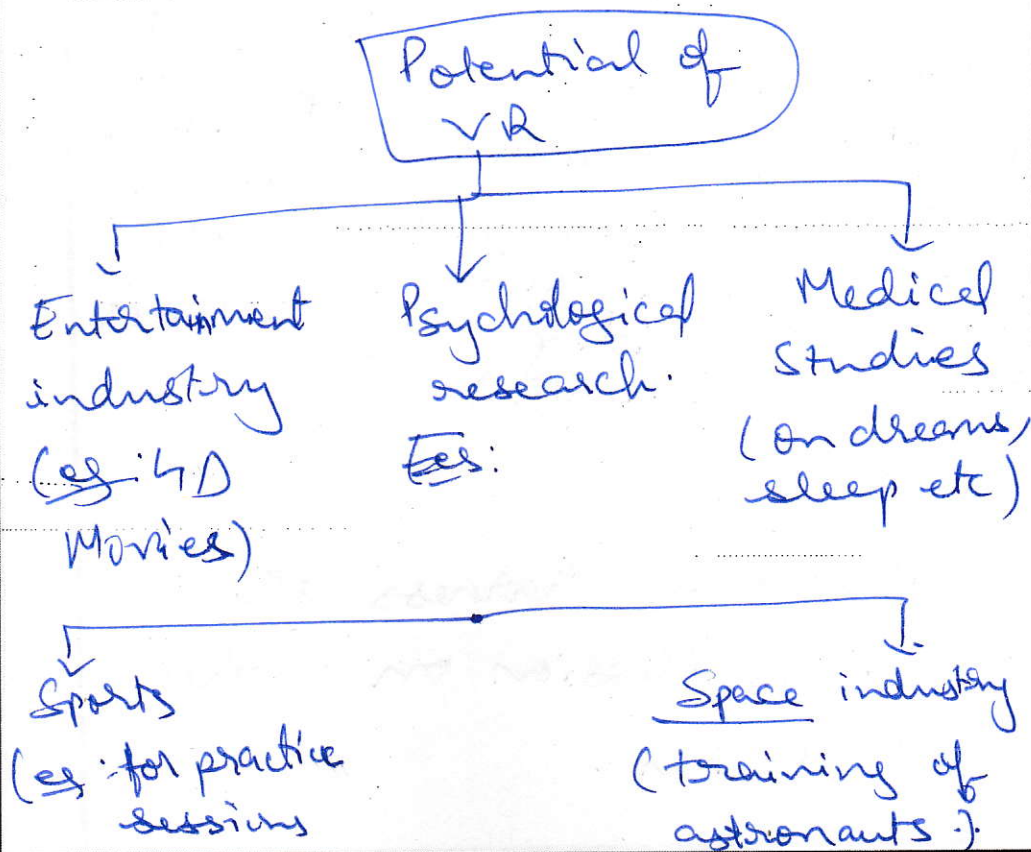
- ① Offers new investment opportunity for investors
- ② Forces central banks to control volatility in money supply & fluctuations in exchange rates
- ③ Highly secure & decentralised mode of exchange
- ④ Precursor to formation to official digital currency
- ⑤ 'Blockchain technology' can be applied to health records, insurance & tracking financial transactions

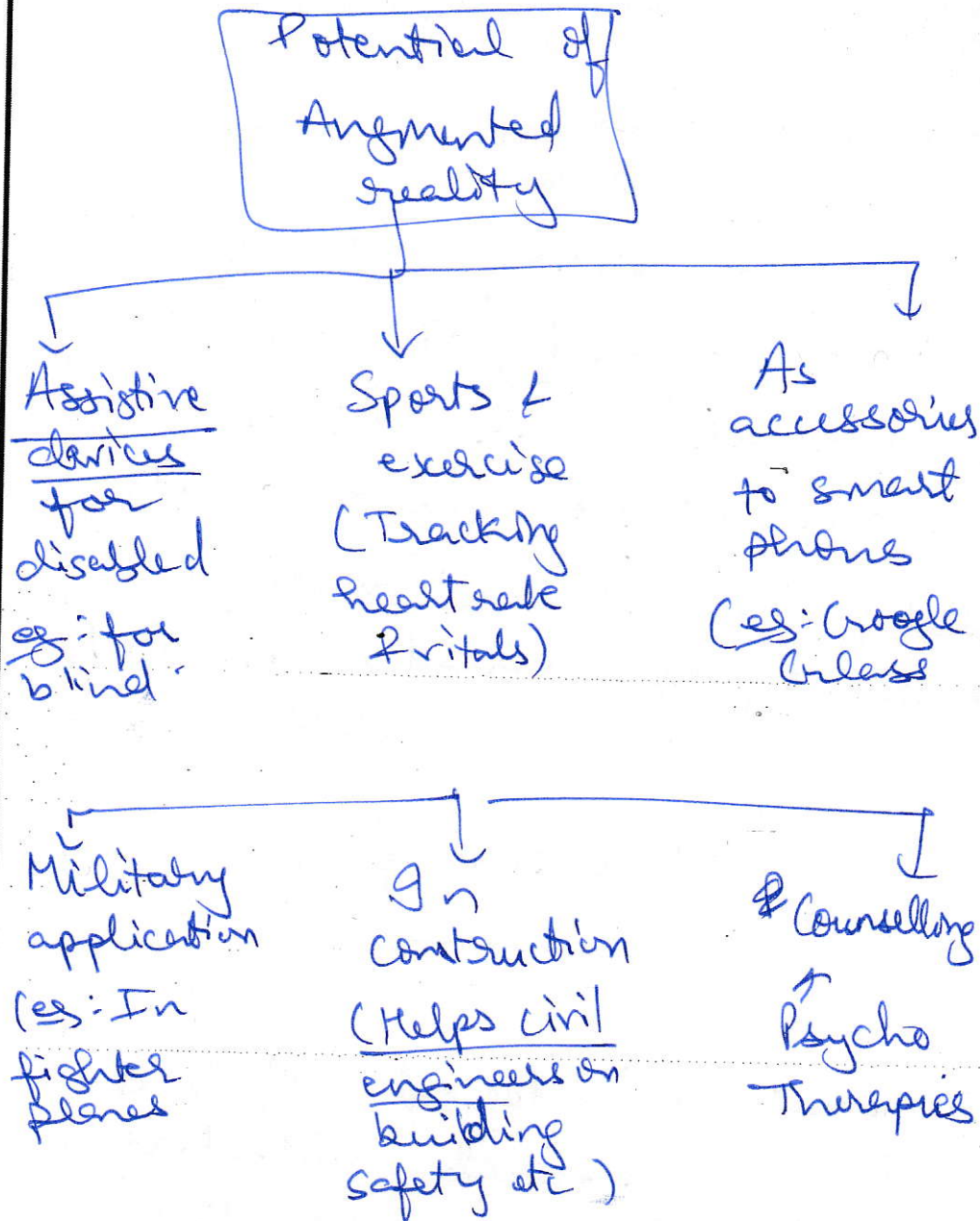
Thus, India seeks to enact a 'Cryptocurrency Bill' to regulate such assets.

8. Virtual Reality and Augmented Reality (VR and AR) have massive innovation potential across a wide range of industries and research fields in India. Discuss. (150 words) 10

हालांकि, कृषि जैव प्रौद्योगिकी में हमारे कुछ सबसे महत्वपूर्ण मुद्दों के समाधान की अपार क्षमताएं हैं, लेकिन भारत में इसके विकास के समक्ष अनेक बाधाएं विद्यमान हैं। चर्चा कीजिए।

Virtual reality is the creation of images & sound, ~~via~~ to create an alternate-real looking environment. Augmented reality seeks to enhance reality with various inputs (sound, information) etc.





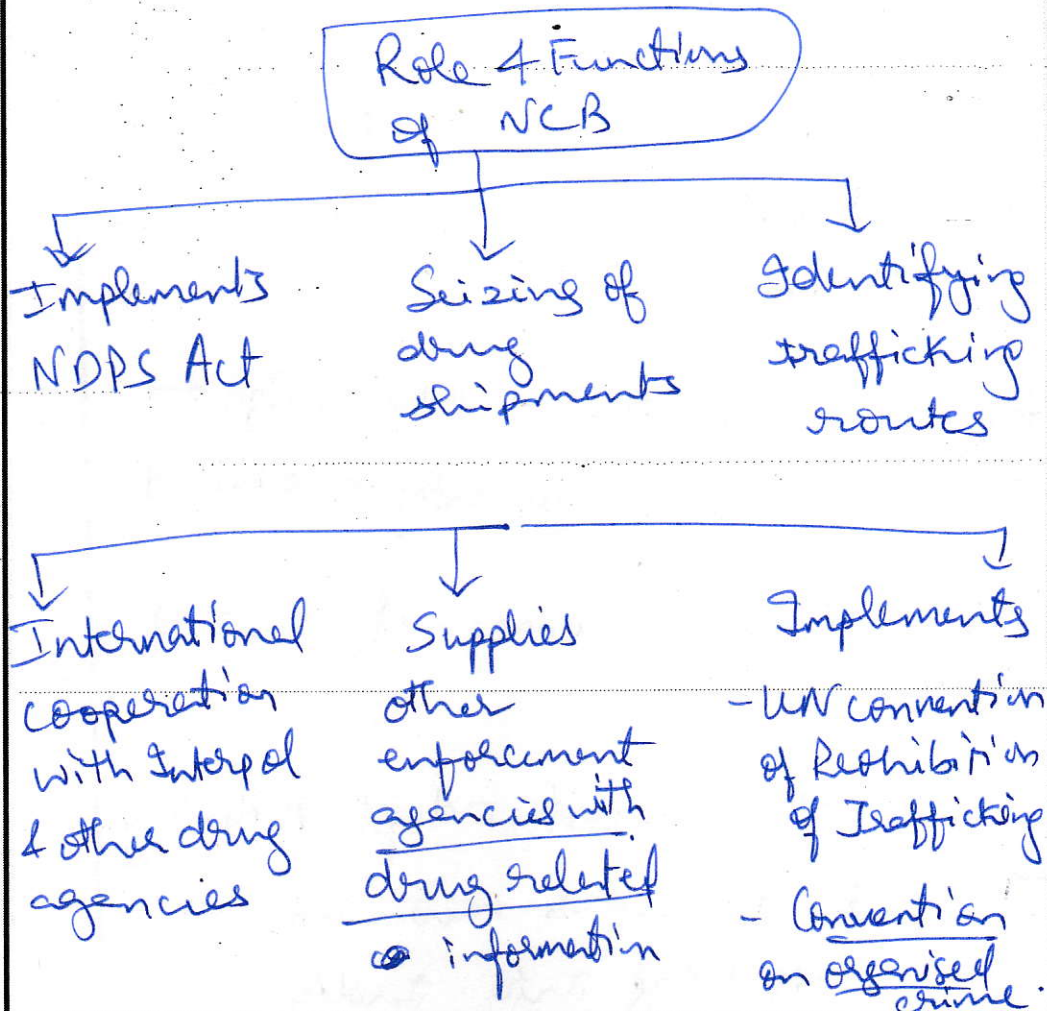
India must harness this
via National Mission on Cyber
Physical System.

9. Discuss the role and functions of Narcotics Control Bureau (NCB) and examine whether the NDPS Act, 1985 needs to be remodelled.

(150 words) 10

नारकोटिक्स कंट्रोल ब्यूरो (NCB) की भूमिका और कार्यों पर चर्चा कीजिए तथा परीक्षण कीजिए कि क्या NDPS अधिनियम, 1985 को पुनर्निर्मित करने की आवश्यकता है।

NCB is India's premier anti-drug smuggling agency, implementing domestic laws & UN Convention on Drug Trafficking.



Need for remodelling of NDPS Act →

- ① Does not distinguish between first time, small offenders and large traffickers
- ② Severe penalties ~~to~~ like jail & even death penalty -
- ③ Failed to curb drug flow into India (via Punjab's tunnels & Moreh in Manipur) -
- ④ ~~to~~ Civil liberties - like right to bail, can be severely curtailed.
- ⑤ Failure to curb menace of synthetic drugs

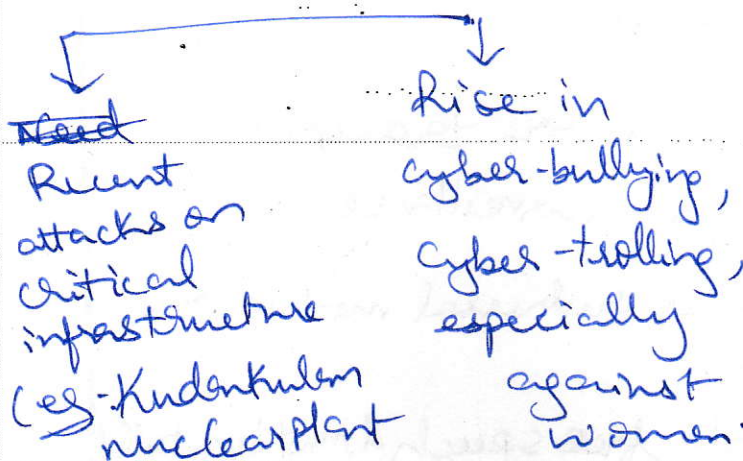
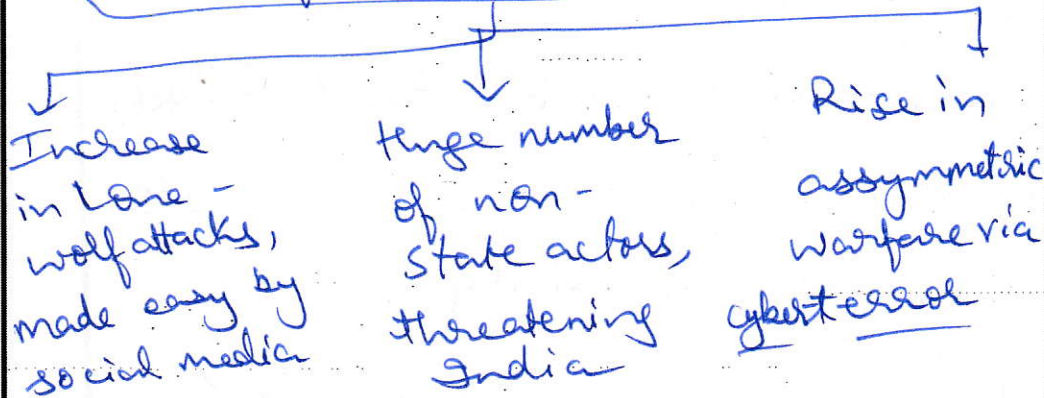
Thus NCB must adopt technology ~~to~~ & seek to curb new routes of trafficking into India

10. Recent events have raised concerns around the issue of surveillance in India. Do you think surveillance is a necessary evil to tackle crime and terror? Discuss the various arguments on the issue. (150 words) 10

हाल की घटनाओं ने भारत में निगरानी के मुद्दे को लेकर चिंता बढ़ा दी है। क्या आपको लगता है कि अपराध और आतंक से निपटने के लिए निगरानी एक आवश्यक बुराई है? इस मुद्दे पर विभिन्न तर्कों की विवेचना कीजिए।

The Pegasus surveillance issue raises questions on non-consensual surveillance and civil liberties as mentioned by Supreme Court.

Need for surveillance



Problems with surveillance →

- ① Lack of legal framework (ie - a Privacy law in India).
- ② Hurts civil liberties - Supreme Court says that individual fail to act normally, if aware of possibility of surveillance.
- ③ Targetting of intellectuals, judges, journalists in Pegasus Case (Hurts institutional credibility).
- ④ Results in pre-censorship & self censorship.
- ⑤ Lack of data or transparent figures on surveillance.
- ⑥ No grievance redressal mechanisms available.

Thus it hurts free speech & must be controlled

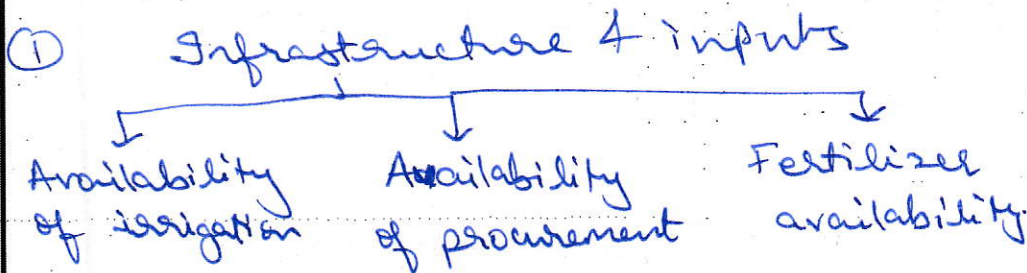
11. The decision to grow a particular crop by a farmer is affected by various factors other than the yield of a crop. Discuss this statement and assess the need for bringing a change in the cropping pattern in India.

(250 words) 15

एक किसान द्वारा किसी विशेष फसल को उगाने का निर्णय उक्त फसल की उपज के अतिरिक्त विभिन्न कारकों से प्रभावित होता है। इस कथन की विवेचना कीजिए तथा भारत में फसल पद्धति (क्रॉपिंग पैटर्न) में परिवर्तन लाने की आवश्यकता का आकलन कीजिए।

Cropping pattern depends on physical factors, infrastructural factors, government support and so on.

Factors affecting decision on crop



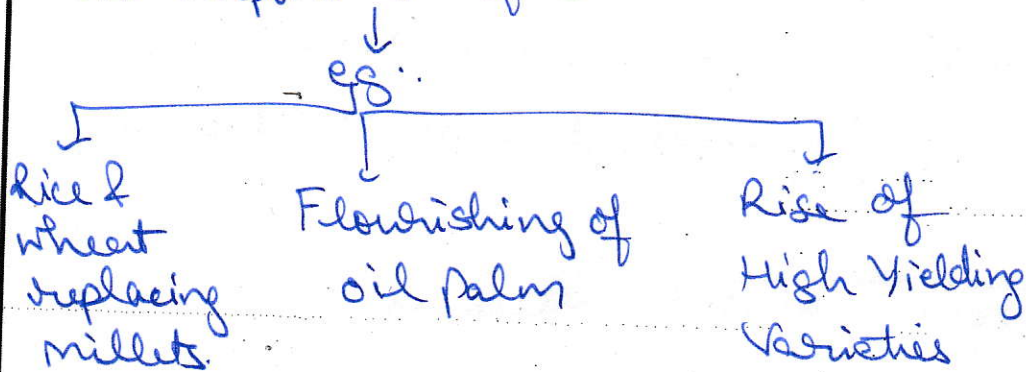
② Natural factors → soil, water, rainfall etc

③ Government support → ~~PTO~~ insurance, marketing facilities, credit etc.

④ Socio-economic factors - like

like condition of household, assets possessed, level of debt seen etc.

However, yield also remains an important factor



Thus combination of factors affects cropping pattern.

Need to bring change in crop pattern

① Lack of agro-ecological planning

eg: wet rice crop grown in cold North West.

② Cereal-centric monoculture

seen in India

- ③ Input - intensive agriculture, depletes groundwater
- ④ Micro nutrient deficiency as 70% Indians consume vitamins less than Daily Allowance (RDA).
- ⑤ Increase in Oil Palm cultivation, which results in deforestation.
- ⑥ Decline in millet area from (52% to 25% today)
- ⑦ Climate Change threatens loss of 20-25% yield in rained areas.

Suggestions → Agro-climatic planning, rebranding of millets as nutri-cereals etc

Thus ecological imbalance in cropping pattern must be corrected.

12. Identifying the importance of livestock in the Indian agricultural economy, enumerate the steps taken by the government in this regard. Also, discuss the potential impact of climate change on the livestock sector.

(250 words) 15

भारतीय कृषि अर्थव्यवस्था में पशुधन के महत्व को चिन्हित करते हुए, इस संबंध में सरकार द्वारा उठाए गए कदमों को सूचीबद्ध कीजिए। साथ ही, पशुधन क्षेत्र पर जलवायु परिवर्तन के संभावित प्रभावों पर चर्चा कीजिए।

Livestock acts as social insurance for small and marginal farmers and larger agrarian economy.

Importance of livestock

- ① Equitable distribution → 48% of small farmers own 50% of livestock.
- ② Women are highly involved in its care.
- ③ High productivity - it is 27% of agriculture GDP, but requires less land & inputs.
- ④ Act as insurance in times

of droughts and disasters

- ⑤ Important to dryland areas of Vidharbha, Rajasthan etc

Steps taken by govt →

- ① National Mission on Bovine Productivity
- ② Establishing a Dairying Fund (7000cr) by NABARD
- ③ Rashtriya Gokul Mission & trading of Animal germplasm
- ④ Provision of credit via Kisan Credit Card
- ⑤ Animal health - via e-sanjeevani, e-Pashuhaat

Potential Impact of Climate Change →

- ① Need for hardy, heat resistant Indian cattle breeds.
- ② Potential decline in milk & meat yields
- ③ Fodder ~~for~~ production may be affected
- ④ Increased influx of farmers into animal husbandry sector.
- ⑤ Need to cut down on meat production, to meet climate goals

Suggestions] - Adaptation to be pursued via 'National Initiative on climate resilient Agriculture' with help of Krishi Vigyan Kendra

Livestock sector represents a highly productive sector of agriculture

13. It has been argued by some economists that supply creates its own demand. In this context, discuss the merits and demerits of reliance on investment in infrastructure to boost the Indian economy.

(250 words) 15

कुछ अर्थशास्त्रियों द्वारा यह तर्क दिया जाता है कि आपूर्ति अपनी मांग को स्वयं सृजित करती है। इस संदर्भ में, भारतीय अर्थव्यवस्था को बढ़ावा देने के लिए बुनियादी ढांचे में निवेश पर निर्भरता के गुण एवं दोषों की विवेचना कीजिए।

Infrastructure represents a potential economic multiplier with spillover effects in agriculture, manufacturing and services.

Supply and its correlation to demand - \rightarrow

- ① Increased certainty in supply of goods, promotes demands
- ② Inflation reduces with certainty of supply, increasing demand.
- ③ Indian economy is driven by private consumption (54% of GDP).

(2021)
④ Economic survey notes Covid-19 pandemic as supply shock, affecting demand.

Merits of reliance on infrastructure

- ① Boosting of productive capacity of economy.
- ② Helps MSME's (which lack funds), boost production.
- ③ Exports (18% of GDP) perform better with access to logistics & integrate with global value chains (GVC)
- ④ Aids in movement of capital, labour & goods.
- ⑤ Efficient allocation of resources take place, from supply to deficit areas.

(eg) · Coastal Economic Zones seek to create agglomeration effect via roads, rails etc and boost exports.

* Demerits of - reliance on infrastructure →

- ① Long gestation periods of projects.
- ② Huge cost overruns
(4.36 lcr for central projects)
- ③ Long delays (eg: 27 years delay in Bantura - Damodar Railway)
- ④ Asset - Liability mismatch - so banks unable to fund long-term projects
- ⑤ Lack of demand & spending due to pandemic, can increase debt

Thus reliance on direct cash transfers & urban employment guarantee can boost demand

14. Innovations emerge not just as an opportunity but also as a pre-condition to assure the sustainability of food production. Analyse the statement in context of the food processing sector in India. (250 words) 15

नवाचार, खाद्य उत्पादन की संधारणीयता को सुनिश्चित करने के लिए न केवल एक अवसर के रूप में बल्कि एक पूर्व शर्त के रूप में भी उभरें हैं। भारत में खाद्य प्रसंस्करण क्षेत्र के संदर्भ में, इस कथन का विश्लेषण कीजिए।

Food processing is a sunrise sector due to potential to reduce post-harvest loss and boost exports.

Issues on sustainability of food production →

- ① Huge post harvest losses (90,000cr) (as per Niti Aayog).
- ② Food wastage in India is about 25-30%.
- ③ Climate change threatens to reduce farm-income by 15-18% (Economic Survey 2018).
- ④ Land degradation taking place, due to monoculture in 30%.

of cultivated area

Role of food-processing sector as an innovator →

- ① Prevents market distortions in times of over-production (eg: tomatoes in excess can be made into paste).
- ② Boost agricultural incomes (now, only 14.4% of GDP), attracting innovations in farming.
- ③ Exposes farmers to new world markets.
- ④ Encourages crop diversification in terms of pulses, oil seeds, millets.
- ⑤ Reduce large import bill (especially in case of oil palm, which is 100% imported)

- ⑥ Inputs efficiency - ~~to~~ via reduced use of water, land etc.
- ⑦ Ensures rejuvenation of soil - by cultivating pulses, fruits & vegetables.
- ⑧ Increases investment into agricultural sector (CII projects food processing to double in value to 700 Bn\$ by 2025).
- ⑨ Leads to inclusive growth involving women, Dalits and dryland farmers
- ⑩ Creates holistic supply chains & linkages (with help of MNC's)
- ⑪ ~~It~~ Reduces fluctuations in supply of crops

Thus robust increase in cold storage, as per Somitra Chaudhary Committee can boost production.

15. The factors contributing to unemployment in India are not merely a result of the structural issues related to the Indian economy. Discuss. Also, highlight the measures taken to address the problem of unemployment in recent times. (250 words) 15

भारत में बेरोजगारी को बढ़ावा देने वाले कारक केवल भारतीय अर्थव्यवस्था से संबंधित संरचनात्मक मुद्दों का परिणाम नहीं हैं। चर्चा कीजिए। साथ ही, हाल के दिनों में बेरोजगारी की समस्या के समाधान के लिए किए गए उपायों पर प्रकाश डालिए।

August 2021, witnessed unemployment rate of 8.3%, with loss of 1.9 mn jobs.

Factors contributing to unemployment

(a) Structural Factors -

① Stagnant contribution of manufacturing sector to GDP since 1991 (16% only)

② Declining share of manufacturing sector, especially construction to overall employment.

eg: In August, it lost 0.94 mn jobs.

- ③ Huge drop in agricultural jobs
(people leave farming) → 8.7 mn jobs lost
- ④ Services sector is unable to absorb them in high quality banking & insurance sector.
- ⑤ Instead, ~~the~~ unemployed are absorbed in low end jobs.
- ⑥ Non-Structural Related Factors →
- ① Labour laws - remain fragmented, encourage small size of industries
 - ② Poor performance of labor intensive exports (like garments) sector
 - ③ Msme's badly hit during pandemic.
 - ④ Decline in rural wages, which hurt consumption.

⑤ Inflation - in pulses, meat etc
short demand, & short job growth

Measures taken to address
unemployment

- ① Increased credit to MSME's
(as per Atma Nisibhar Bharat packages)
- ② Production Linked Incentive scheme
(PLI) in labour intensive sectors
of Textile, auto, pharma etc.
- ③ National Manufacturing policy wants
to skill 100mn rural youth.
- ④ Industrial Relation Code sets up
'Career Centres' for re-skilling.
- ⑤ National Career Exchanges set up

Thus, urban employment guarantee,
integration with global value chains
& increased public spending is way forward.

16. Highlighting the major announcements made by India in the recently concluded COP26, examine India's capabilities in achieving net zero emissions by 2070. (250 words) 15

हाल ही में संपन्न COP26 में भारत द्वारा की गई प्रमुख घोषणाओं पर प्रकाश डालते हुए, वर्ष 2070 तक शुद्ध शून्य उत्सर्जन की स्थिति प्राप्त करने में भारत की क्षमताओं का परीक्षण कीजिए।

The Glasgow COP-26 involve breakthroughs on attaining net zero by 2070 by India, and enhanced commitments on emission reduction.

Major Announcements made -

- ① Increased target of renewable energy capacity addition to (500 GW) by 2030.
- ② Reiterating commitment to reducing temperature rise to 1.5°C.
- ③ Attaining net zero by 2070.
- ④ Enhanced reduction of emissions intensity of GDP (45% on 2005 levels)

- ⑤ Promise to reduce share of fossil fuels in energy mix
- ⑥ Call on developed nations to transfer technology + finance worth 100 bn\$/year.
- ⑦ Call on decisions to be based on historical emissions as per IPCC

Evaluation of India's capabilities on net zero

(a) On positive side -

→ ~~#~~ Reached 100 GW of 175 GW target of renewable energy by 2022

→ Best performance among G20

→ Reduced emission intensity by 24% (target being 33-35% of GDP)

- Committed to International solar Alliance targets.
- Promise to shut down inefficient coal plants in Budget.
- ⇒ (b) On negative side -
 - Coal forms 70% of energy supply even now
 - Very poor progress on solar rooftop addition (only 2 GW)
 - Encouraging high emission hydro-electric power.
 - Need for 8% real GDP growth + 5 tr \$ economy
 - Need for energy to go up 2.7 to 3.2 times, as per Niti Aayog

Thus, historical cumulative emissions to be accounted, to give India, rightful carbon space.

17. While geography plays a definite role in the recurring disasters in Western Ghats, it is the human intervention that has exacerbated them. Discuss. Also, suggest measures to protect Western Ghats from these frequent disasters. (250 words) 15

यद्यपि, पश्चिमी घाट में बारंबार आपदाओं के घटित होने के पीछे भौगोलिक स्थिति एक निश्चित भूमिका निभाती है, तथापि मानवीय हस्तक्षेपों ने उन्हें और बढ़ा दिया है। विवेचना कीजिए। साथ ही, बार-बार आने वाली इन आपदाओं से पश्चिमी घाट को बचाने के उपायों का सुझाव दीजिए।

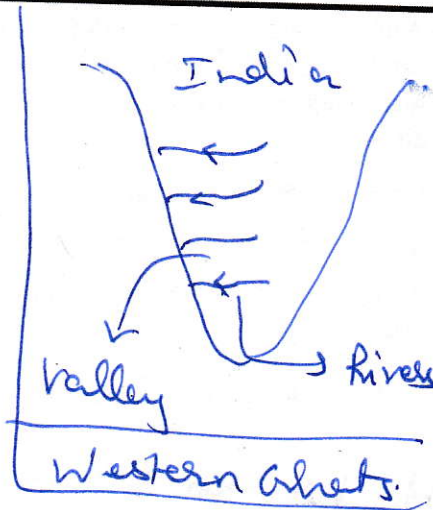
Radgil Committee notes the destruction of Western Ghats, solely blaming human interventions.

Role of Geography in disasters

- ① Record high rainfall (role in 2018 Kerala floods)
- ② Steep slopes of Nilgiris & Western Ghats, prone to landslides.
- ③ Increased frequency of Arabian Sea cyclones, bring more rainfall than expected.
- ④ West-flowing rivers create narrow ridge-valleys, which increase risk

of floods,

- ⑤ Huge number of endangered species & biodiversity present, prevents developmental work.



Role of human interventions →

- ① Rapid construction on friable slopes of Western Ghats cause landslides.
- ② Ignorance of zoning regulation like CRZ.
eg: Maradu apartment demolition case (Kochi)
- ③ Mishandling of dam operation and ~~the~~ release of excess water in Kerala floods of 2018.

- (4) Ignorance of Gadgil committee suggestion to declare full Western Ghats as Eco sensitive zone
- (5) Only 56,000 km² finally protected by government

Measures to protect W. Ghats

- ① Future constructions only in plain areas.
- ② Zero tolerance to waste dumping in river channels -
- ③ Use of traditional ways of water harvesting & small dams.
- ④ Zero tolerance to category - A industries (coal mines) in Eco-sensitive zones.

Western Ghats are a important bio-diversity hotspot.

18. The IPR regime in India is mired by inadequate protection and ineffective implementation. In this context, discuss how the IPR regime can be made more robust and effective. (250 words) 15

भारत में IPR प्रणाली अपर्याप्त संरक्षण और अप्रभावी कार्यान्वयन से ग्रस्त है। इस संदर्भ में, चर्चा कीजिए कि IPR प्रणाली को और अधिक मजबूत एवं प्रभावी कैसे बनाया जा सकता है।

IPR regime of India fails to sustain an innovative ecosystem, witnessed by relatively low rank on Global Innovation Index.

Issues in IPR regime →

- ① Excess focus on IPR generation (by National IPR Policy), but failure to focus on innovation.
- ② Dispute Resolution issue - IP Appellate board recently shut down.
- ③ Poor protection to music/art work copyright (-: high cases of piracy).

- ④ Repeated investigations by US Trade Representative on IPR violations
- ⑤ Lack of awareness on IPR -
by common man.
- ⑥ Lack of funding on innovation
(Only 0.89% of GDP on R&D)
- ⑦ Poor institutional mechanisms to
implement IPR.
(eg: National IP regulator).
- ⑧ Long delays in issue of IPR
- ⑨ Cumbersome requirements like
NOVELTY & non obviousness (in
Patent Act, 1970).

Measures to make IPR
robust

- ① Increased spending by govt on

IPR administration.

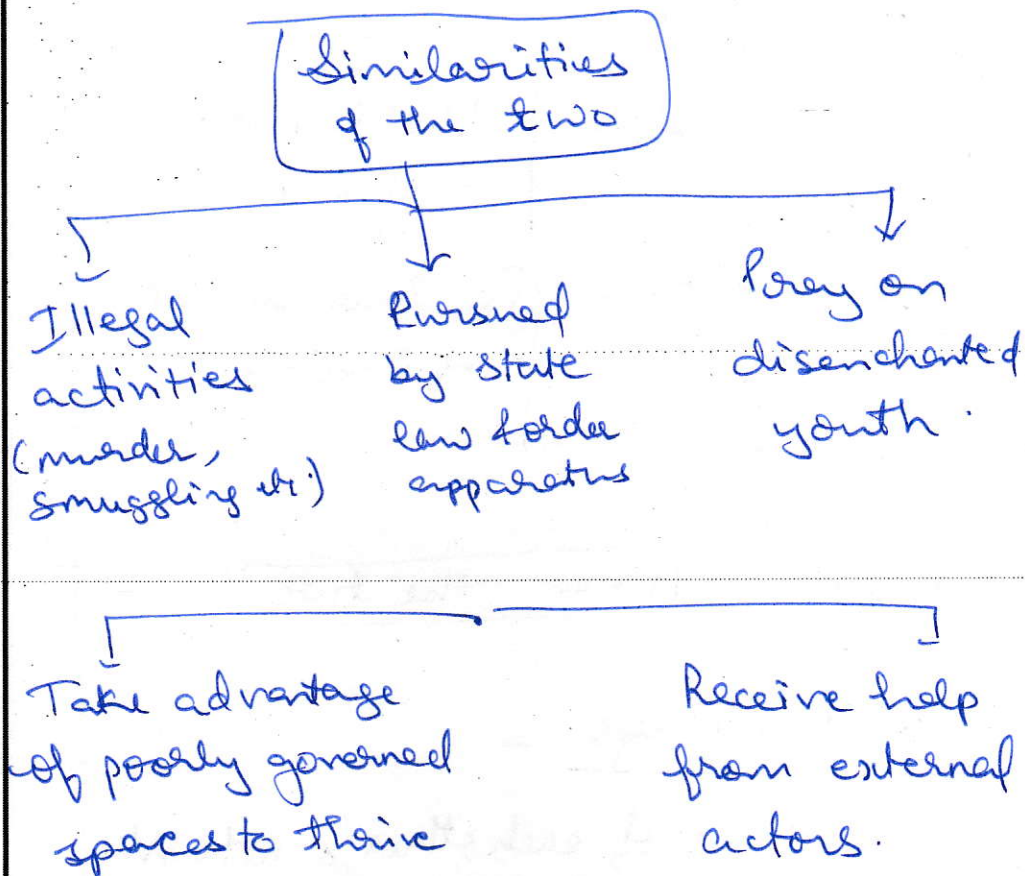
- ② Awareness campaigns by DIPP on IPR in schools etc
- ③ Set up of Dispute resolution tribunals on IPR.
- ④ Clear, transparent timelines on issues of patent.
- ⑤ Rapid investigations in case of piracy etc
- ⑥ Evolve new Indian Patents Act to replace Patent Act, 1970
- ⑦ Harmonization of Indian IPR, with international IPR regimes.

IPR can boost innovation in India, offering researchers security & safety with respect to their creativity

19. What are the similarities and differences between the activities of terrorists and organized criminal groups? Also, elaborate upon the fact that their linkages occur in both tactical and strategic ways. (250 words) 15

आतंकवादियों और संगठित अपराधिक समूह की गतिविधियों के बीच समानताएं और असमानताएं क्या हैं? साथ ही, इस तथ्य पर सविस्तार चर्चा कीजिए कि उनके संबंध सामरिक और रणनीतिक दोनों तरीकों से होते हैं।

Terrorists & organised criminals differ in final objectives, but have developed holistic linkages to help each other via funds, arms etc.



Differences of the two

Terrorists	Organised Crime
<ul style="list-style-type: none"> - Political objective - Activities are in public eye - Objectives can be <u>secession</u>, <u>autonomy</u>, <u>conserving culture</u> - Not very profit oriented - (eg): Lashkar-E Taiba 	<ul style="list-style-type: none"> Financial objective Exist in <u>shadows</u> - Look to capture state apparatus by bribing officials - Highly profit oriented - (eg): Drug Smugglers of Punjab

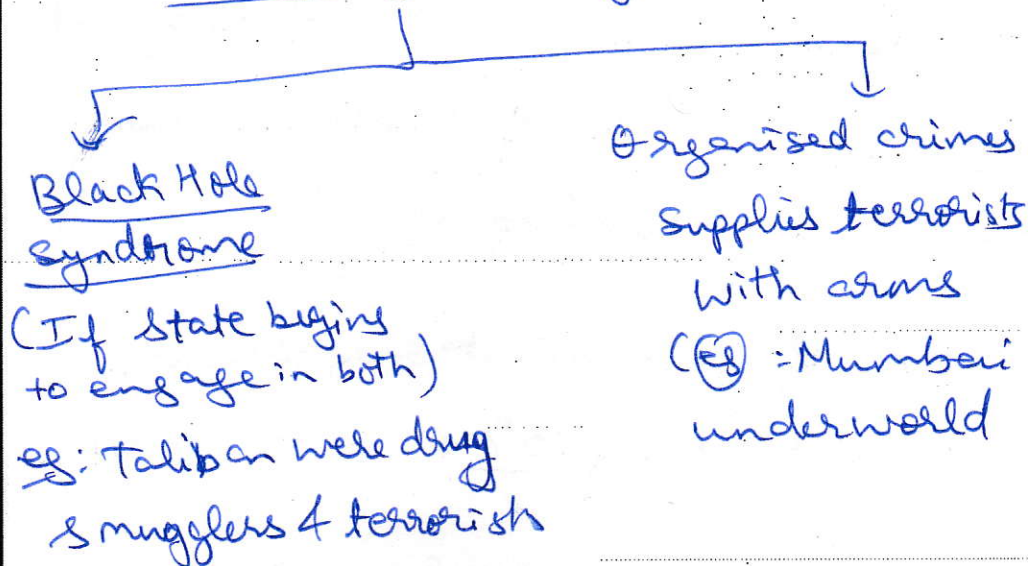
Linkages between the two

⊕ (a) Tactical ways -

↳ Use of each other's networks

- Helping each other with intelligence
- Terrorists act as couriers for drug smugglers (in Nagaland)
- Organized crime help terrorists with fund via Hawala (eg: Kashmir via UAE)

⑥ Strategic ways



Such linkages can be broken via amendments in Money Laundering Act (MLA) and NIA act, with enhanced powers

20. There is a view that the 'civil society is emerging as the new frontier of war', in the 4th generation of warfare. Do you agree with this view? Substantiate with logical arguments. (250 words) 15

ऐसा माना जाता है कि नागरिक समाज, युद्ध की चौथी पीढ़ी में एक नए मोर्चे के रूप में उभर रहा है। क्या आप इस विचार से सहमत हैं? उचित तर्कों के साथ पुष्टि कीजिए।

Recent comment by National Security advisor, suggest need for alertness in case of civil society.

Argument supporting this statement -

- ① Presence & crucial role of over ground workers of Kashmir insurgency in planning, funding etc
- ② Lack of financial transparency in NAO's (only 10% file returns)
- ③ Fomenting of artificial protests (Greenpeace in Kudankulam power plant), as per I B report.

- ④ Presence of urban front organisations in recruiting & funding for Marxists.
- ⑤ Presence of large number of unemployed & disenchanted youth in the country.
- ⑥ Increased role of social media & internet, makes terrorism a low cost, one person venture.
- ⑦ Presence of parallel governments in North-East, engaged in illegal extortions etc.

Arguments opposing statement →

- ① Increased tendency of government to crackdown on dissent.
- ② Branding of even legitimate opponents

as 'anti-nationals', or enemies of the state.

- ③ Increased circulation of rumours by social media
- ④ Civil society plays key role in bringing out atrocities & human rights violation of Armed Forces (eg: Deaths of Naga Coal miners)
- ⑤ Civil society also helps in counter-insurgency efforts (eg: Kashmir civil society).
- ⑥ Civil society, helps foster tolerance among communities
 (eg: Calls by mosques to shelter Kashmiri Pandits)

Civil society represents an important ally against terror. However over-ground workers must be dealt with strictly