

# VISION IAS

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## GENERAL STUDIES (TEST CODE : 1326)

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Medium Eng./Hindi	ENG	Registration Number	506755
Center		Date	5/4/19

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 <b>TWENTY</b> questions printed in <b>ENGLISH &amp; HINDI</b> इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
3	10		3. <b>All questions are compulsory.</b> 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		
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Total Marks Obtained:			6. Word limit in questions, if specified, should be adhered to. प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
Remarks:			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।

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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.

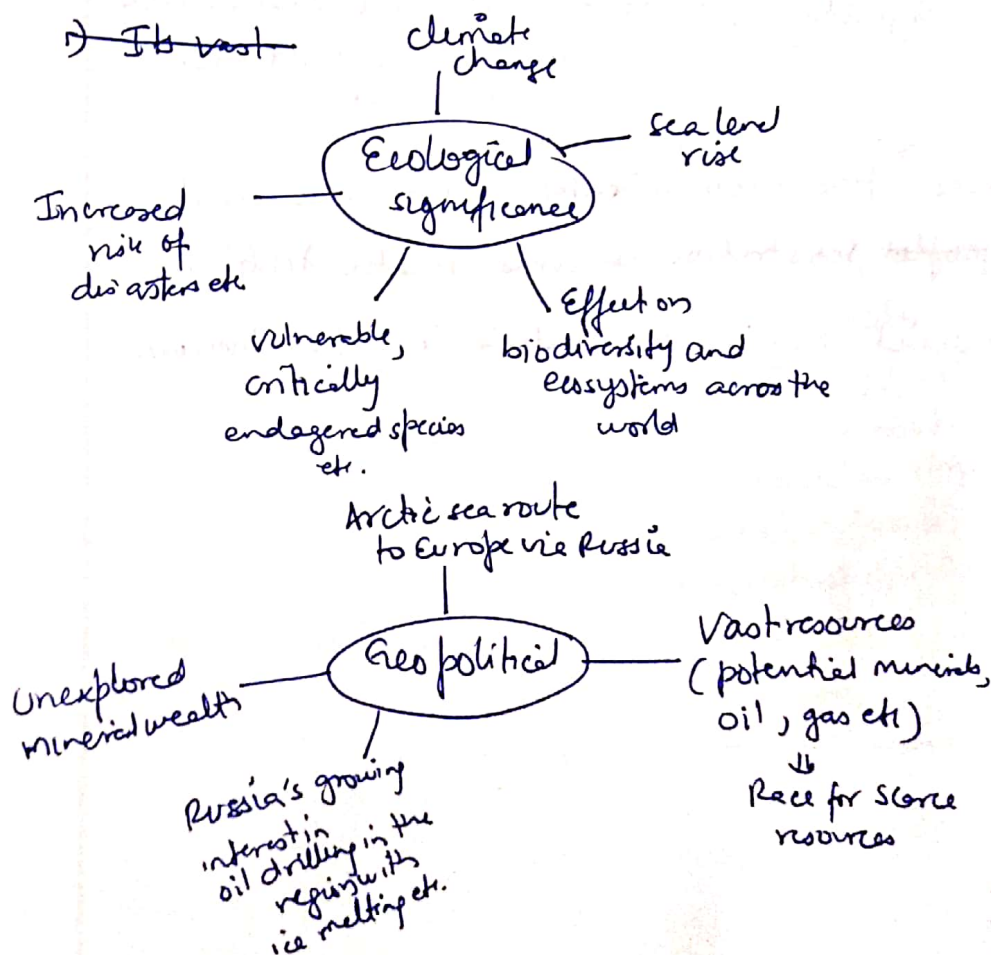
6.

All the Best

1. Given the growing ecological and geopolitical significance, Arctic region offers immense opportunities for serving India's long-term interests. Discuss. (150 words) 10

बढ़ते पारिस्थितिक और भू-राजनीतिक महत्व के आलोक में, आर्कटिक क्षेत्र भारत के दीर्घकालिक हितों की पूर्ति हेतु व्यापक अवसर प्रस्तुत करता है। चर्चा कीजिए।

Arctic region, with its fast melting ice (100% faster), is fast emerging as a crucial geopolitical and geostrategic concern for in the international arena due to:-



Hence, as an observer of Arctic Council,  
India stands as a stakeholder in the region  
due for its interests in:-

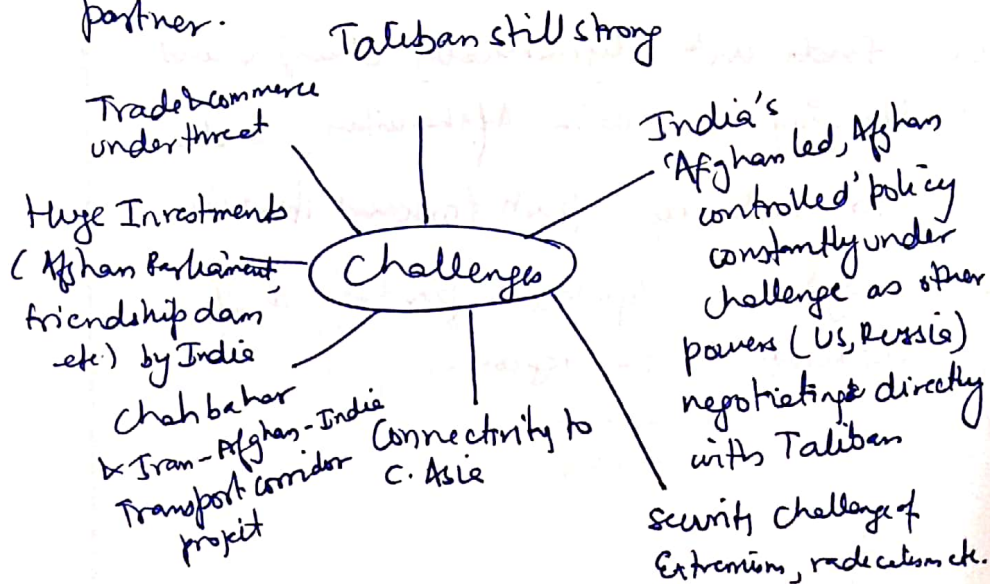
- 1) Trade & commerce → free navigation
- 2) Resources → equitable share of global commons
- 3) Rule based order & multilateral approach
- 4) Signatory to COP21 ⇒ limit sea level rise & melting  
as India one of the most  
vulnerable.

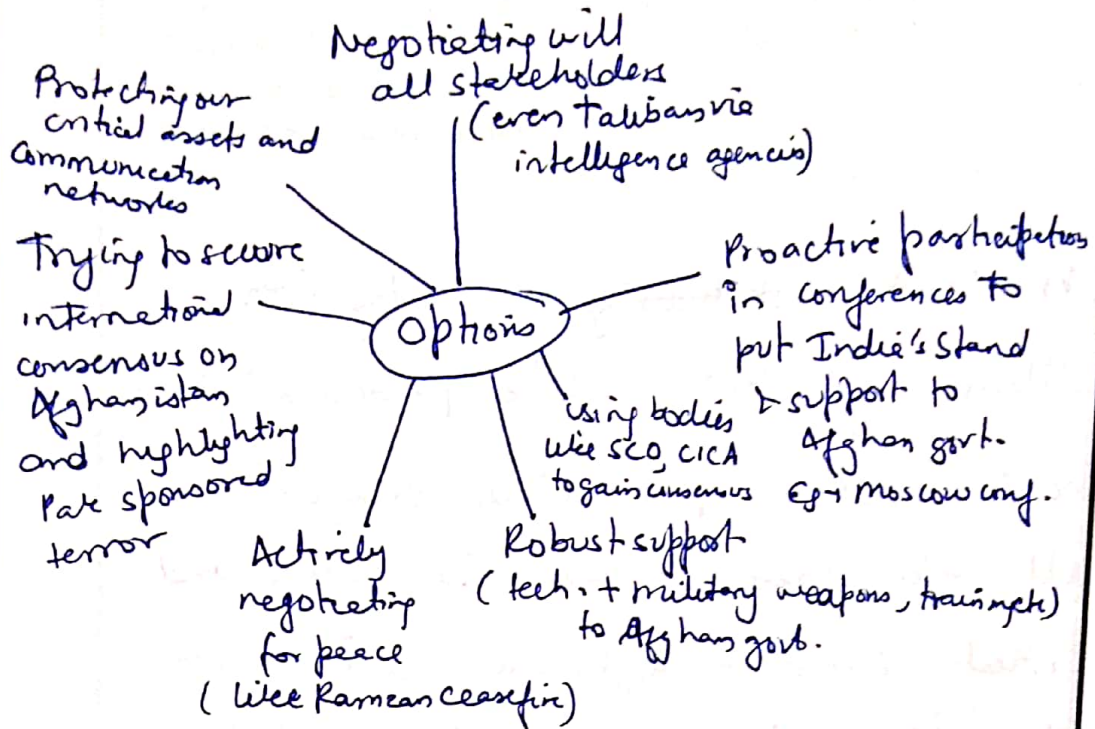
Hence the environmental, economic and  
geopolitical geostrategic concerns make Arctic as  
crucial region for India's long term interests.

2. Discuss the challenges that India may face in the eventuality of withdrawal of US troops from Afghanistan. What options does India have to safeguard its interests in the context of the changing situation? (150 words) 10

अफगानिस्तान से अमेरिकी सैनिकों की वापसी की स्थिति में भारत के समक्ष आ सकने वाली चुनौतियों पर चर्चा कीजिए। परिवर्तित होती परिस्थितियों के संदर्भ में भारत के पास अपने हितों की रक्षा करने के लिए कौन-से विकल्प हैं?

With USA withdrawing negotiating with Taliban and talks of its phased withdrawal, India needs to proactively engage with all stakeholders to secure its national and critical interests in Afghanistan, which is our gateway to C. Asia along with being a strategic partner.





Thus India, with dynamically changing and challenging stakes in Afghanistan, India needs to actively push forward its voice as a major developmental partner and stakeholder in the region.

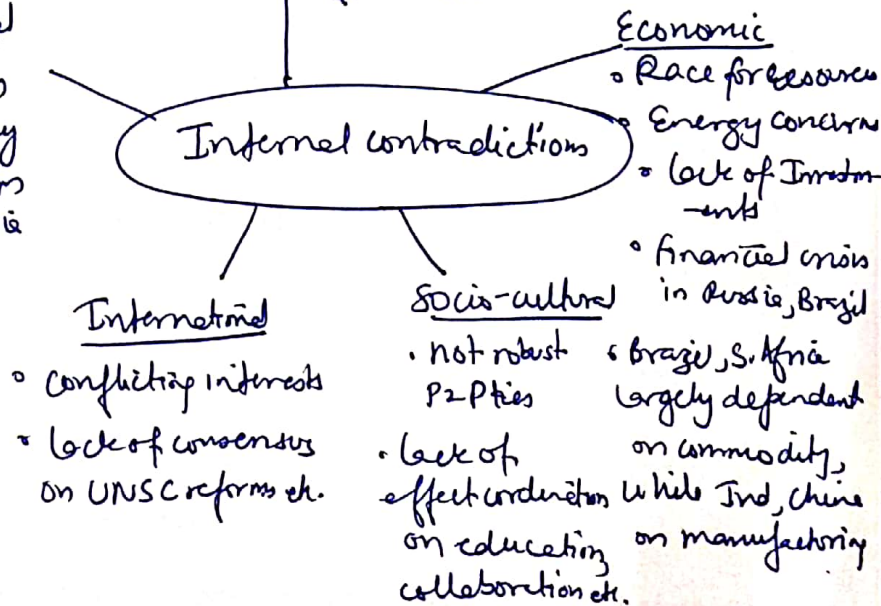
3. The BRICS as a grouping seems to have internal contradictions, which makes it difficult for it to emerge as an effective forum in a dynamic multi-polar international order. Critically discuss. (150 words) 10

एक समूह के रूप में ब्रिक्स (BRICS) में आंतरिक विरोधाभास विद्यमान प्रतीत होते हैं, जो गतिशील बहु-ध्रुवीय अंतर्राष्ट्रीय व्यवस्था में इसके एक प्रभावी मंच के रूप में उभरने को कठिन बनाता है। समालोचनात्मक चर्चा कीजिए।

BRICS (1<sup>st</sup> summit in 2009) reflects the emerging economies of 21<sup>st</sup> century with >50% of world's population and >30% of world's GDP (hence immense potential).

Bilateral:- India vs China (BRI, support to Pak, border issues etc)  
China vs Russia (in C-Asia)

Geopolitical  
Brazil, South Africa largely isolated from dynamic Asia



However, there are areas of synergy upcoming like:-

- 1) BRICS bank
- 2) BRICS media network
- 3) collaboration in trade, infra, renewable energy, disaster management etc.

- 4) Support to JC POA during recent summit -
- 5) Talks on Vladivostok - Chennai ~~pipeline~~ pipeline etc.

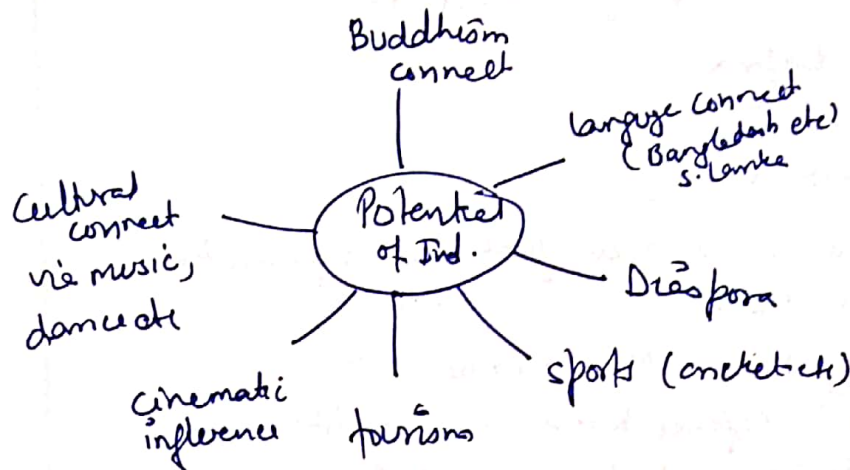
These synergies need to be revamped to enhance cooperation, integration and connectivity between BRICS to ~~reach~~ <sup>realise</sup> its full potential.

4. Despite India having immense soft power potential, it alone will not be sufficient to achieve India's foreign policy objectives. Examine.

(150 words) 10

भारत के पास अत्यधिक मृदु शक्ति (सॉफ्ट पॉवर) क्षमता होने के बावजूद, केवल यह भारत की विदेश नीति के उद्देश्यों की प्राप्ति हेतु पर्याप्त नहीं होगी। परीक्षण कीजिए।

Soft power relies on dominance in cultural, religious, spiritual etc. spheres of ~~dom~~ diplomacy and international relations to exuberate dominance.



However India's foreign policy objectives are-

- 1) Maintaining & securing territorial integrity and national interest
- 2) Peace and non-interference - Panchsheel
- 3) NAM and independent decision making - balancing between US & Russia etc., especially in post cold war era.
- 4) Maritime security & dominance in IOR
- 5) Countering China rise in our backyard

- c) Push to 'Act East' policy → connect to S.E. Asia
- d) Connect with Central Asia, Africa etc.
- e) Energy & resource security
- a) Securing sea lanes of communication, anti-piracy etc.
- b) Trade, Commerce, connectivity
- 1) Multilateralism + reforms in UNSC + rule based order
- 2) Free & open Indo Pacific → SAGAR
- 4) Engaging diaspora
- 5) Neighbourhood 1st.
- 6) Disarmament (globally)

The objectives need a comprehensive + proactive approach of :-

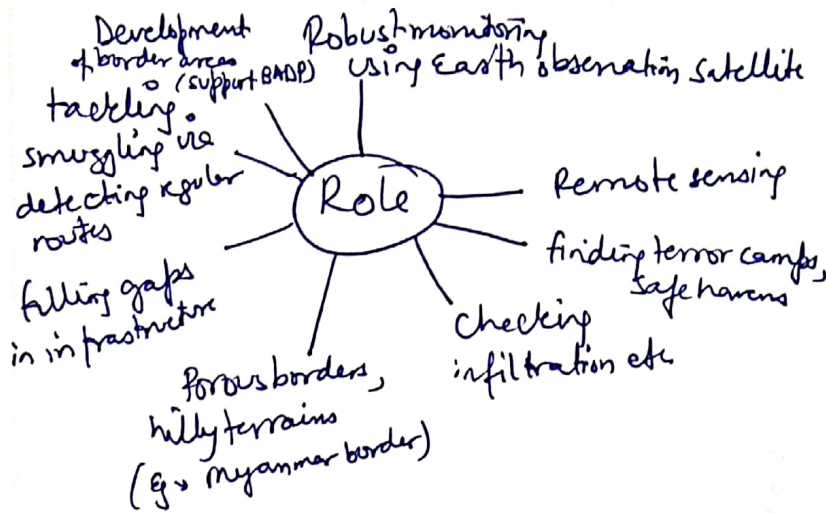
- a) Outreach to S.E. Asian nations
- b) Cooperation in defence & maritime security
- c) Capacity building of defence (China, Pak etc. hostility)
- d) Resurrection of Quad → to counter Chinese rise (BRI etc)
- e) Min. credible deterrence.

Hence both hard + soft power need to be cautiously balanced to ensure our national interests.

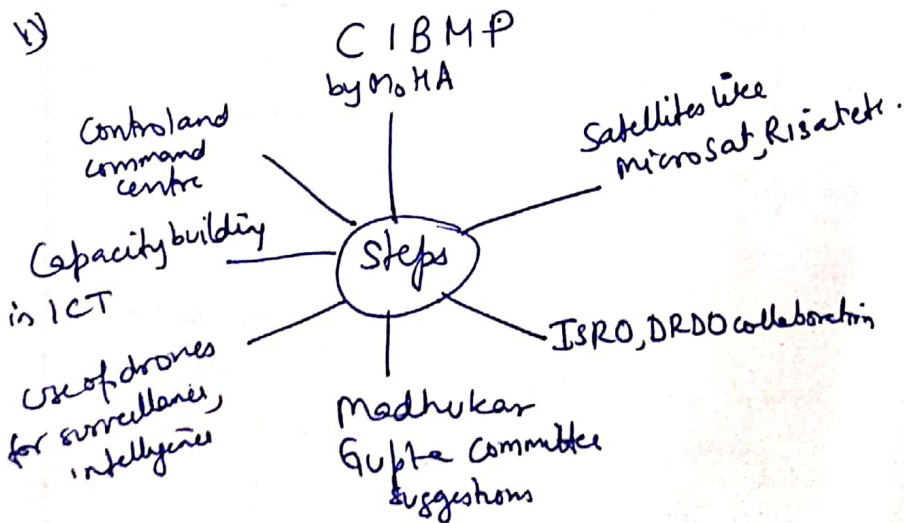
5. Highlighting the role of space technology in border management, enumerate the steps taken so far in this regard. (150 words) 10

सीमा प्रबंधन में अंतरिक्ष प्रौद्योगिकी की भूमिका पर प्रकाश डालते हुए, इस संबंध में अब तक उठाए गए कदमों को सूचीबद्ध कीजिए।

Space technology plays a pivotal role in border management for building a comprehensive and robust system as:-



Steps taken



These steps will ensure a robust and  
comprehensive border management system to  
check terrorism, infiltration, smuggling etc.  
and for development of lagging areas.

6. Despite allegations of human rights violations under the AFSPA, it is a functional requirement for the army in disturbed areas. Critically discuss. (150 words) 10

AFSPA के अंतर्गत मानवाधिकारों के उल्लंघन के आरोपों के बावजूद, यह अशांत क्षेत्रों में सेना के लिए एक कार्यात्मक आवश्यकता है। समालोचनात्मक चर्चा कीजिए।

AFSPA not only grants special powers to armed forces in disturbed areas, but also provides protection to the personnel in taking official actions in these 'disturbed' areas.

features-

- 1) Invoked in 'disturbed' areas of NER, J&K etc.
- 2) Assembly of more than 5 people not allowed
- 3) Personnel can even fire post warning, if need be
- 4) Protection against prosecution / inquiry (unless ~~the~~ Centre Govt. approves).

Recently, there has been growing criticisms by NHRC, civil society activists and international bodies about the alleged HR violations (fake encounters, innocent killed, cases of rapes etc.) + growing insurgency in NER.

However, it remains a functional requirement due to-

- 1) Political concerns
  - separatist / secessionist forces operating in NER, J&K etc.
  - Law & order threats to internal security
- 2) Economic- affects development of a region due to insurgency.

- 3) Social → ethnic alienation; people living in fear; lack of education etc.
- 4) International → non-state terror groups, Pakistan etc. facilitating insurgency + states like Bangladesh, Myanmar used as safe havens.

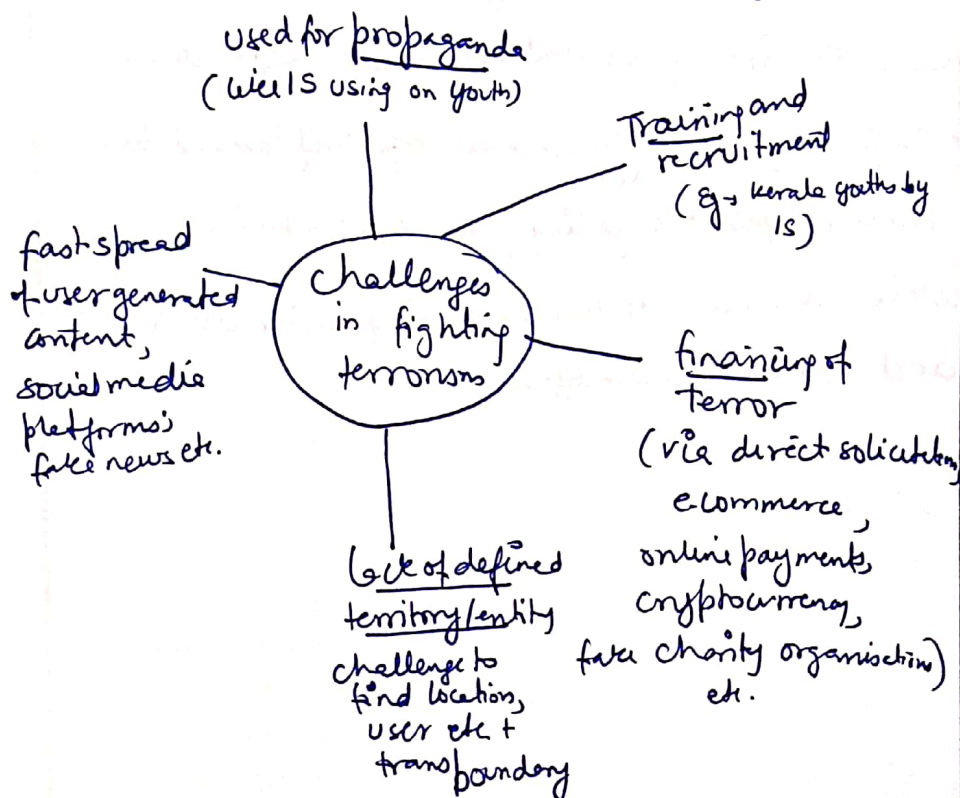
Recently AFSPA has been revoked from certain areas of Arunachal, though it still remains in major parts of Assam, Manipur, Meghalaya etc.

2<sup>nd</sup> ARC and several other committees have recommended to ~~repeal~~ ~~it~~ and instead built capacity of state police forces + strengthen provisions of UAPA 1967 to tactfully handle the situation via negotiations, development and adequate use of force to pacify the sentiments and respect human rights.

7. The use of Internet creates both challenges and opportunities in the fight against terrorism. Discuss. (150 words) 10

आतंकवाद के विरुद्ध लड़ाई में इंटरनेट का उपयोग चुनौतियां और अवसर दोनों सृजित करता है। चर्चा कीजिए।

With the increasing role of ICT in our lives and the internet boom (no. of people using it to double by 2021), it has increasingly become a boon as well as a bane for policy makers.



However, it also provides opportunities:-

- 1) Coordinated actions via ICT
- 2) With NeGP etc. → Corruption has declined
- 3) Robust cyber security network to track quickly (CERT-In etc)

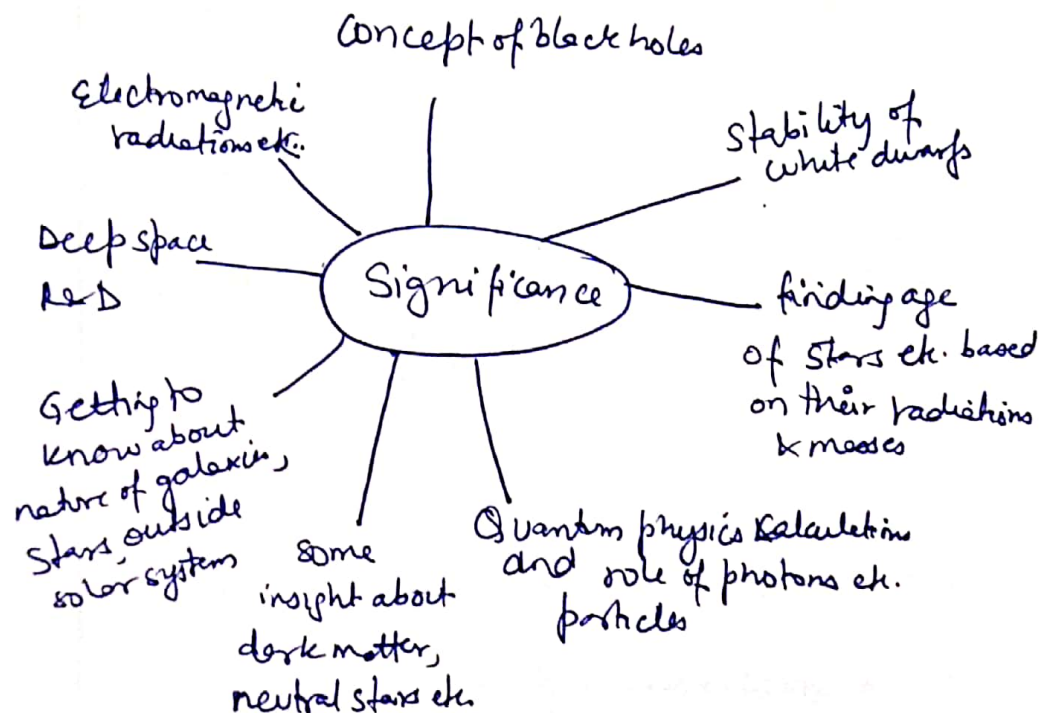
- 4) Using remote ~~sensors~~ sensing & mapping to locate terror camps ( recent surgical strike on JeM).
- 5) Finding source of funds and action against illicit trafficking → ~~more~~ easier via better technological monitoring.
- 6) Sec 69 of IT Act → allows searching of any computer for security concerns by given authorities
- 7) Collaboration with FB, Google etc. → to fight it.  
Hence Internet, like any other technology, comes with its pros and cons. It depends on the capacity + effectiveness of implementation + robust legislative policy to comprehensively tackle menace of terrorism using internet, AI, IoT and other technologies.

8. Explain the concept of Chandrasekhar Limit and highlight its significance in the field of astronomy. (150 words) 10

चंद्रशेखर सीमा की अवधारणा की व्याख्या कीजिए और खगोल विज्ञान के क्षेत्र में इसके महत्व पर प्रकाश डालिए।

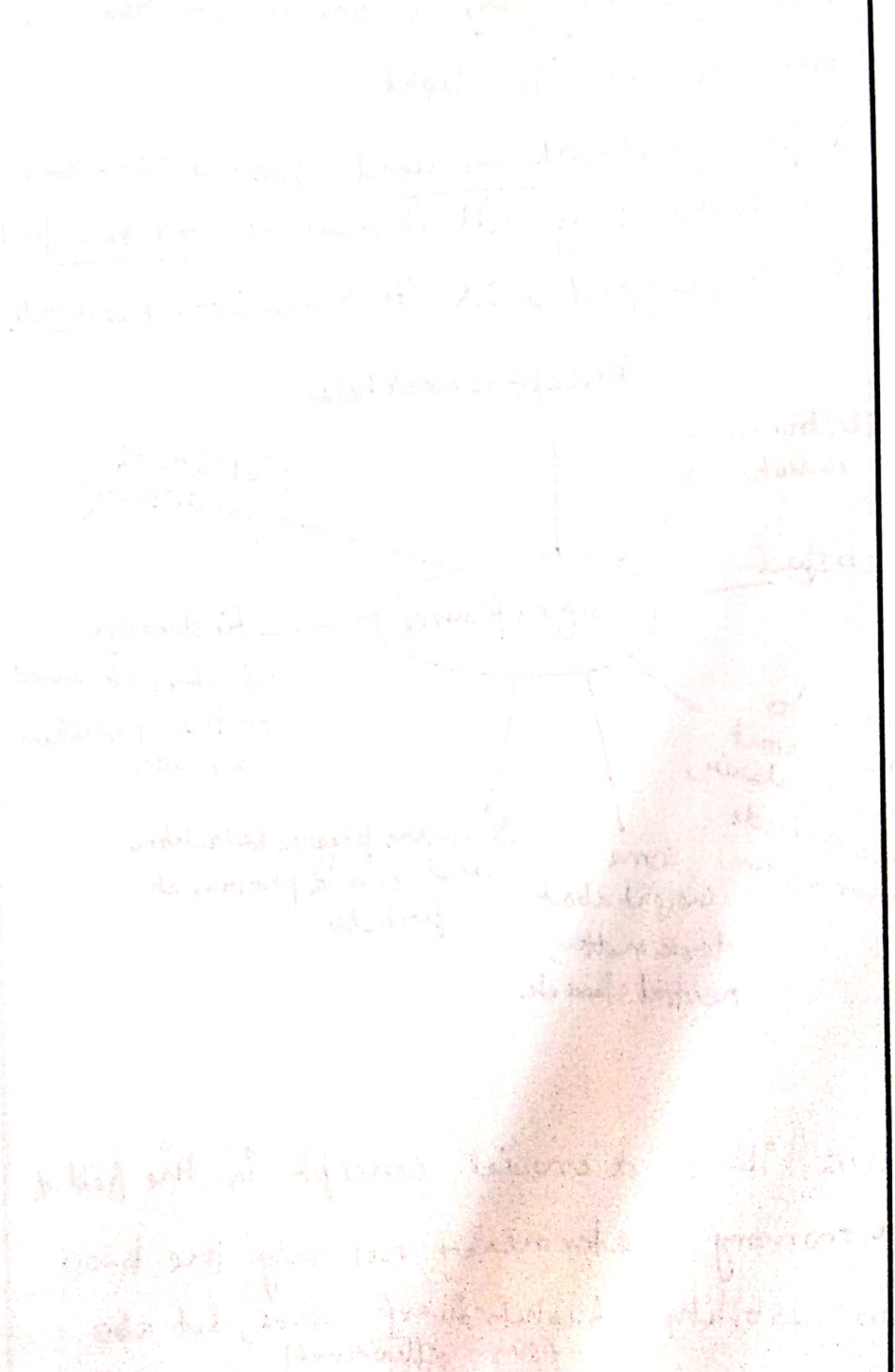
A white dwarf star is one which has exhausted all its light,

As per Chandrasekhar limit, such a star can be stable only till its mass is 1.44 times that of sun, beyond which it turns into a black hole.



Thus it is a crucial concept in the field of astronomy determining not only the basis on stability of white dwarf stars, but also (sun = yellow dwarf)

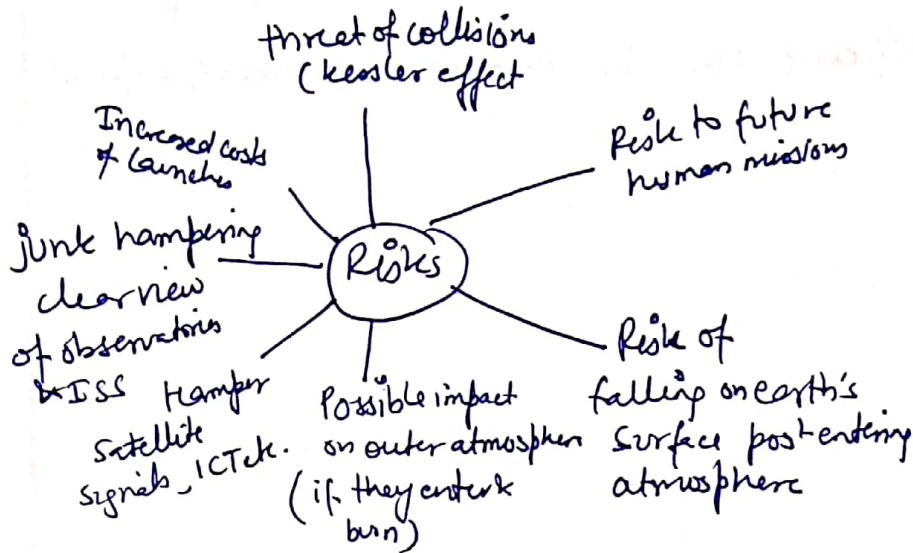
providing insights about the nature of other particles, blackholes, radiations beyond ~~out~~ the conventional understanding at that time.



9. Examining the risk posed by space debris, suggest some measures which can be taken for its mitigation and removal. (150 words) 10

अंतरिक्ष में मलबे द्वारा उत्पन्न जोखिम का परीक्षण करते हुए, इनके शमन एवं हटाने हेतु कुछ उपायों का सुझाव दीजिए।

Space debris :- used satellite parts, fragments & broken pieces etc. floating in space, orbiting the earth.



Measures:-

- 1) Reusing rocket → like ISRO working on RLV-TD
- 2) Missions to remove it → Eg → Remove Debris by SSTL
- 3) Deorbiting it → using net capture, harpoon etc.
- 4) Collaborative efforts → internationally to limit it
- 5) Contactless methods → using laser (photons) to force it away
- 6) Constant monitoring & evaluation → of its potential impacts & trends.

- 7) Treaty → for its regulation ; rule based order
- 8) Preventing space weaponisation → which can further aggravate it  
(UN outer space treaty 1967)

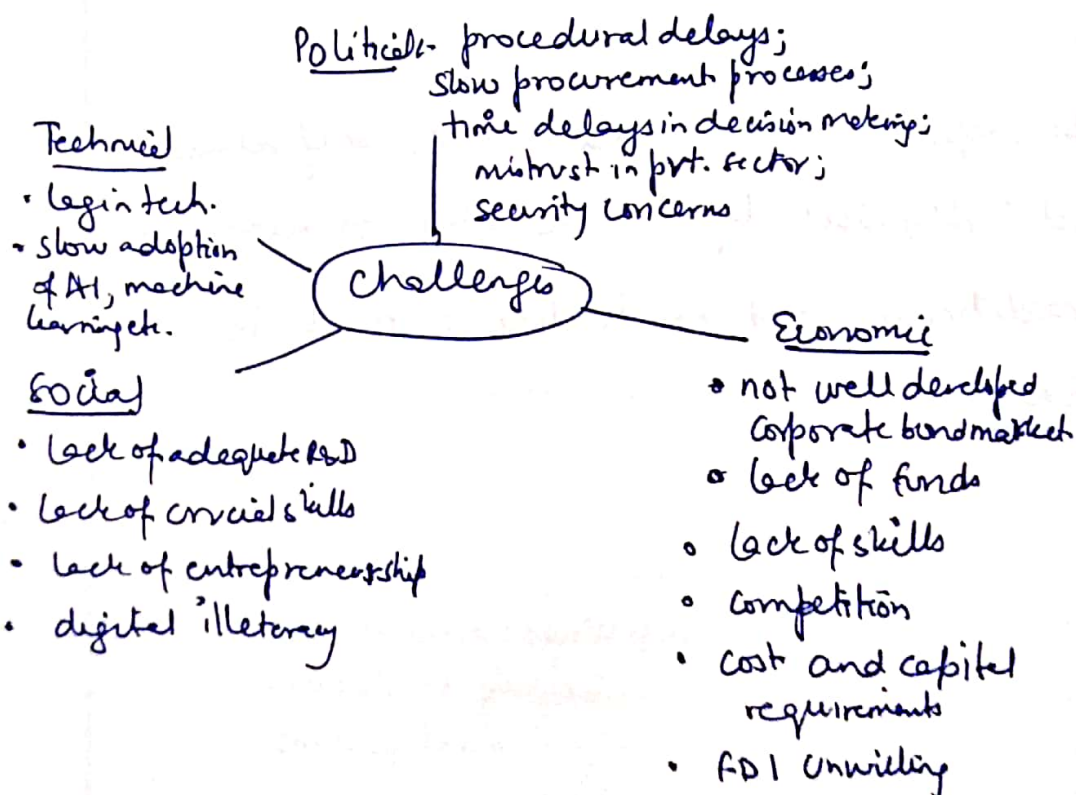
These methods are needed to ensure a clean, productive and dynamic space for <sup>cost</sup> effective and efficient R&D in the global common (i.e. space).

10. Discuss the challenges confronting higher self-reliance and indigenisation of defence industry in India. What steps can be taken to accelerate its pace? (150 words) 10

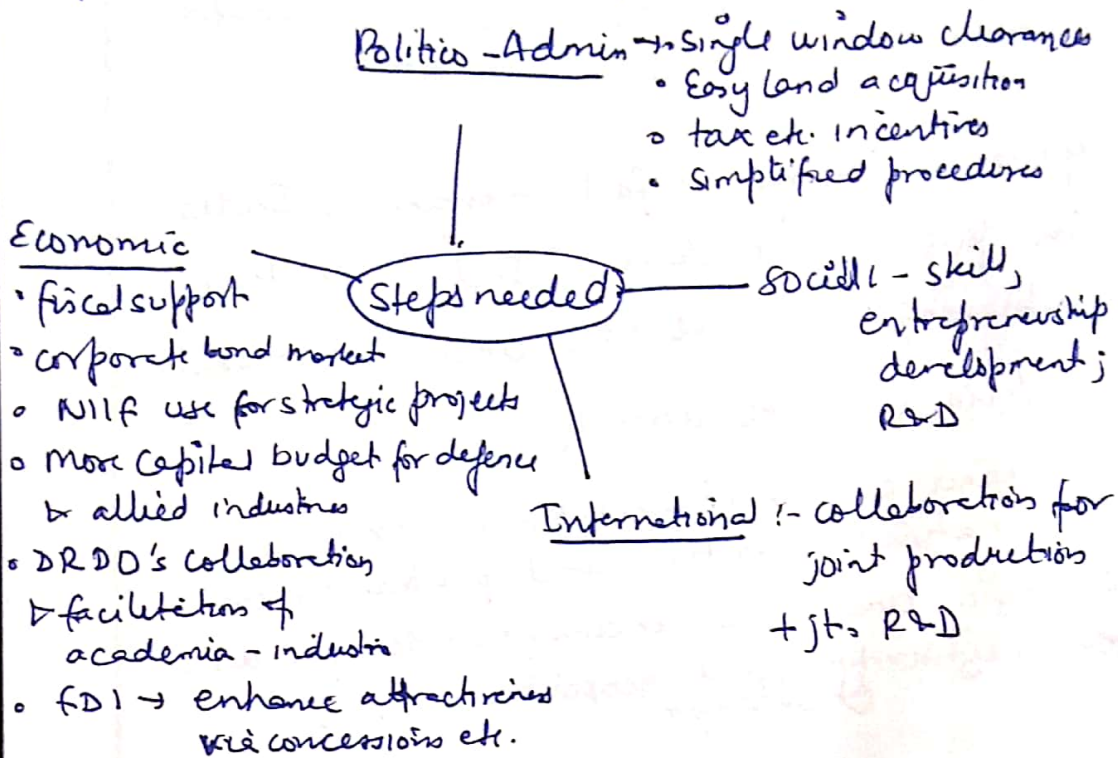
भारत में रक्षा उद्योग के समक्ष उच्च आत्म-निर्भरता और स्वदेशीकरण से संबद्ध चुनौतियों की विवेचना कीजिए। इसकी गति को तीव्र करने हेतु क्या कदम उठाए जा सकते हैं?

Defence industry is fast-emerging in India with push to 'making in India', 'Strategic partnership' model of DPC and FDI relaxation (49% via automatic, 10% by approval).

Self-reliance and indigenisation are crucial for our national security and political, economic, strategic and fiscal concerns (considering India's tense neighbourhood and geopolitical positions).



Recent initiatives have led to several joint productions like Barak - 8, Brahmos etc.

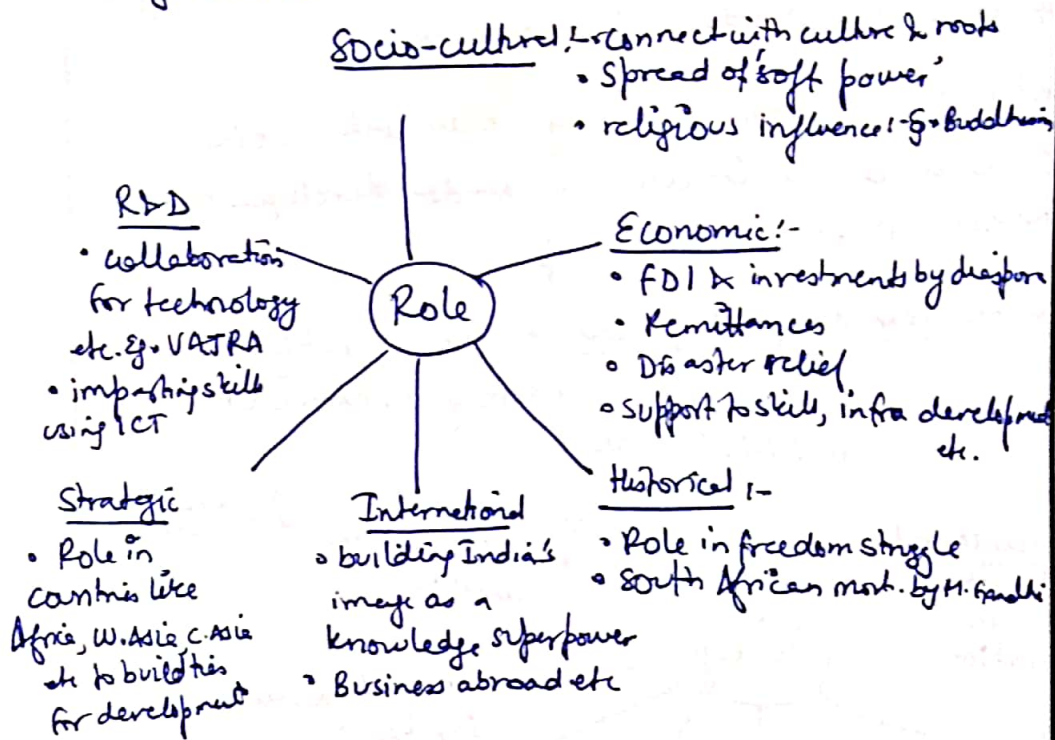


These steps will ensure a robust, self-reliant and indigenised defence industry to tackle any traditional and non traditional threats in future.

11. Comment on the role played by the diaspora in India's development process. Also, discuss the challenges in terms of engaging the Indian diaspora and suggest ways to translate these partnerships into benefits. (250 words) 15

भारत की विकास प्रक्रिया में प्रवासी समुदाय (डायस्पोरा) द्वारा निभाई गई भूमिका पर टिप्पणी कीजिए। साथ ही, भारतीय प्रवासी समुदाय को आकर्षित करने में आने वाली चुनौतियों पर चर्चा कीजिए तथा इन साझेदारियों को लाभों में बदलने हेतु तरीके सुझाइए।

Diaspora (PIOs settled outside India) play a crucial role both in domestic as well as international development of a nation and its image outside -

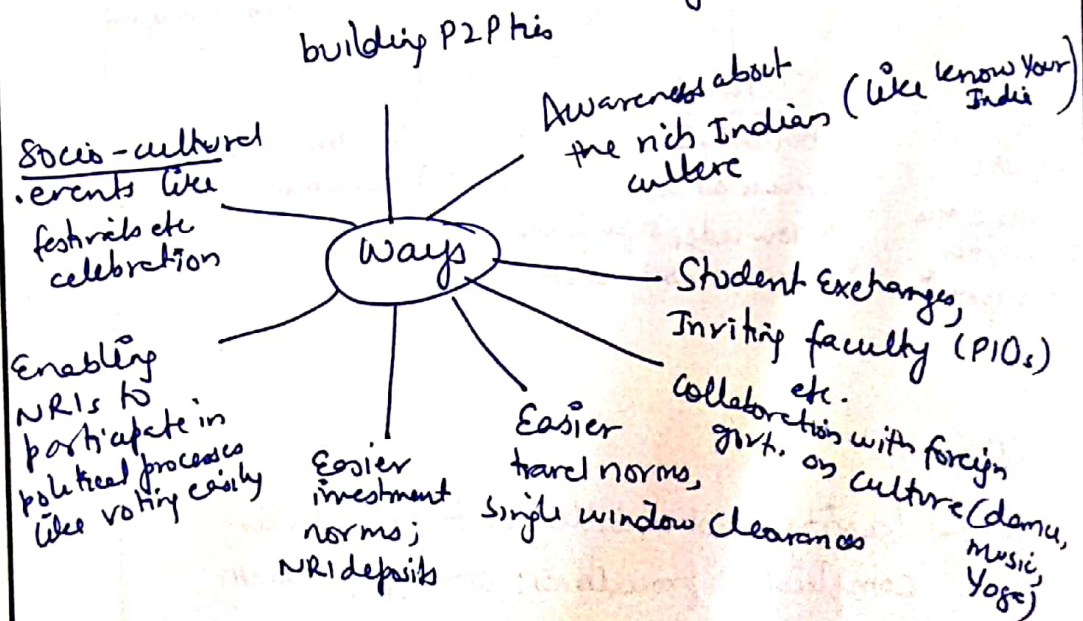


Challenges :-

- 1) Political :- laxity and unwillingness to engage earlier; complicated procedures; overlapping rules etc. confusing them
- 2) Socio-cultural :- growing disconnect from roots; changing norms etc.

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- 3) Economic - fiscal issues to organize events for their active participation; most of diaspora (especially professionals) unwilling; lack of enough opportunities to engage kindred
- 4) Brain drain - of talented youth due to lack of opportunities in India; disconnect with Indian traditions
- 5) Technical - connectivity etc. issues in various developed nations
- 6) International - policies of their resident nations affect + crisis of law & order (eg - Yemen etc).
- 7) Nature of diaspora - largely blue collar workers in W. Asia, white collar in ~~w. de~~ developed nations, hence heterogeneous group.
- 8) Lack of clear diaspora policy - for integrating them into a strong network (P2P ties)



The engagement of diaspora will not only help them connect with their Indian roots but will also instil pride and national spirit in them to contribute in India's development.

12. Highlight the reasons behind proliferation of multilateral preferential trade agreements. Do they violate WTO's MFN principle? Do you think that such trade groupings present an existential threat to WTO? (250 words) 15

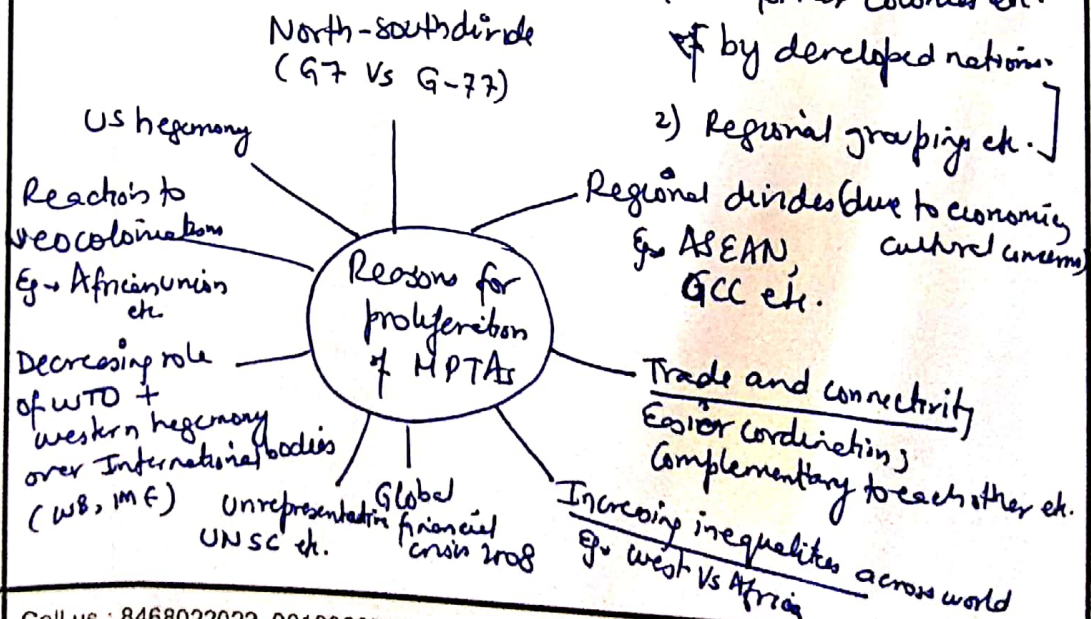
बहुपक्षीय अधिमान्य व्यापार समझौतों के तीव्र वृद्धि के पीछे निहित कारणों पर प्रकाश डालिए। क्या वे WTO के MFN सिद्धांत का उल्लंघन करते हैं? क्या आपको ऐसा प्रतीत होता है कि इस प्रकार के व्यापार समूह, WTO के समक्ष अस्तित्वपरक खतरा प्रस्तुत करते हैं?

Multilateral Preferential Trade Agreements (PTAs)

are a loose form of economic and trade cooperation for lowering tariffs and giving preference to imports of member nations.

As per WTO's MFN principle, if MFN status (i.e. favourable tariffs, custom duties etc. towards a friendly nation) is given to any 1 nation by a WTO member, then it must be extended to all WTO members.

[However there are provisions for → 1) favouring exports from former colonies etc. by developed nations. 2) Regional groupings etc.]



These regional groupings though help to:-

- 1) Build regional ties
- 2) Trade & commerce
- 3) Connectivity & P2P links
- 4) mutual cooperation & understanding between nations
- 5) Economies of scale

However they do pose existential threat to multilateral global bodies like WTO due to:-

- 1) Growing distrust :- World getting divided into multiple blocs.
- 2) Multilateralism in threat :- due to US hegemony, west domination, making 3<sup>rd</sup> world feel alienated
- 3) Hampers world trade → ongoing trade wars etc. btw between US-china
- 4) Disputes → Dispute settlement mechanism of WTO not proving effective (eg → US vs India recently).
- 5) Socio-cultural divide → rising due to regional groupings -
- 6) Asymmetric burden of climate distress → on developing nations (Recent Paris pact)
- 7) Doha round unsettled → issues over IPR and agricultural subsidies remain dumping by China etc.

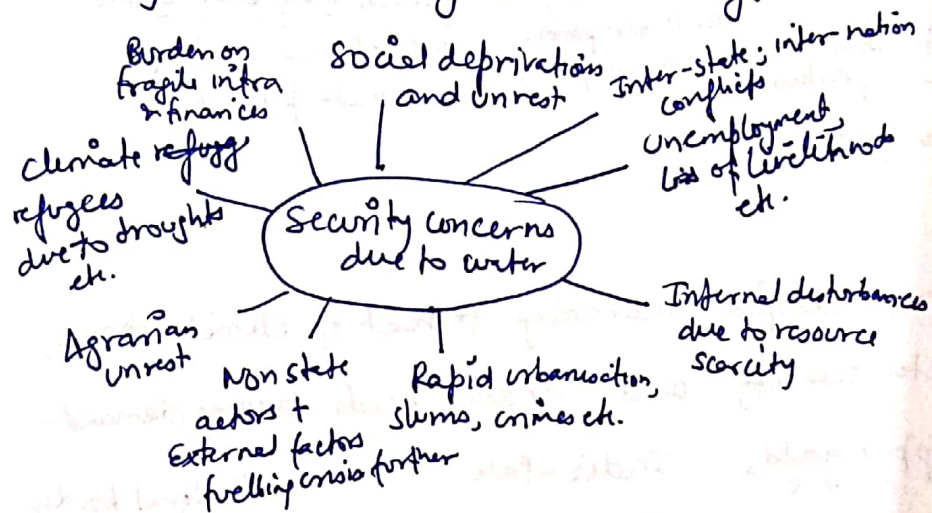
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(इस भाग में कुछ भी न लिखें)

Therefore, WTO needs to realign its position to truly reflect the changing world economic order to build a strong multilateral, rule based, non discriminatory and collaborative world order.

13. India needs to balance its growing water needs and larger security concerns with effective hydro-diplomacy. Highlighting the challenges faced with regard to transboundary rivers, analyze this statement in the context of India's riparian relations with its neighbours. (250 words) 15

भारत को अपनी बढ़ती जल आवश्यकताओं और व्यापक सुरक्षा चिंताओं को प्रभावी जल-कूटनीति के माध्यम से संतुलित करने की आवश्यकता है। सीमा पारीय नदियों से संबंधित सामना की जाने वाली चुनौतियों पर प्रकाश डालते हुए, अपने पड़ोसियों के साथ भारत के नदी-जल संबंधों के संदर्भ में इस कथन का विश्लेषण कीजिए।

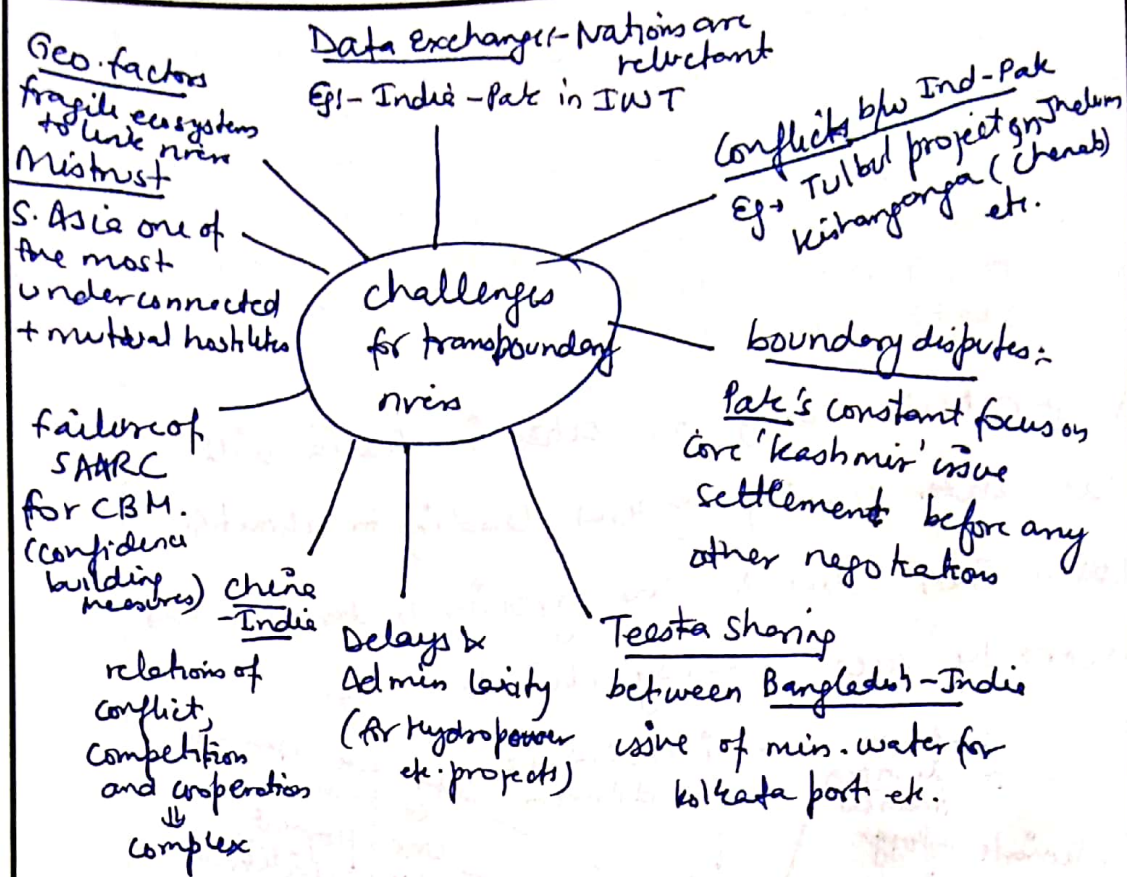
As per NITI Aayog, 21 cities in India will face water scarcity by 2021 leading to about 6% loss in GDP due to the growing water needs and scarcity accentuated by climate change.



Hydro-diplomacy deals with political, strategic, secure, & management of water resources via a comprehensive, collaborative and integrated approach bringing all (nation / international) stakeholders in sharing of scarce resources and building resilience.

It involves:-

- Negotiations + clearly defining domains
- Tactful & strategic planning + dispute settlement
- Collaboration (via JW Gs etc.)
- Developing Tech. + R&D.



Hence despite increasing threat of climate change, water scarcity and growing needs causing demand supply gaps, India-Pak, India-China, India-Bangladesh, India-Myanmar bilateral border, etc. political and security issues overshadow the common concerns.

Keeping these geopolitical, geostrategic and bilateral issues aside, there needs to be a collaborative approach via:-

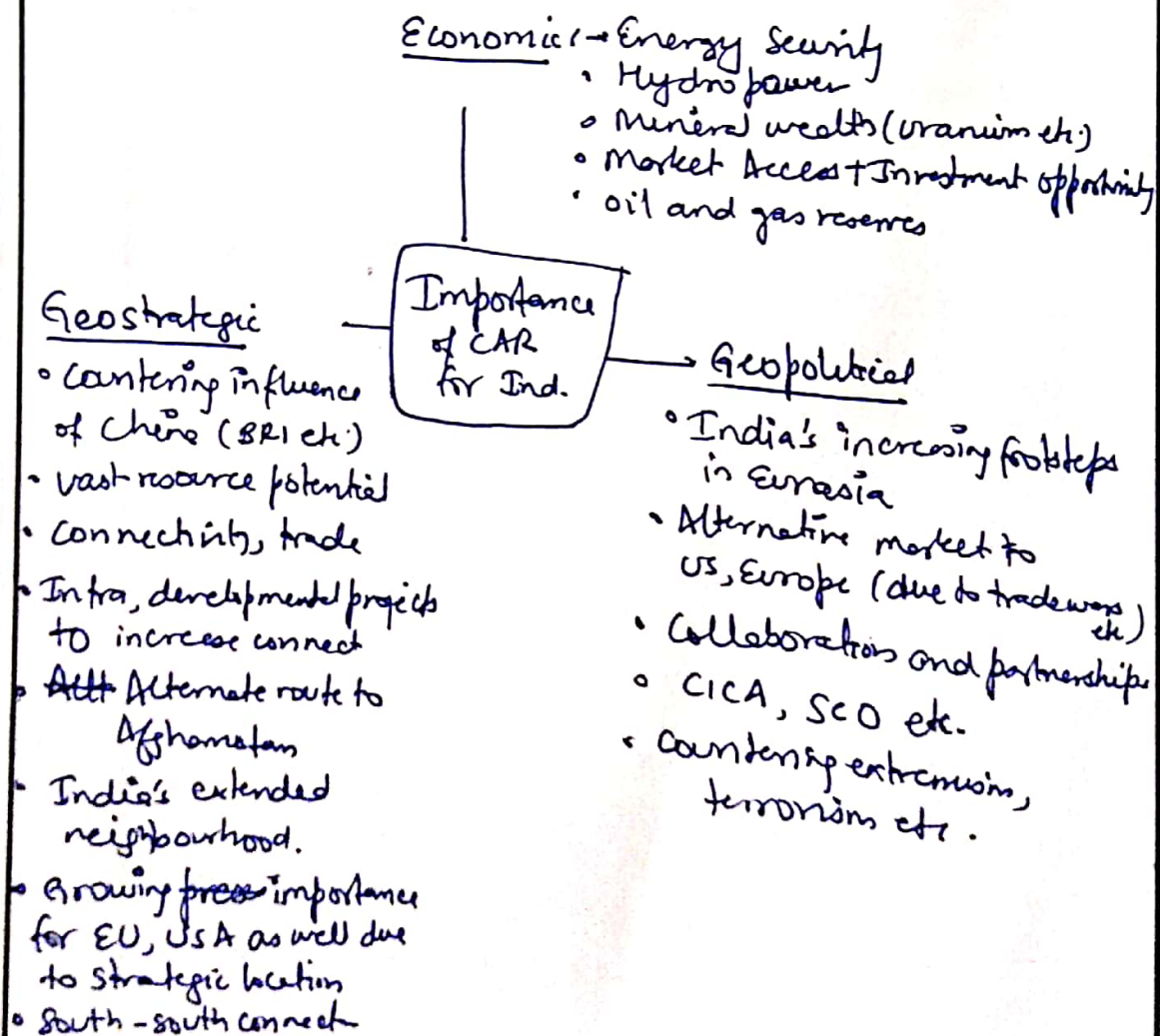
- 1) Data sharing (Eg → recent MoU between India & China)
- 2) Joint working groups (bilateral), BIMSTEC, SAARC etc.)
- 3) R&D collaboration
- 4) Possibility of river linking (Eg → Brahmaputra & Ganga via collaboration of ~~India~~ Bangladesh, India, China)
- 5) ICT (Eg → recent South Asia satellite by India)

to tackle the growing water concerns ~~in~~  
~~the~~ multilaterally and sharing common interests.

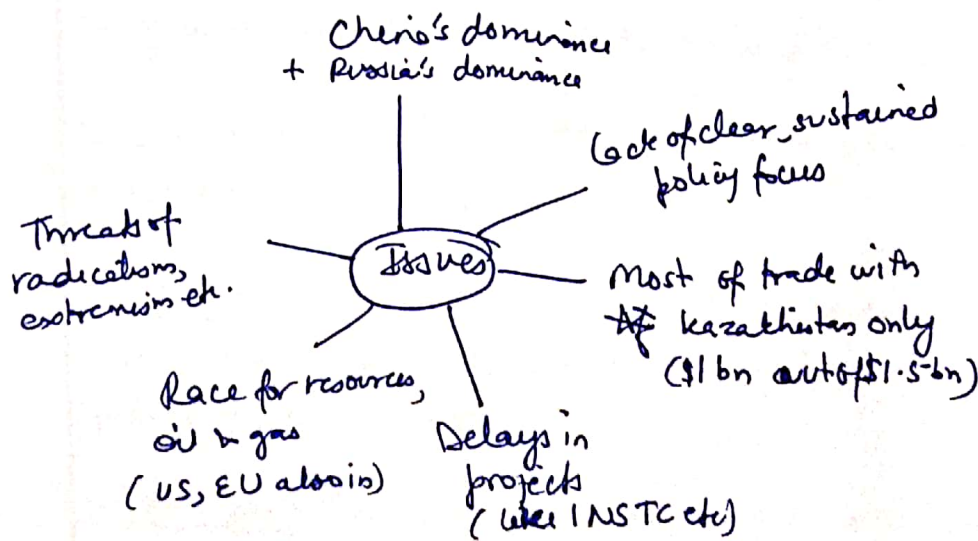
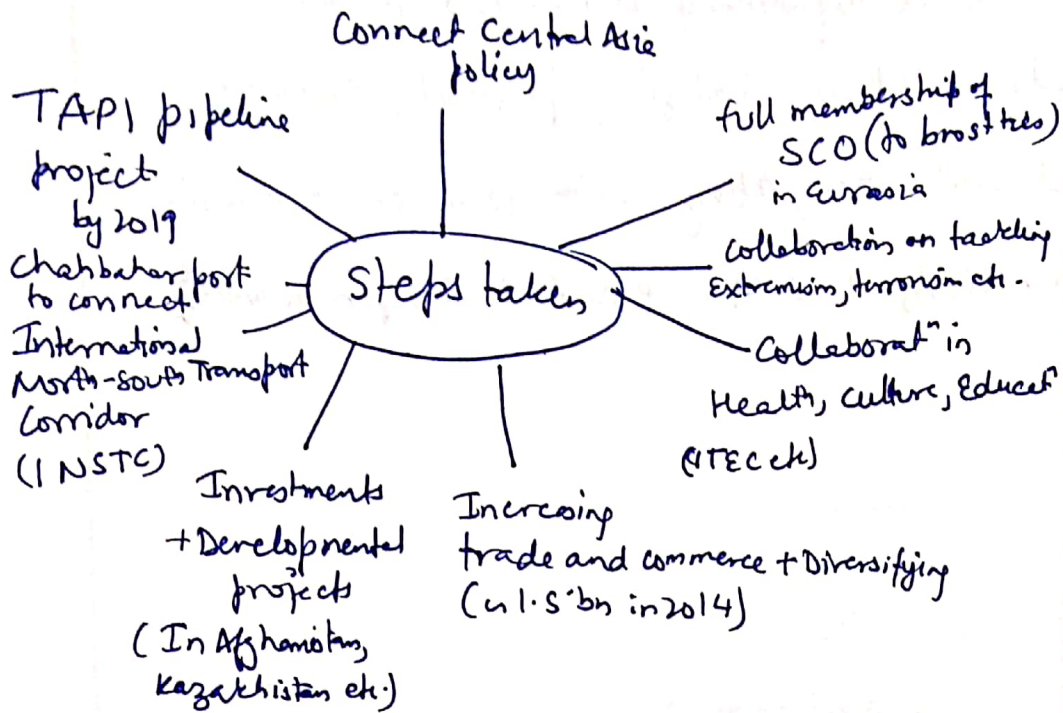
14. Commenting on the importance of Central Asia for India, highlight the progress made in the relationship in recent past along with the issues that still remain to further cement the ties. (250 words) 15

भारत के लिए मध्य एशिया के महत्व पर टिप्पणी करते हुए, हाल के दिनों में संबंधों में हुई प्रगति पर प्रकाश डालिए, साथ ही साथ ऐसे मुद्दों का उल्लेख कीजिए जिन पर संबंधों को और अधिक सुदृढ़ करने हेतु ध्यान दिया जाना अभी भी शेष है।

Central Asia Region (CAR) is fast emerging as growing politically, geostrategically and economically important power with providing linkages with Europe and acting as a bridge between the East and West.



from a passive and reluctant diplomatic policy, there has now been a new awakening to 'connect with CAR' realising its potential for our security, economic and energy policies.



Despite substantial efforts, the progress has been slow due to various domestic + international factors. Hence a comprehensive approach + proactive diplomacy is needed to boost trade, defence, strategic, political, economic, cultural ties, along with focus on enhancing connectivity and P-2-P ties (via diaspora as well).

15. Discuss the significance of India's island territories in its quest to become a net security provider in the Indian Ocean region. (250 words) 15

हिंद महासागर क्षेत्र में वास्तविक सुरक्षा प्रदाता बनने की भारत की आकांक्षा के आलोक में, इसके द्वीपीय प्रदेशों के महत्व की चर्चा कीजिए।

With a vast coastline of ~7500 km in the Indian Ocean region (IOR), India is not only a part of a dynamic geopolitical, geostrategic region, but is also a crucial stakeholder and a dominant power in IOR.

Both Lakshadweep and Andaman Islands are crucial as:-

- 1) Territorial:- expanding our territorial waters and EEZ
- 2) Geostrategic- crucial position in IOR near strait of Malacca (>50% of world's trade passes) along with ~~S.E.~~ southeast Asian nations (S.E. Asian)
- 3) Act East Policy:- Andamans are a gateway to S.E. Asian nations like Indonesia etc.
- 4) Littorals and regional connect → firm base for connectivity with Maldives, Sri Lanka etc. → help in our policy of Neighbourhood 1<sup>st</sup>.
- 5) Maritime power:- establish India (largest in S. Asia) as a natural dominant power in IOR with islands being close to sea lanes of communication (SLOCs).

- 6) Security → securing nation interests in IOR and our territorial, economic and strategic assets. It is especially as new regional powers increasing (US, China etc)
- 7) Trade and Commerce :- IOR is the dynamic core of world's trade and Indo Pacific region ⇒ islands (Gulf of Aden etc) help in securing safety from piracy attacks etc. (Naval bases).
- 8) China → growing its influence via string of pearls (Hambantota etc), hence islands give provide to serve as bases for armed forces for potential conflicts and deterrence.
- 9) Regional and South Asia and Indo Pacific → becoming increasingly important with USA's 'pivot to Asia', Indo-Pacific renaming and China's growing naval presence; along with disputes in South China sea; hence India increasingly focusing on developing islands with robust security networks for maritime free and open navigation.

Recent active endeavours of India in like SAGAR in IORA, notions of free, open and inclusive maritime navigation, collaborative approach etc. are all aimed to make India

a net security provider and a dominant power in IOR while ensuring a rule based and multilateral order.

16. A fine balance between security and developmental measures needs to be attained for tackling the menace of Left Wing Extremism (LWE) in India. (250 words) 15  
Analyse.

भारत में वामपंथी उग्रवाद (LWE) के खतरे से निपटने हेतु सुरक्षा और विकासात्मक उपायों के मध्य एक उत्कृष्ट संतुलन स्थापित करने की आवश्यकता है। विश्लेषण कीजिए।

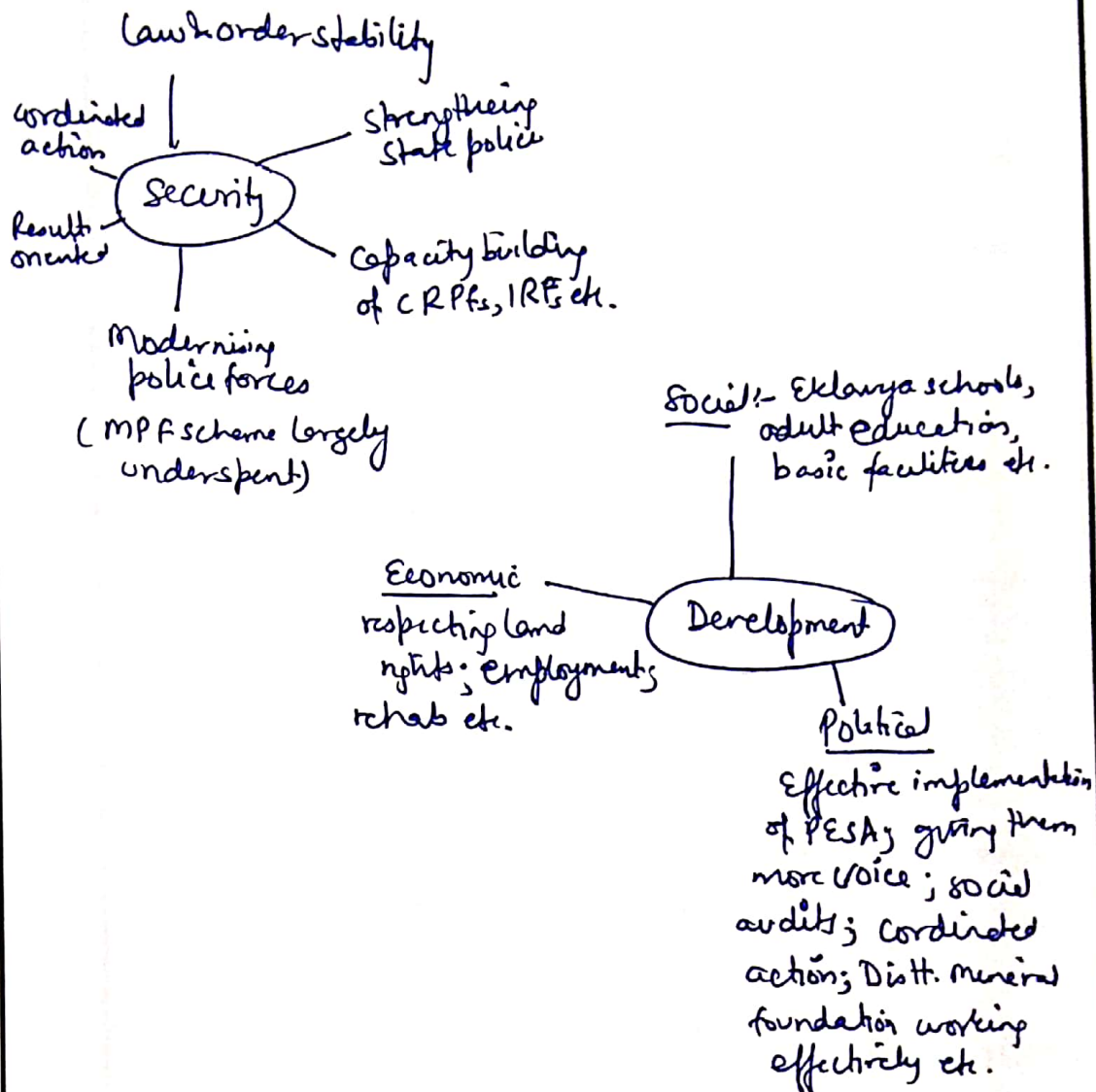
One the biggest challenges to India's internal security is the menace of LWE in the dreaded 'Red Corridor' comprising of 200 districts in heart of India -



The new national policy to tackle LWE has emphasised on 4 pillars:-

- 1) Strengthening security
- 2) Respecting their rights and entitlements
- 3) Development (social+economic)
- 4) Perception management

There needs to be a fine balance between security and development i.e.



The government has recently launched a string of ~~init.~~ initiatives like PMKVY, DMFs in mining sector, SBM etc. along with project SAMADHAN for a two pronged approach to tackle the violence, while ensure peace, prosperity and social development.



17. Illustrate the linkages between drug trafficking, organised crime and terrorism. In this regard, mention the steps that have been taken to arrest the availability of drugs in India. (250 words) 15

मादक पदार्थों की तस्करी, संगठित अपराध और आतंकवाद के मध्य संबंधों को उदाहरण प्रस्तुत करते हुए समझाइए। इस संबंध में, भारत में मादक पदार्थों की उपलब्धता पर अंकुश लगाने हेतु उठाए गए कदमों का उल्लेख कीजिए।

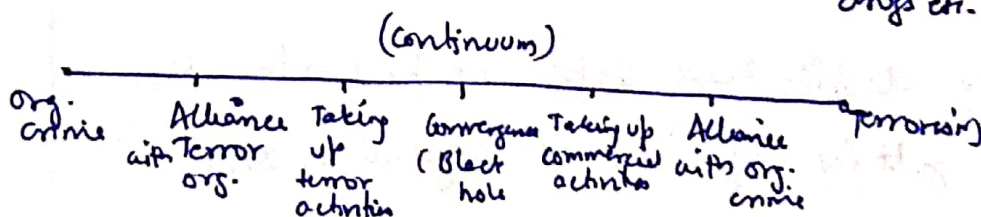
Lying in a dynamic geopolitical space (between the golden crescent and golden triangle), India faces ~~multiple~~ multifaceted challenges to its internal security (both traditional and non-traditional) further aggravated by porous borders and growing ICT.

Linkages :-

- 1) Between drug trafficking  $\Rightarrow$  Organised crime

Organised crime networks across borders enable easy smuggling of drugs and pharma; revenue from drugs used to further crime related activities.

- 2) Organised crime  $\Rightarrow$  terrorism :- links of coexistence, cooperation and ultimately confluence; both feed one another and often leads to overlapping of their functions (commercial terror or political crime etc); Eg:- Dawood gang, Al Qaeda supplying drugs etc.



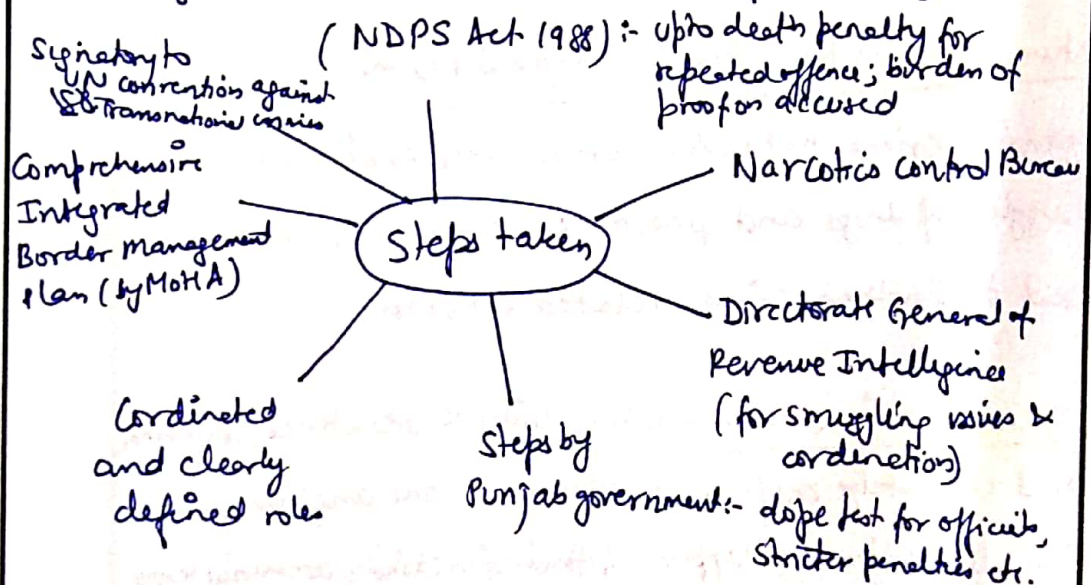
3) Drug trafficking ⇒ terrorism

Terrorists increasingly relying on drug smuggling for funding and political aims. Eg → Al Qaeda's network, supplying in J&K, NER etc.

These 3 together pose challenges of internal security and law and order like:-

- 1) Counterfeit currency by terror groups
- 2) Drugs / human trafficking
- 3) Smuggling
- 4) Arms / Ammunitions smuggling
- 5) Cyber threats etc.

Therefore, need to be tackled comprehensively -



However despite these steps, we find vulnerable youths getting exploited by organised drug

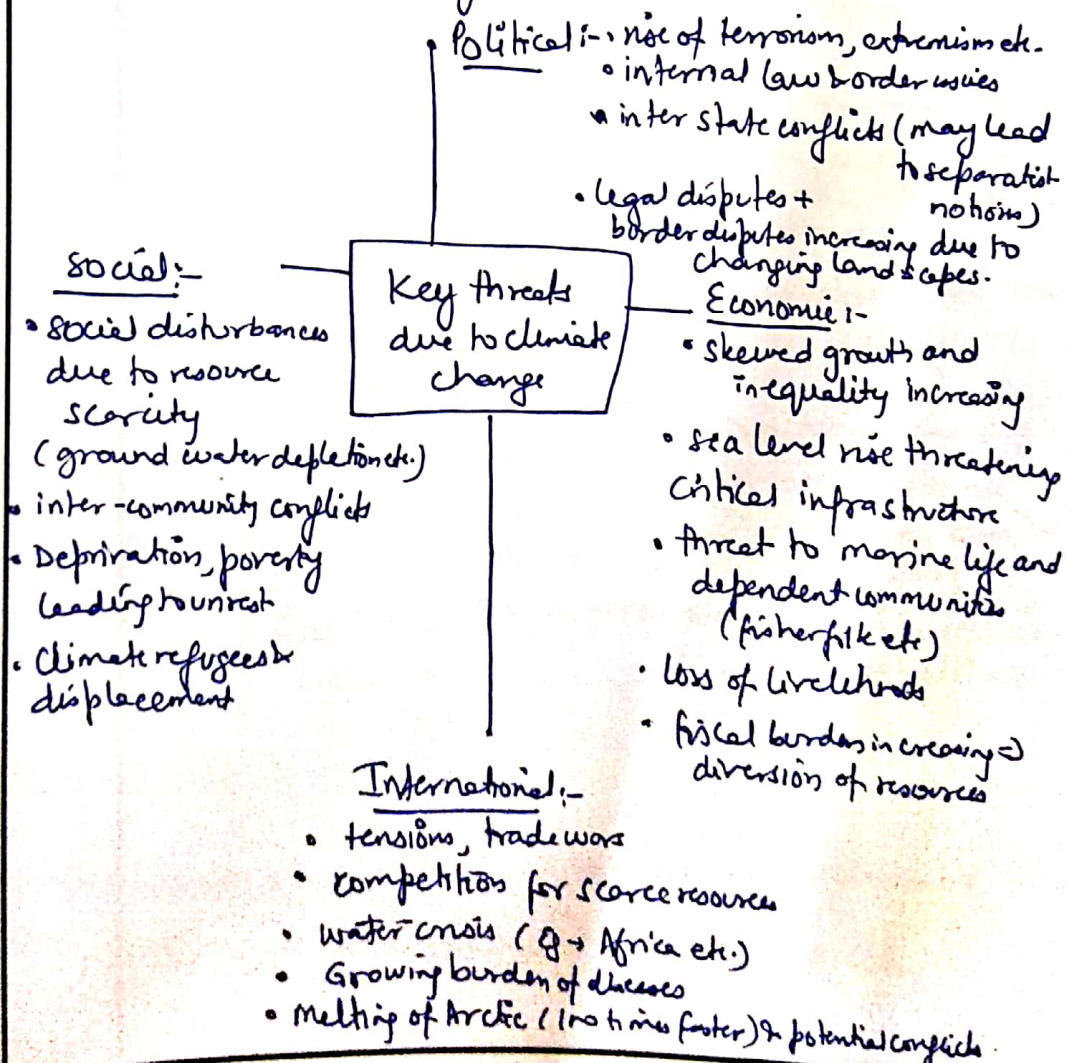
traffickers and terror groups.

There needs to be an overhaul in the drug syst vigilance system with greater supervision of pharmacies + border/customs checks + anti-smuggling operations + legislative changes (differentiating between drug trafficker and drug addict etc) along with robust use of ICT and international collaboration.

18. Identify the key threats to national security in the wake of climate change. Also, highlight India's stand and rationale on UN's decision to declare climate change as an international security issue. (250 words) 15

जलवायु परिवर्तन के आलोक में राष्ट्रीय सुरक्षा के सम्मुख प्रमुख खतरों की पहचान कीजिए। साथ ही, जलवायु परिवर्तन को एक अंतर्राष्ट्रीय सुरक्षा मुद्दा घोषित करने के संयुक्त राष्ट्र के निर्णय पर भारत के दृष्टिकोण और औचित्य पर भी प्रकाश डालिए।

With growing instances of abrupt weather changes, climate refugees, green house emissions, frequent disasters, ozone depletion, sea level rise etc., climate change has emerged as a key, <sup>non traditional</sup> threat to security across the world.



The recent debate in UNSC based on climate change as threat to security (with WMO briefing for the 1<sup>st</sup> time) is a reflection of growing interest of top western nations in climate related threats (earlier resolution in UNSC for lake Chad region in 2017).

Signatory to Paris pact,

India's Stand:- While India believes in tackling the global challenge of climate change via

- 1) shared goals
- 2) cooperation, collaboration, partnerships for R&D
- 3) Rule based order
- 4) multilateral collective effort
- 5) mitigation, adaptation, response,

however, it doesn't support the involvement of UNSC as

- 1) Beyond UN charter → stepping out of its mandate; let UNFCCC work on it
- 2) Unrepresentative body:- reflection of WWII order, not enough voice to 3<sup>rd</sup> world.
- 3) Interference:- in internal matters of sovereignty and territorial integrity in name of climate change to be avoided
- 4) Will undermine collective efforts:- of years of negotiation and consensus building under COP-21.

Hence, while India supports all efforts for global action ~~against~~ against climate change, it doesn't believe in undemocratically and unilaterally stepping in matters of sovereignty and security of any nation. Any action has to come via :- multilateral approach + rule based order.

19. Explaining the concept of data exclusivity, bring out the arguments for and against incorporating data exclusivity norms in India's IPR regime.

(250 words) 15

डेटा एक्सक्लूसिविटी (डेटा विशिष्टता) की अवधारणा की व्याख्या करते हुए, भारत की IPR व्यवस्था में डेटा एक्सक्लूसिविटी संबंधी मानदंडों को सम्मिलित करने के पक्ष और विपक्ष में तर्क प्रस्तुत कीजिए।

Data exclusivity means limiting the access to data regarding a process, research etc. for protecting the economic, privacy, scientific and technical concerns of the owner.

For	Against
1) Boost to innovation	1) Restricting knowledge
2) Confidence to investors	2) Denial of basic information rights
3) R&D ↑	3) National security issues
4) Robust IPR regime (in line with IPR policy 2016)	4) Biased towards developed nations
5) Int. collaborations facilitated	5) Right to life ⇒ in medical field (exemption even under TRIPS)
6) Privacy secured	
7) Safety & cyber security	

Hence Data exclusivity comes with its pros and cons and needs to be balanced keeping the nature of data + interests of all stakeholders in mind.



20. Compare and contrast fifth generation (5G) of wireless telecom technology with 4G technology. What challenges need to be overcome for 5G's pan-India rollout? (250 words) 15

4G प्रौद्योगिकी के साथ पांचवी पीढ़ी (5G) की वायरलेस दूरसंचार तकनीक की तुलना कीजिए और उनके मध्य अंतर बताइए। 5G के अखिल भारतीय क्रियान्वयन हेतु किन चुनौतियों से निपटने की आवश्यकता है?

With the dynamically changing and transforming ICT sector, changes and upgradation of technology is evolving at an unprecedented scale, with 5G being the last.

5G technology revolutionises the way we interact, communicate, transmit data ~~to~~ along space and time dimensions -

### Comparison

5G	4G
1) <u>Speed</u> : much faster and secure	Lesser
2) <u>Latency</u> :- much lesser (∴ time taken to respond will be minimal)	Certain gap between sending and receiving
3) <u>Data</u> :- Up to 10 Gbps	1 Gbps
4) <u>Wavelengths</u> :- much higher for long distance communication	Lower

5) Applications :- IOT, voice-video calling, AI, data mining etc.  
Hence, wider usage in physical environment

6) Bandwidth → higher

7) Potential :- in smart cities mission, decision making, coordination etc.

enabled high speed video calling, lesser call drops etc.

lower as compared to 5G.

### Challenges :-

#### 1) Economic

- Infrastructural funding and gaps
- Need for greater FDI, investment, PPP
- fiscal issues

#### 2) Political

- Admin. delays and lousy
- Skewed growth ⇒ development slow in rural and remote areas
- Overlapping legislations and lack of coordination
- Lack of clearly defined policy to roll out
- Transparent allocation of spectrum ( post 2G scam)

3) Social:-

- Lack of skilled workforce
- Lack of institutional capacity and
- Lack of digital awareness and literacy

4) Technical

- Huge cost to shift to 5G regime
- Higher initial capital investment
- Lack of academia - industry collaboration

- 5) Cyber-security :- threats of malware, botnet etc.  
due to faster transmission

Therefore, with India's internet users estimated to be doubling by 2021, there needs to be a comprehensive strategy to roll out 5G network to boost our economic, social and technological base and emerge as a global hub of technology and ~~innovations~~ entrepreneurship.