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GENERAL STUDIES (TEST CODE : 1864)

Name of Candidate	Deepika Agarwal	Registration Number	1017934
Medium Eng./Hindi	English	Date	29/12/21
Center	ORW		

INDEX TABLE

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	
11	15	
12	15	
13	15	
14	15	
15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

- 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)।
- There are **TWENTY** questions printed in **ENGLISH & HINDI**.
इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
- All questions are compulsory.**
सभी प्रश्न अनिवार्य हैं।
- The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
- 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।
- Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
- 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।

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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।

The Government has proposed to create an 'Agri Stack' which is a source of open-codes. That can be used for developing applications for farmers.

Help build innovation for agricultures

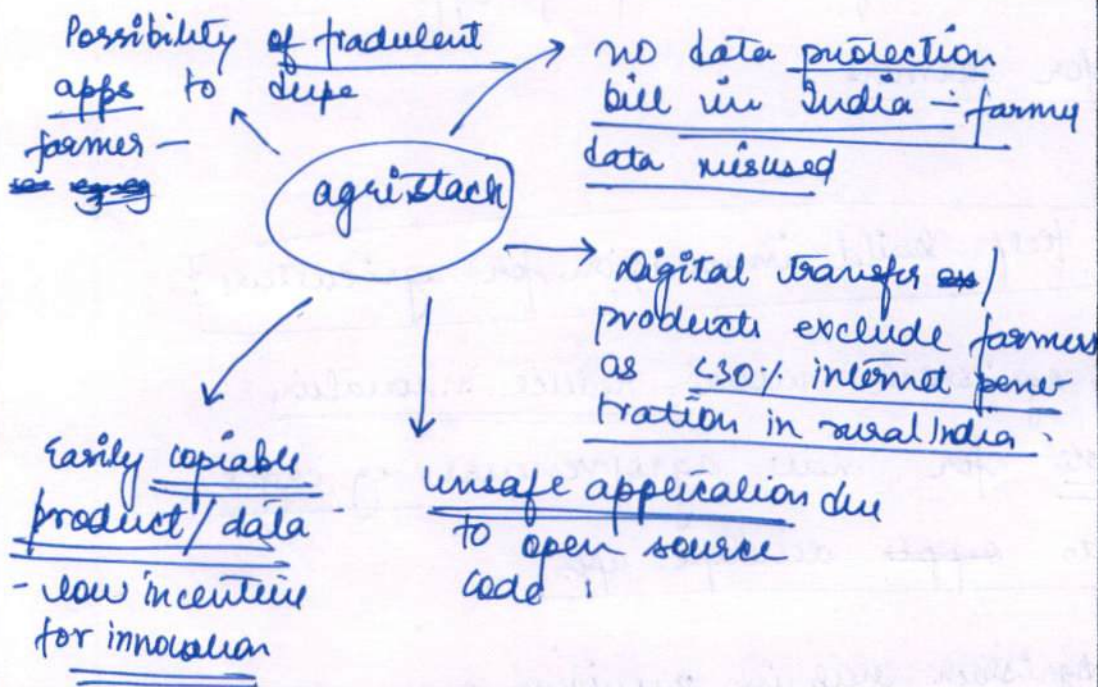
- a) AgriStack would reduce innovation cost for new agropreneurs eg egges to suppl develop apps.
- b) AgriStack help in providing easy access to farming data - eg production patterns. Better farming advisory.
- c) help in better pricing prediction

through exam.

d) Help in better/easy benefits to transfers
to farmer by DBT eg linking
AgriStack to MISAN.

e) Help in developing financial products for
farmer eg short term loan as per
crop cycle, PMFBY.

However there are concerns as well



Thus AgriStack is a good start but
Government must ensure data safety
for citizens.

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।

Geo thermal energy is energy that is developed due to the earth's internal heat

Advantages -

(a) Renewable source of energy - generated to to earth's heat.



(b) Versatile - can be easily used to turn turbines, - AC/DC both forms of energy can be developed

(c) Energy in remote areas - eg Ladakh/ Srinagar - which have low grid connectivity.

(d) Non polluting - no emission like thermal energy.

(e) No climate change impact.

But, it is not being adopted

1. Requires heavy initial investment in a setting up ~~the~~ Tapping machines
2. Requires huge land area - problem of acquisition.
3. Available in already habitated areas eg Maharashtra - problem of relocation
4. Problem of intermittent supply - variation in thermal heating possible.
5. Lack of enough research - technology development :-

Thus India must invest first in understanding successful models of geothermal energy in countries like Spain/Italy :-

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।

The WTO has proposed a new
treaty to regulate fishing in the
global waters, beyond 12 nm.

India's concerns.

1. Subsidies needed to support low income fishermen (1.4 crore) - with average income below 1,20,000 per annum.
2. Subsidies are not trade distorting as proposed by developed countries - instead measure of social security.
3. Sovereign rights infringement - Countries have full right to regulate fishing as per domestic norms - WTO should not define.
3. ~~Sub~~ In absolute terms subsidies given

by developed countries much higher.

4. Concern of artificial ~~fish~~ fishermen in India - take away their rights to fishing.

India's view

1. Developing countries must be allowed to provide subsidy as per domestic needs - principle of differential

Treatment -

2. Countries should regulate, unregulated fishing to preserve marine ecosystems - as per domestic policy.

Thus WTO's ~~interference~~ measures on fisheries must not be supported to protect India's interests.

4. There is a view that the current agricultural policies in India are biased against rainfed 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।

Agricultural policies in India have distorted a agriculture towards irrigation based crops.

Measures by Government dis-incentivizing rain fed agriculture

- (a) Guaranteed procurement under MSP for rice & wheat → which are mainly irrigation fed post green revolution.
- (b) Lack of incentives for promotion of millet - that are 80% grown in rainfed → use in 50% area.
- (c) ~~Compulsory~~ PDS includes only rice & wheat ~~and~~ majorly - exclusion of pulses (>80% grown in rain fed areas)

(d) Electricity subsidy for farmers -
more pumps → more irrigation
led agriculture eg Punjab monoculture
of rice. ~~the~~

(e) Lack of incentives for horticulture;
inadequate cold storage - grown mostly
in rainfed areas.

Thus Government schemes above are
leading to bias against rainfed agriculture

Schemes to promote rainfed crops -

- a) Bhavantar Bhugtan yojana - Soyabean
- b) PM-AASHA → Copra, Oilseeds.
- c) National pulses mission.
- d) Promotion of Palm Oil.

Thus though irrigation is
noble good, lack of facility for 52%
farmers causes hurdles. They too
must receive support.

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।

The IPCC 6th global assessment report
has stated that marine heat waves
have doubled in the last few centuries.

Causes of heat waves.

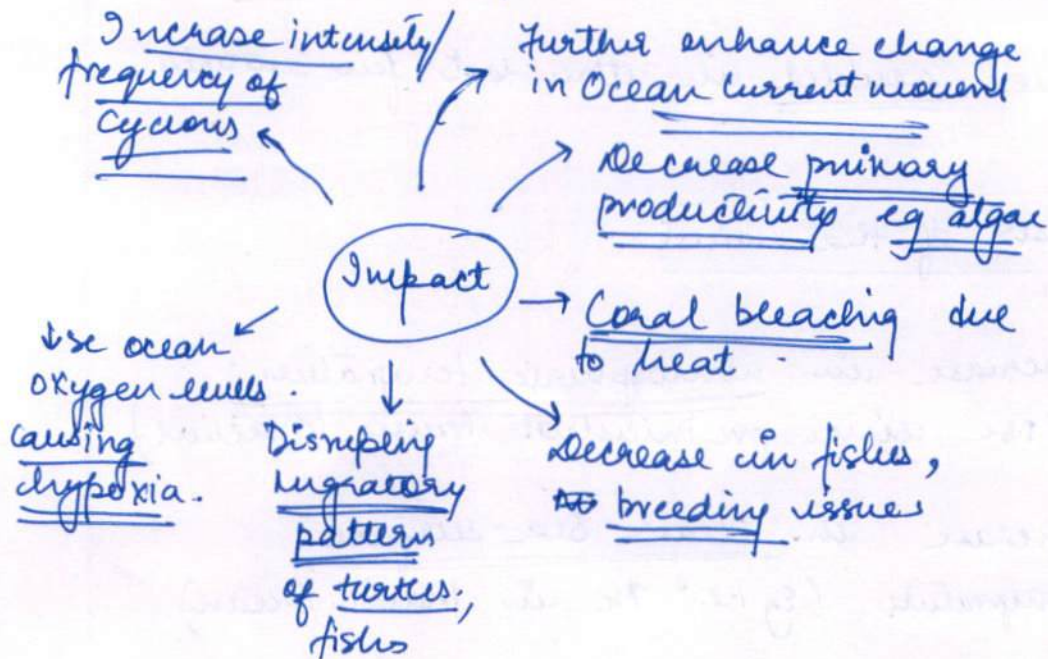
1. Increase in atmospheric temperature.
(1°C since pre industrial levels to reaction)
2. Increase in Ocean sea-surface
temperature (Eg 1.2°C in Indian Ocean)
3. Increase land heating due to global
warming increasing sea continental self heat.
4. ~~Increase~~ Reduced rainfall globally,
Eg → 1°C in El Nino phenomenon in
Indian ocean.
5. ~~Star~~ Change on Ocean circulation
pattern eg: Atlantic Meridional Current

weakening - more heat in tropical oceans.

6) Change in ~~to~~ planetary wind patterns -

- eg weakening trade due to heating of
temperate region.

Higher ocean temperatures



~~The~~ Thus heat waves must
be reduced through commitment
to Paris Agreement

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।

59% of India lies in Earthquake prone zone V & VI. Thus there is need for aseismic structures.

Need/Benefits of seismic structures

- a) Reduces the damage due to seismic waves.
- b) ~~Impact~~ Cracking of building reduces.
- c) Prevent Economic losses due to destruction of building.
- d) Prevent breakage of Critical Infrastructure eg Deepbar steel is seismic proof.
- e) Helps in reducing loss of lives during calamity - eg Bhuj Earthquake.

(if) needed in congested urban areas
due to ~~no~~ lack of open
spaces for people to evacuate
during earthquake.

Measures for a national mission
on Retrofitting needed

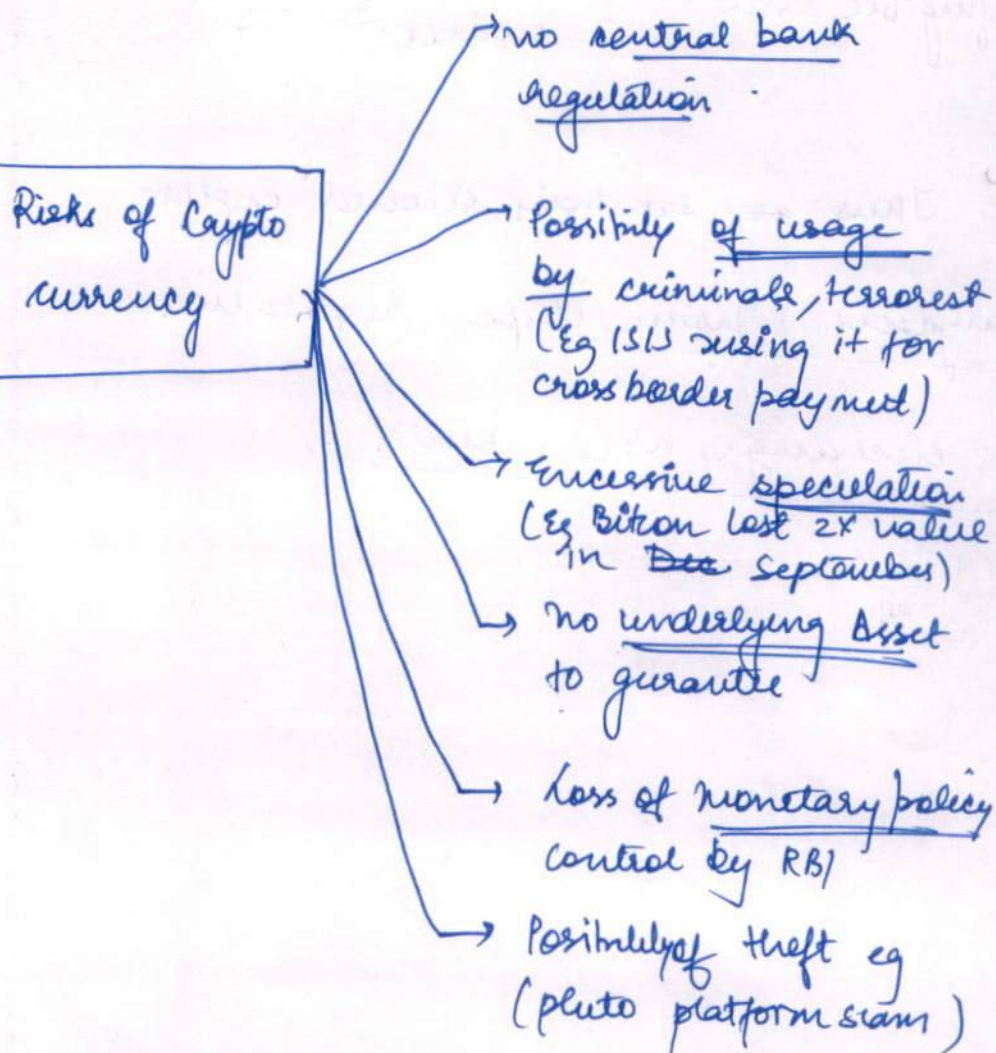
1. ~~Need to~~ Must revise new building
Code.
2. Must promote skill in Architectural
Capability
3. Must ~~to~~ include category eg:
 High priority - eg nuclear Installations
High density urban
areas

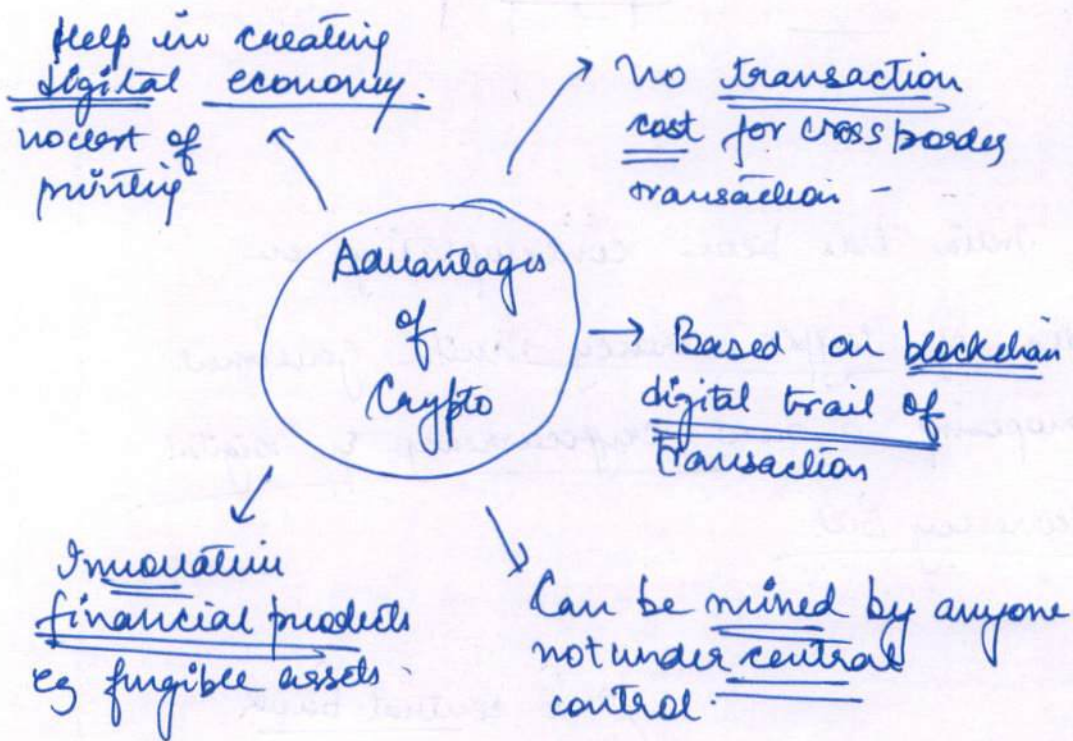
Thus Japan Model must be
studied to reduce impact of
Earthquakes.

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।

India has been contemplating on
idea of cryptocurrency → with government
proposing a new cryptocurrency & digital
currency bill.





Thus as ~~so~~ India should explore
Singapore / Japan type regulation
of exchange, KYC model.

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।

VR/AR is the use of imaging and AI to create audio-video experience for users that ~~is~~ feels real.

Application

1. Medicine - usage to create human body models/training.
2. ITes Industry
 - Create virtual working environment -
 - virtual offices.
3. Tourism
 - Create augmented experience eg A.V guide.
4. Gaming
 - Create virtual games.
5. Telecommunication
 - Create artificial meeting / conferences without travel.

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।

Narcotics Control bureau is the
key drug controlling body in
India to prevent ~~to~~ misuse of
narcotics.

Role -

1. Reduce drug misuse by citizens - (banned in India)
2. Prevent drug cartels from operating.
3. Prevent inflow of drugs ~~in~~ from
across & border.
4. Regulate poppy cultivation.

Functions

1. Support intelligence agencies -
2. Conduct investigation of narcotics
cases.
3. Pre-emptive raids to control drug

use.

42. Need to overhaul NDPS Act -

1. Act criminalises ~~even~~ use for recreational purpose - retributive attitude instead of reformative -
2. No support measures / rehabilitation measures.
3. Inadequate powers of seizure, investigation for NCB.

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 कोजिए।

Surveillance has come under the scanner due to the recent issue of Pegasus.

Need for surveillance - necessary evil

1. Increase in use of social media for radicalisation by terrorists -
2. Use of messenger to spread seditious content - eg misuse by LWE to spread propaganda.
3. Need for effective intelligence gathering - eg Kashmir/NE insurgency movements.
4. Use of digital media for planning lone wolf attacks.

5. Increasing threat of Overground
workers - using digital media to
provoke protest eg pellet stones
pelting in Kashmir

However caution is needed as:

- a) Right to Privacy a fundamental
right (Puttaswamy case)
- b) Surveillance can be misused by
government to curb dissent.
- c) Freedom of individual restricted -
(Article 19) - (Pegasus case)

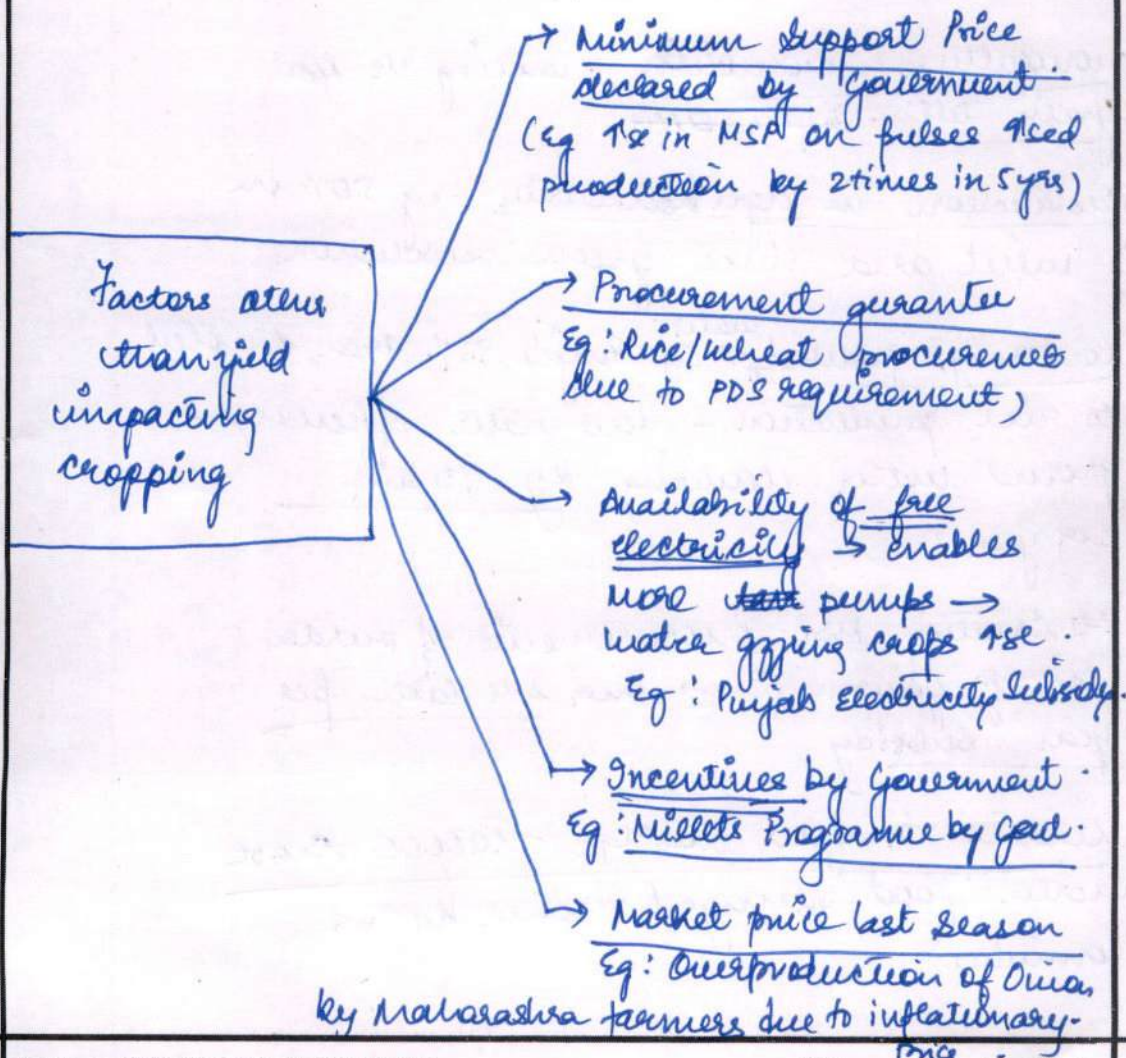
Thus surveillance must be done but
with restraint - thus there is
need to update the IT Act &
Telegraph Act to secure citizens
as well as Sovereign's rights.

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. +1

(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।

India has 28+ agro-climatic zones, over 142 million ha of land is devoted to farming yet India's farming/cropping pattern is highly skewed in certain directions



Other generic factors -

- 6. availability of storage - for horticulture crops - eg: Apple in J&K
- 7. Price in international markets eg Sugar in AP.

Need for Current pattern -

- 1. Over 85% land devoted to food grains
- 2. less than 15% horticulture. (rice/wheat)

need to change -

- 1. monoculture promotion - leading to food grain fall - ~~buffer stock~~
- 2. disturbance in agrobiodiversity - eg 50% loss in millet area since green revolution
- 3. lowering ground^{water} - eg Punjab 75% area devoted to rice production - low water efficiency - ground water lowering by 70 cm per year.
- 4. Creating MSP procurement & burden on government → Over 2.4 lakh per year subsidy
- 5. Leading to food wastage - 70000 crore more food damage (Shanta Kumar Committee)

6 Lower income for farmers - horticulture
has much higher potential

7. Export dependency increasing - 11 Bn
worth oilseeds import

Some solutions

1. Government must revise MSP, procurement -
(APSA scheme)
2. Incentivise oilseeds, pulses, millets.
3. Change Cap subsidy on electricity
4. Horticulture mission.

Thus there is need to revamp
cropping pattern to double farmers income.

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 contributes to ~ 28% of agricultural GDP. India has one the largest livestock population as per livestock census 2019.

Importance

1. Additional source of income for over 11 crore farmers/rural households
2. Livestock supports farming for operations
 - manual tilling
 - Composting-fertilizer.
3. Livestock provides source of energy.
 - eg Biogas.
4. Provides financial support during stress/crop failure → minimum sustenance income
5. Drought resilient hence protects from climate change eg Gir/Salilimal.

6. Important nutritional component - food security - eg milk in midday meal & eggs -

Steps taken by government

Promotion of
Livestock

→ National Breeding & Dairy Development programme
eg ~~Artificial~~ - Artificial Insemination -
- Semen Stripping -

→ Rashtriya Gokul Mission -
- for Indigenous variety -

→ Animal Disease Control programme - eg
- Brucellosis
- FMD vaccines -

→ Mobile Veterinary programme

→ Infrastructure Development fund 15000 Cr under
Atmanirbhar Bharat -

→ National Piggery mission
North East India -

→ Apiculture mission;
Other resolution for
poultry farming -

Impact of Climate Change

1. Stress on major bovine breeds increasing -
2. Potential of 15-20% ↓ in milk productivity -
3. ↓ in forage due to desertification.
4. Increasing syndrome of eggs cracking.
5. Spread of zoonotic diseases increasing
 ↳ Bird flu Influenza.

Thus climate change ~~is~~ ~~must~~ ~~adaptation~~ ~~measures~~ like promoting indigenous drought hardy breed ~~needs~~.

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।

The global slowdown has prompted economists to suggest 'Keynesian' measures of increasing expenditure (especially public) on infrastructure.

Argument -

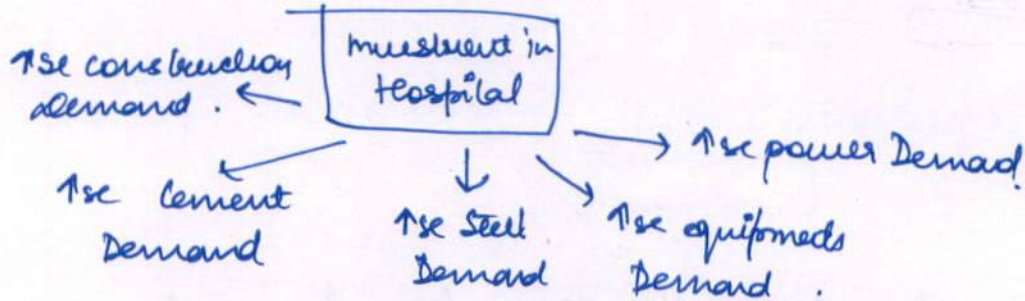


Merits -

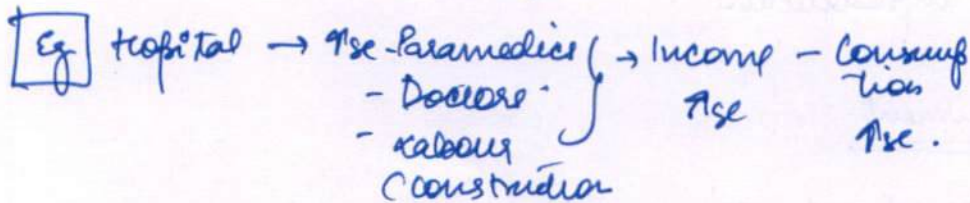
1. Infrastructure demands public investment → deficit financing → helps put money in people's hand.
2. Creates demand for downstream industry -

→ P.T.O.

Eg:

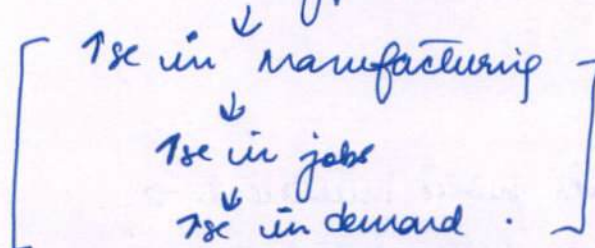


3. Infrastructure helps creating employment
→ leads to overall ↑ in consumer demand in economy.



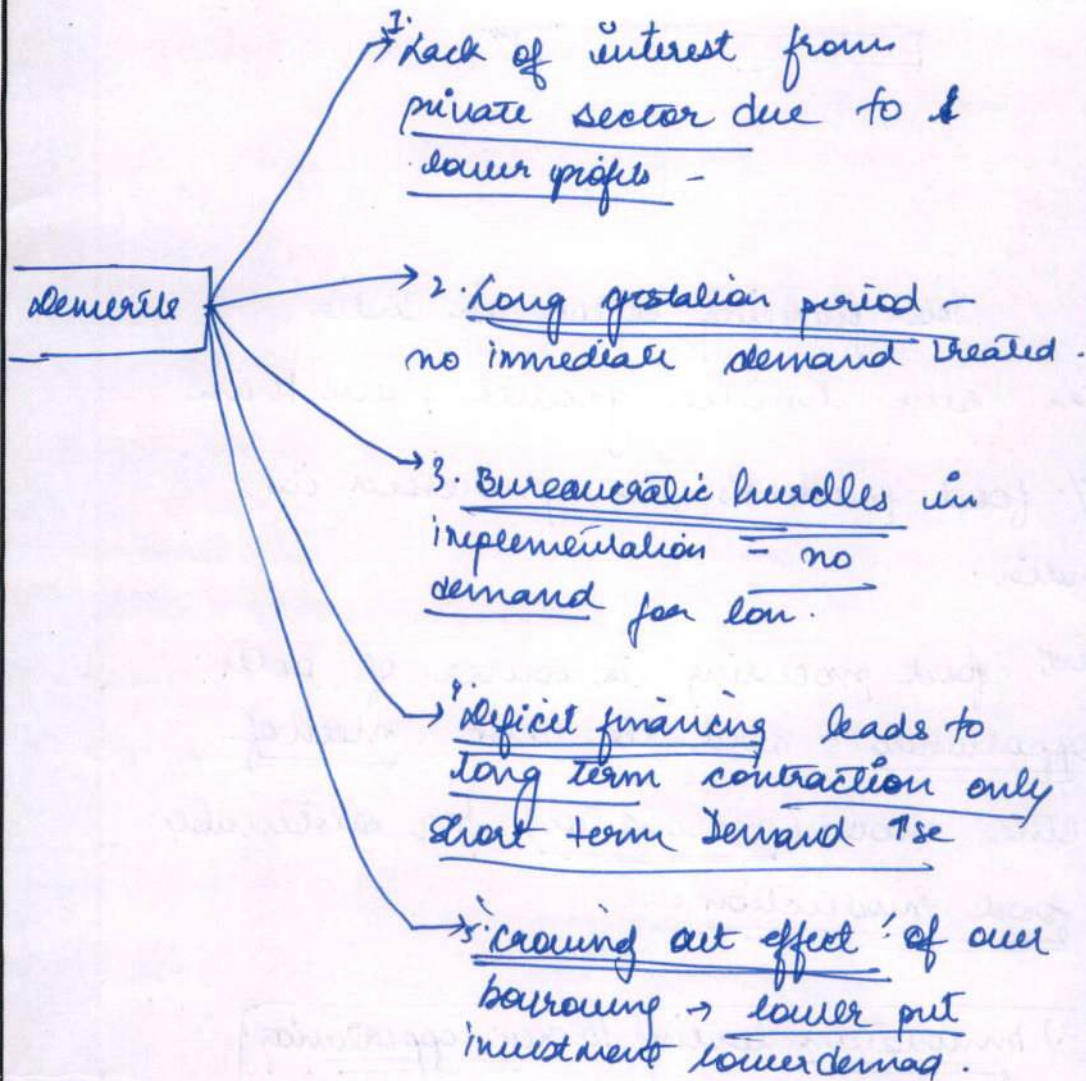
4. Infrastructure investment ~~create~~ creates ease of doing business:

- Logistics Cost ↓
- ~~low~~ Energy Cost ↓



5. Infrastructure investment also improves social outcomes - hospital, schools this helps ↑ skill, human Capital -

A



Thus we see infrastructure investment can both rise / use demand - ~~that~~ if it can be use ipst judiciously NIP investment of 110 lakh cr. can benefit India

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 sector in India has seen limited growth, less than 5%. food products are processed in India.

But food processing is source of both opportunity and is also need of the sector (precondition) for sustainable food production.

(a) Innovation leading to new opportunity in food processing.

(a) Increase in demand for processed food due to urbanisation - innovative easy to carry food products for corporate class.

(b) opportunity to tap increasing food demand in global market eg:

Processing of organic oranges by Sikkim,
meghalaya -

(c) Opportunity to increase farmers income by innovative products eg jasmine essential oil ~~is~~ in floriculture processing.

(d) Opportunity ~~to~~ to create ~~more~~ more processed food due to gr crops like tomatoes with longer shelf life, fish preservation -

(e) Opportunity ~~is~~ due to new technology innovation in food processing - eg milk → frozen yogurt :

Innovation is also pre-condition for sustainable food production.

1. Innovation needed ~~to~~ for better procurement in food processing - eg decentralized hub & spoke procurement. → more production

2. Innovation, needed in low cost cold storage due to low productivity and surplus. (86% farmers marginal)

- (c) Innovation needed for better ware housing (eg Sensor based temperature regulator) → The FPE thus will rise sustainable food production.
- d) Innovation needed to create demand for more food variety of processed food - eg millets, oilseeds
→ will lead to sustainable production.

Thus through innovation in food production farmers will get more opportunities and sustainably increase 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।

unemployment in India has reached an all time high of 4%. job growth rate < 1%.. It is caused by both structural & other factors.

I. Structural (Traditional) factors

1. Over reliance on agriculture - 16% GDP 50% population.
2. Disguised unemployment in agriculture.
3. Slow growth of manufacturing - only 18% of gdp. Make in India target of 25% not achieved.
3. Tertiary sector → over 55% GDP but employment only 30%.

non structural factors

1. Cyclical slowdown in economy:
eg. Tripandenic slow down to 4%.

2. Unemployment related to COVID
related stress - closure of MSMEs which
employ over 12 cr.
3. rise in contractual employment - ~~due~~ to reduce
~~cost of~~ cost of labour → more seasonal
unemployment -
4. unemployment higher among women due to
social barriers - 'pink collar jobs' bias.
5. rise in 'gig economy' - temporary
workers → seasonal unemployment etc.
6. Poor skills - eg Only 20% engineers
~~manpower~~ industry ready as per IIT.

Measures taken by government

1. Manufacturing Sector
 - PLI Scheme
 - Labour Codes (limit rise to 300 workers, Fixed term employment)
 - RAMP Scheme with warden to improve MSMEs.
2. Agriculture
 - PLI for food processing
 - Rise opportunity for skilled labour in horticulture
 - P.M Matsya Sampada - provide 25 lakh jobs to fishermen

3. Services
- ~~The~~ draft medical tourism
conference tourism policy ~~the~~
demand.
 - Promote ITES through new
FTAS, BPO norms relaxation.
 - Professional service industry -
promotion eg CA.

Other -

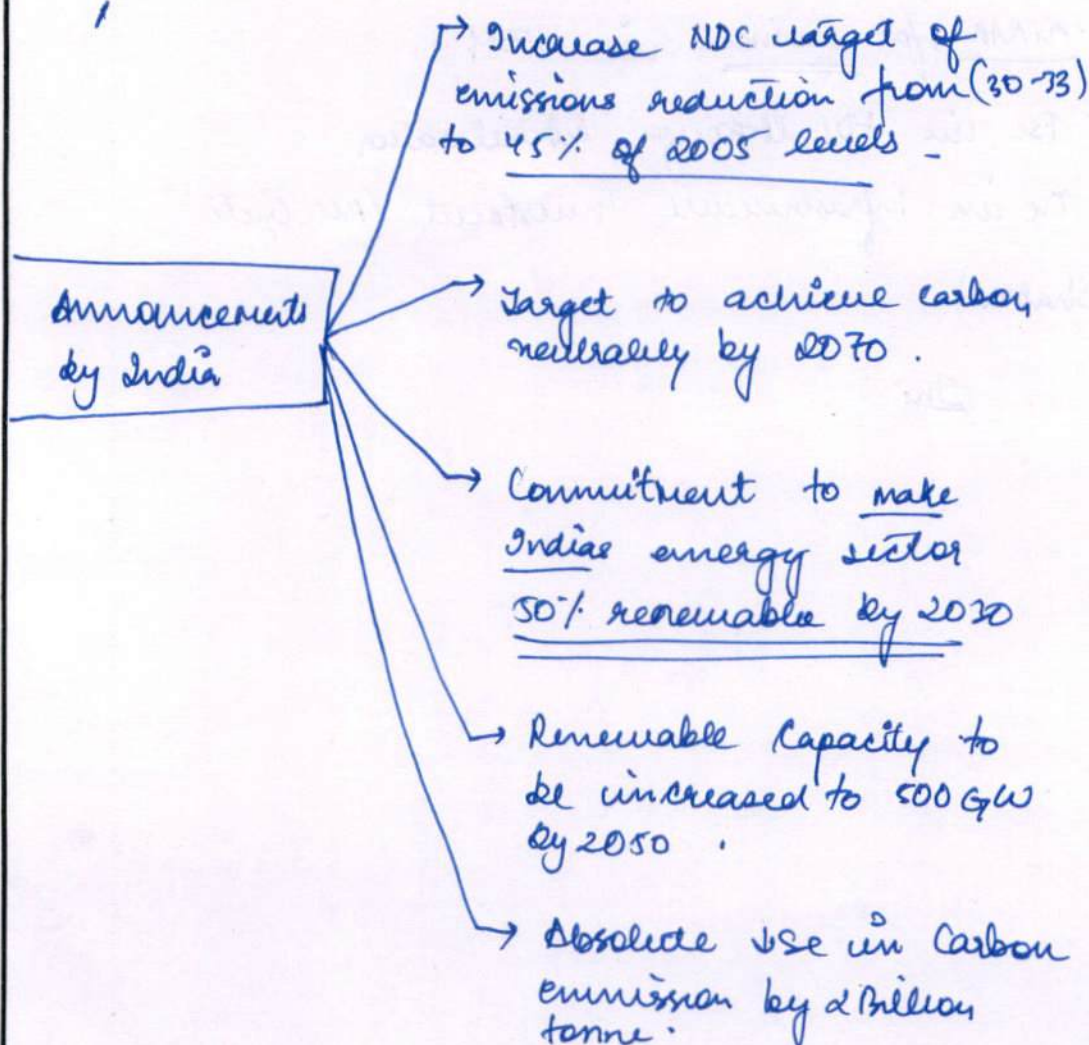
1. PM Kausal Utkas Yojana for skills
development.
2. KIRAN for women in STEM.
3. rise in FDI through liberalisation.
4. rise in infrastructure investment (PM Gati
Shakti)

The

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।

Prime Minister gave the 'Panchamrit' to the world - as India's contribution towards fighting global climate change.



Additionally

- Signed the Zero Emission Vehicle pact voluntarily.

India's Capability
in achieving net zero.

India's Capable of Net zero.

1. India already achieved 247% increase in emission, on track for 2030.
2. ~~to~~ Renewable energy rise to ~136 GW
(10x jump in solar production in last 10 years)
3. Emission from vehicles likely to reduce:
 - 1) FAME II.
 - 2) 2030 mission of mobility
 - 3) SATAT, National Hydrogen mission
 - 4) ~~dropping~~ to BS VI.
4. Carbon sequestration :- ~1% increase in forest cover,
Urban forestry mission, GIM

Challenges - in Net zero

1. Renewable energy production still slow - need to add ~170 GW

in 1 year for solar target of 100 GW
netw year.

2. Slow uptake of mobility - Only 600
charging stations in India.
3. ~~to~~ Slow increase in afforestation -
only 54mn sq m (IFoS survey 2019) in 2 yrs.
4. Agriculture - 18% emissions - difficult
to control - food security concerns.
5. ~~to~~ India's energy demand per capita to
be 2X - by 2030 - need for
fossil fuel.

Thus India's aim is noble but
implementation has to be fasttracked.

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।

Western ghats has seen the
phenomenon of devastating land-
slides for two consecutive years
between 2018-2020.

Role of Geography

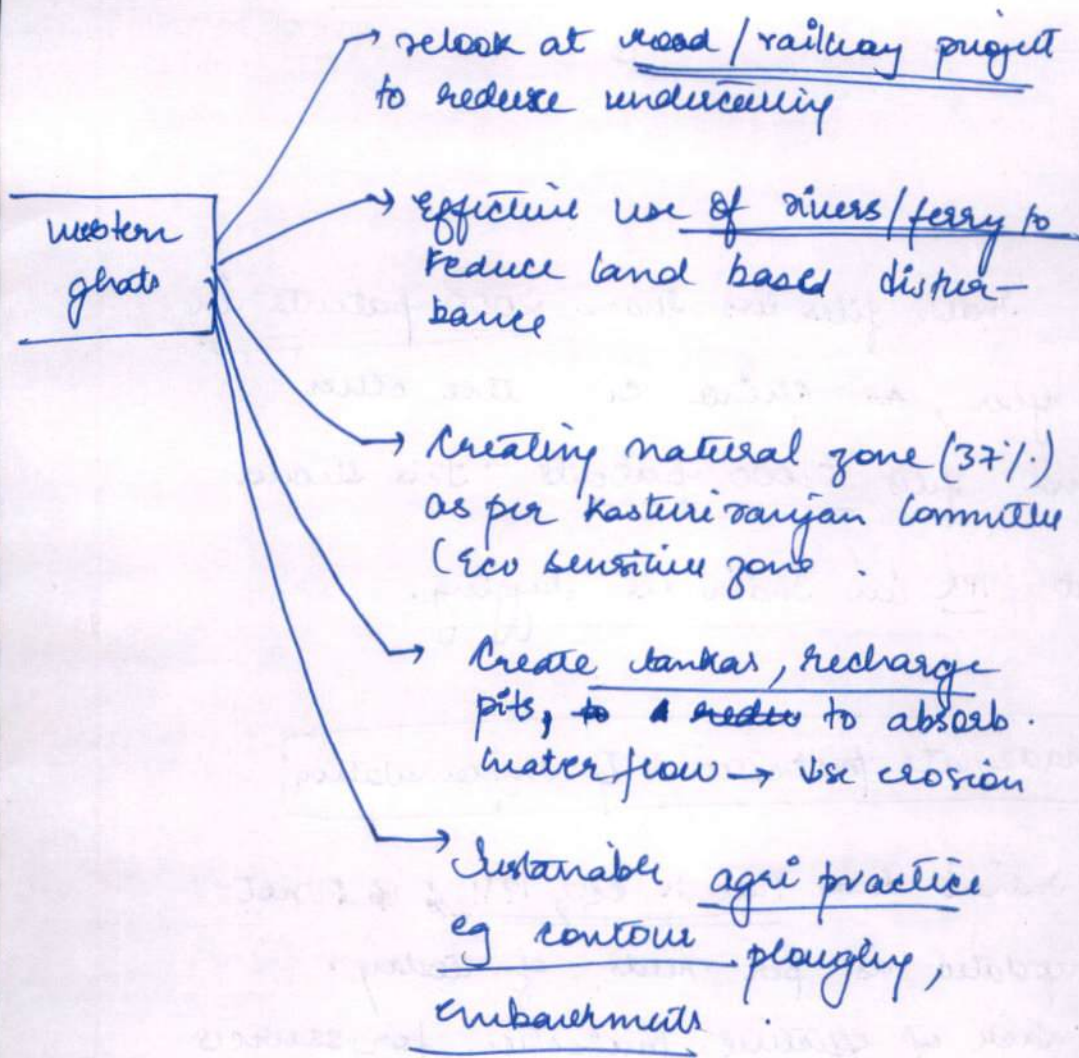
- a) Impact of surplus monsoons -
a nine year, and positive 100°
causes very heavy heavy rainfall →
land slides.
- b) Impact of change in river
course/flow of river -
- swelling up of rivers like periyar.
leading to mudflow :

- c) Storm surges, tidal waves increasing on malabar coast - caused more erosion in costal areas.

Human role in disasters

1. Increasing intensity of monsoons linked to increasing global warming → ↑ in floods.
2. Cutting of valleys (eg new rail line from Kasaragod to Kochi) → weakening the valley → landslides.
3. river dam management by humans eg Mulla Periyar dam. leading to swelling of rivers → floods.
4. Interlinking of river projects - diversion of western Ghats streams → leading to increasing change in river course → loosening soil → land slides.

Measures to protect western Ghats



Therapy

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।

India files less than 2000 patents in a year, ~~as~~ China on the other hand files 52000 patents → This shows that IPR in India is lagging.

Inadequate protection & Implementation

1. India's ~~late~~ Patents Act, 1971 is ~~not~~ not updated as per needs of today.
- Lack of effective protection for source codes.
2. Multiple acts → trademarks act, copyrights act, Industrial designs act ~~leads~~ leads to confusion.
3. IPR protection to source data is inadequate - even though innovation protected source data, research not adequately protected.
4. Renewal of patents: post 10/20 yrs (as applicable) not allowed - too short

time period to recouper expenditure:

(e.g. pharma companies demanding > 20 years)

5. Poor implementation mechanism -

Tribunals take ~ 4-5 years to solve cases of breaches of patents.

6. Large scale market for 'copy cat' products - ~~the~~ lack of protection by government.

7. Seeds protection under PPV & FR Act inefficient due to Patents Act overriding clause.

Measures to improve:-

1. Creating a comprehensive new act - which includes Industrial Design, Copyrights, GI etc to avoid overlaps.

2. Create strong ~~of~~ institutional system -

→ time limit for review of patents
1. filed.

→ 2. ~~use~~ use of AI to expedite granting patent.

3. single tribunal for all types of patents - time limit.

4. Review of novelty of patent request -
on case to case basis to allow
recouping expenses.

5. Strong penalties for breaches, judicial
mechanisms.

Through adequate IPR protection
India's Innovation potential can
be realized

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 आपराधिक 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।

Organized crimes are groups that
establish corporate like structures to
earn through illegal activities. while
terrorists spread violence to propagate
their beliefs.

Similarity -

1. Both thrive in unstable political
climate - eg Africa - Boko Haram (terrorism)
+ ↑ in human traffic. (OC)
2. Both use illegal means achieve
objective eg extortion/Contract killing (OC)
Bombing/Hijacking (terror)
3. Both are anti state and harm the
economy - terrorism = low investment
harmful = black economy

Differences

1. Organized crime may not necessarily be violent (eg betting) unlike terrorism.
2. Organized crime has ties with politicians/state - not possible in case of terrorists.
3. OC has no ideology - members are heterogeneous.
Terror groups mostly ideological base.
4. OC flourishes in good economy also / eg black money - terrorist usually

The linkages between them are tactical & strategic

Tactical ways

- a) OC helps in providing new base/ support for terror groups (eg Drug lords → support Taliban)
- b) ~~OC~~ terrorism provides new protection to OC members to operate -
eg: Temp/ helping FICN in circulation

in J&K.

Strategic

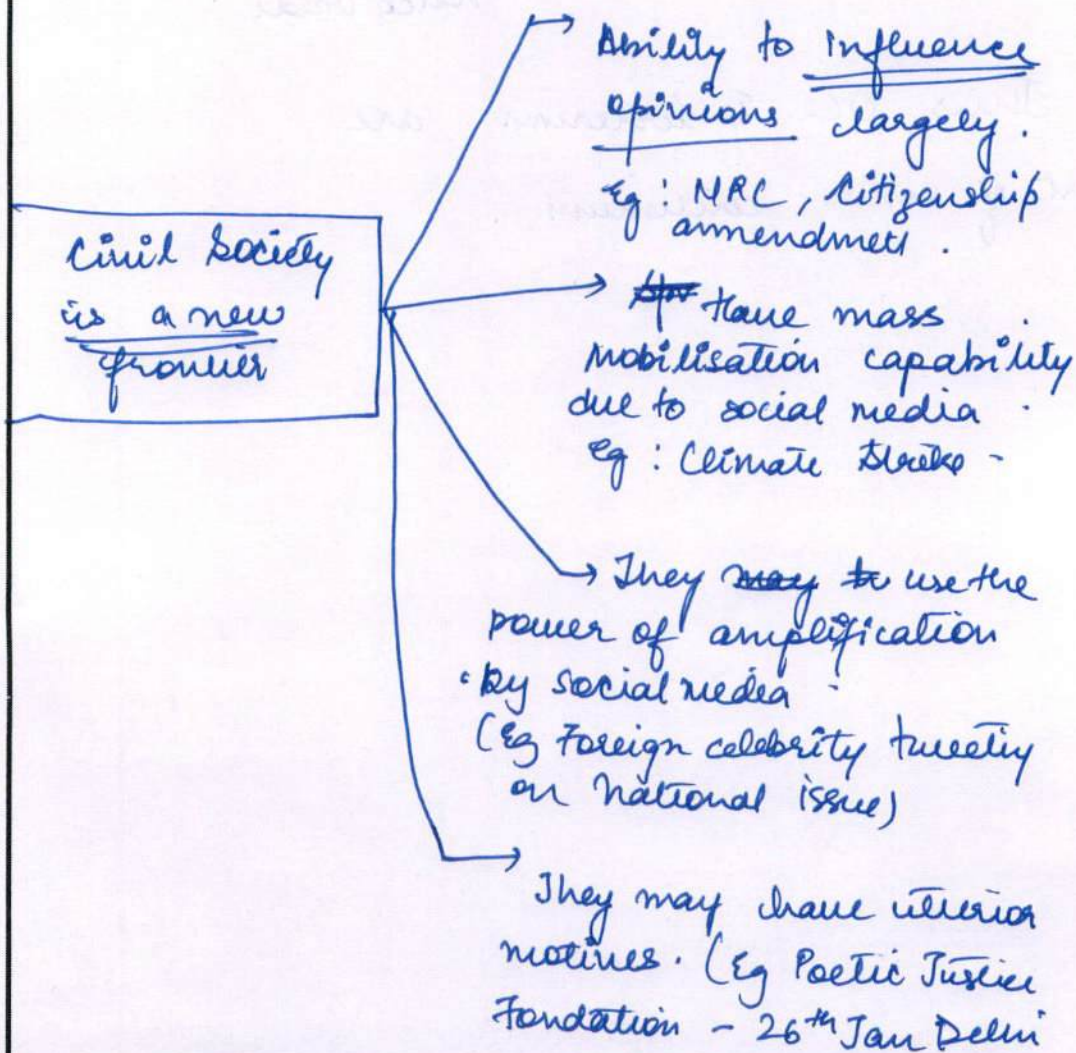
- a) OC helps strategically provide logistics support to terror
 - arms transfer
 - new recruitment
 - hawala transfer
- b) Terror groups helps in creating demand for OC
 - Terrorism use → locally use
 - use in human traffic
 - narco trade

Thus OC & terrorism are part of same continuum.

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।

4th Generation of warfare refers to warfare using technology, social media. The civil society is playing an important role in this warfare.



motist - minus)

§ ~~Just~~

Civil Society not a new frontier

1. Earlier also mobilized people eg
Narmada Bachao only method
has changed (eg social media)
2. Civil Society helps in raising
legitimate demands of citizens
eg Agriculture / Farm bills - not
a warfare zone.
3. Civil Society helps in grievance
redressal and connecting citizen
eg government better.
(Eg: Civil Society help to labour
during migrant crisis)

Thus civil society not a new frontier
of war.

They support the government - challenge
of use of technology persists ~~but~~
but civil society must be viewed
as pillar of democracy.