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GENERAL STUDIES (TEST CODE : 1436)

Name of Candidate	ABHISHEK JAIN	Registration Number	46438
Medium Eng./Hindi	ENG	Date	
Center	ONLINE		

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
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3	10	
4	10	
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6	10	
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11	15	
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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।

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

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

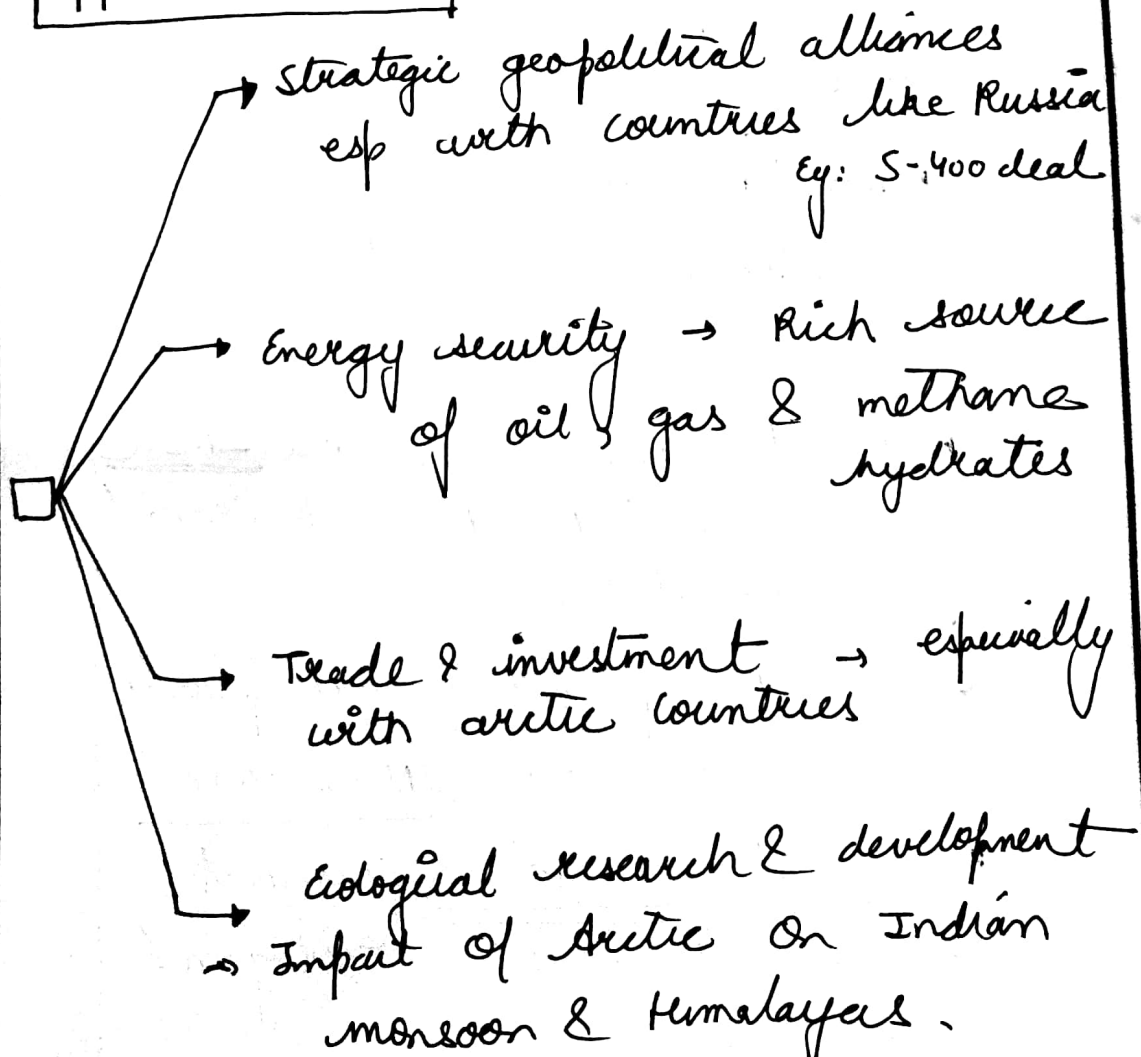
1. Given the growing ecological and geopolitical significance, Arctic region offers immense opportunities for serving India's long-term interests.
(150 words) 10

Discuss

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।

Recently, India was elected to the Arctic Council as an ~~obs~~ observer state which is very important considering the Arctic's growing significance.

opportunities



Challenges

- No official Arctic policy of India
- Rising conflicts & tension in the Arctic region Eg:
~~NATO~~ NATO VS Russia
- Climate change → melting glaciers in Greenland.
- Poor connectivity between India & Arctic region.

way forward

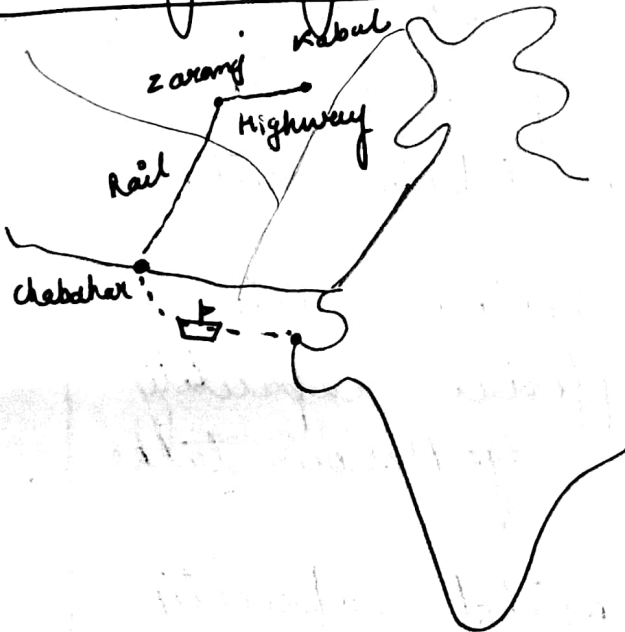
- ~~Need~~ Need to devise an official Arctic policy like China has done recently.
- Boost connectivity via INSTC (International North South Transport corridor)
- Invest in oil & gas ~~plants~~ reserves via ONGC Videsh
- Expand Himadri research station to boost ecological research.

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?

US President Donald Trump, under his protectionist & America First policy has announced a significant troop withdrawal plan from Afghanistan.

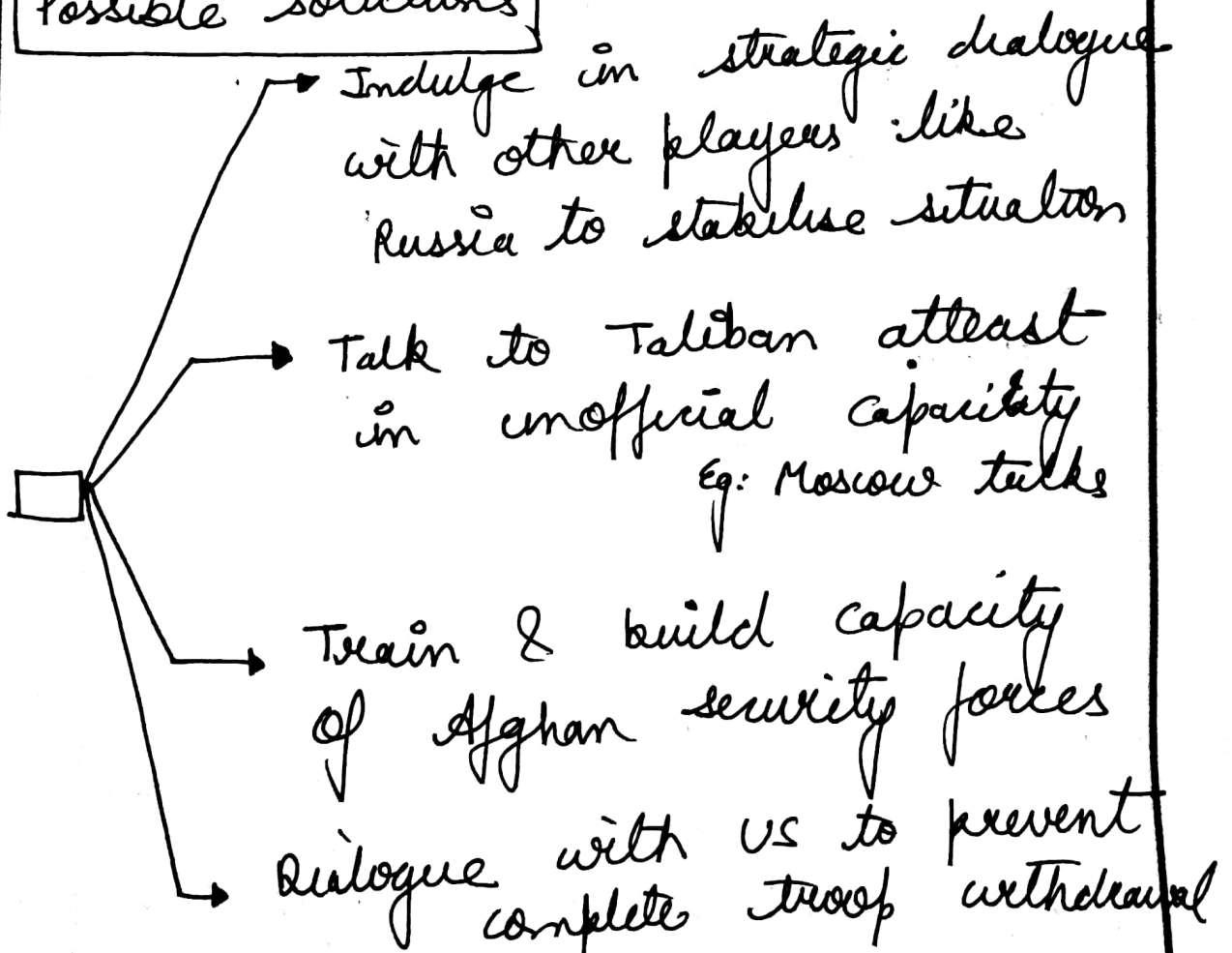
Challenges for India



- ① Resurgence of Taliban → which is an ultra conservative group & threatens Afghan democracy & peace.

- ② Terrorism - More space to Al Qaeda & ISIS → difficulty in J&K
- ③ Threat to India's assets - like Salma dam & Afghan parliament
- ④ Space to Pakistan → to increase its influence in Afghanistan & thereby threaten regional stability.

Possible solutions



By these, India can ensure stable & peaceful Afghanistan.

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 is a grouping 5 nations - Brazil, India, China, Russia & South Africa. Recently, BRICS Summit was held in Johannesburg.

Ineffective ~~the~~ BRICS

- ① Disputes among countries - Eg: between India - China like in recent Doklam standoff
- ② Querging strategic alliances →
Russia + China (VS) India + US
- ③ Economic tussle → ~~for~~ other BRICS countries have blamed China for dumping its goods & causing tremendous trade deficit.

(4)

Contradictions in Vision → China wants it to be strategic grouping. India wants to focus on more on economic aspect.

This has led to slow ~~movement~~ ^{progress} among BRICS. However, it has not completely failed.

Successes

- Significant bloc → commands international respect
- New Development Bank → a south-south cooperation
- Declaration against Terrorism
- Proposed PARTNIA - Partnership for new Industrial Revolution & BRICS credit rating agency.

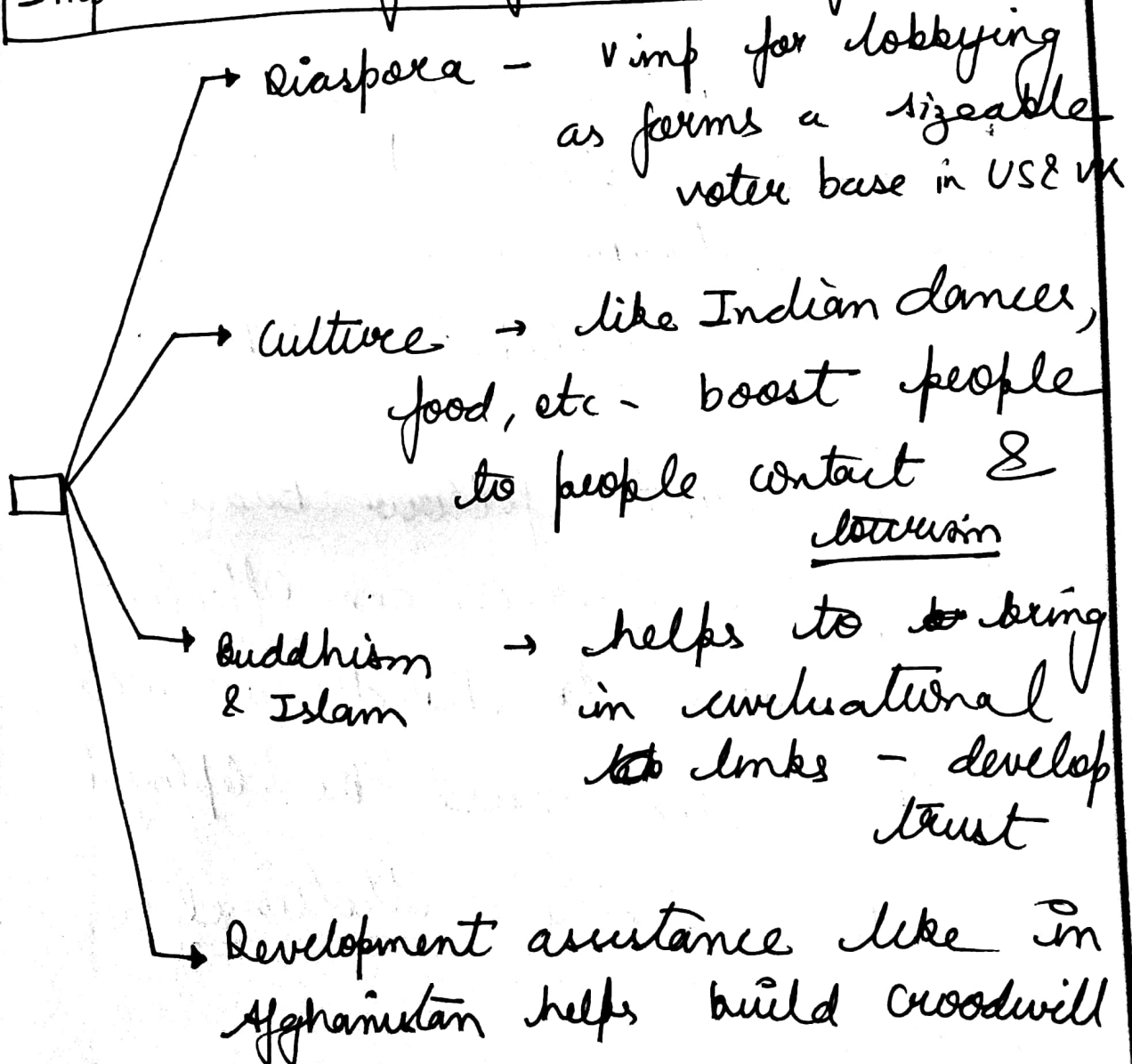
BRICS countries must leave aside their bilateral ~~and~~ differences & must present an effective model of south-south cooperation to the world.

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

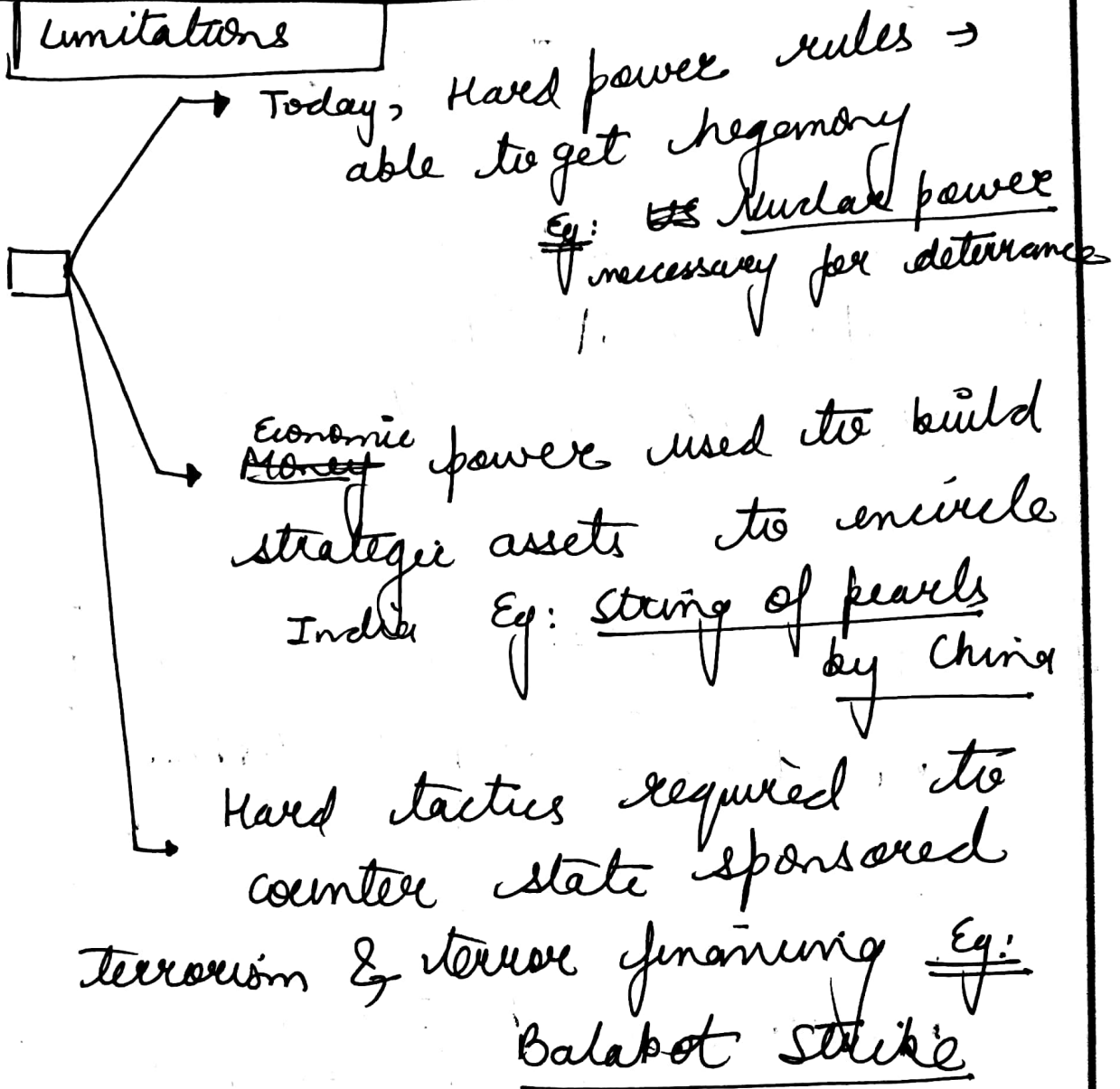
भारत के पास अत्यधिक मृदु शक्ति (सॉफ्ट पॉवर) क्षमता होने के बावजूद, केवल यह भारत की विदेश नीति के उद्देश्यों की प्राप्ति हेतु पर्याप्त नहीं होगी। परीक्षण कीजिए।

Today's modern multipolar world entails diplomacy which is based on both soft as well as hard power.

Importance of Soft power for India



Limitations



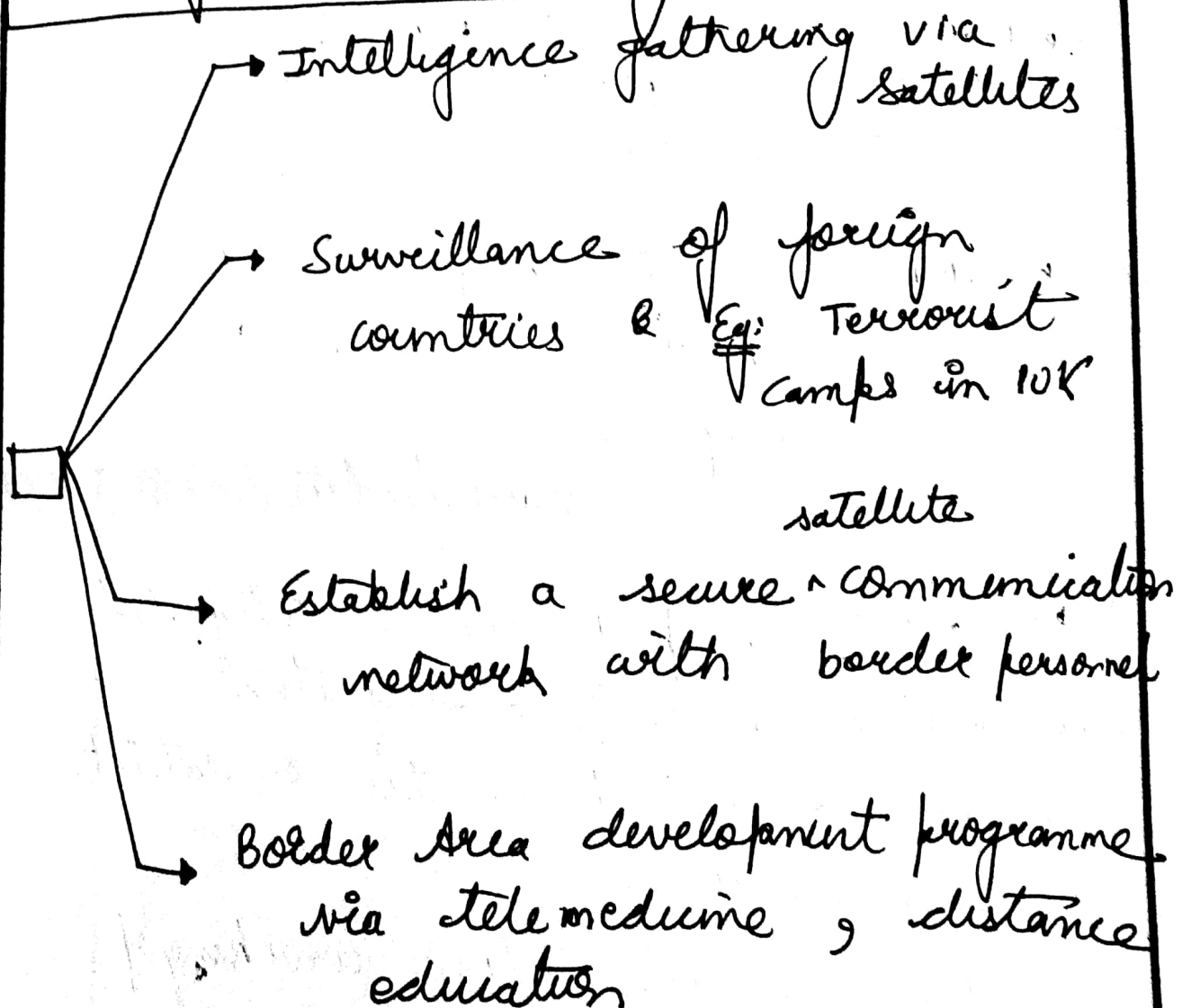
Thus, India must follow Buddha's middle path wherein an effective blend of both ~~to~~ hard as well as soft tactics must be deployed to further India's National interest.

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।

India faces numerous challenges on border like disputes, ceasefire violation, terrorist infiltration & drug smuggling.

Role of Space Technology in border mgt



Steps taken by India



Rukmini satellite → to protect maritime border

Rukmini Satellite
↓
Maritime border

IRNSS → to help survey neighbouring countries & help armed forces in navigation

CIBMS (Comprehensive & Integrated Border Mgt System) → Integrated command & control centre & satellite communication

India shall ensure close working of ISRO with DRDO for further leveraging

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techⁿ in border

management

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।

~~AFS~~ Armed forces special powers Act gives ~~a sweeping~~ ^{special} rights to the armed forces to ~~the~~ restrict movement, undertake search & seizure & shoot at sight.

Should be removed

~~Is~~ Is required

①

Gives indiscriminate powers to armed forces without any accountability

① ~~Is~~ Imposed in extremely disturbed areas with high threat of terrorism & insurgency Eg J&K

②

Leads to fake encounters, & exploitation of people & human rights violations.

② ~~not~~ Required ~~to~~ by armed forces to gather intelligence & weed out terrorists Eg: Operation All out in J&K

③

Against Art 21

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& democratic values of our country

③ Not misused much

④ Several NGOs like Amnesty international have pointed out misuse of AFSPA

~~④~~
④ Army is there to protect the civilians & not to exploit them

⑤ Not needed now as local police is sufficiently capable

⑤ Local police incapable to handle

way fwd

Review AFSPA & remove it from areas where it is no longer needed.

Include safeguards against its misuse & bring in more accountability.

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

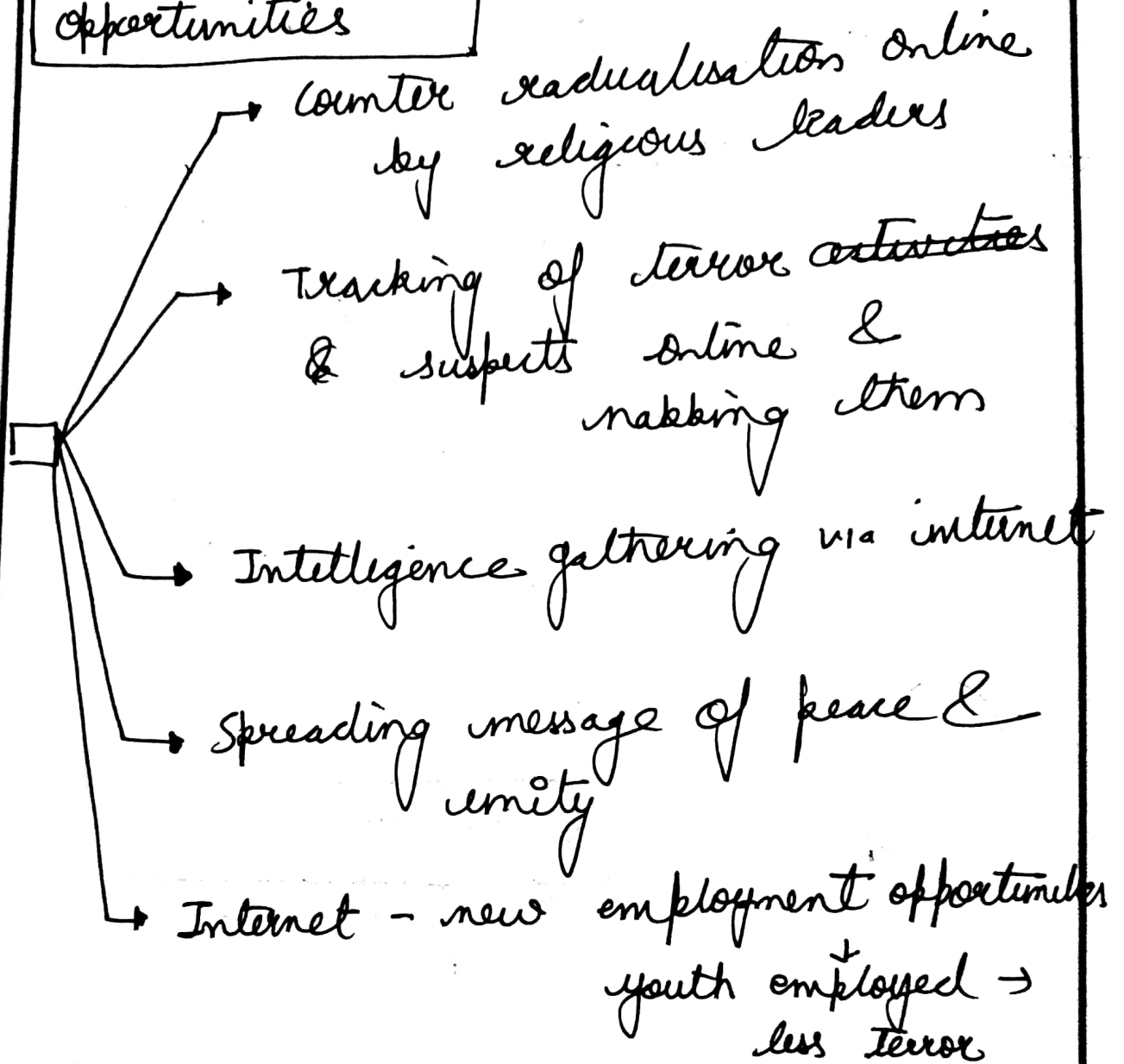
आतंकवाद के विरुद्ध लड़ाई में इंटरनेट का उपयोग चुनौतियां और अवसर दोनों सृजित करता है। चर्चा कीजिए।

~~Terrorism~~ ~~Terrorism~~
Terrorism refers to the use of violent force to coerce government or people into order to further political or social aims. The use of internet has added more dimensions to it.

Challenges

- Online radicalisation by sending videos, etc
Eg: By ISIS.
- Decentralised Jihad - where lone wolf recruits from internet are trained in terror attack
Eg: Berlin attack
- Raising of funds online by terror orgⁿ
- Cyber Terrorism - via hacking sensitive govt data

Opportunities

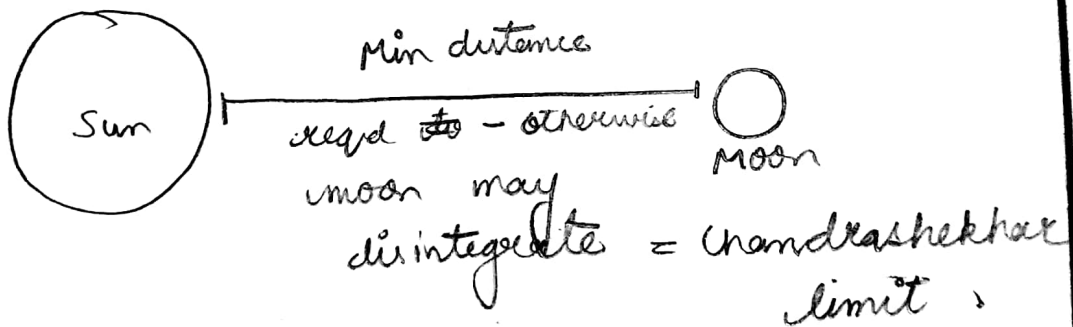


Countries like India must strengthen their cyber surveillance systems like NATGRID to prevent online radicalisation & fake news. ~~Factor~~ ~~miss~~ messages.

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।

Chandrasekhar limit tells the minimum distance between two large mass bodies & that is required to maintain their integrity in space.



Significance

- Helps calculate the distance between astronomical objects
Eg: Between Sun & moon.
- Helps study the motion &

path of planets

→ Helps study ^{impact of} coming up of asteroids near to a large planet.

→ Helps in designing orbits of ~~the~~ man made satellites

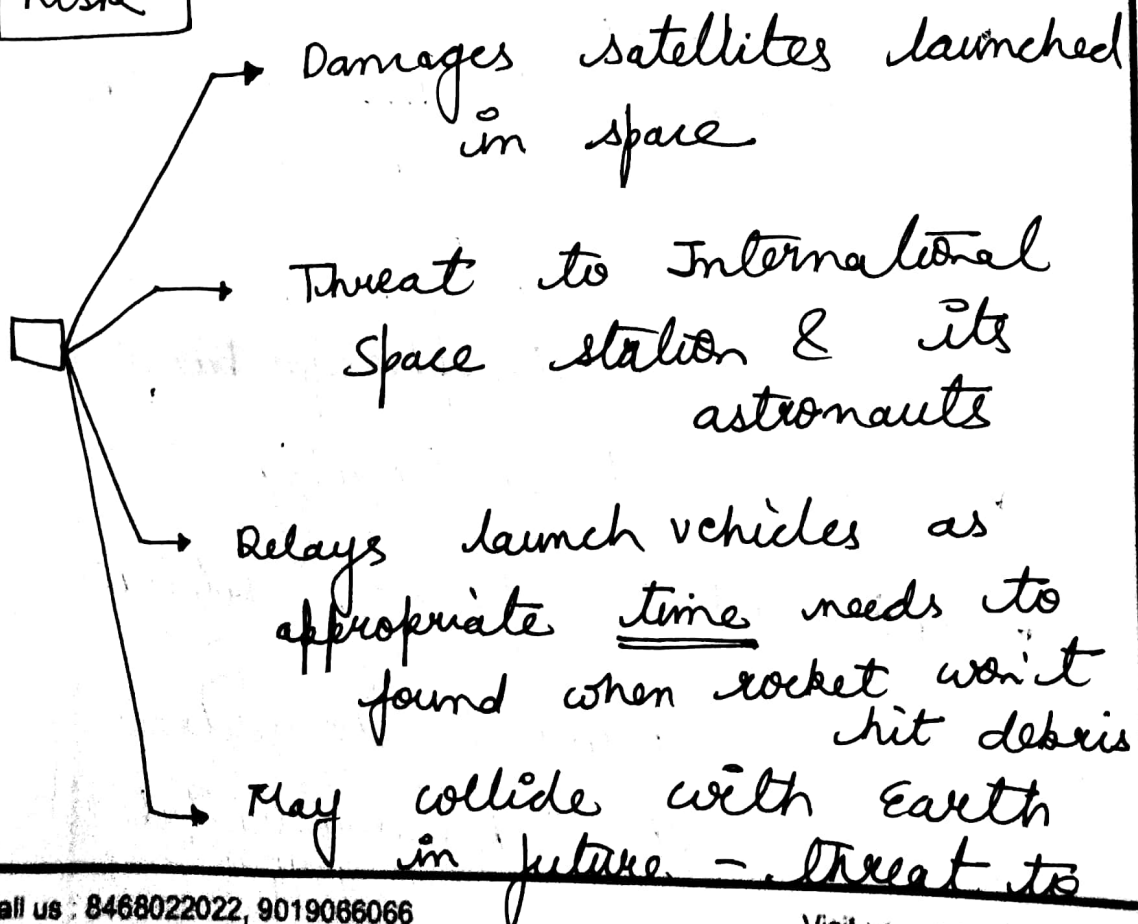
Thus, Indian scientist Chandrasekhar has made immense contributions to the world of astronomy.

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

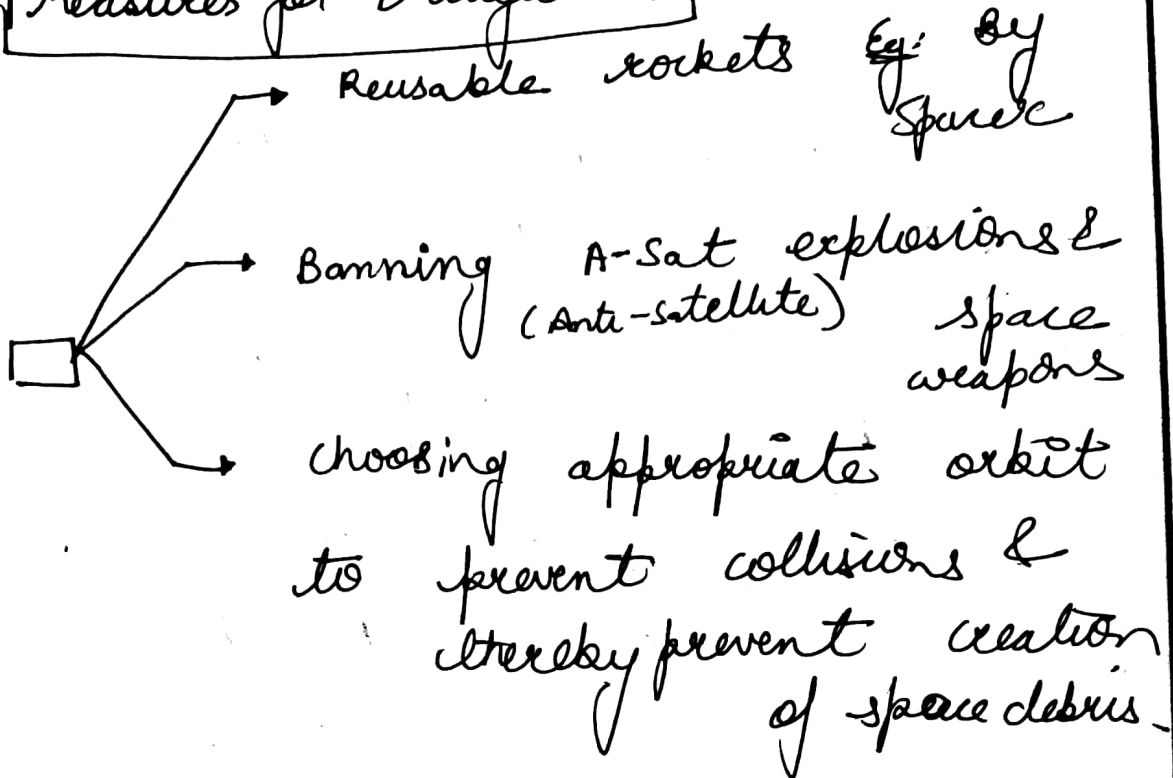
अंतरिक्ष में मलबे द्वारा उत्पन्न जोखिम का परीक्षण करते हुए, इनके शमन एवं हटाने हेतु कुछ उपायों का सुझाव दीजिए।

Recently, a significant amount of space debris was created when India tested its Anti-Satellite missile in Mission Shakti. (A-SAT) Space debris includes parts of satellites, bolts, nuts, paint droplets & defunct satellite orbiting Earth in space.

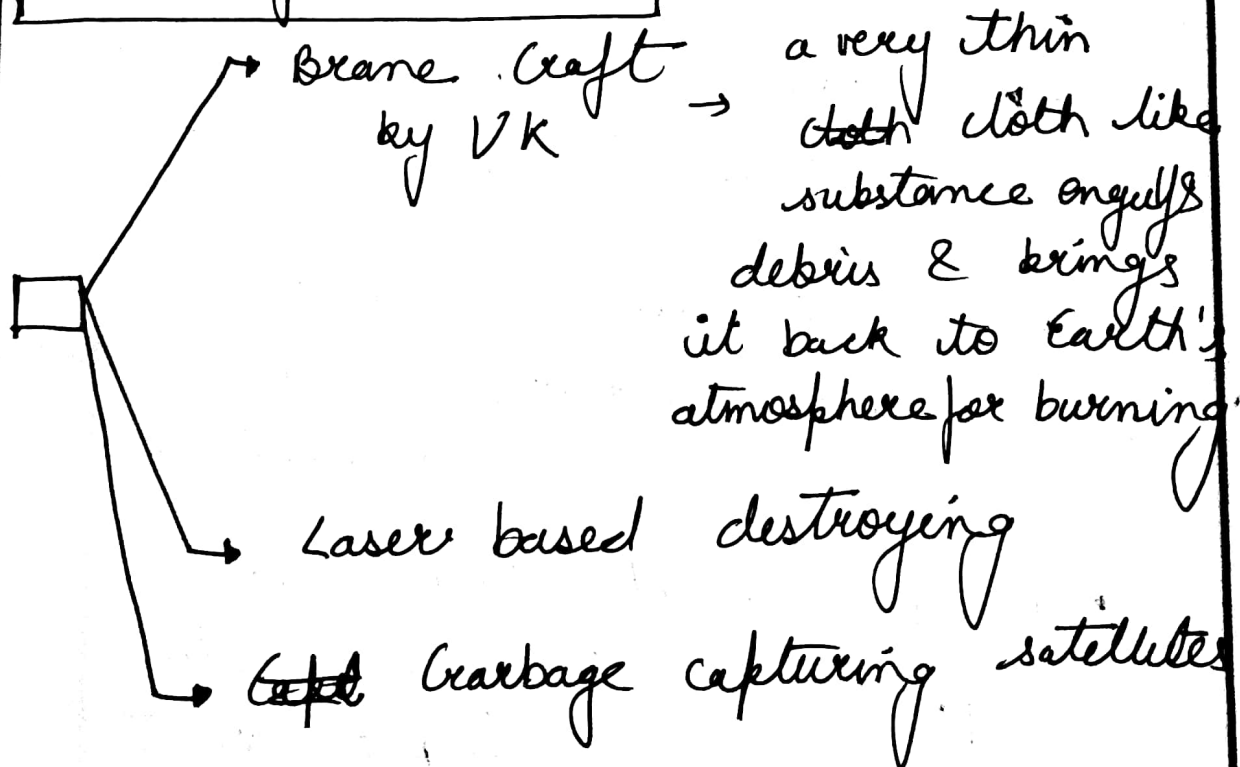
Risk



Measures for Mitigation



Measures for removal



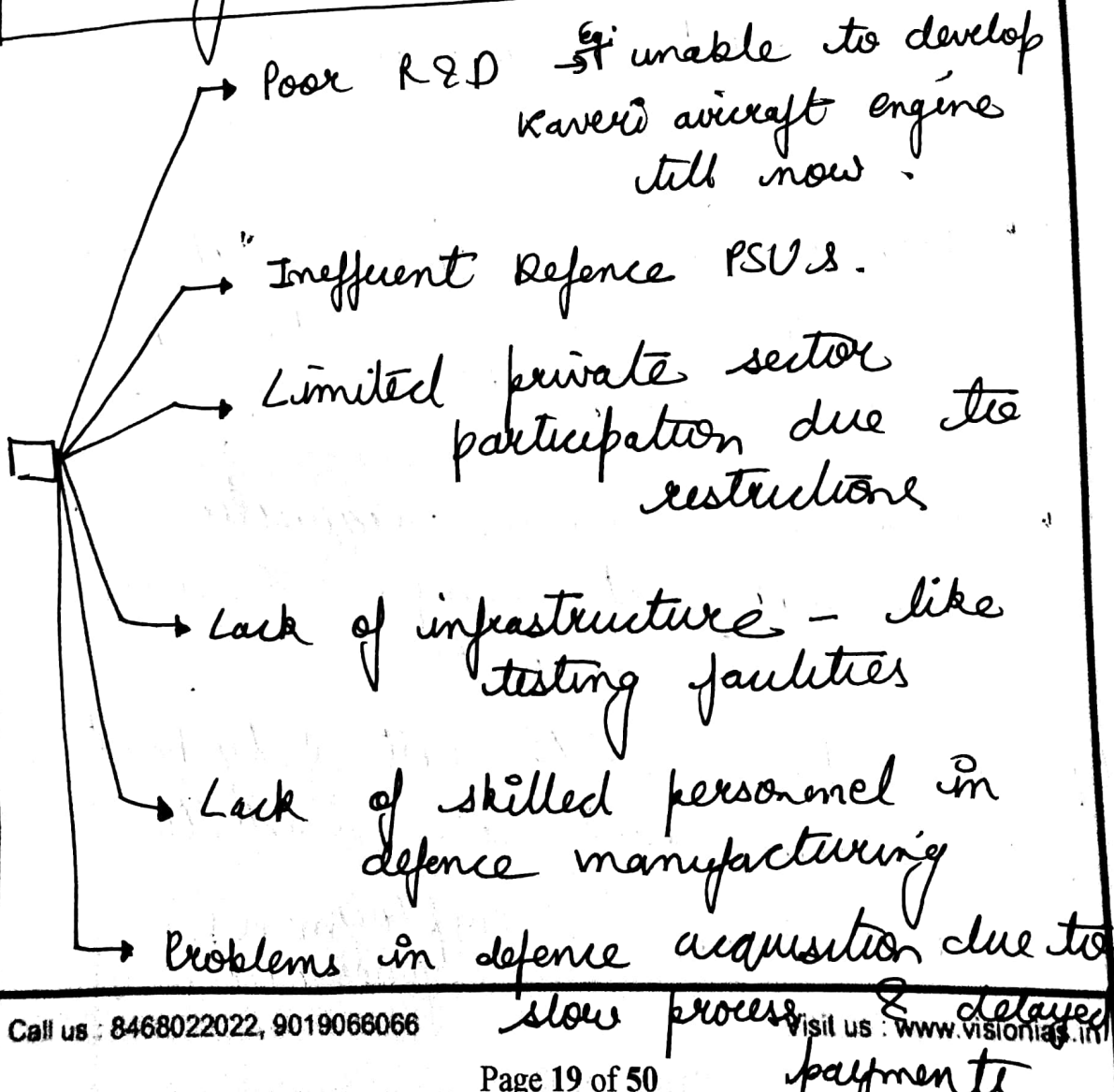
It is urgently required to address this issue before it takes uncontrollable proportions.

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?

India is the largest defence importer in the world. This makes India strategically vulnerable because of its dependency on other nations.

Challenges to Indigenisation of defence industry



Steps to accelerate its pace

- Set up defence universities & research centres - for capacity building & innovation
- Strategic partnership between Indian co's & foreign defence manufacturers Eg: Rafale offset clause
- Boost defence infrastructure
Eg: Defence corridor in UP & Tamil Nadu
- Promote defence export market via aero expo, defence expo.
Eg: Sale of Akash missile to Vietnam
- Streamline defence acquisition to make it simpler & faster & transparent

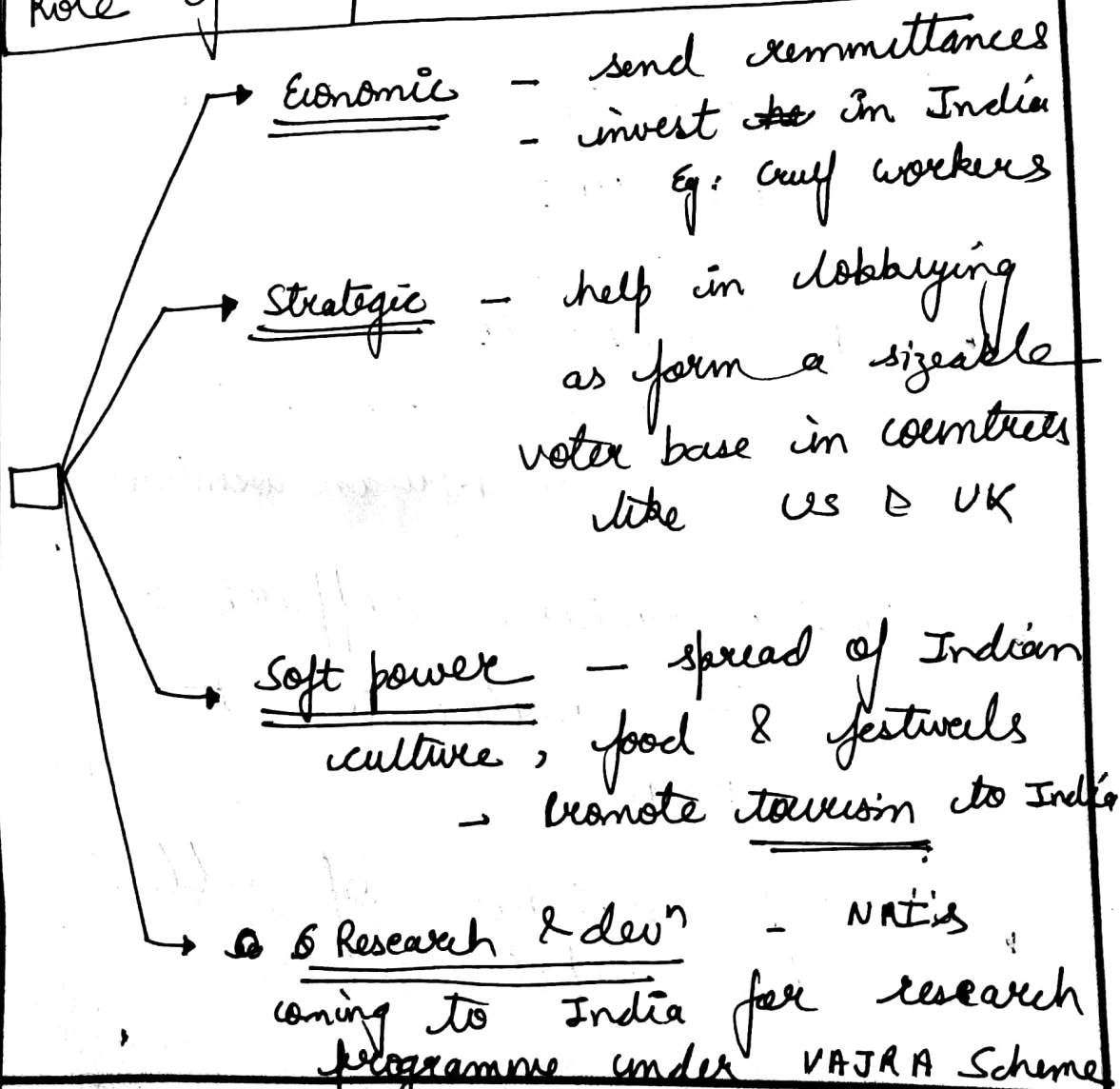
Indigenous defence will not only boost India's security but also lead to huge GDP increase & employment generation.

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

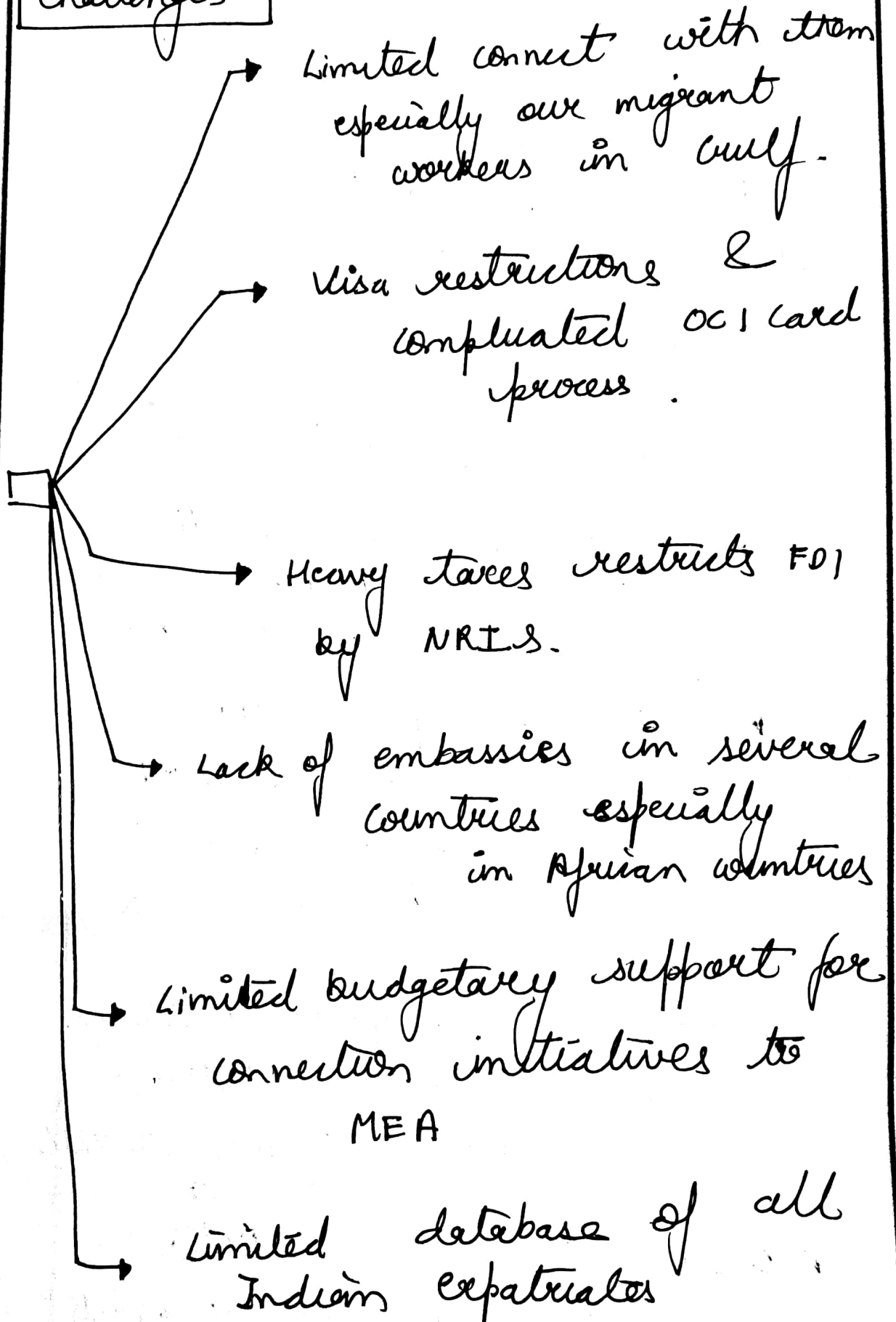
भारत की विकास प्रक्रिया में प्रवासी समुदाय (डायस्पोरा) द्वारा निभाई गई भूमिका पर टिप्पणी कीजिए। साथ ही, भारतीय प्रवासी समुदाय को आकर्षित करने में आने वाली चुनौतियों पर चर्चा कीजिए तथा इन साझेदारियों को लाभों में बदलने हेतु तरीके सुझाइए।

India has the largest diaspora in the world with 16 million Indians living abroad.

Role of diaspora in India's devⁿ



Challenges



way forward

- Pass draft Emigration bill 2019 to create a digital database of all Indians abroad.
- Boost NRI travel to India to bring in more FDI & foreign exchange.
- ~~connect with~~ ^{leverage studies} them to promote Indian culture abroad.
Eg: Pravasi Bharatiya Divas
- Establish direct communication
Eg: PM addresses diaspora directly on foreign tours
- Establish trust in them by taking responsibility for them
Eg: Rescue of Indians from Yemen

Each Indian abroad is India's ambassador & must be ~~also~~ made integral part of 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?

In recent times preferential trade agreements are agreements among nations to reduce tariffs on certain specified goods & services ^{below MFN level} specifically for certain nations.

Reasons for rise of PTA

- Failure of WTO in reaching consensus on trade deals
Eg: Failure of Buenos Aires Summit
- Boosting regionalism giving rise to higher PTAs & FTAs, Eg: NAFTA, African Free Trade Agreement

- Need to grow trade & investment
 - by reducing trade barriers
- easier & much faster to agree & sign PTAs.

MFN principle

MFN principle of WTO says that any trade concession (like a tariff reduction) given to ~~one~~ ~~WT~~ by a country to another country, must be extended to all WTO member countries.

However, preferential trade agreements are an exception to this principle & thus, they do NOT ~~violate~~ violate it.

Trade Groupings → Threat to WTO

Yes, the grouping do threaten WTO because :-

- Focus of countries shifting away from WTO towards regional groupings
- Trust deficit at WTO is thus rising
- These groupings are serving as good alternatives for trade negotiations

way fwd

Thus, WTO must ~~also~~ initiate reforms in order to stay relevant

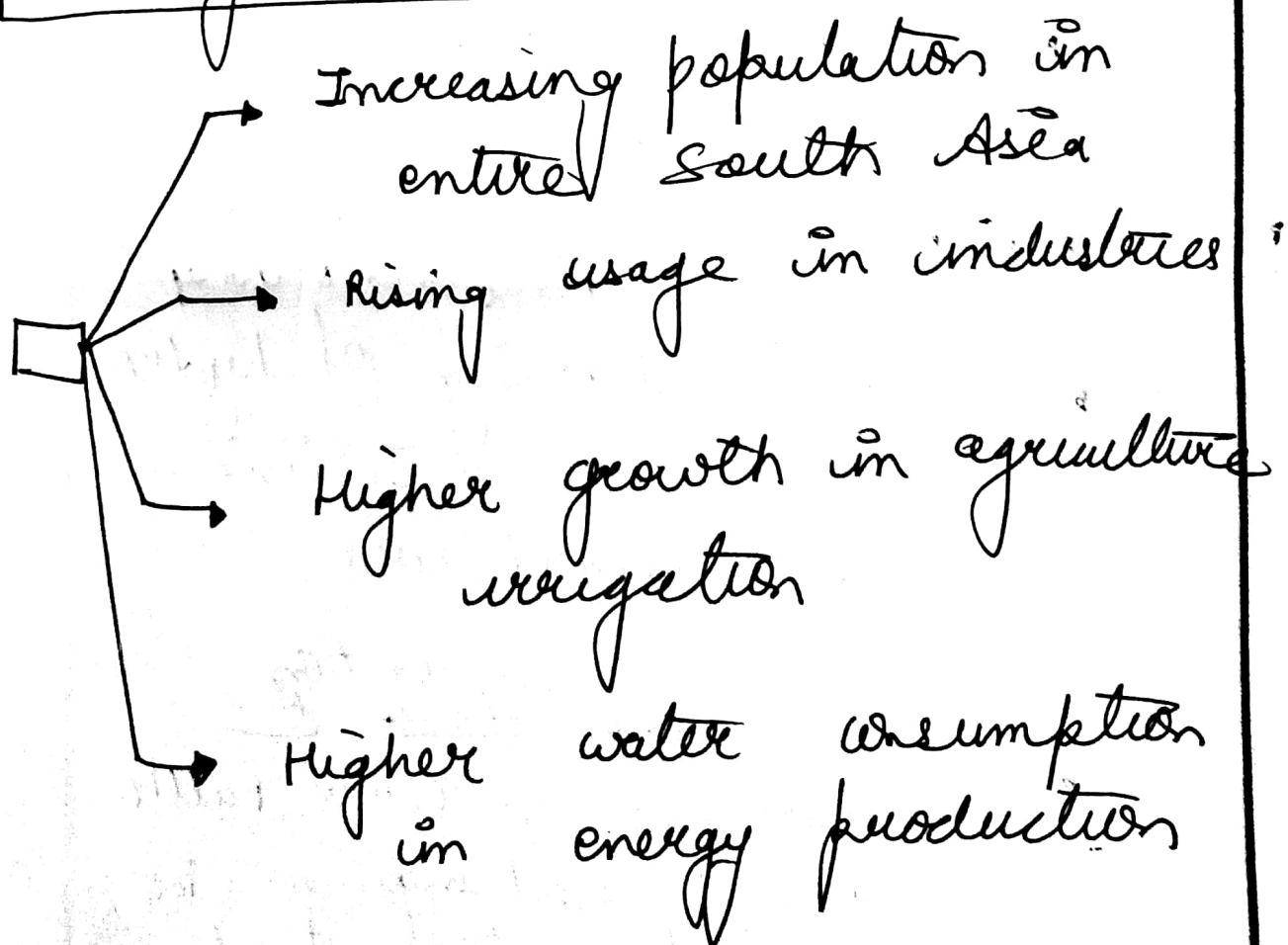
- Allow multilateral negotiations among interested countries & not force all to join
- Make dispute settlement process more transparent

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

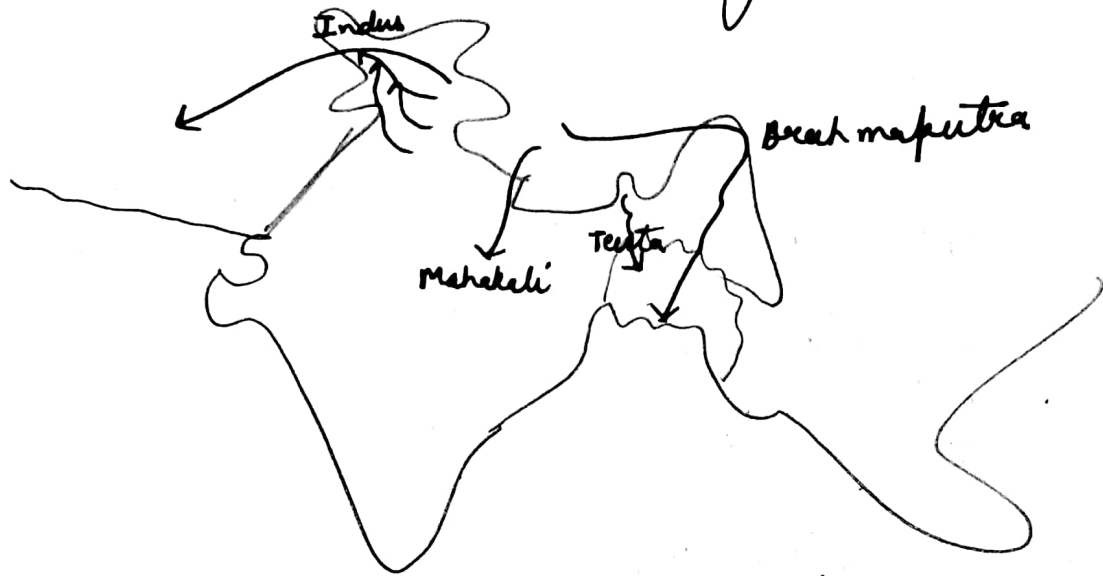
भारत को अपनी बढ़ती जल आवश्यकताओं और व्यापक सुरक्षा चिंताओं को प्रभावी जल-कूटनीति के माध्यम से संतुलित करने की आवश्यकता है। सीमा पारीय नदियों से संबंधित सामना की जाने वाली चुनौतियों पर प्रकाश डालते हुए, अपने पड़ोसियों के साथ भारत के नदी-जल संबंधों के संदर्भ में इस कथन का विश्लेषण कीजिए।

As per UN reports, $2/3^{rd}$ of the world population will be under water stress by 2030. This is a grave situation.

Growing water needs

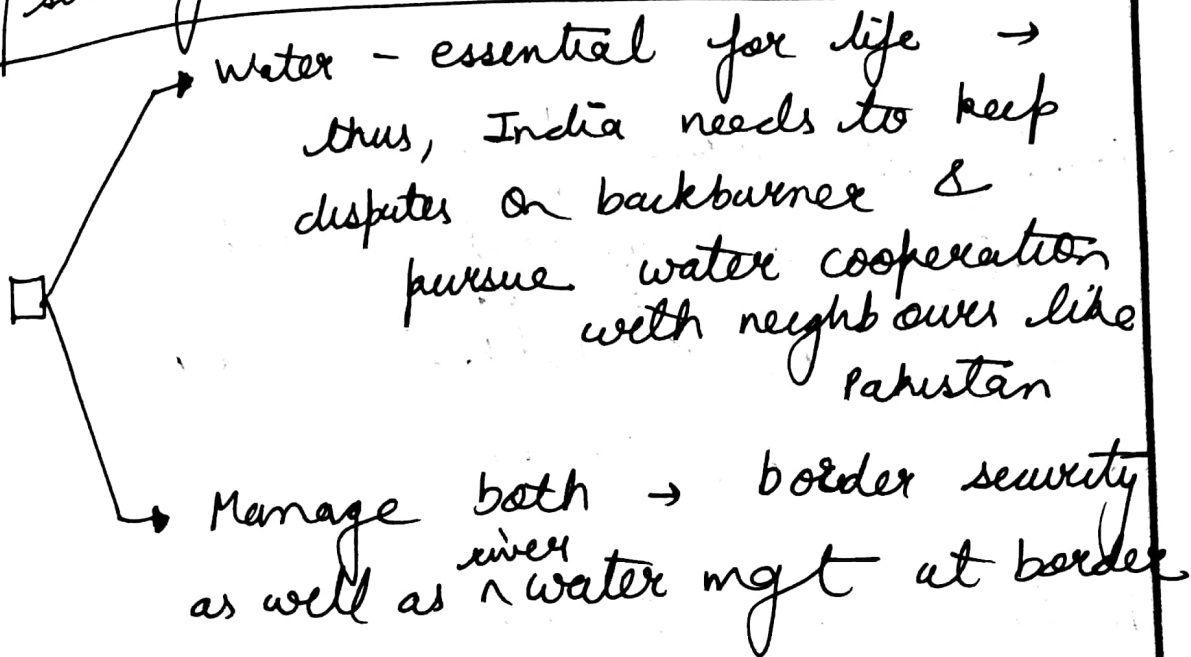


Challenges in transboundary rivers

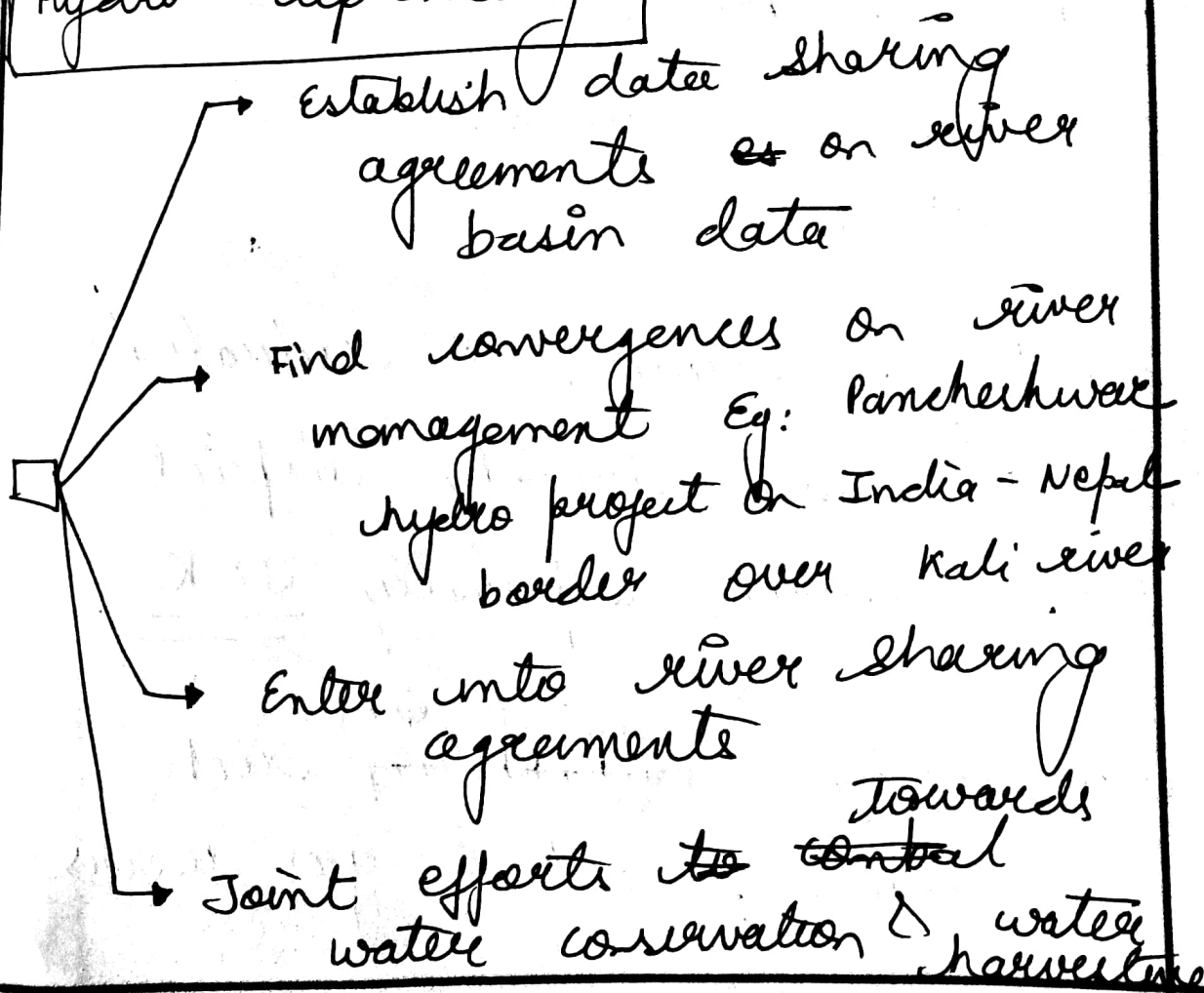


- River water disputes like Teesta
- Changing course of rivers
- Reckless dam construction by China over Brahmaputra
- Limited sharing of hydro data among India & its neighbours
- Conflict over ~~dams~~ ^{navigation} & barrages Eg: Over Rattle dam & Kishanganga in Indus water Treaty
- climate change - drying up of rivers

Balance water security with larger security



Hydro - diplomacy



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 forms part of India's extended neighbourhood & comprises countries like Kazakhstan, Uzbekistan, Turkmenistan & Tajikistan.

Importance for India

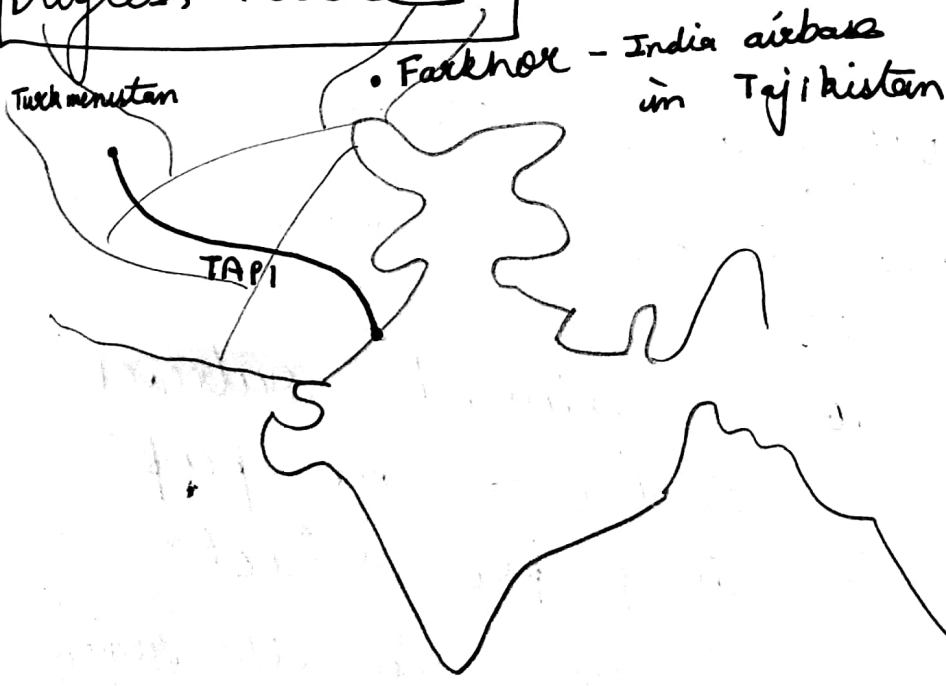
- ① Strategic - bridge between India & Europe → critical for connectivity.
- ② Security - Terrorism & radicalisation in Central Asia directly impact India's security especially J&K.
- ③ Energy security - ~~Kazakhstan~~ Central Asia rich in Uranium, oil & gas reserves.

which is critical for India's energy needs.

- ④ Trade & Investment - offers immense market for Indian exports & opportunities for India Inc to invest.

- ⑤ Culture - source of tourists for India @ + \$

Progress made

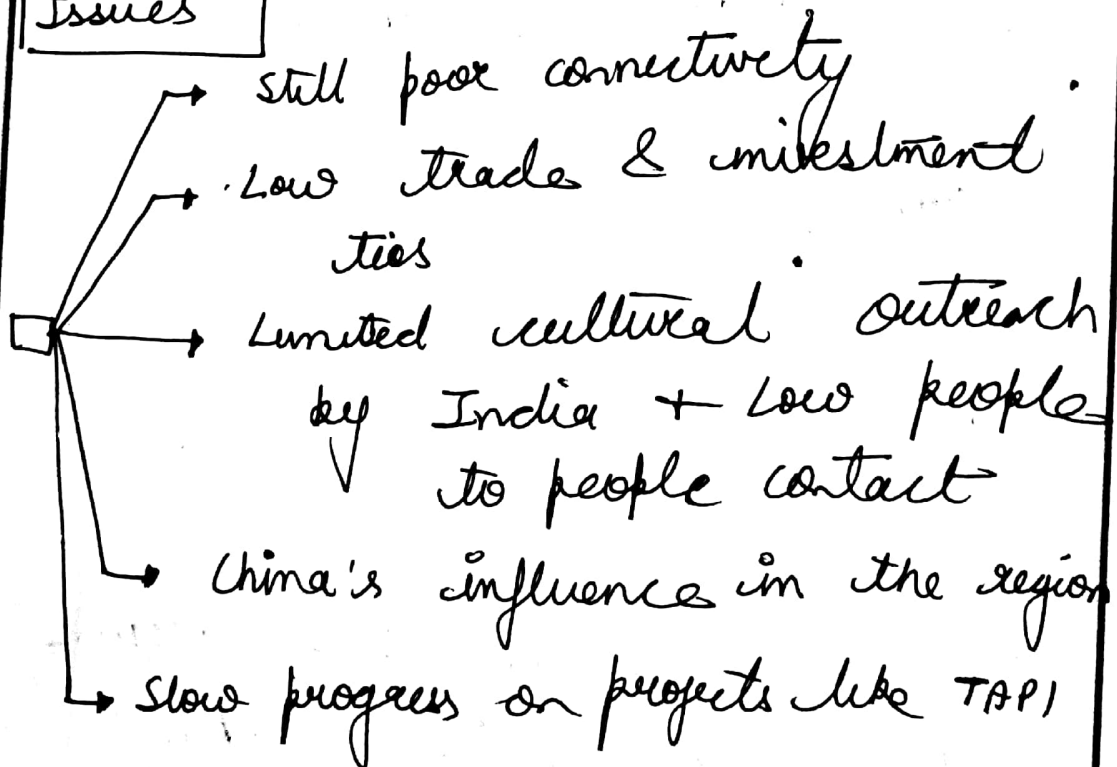


- ① ① 1st India - Central Asia dialogue was held recently in Samarkand, Uzbekistan.
- ② India has signed Ashgabat

agreement to boost trade with this region.

- ③ India has become a member of Shanghai Cooperation Organisation to work towards stability of Central Asia.
- ④ ~~For~~ Connect Central Asia Policy of India has been launched with regular top level visits to Central Asia.

Issues



Central Asia holds the key to widening India's neighbourhood first policy & thus, steps to bolster relationships

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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

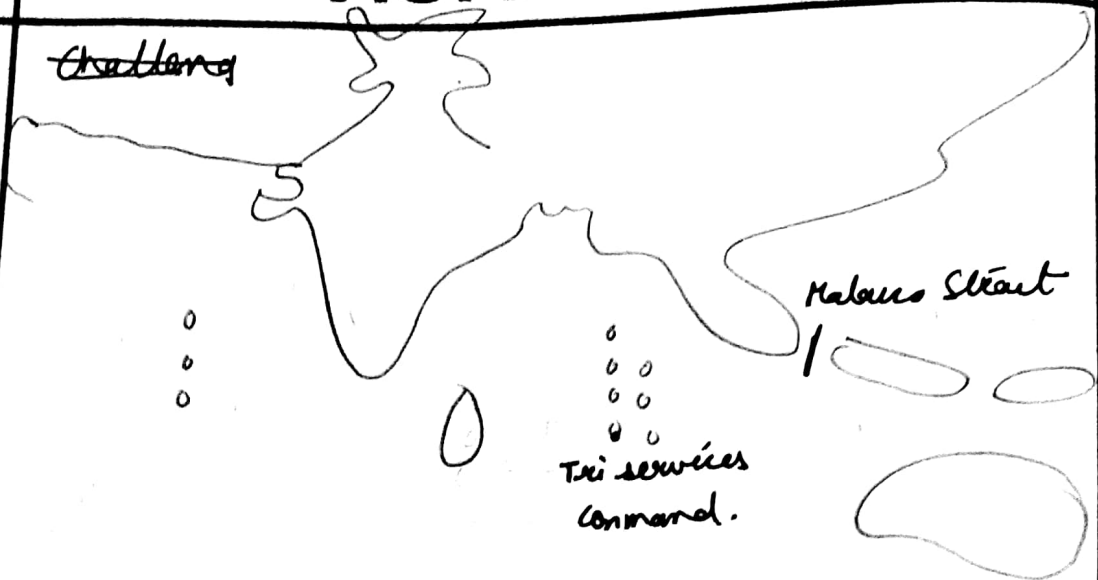
हिंद महासागर क्षेत्र में वास्तविक सुरक्षा प्रदाता बनने की भारत की आकांक्षा के आलोक में, इसके द्वीपीय प्रदेशों के महत्व की चर्चा कीजिए।

India's island territories of Andaman & Nicobar, as well as Lakshadweep provide enormous strategic advantages to India in the Indian Ocean region.

significance

- Extended maritime border & EEZ in Indian Ocean - gives strategic depth
- Ability to put our strategic assets deep inside Indian Ocean
Eg: Tri services command in A&N islands
- Closeness to choke points like Malacca Strait
- Easy ship deployment, patrolling & intelligence gathering
- More military exercises
Eg: MILAN exercise in A&N

~~Challenges~~



Challenges

- No ~~the~~ dedicated island policy of India
- Poor infrastructure deployment in islands
- China's string of pearls theory → encircling Indian islands
- Climate change - eroding & disappearing Lakshadweep island due to rising sea level

Way forward

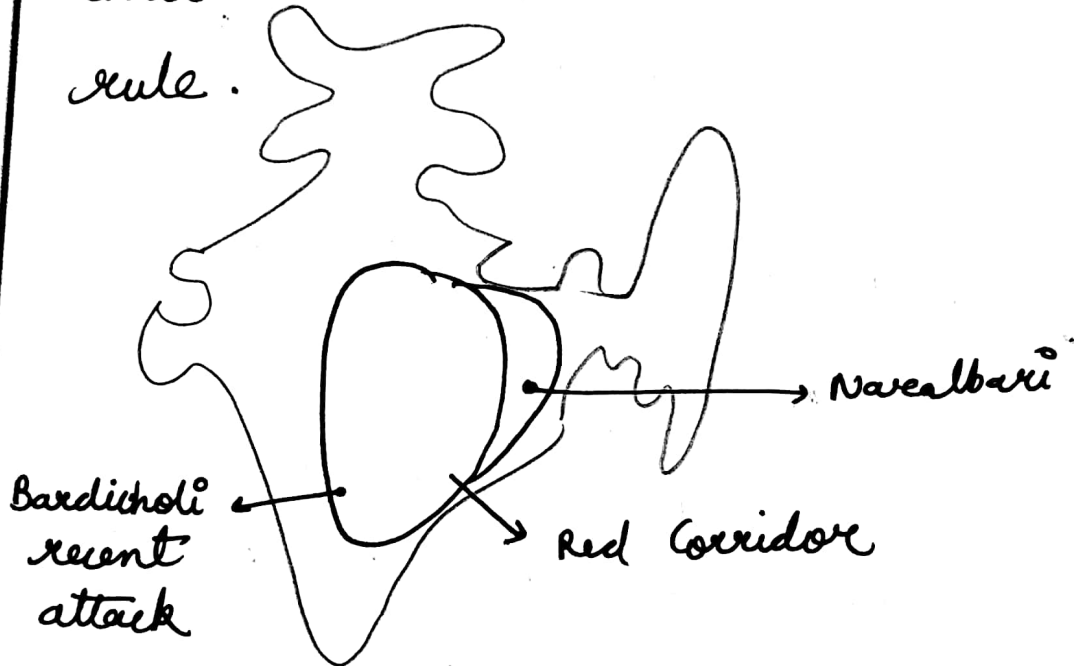
- Build strategic assets like ports in islands
- Build strategic partnership with neighbouring countries
Eg: Access to Duqm port of Oman.
- conduct joint patrolling, intelligence gathering, counter piracy operations via India Ocean Rim Association
Eg: CORPAT exercise with Indonesia
- ~~Expto~~ Ensure security of sea of lanes of communication to boost blue economy.

By these, India & can emerge as a strong net security provider in the region

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

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।

LWE refers to the use of violence to with aim to remove state and establish a communist self rule.



Security measures

→ Dedicated COBRA battalions of CRPF trained in guerrilla warfare.

→ Use of technology like drones & satellite images to

~~task~~ for intelligence gathering.

- Choking financing of Maoists by ~~as~~ preventing money laundering & destruction of their opium produce.
- Better coordination among paramilitary & local police force.

Developmental measures

- Infrastructural development especially roads, telecom & public transport
- Education → eg: in POTA cabins in Chhattisgarh
- Healthcare, nutrition & vaccination facilities to combat malnutrition
- Promoting SHGs & ~~coops~~ traditional tribal handicrafts

to generate employment

- proper implementation of Forest Rights Act 2006 to promote agriculture development
- proper compensation & rehabilitation of tribals suffering displacement

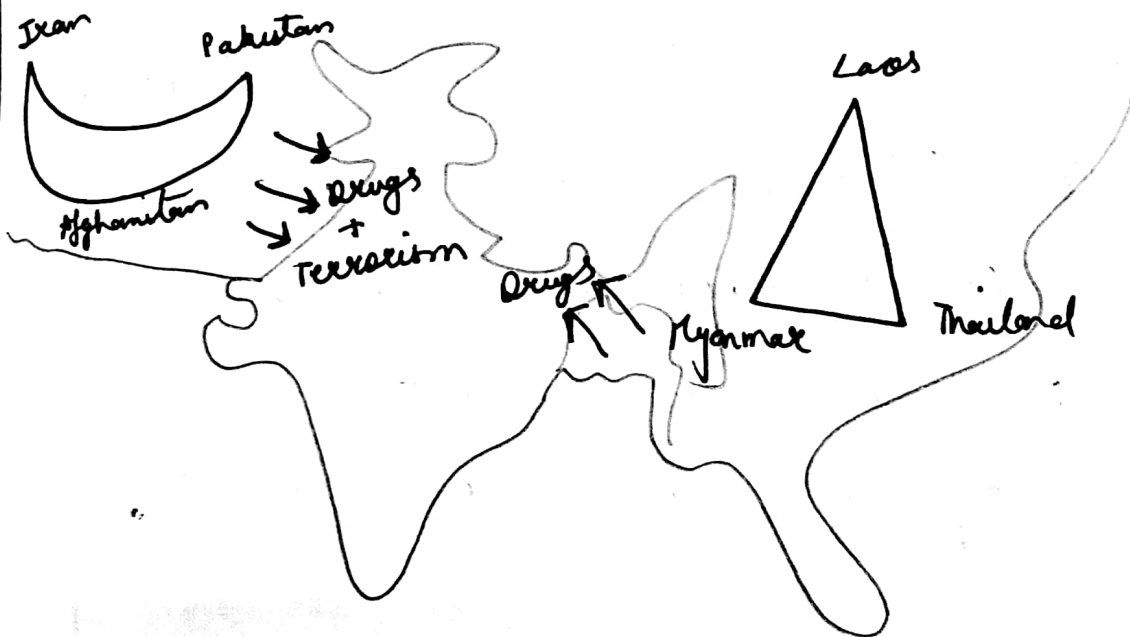
~~Naxalism is problem of it ^{Even having} having both dimensions ^{Security} as well~~

The root ^{cause} of Naxalism is lack of development. Thus, soft measures of development are required to ~~to~~ eliminate LWE. However, it must be complemented with appropriate security measures so as to protect innocent tribals.

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।

India lies in between the golden crescent & golden triangle - the two of the highest drug producing regions of the world.



Linkages

- ① Drug trafficking → promotes organised crimes like human trafficking for drugs, forced recovery of

drug money & nationalism.

②

Drug trafficking

↓
funds
terror
activities
Eg: Al
Qaeda

↓
creates Mario terrorism
where drug lords
attack Govt &
Narcotics dept
Eg: In Mexico &
Brazil

③

Organised criminals → are radicalised
into terrorists + money raised
from kidnapping, murders,
etc → used for ~~to~~ ~~the~~ purchase
of weapons for terror activities

Steps taken

①

Narcotics Act → bans importing
drugs & severely punishes
drug smugglers.

- ② Dept of Revenue Intelligence → has been created to ~~prevent~~ catch hold of drug peddlers
- ③ Border security - via CIBMS to prevent drug smuggling into India
- ④ cooperation with neighbouring countries like Bangladesh in intelligence gathering.
- ⑤ Capacity building of police to counter drug peddlers E.g. via NATURO
- ⑥ Awareness generation among citizens to reduce drug demand & report drug peddlers.

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।

Climate change refers to the long term alteration in the pattern of weather, temperatures & rainfall. It is generally in the form of global warming.

Threat to National Security

→ Food security - due to changing monsoon pattern & rising droughts

→ Water security - due to melting of glaciers & drying up of rivers + rising water disputes among countries may lead to wars.

- Energy security - due to ~~low~~ disruption in hydroelectricity ~~to~~ due to droughts
- Disasters - ~~due to~~ like cyclones & extreme rainfall
- Loss of islands - due to submergence due to rising sea level → great threat to India's security in Indian Ocean
- Refugee crisis → esp environmental refugees from neighbouring ~~states~~ countries posing security risk.

UN decision to declare CC as International Security Issue

India has vehemently opposed this decision. The rationale

behind this is :-

④ Matter will now go to UNSC which is an opaque body

Climate change affects all →

but thus decisions shall be taken by UN General Assembly in a democratic manner

UNSC may impose its will on others

UNSC itself consists of countries who are most responsible for climate change Eg: USA

Thus, ~~on~~ the entire humanity has a stake in addressing climate change. Decisions regarding it must be taken ⁶ with the consensus of all & not by the power of a few?

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 refers to the protection given to clinical trial data to prevent it from being shared with other companies. Indian govt is considering to increase data exclusivity on new pharmaceutical drugs from present 4 yrs to 10 yrs.

Arguments for
data exclusivity

Arguments against
data exclusivity

① Helps boost innovation of new drugs in the country

① Prevents low cost generic manufacturers from accessing data
↓
makes medicines

VISION IAS

②

Helps companies to recover huge investment made in clinical trials & development of new drugs.

③

Many countries like USA have demanded increased period of data exclusivity from India.



unaffordable.

② Even if patent is invalidated, data exclusivity remains

③ WTO TRIPS does not require India to do it

④ Gives huge control & monopoly benefits large pharma cos.

⑤ Serves vested interests of developed nations like US.

Thus, data exclusivity shall be there. But the period of exclusivity should be short to allow speedy entry of generic drugs into the market.

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?

The government of India is inviting proposals for 5G trials in India.

Similarities

- Both are wireless technologies
- Both send data in packets
- Both capable of sending raw data, videos, audios over internet.

Differences

	4G	5G
①	Much slower than 4G	① Much faster
②	Less stability	② Much higher stability

- | | |
|--|--|
| <p>③ Not efficient when ~~power~~ moving on high speed <u>Ex:</u> In bullet train</p> | <p>③ Works smoothly even in high speed movement</p> |
| <p>④ Limited capacity to operate next gen technologies like Internet of Things</p> | <p>④ Seamlessly supports modern technologies like IOT, AI & machine learning</p> |

Challenges

→ Funding - requires huge investment

→ Infrastructure - requires new towers, cable lines & ~~near~~ modern satellites

- Digital divide → especially between urban & rural areas.
- Security issue → Chinese co' Huawei banned in US for security threat via 5G equipments
- Health hazard → radiation hazard to humans → threat of cancer
- Ecological hazard → Eg: Extinction of Delhi sparrow due to tower radiation

A national 5G policy is the need of the hour to ~~address~~ ensure faster, accessible, affordable & equitable 5G service across India