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GENERAL STUDIES (TEST CODE : 844)

Name of Candidate	Nikita Yadav	Registration Number	28019
Medium Hindi/Eng.	English	Date	15.03.17.
Center			

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	12.5	
2	12.5	
3	12.5	
4	12.5	
5	12.5	
6	12.5	
7	12.5	
8	12.5	
9	12.5	
10	12.5	
11	12.5	
12	12.5	
13	12.5	
14	12.5	
15	12.5	
16	12.5	
17	12.5	
18	12.5	
19	12.5	
20	12.5	

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 HINDI and ENGLISH.
इसमें बीस प्रश्न हैं तथा हिन्दी और अंग्रेजी दोनों 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. Alignment Competence
2. Context Competence
3. Content Competence
4. Language Competence
5. Introduction Competence
6. Structure - Presentation Competence
7. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

Answer all the questions in NOT MORE THAN 200 WORDS each. Content of the answers is more important than its length. All questions carry equal marks.

12.5X20=250

1. It has been assessed that radicalisation is a security threat to India. Explain the basis of such an assessment with examples. What are the key pillars of the counter radicalisation strategy of the government?

प्रायः यह आकलित किया जाता है कि कट्टरता (रेडिकलाइजेशन) भारत के लिए एक सुरक्षा संबंधी खतरा है। इस तरह के आकलन के मूलाधारों की उदाहरण सहित व्याख्या कीजिए। कट्टरता से निपटने के लिए सरकार की रणनीति के प्रमुख आधार स्तंभ क्या हैं?

Radicalisation means modifying people's perceptions to extreme extent, often resulting in violence.

It is a security threat to India as can be seen by the latest arrests of young educated persons involved in posting radicalising material and by the presence of Indians in ISIS abroad.

Such radicalisation is possible in India due to factors like :

- Multiplicity of cultures and failure to include certain sections in the mainstream society.
- Presence of already existing networks of terrorist organisations help new organisations like ISIS.
- Easy access to media which is the new mode used by extremist outfits for propaganda.

Government has been taking various steps to

check radicalisation. These include:

- Monitoring of online content.
CERT-In is responsible for it.
- Radicalised youth is given behavioural counselling.
- Sensitization of officials so they can deal with such cases in an effective manner.
- Sensitization of communities so they feel a part of society and such cases of radicalisation don't arise.
- Overall development of all communities in general so tendencies of feeling isolated don't arise.

2. Arguments on Siachen issue often move around the idea of demilitarisation. Examining the key attributes of the Siachen issue explain the basis of arguments regarding its demilitarisation? Also highlight the arguments against such an idea.

सियाचिन मुद्दे पर प्रस्तुत तर्क अक्सर विसैन्यीकरण के विचार के आस-पास मंडराता रहता है। सियाचिन मुद्दे से जुड़े प्रमुख पहलुओं का परीक्षण करते हुए इसके विसैन्यीकरण संबंधी तर्कों के मूलाधारों की व्याख्या कीजिए? साथ ही इस तरह के विचार के खिलाफ दिए जाने वाले तर्कों पर भी प्रकाश डालिए।

Siachen glacier is an area of conflict between India and Pakistan.



Historical Background:

The 1949 Karachi Agreement and 1972 Simla Agreement did not demarcate the International border beyond coordinates NJ 9842. Conflict started in 1984 when India gained control of the Siachen glacier with its successful operation Meghdoot.

Arguments for de-militarisation:

- This area has seen more deaths due to extreme cold and avalanches than due to war. The most recent happened in 2016 when 10 Indian soldiers died.

- Both nations have to spend a lot on military equipments, special uniform, gloves etc.
- According to some experts, strategic advantage is more perceptual than real.
- Potential damage to environment i.e. harm to biodiversity due to military presence.
- Pollution in tributaries of Indus.

Arguments against de-militarisation:

Indian Side

- Pakistan cannot be trusted esp. after Kargil war incident.
- Siachen has strategic importance.
- It drives a wedge between Pak and China and is the only link for India to Central Asia.
- Chinese presence nearby and difficulty to regain control once gone.

Pakistan Side

- Wants India to withdraw unconditionally and restore pre-1984 status quo.

Steps should be taken for mutual de-militarisation and making that area available for glacier research

and studies. To prevent the loss of lives, technology should be used and drones etc. should be deployed for vigilance instead of army personnel.

3. Money laundering and terrorism have strong inter linkages. Illustrate. In this context, how far do the steps taken by the government confirm with the international commitments?

मनी लॉन्ड्रिंग और आतंकवाद मजबूती से एक-दुसरे से सम्बद्ध हैं। स्पष्ट कीजिए। इस संदर्भ में, सरकार द्वारा उठाए गए कदम किस हद तक अंतरराष्ट्रीय प्रतिबद्धताओं की पूर्ति करते हैं ?

Money laundering and terrorism have stronger inter-linkages than perceived. Both the activities benefit from each other. Money laundering groups benefit from the capability of terrorist organizations to do damage and terrorists can get money from such groups involved in money laundering. Both of them use ways like shell companies, multiple financial institutions to conceal the source / use of money. NGOs are used as a method for concealing the source of money and such money can be used by terrorist organisations.

Thus, money laundering and terrorism are interconnected.

Government has taken various steps and has enacted various legislations to address this issue.

- Income Tax Act, 1961
- Benami Transactions (Prohibition) Act, 2016
- Narcotic Drugs and Psychotropic Substances Act, 1985

- Indian Penal Code, Code of Criminal Procedure, 1973
- Prevention of Money Laundering Act (PMLA), 2003
- Govt. joined the Financial Action Task Force in 2010, which is an intergovernmental organisation to strengthen the international cooperation, financial system and address the issue of money laundering.

Govt. has launched a massive National Risk Assessment (NRA) exercise to identify sectors where risk of money laundering exists the most so, corrective steps can be taken accordingly. This is in accordance with the guidelines of FATF.

4. Longstanding issue of insurgency in the Northeast highlights the linkage between violence, remoteness, underdevelopment and alienation. Elaborate. Also, suggest some corrective measures for a lasting resolution of the conflicts in this region.

पूर्वोत्तर में लम्बे समय से विद्यमान उग्रवाद का मुद्दा वस्तुतः हिंसा, दूरी, अल्पविकास, और अलगाव की भावना के मध्य के संबंधों पर प्रकाश डालता है। सविस्तार व्याख्या कीजिये। इसके साथ ही इस क्षेत्र में संघर्ष के एक स्थायी समाधान के लिए कुछ सुधारात्मक उपायों का सुझाव भी दीजिए।

The Northeast has seen a number of insurgent groups and insurgencies for over 5 decades now.

This problem shows the links between violence, remoteness, underdevelopment & alienation, with each one feeding the other.

Northeast's location is such that it is separated from the Indian mainland and the only connection is via the Chicken's neck. Also, the difficult terrain makes it inaccessible hence the remoteness.

Due to government's failure to cause development in the region, provide employment to the youth there, lack of implementation of developmental policies announced due to corruption and lack of political will, if there is widespread underdevelopment.

People of Northeast also suffer from the feeling of alienation since they are not treated as equal citizens of India and are called by derogatory words like "chinki" due to their appearance. They can relate more to Chinese or Mongolians due to similar physical appearances.

Also, instances of violence against Northeast citizens (eg. A Northeast student was beaten up in DU) aggravate the sense of insecurity + alienation.

Corrective Measures :

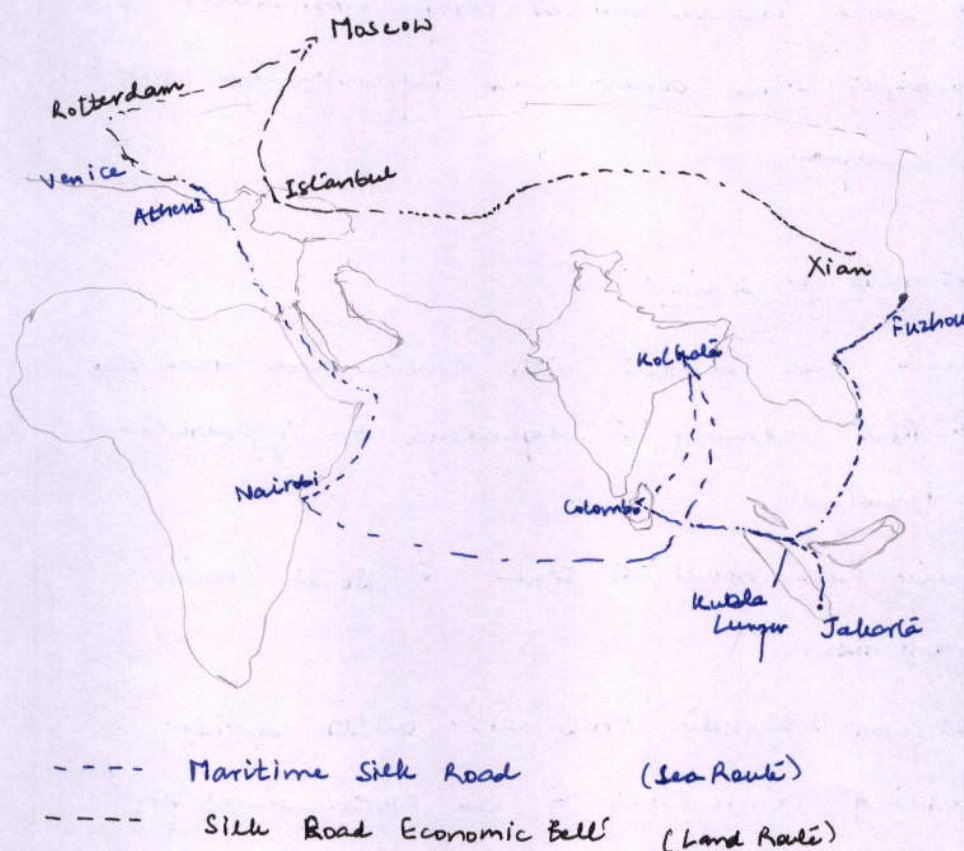
- Bringing development in the region is the key for a lasting resolution.
- Providing employment to youth
- Better surrender policy for insurgents
- Mizo and Tripura Model can be followed to include insurgents in the political mainstream thereby bringing peace and development to the region.
- Sensitization among Indian citizens towards their fellow citizens from the Northeastern part of India.
- Promotion of border trade to promote development in border areas.

- Improving connectivity through various schemes like UDAN.
- Promotion to tourism etc. to bring resources to these states.

5. While on the one hand China's One Road One Belt initiative poses security concerns and challenges for India, on the other, it can help improve India's connectivity to major markets and resource supplies. Discuss.

जहाँ एक ओर चीन की 'वन बेल्ट वन रोड' पहल भारत के लिए सुरक्षा संबंधी चिंताएं और चुनौतियां खड़ा करता है, वहीं दूसरी ओर यह संसाधनों की आपूर्ति और प्रमुख बाजारों तक भारत की कनेक्टिविटी (संयोजकता) को बेहतर बनाने में भी मदद कर सकता है। चर्चा कीजिए।

China's OROB initiative includes the development of a Silk Road Economic Belt and a Maritime Silk Road.



Security concerns for India :

- Through the development of SREB and MSR, China is trying to legitimise its string of pearls theory.

- Its presence in the Indian Ocean region by development of ports in Bangladesh, Myanmar, Sri Lanka presents security threat to India.
- China through OROB is developing ports and roads in places hitherto under India's sphere of influence eg. Bhutan and Nepal
- It would increase China's troop mobilization capability since border areas infrastructure would be developed.

Opportunities for India :

- India can connect with Central and West Asia via Tibet reducing its dependence on Afghanistan & Pakistan.
- India can boost its trade to South Asian economies.
- It can integrate OROB with BCIM corridor, providing connectivity to the Northeastern part of the country.
- Integrating OROB with domestic projects for port development like Sagarmala can help Indian economy.

India presently doesn't have the resources to integrate with the entire world so it should consider using DRDB for that purpose without sacrificing its autonomy in the process.

6. NATGRID was an ambitious step involving intelligence reforms, however, it remained a non-starter. Explain. In the context of recent initiatives to revive the NATGRID and the challenges it faced previously what steps are required to make it effective?

नेटग्रिड (NATGRID) इंटेलिजेंस सुधारों से सम्बंधित एक महत्वाकांक्षी कदम था, हालांकि यह शुरू नहीं हो पाया। व्याख्या कीजिए। नेटग्रिड को पुनर्जीवित करने की हाल की पहल और पूर्व में इसके द्वारा सामना की गयी चुनौतियों के संदर्भ में, इसे प्रभावी बनाने के लिए कौन-से कदम उठाए जाने की आवश्यकता है?

NATGRID was proposed after the 26/11 Mumbai attacks. It was envisaged as a centralized database with 21 sets of data sources like banks, visa, immigration, air & train travel details etc. as well as from various intelligence agencies. This database would be accessible to all agencies on a case-to-case basis and only for professional investigation into cases of terrorism.

However, it remained a non-starter due to:

- Issue of privacy of data was raised. Proper legal & technical safeguards must be in place to ensure that data is not misused.
- Issue of appointment of CEO of NATGRID was raised. He should be someone with technical expertise and not have political affiliations.

- Lack of coordination among various intelligence agencies like IB, RAW etc.
- Intelligence was not accessible to State Police & without that, implementation became difficult.

But in recent times, role of NATGRID has become more important than ever. The mode of warfare has changed from ground to digital now and terrorist organisations also use social media for propaganda so, it is important to have a centralised national security architecture in place. But it should be revived keeping in mind the challenges it faced previously.

Steps to be taken:

- Proper safeguards should be put in place to protect data privacy. There
- There should be a well defined mechanism for how information is to be shared among the various agencies.
- CEO should be appointed taking in confidence all security agencies and should be someone

who can coordinate among them.

- Coordination between central and state level agencies is a must.

7. India's national security architecture faces a difficult task in detecting digital intrusion in cyberspace. What are the challenges India faces w.r.t. Digital Intrusion? How can these challenges be overcome?

भारत की राष्ट्रीय सुरक्षा अवसंरचना, साइबर स्पेस में डिजिटल घुसपैठ का पता लगाने में मुश्किलों का सामना कर रही है। डिजिटल घुसपैठ के सन्दर्भ में भारत किन चुनौतियों का सामना कर रहा है? इन चुनौतियों को कैसे दूर किया जा सकता है?

In recent times, with more and more people using the digital media, instances of digital intrusion like economic fraud, attack on critical infrastructure, disruption of services etc. have also increased. Growing dependence on the cyberspace has increased vulnerability also.

Challenges faced by India:

- Low public awareness
More and more people have internet enabled devices but awareness about security features is low.
- Such attacks can be launched from any part of the world making them difficult to tackle.
- Lack of trained IT personnel in the country.
- Lack of coordination among various cyber security agencies.
- Internet is a largely ungoverned space thereby increasing the cyber threat.

- Lack of security infrastructure in India which is proved by attacks on ~~govern~~ + hacking of government sites too, let alone the security of citizens.

Steps to overcome these challenges:

- Research and Development

With changing needs of today's era, government should spend more money on R&D in cyber security so we can detect cyber attacks early and deal with them better.

- Human Resource Development

We need to have trained IT personnel in the field of cyber security who can develop better encryption techniques and make India's digital space secure from cyber threats.

- Awareness among public

Public should be taught about various security features of the internet and the ways the cyber attack occurs so they are well informed and don't fall for scams and electronic fraud.

- Coordination among various agencies, possibly through the establishment of a centralised agency that will be responsible for dealing with cyber attacks.
- Enactment of a Cyber Security Policy which outlines the functions of various organisations with clear division of roles and the protocol to be followed during a cyber attack.
- Involvement of the private sector in the cyber security so their knowledge and talent/pool can be utilised.

8. Relations with Iran hold a lot of potential for India's ambitions for West Asia and beyond, however, realising this potential also involves certain global and regional challenges. Examine.

ईरान के साथ संबंध वस्तुतः पश्चिम एशिया और उससे परे भारत की महत्वाकांक्षा के लिए संभावनाओं से परिपूर्ण हैं, तथापि इस संभावना को साकार करने के मार्ग में कुछ वैश्विक तथा क्षेत्रीय चुनौतियां भी हैं। परीक्षण कीजिए।

India has various areas of interest in West Asia:

- Indian diaspora in Arab states is around 7 million and send remittances worth \$40 billion annually.
- India imports 80% of its oil from West Asia.
- Various Islamist groups, civil wars, outside interventions in the area provide cause for constant concern.
- West Asia provides a link to Central Asia and Europe.

Iran acts as a gateway for India's ambitions in West Asia. Thus, Iran - India relations hold huge significance.

Eg. Development of Chabahar port in Iran by India provides a link to India to West Asia ^{+ Central} bypassing Pakistan.

However, there are various challenges to be overcome

in realising the full potential of relations with Iran.

- With the lifting of economic sanctions on Iran, after the signing of nuclear deal with P5+1, competition for Indian firms from other countries will increase.
- Iran might not make concessions such as accepting payments in rupee from India anymore.
- Regional challenges will continue to be there. India can only partly overcome geographical barriers by developing relations with Iran. It still has to diplomatically ~~subtle~~ ^{handle} issues with Pakistan.
 - ↳ for the SAGE pipeline, TAPI pipeline
- India also has to balance its Ir. relations with Saudi Arabia and Israel vis-a-vis Iran.

Thus, there are challenges for India but it is imperative for India for its geopolitical and energy interests to overcome them and develop ties with Iran, so it will also help India

counter Chinese presence in Pakistan, through its
CPEC, OOB initiatives.

9. The internal crisis in Nepal over the past few years has given concrete shape to the fears of China gaining upper hand vis-a-vis a traditionally influential India. Elaborate. What can India do to further strengthen its ties with the Himalayan nation?

पिछले कुछ वर्षों में नेपाल के आंतरिक संकट ने पारंपरिक रूप से प्रभाव रखने वाले भारत पर चीन द्वारा बढ़त लिए जाने के भय को ठोस आकार प्रदान किया है। विस्तारपूर्वक बताईए। इस हिमालयी राष्ट्र के साथ अपने संबंधों को अधिक मजबूत करने हेतु भारत और क्या कर सकता है?

Nepal has been going through an internal crisis for over a decade now. Nepal faced a decade of Maoist power war and then tussle over political power. The new constitution was finally adopted in September 2015 but it led to blockade and protest by Madhesi and Tharus.

These internal issues have led to a change in Nepal's relations with India and China.

India has always viewed Nepal as being geographically very important with respect to China and has helped Nepal to resolve the conflicts. But, in this process, it has been accused of interference in Nepal's internal matters. India's reluctance to endorse Nepal's new constitution due to concerns related to Madhesi, Tharus was also seen as a proof of

India's interference. With Maoist government in power in Nepal, it is exploring other options like China to reduce its dependence on India.

Also, it is attracted by the huge potential of Chinese investment in Nepal.

With the blockade being perceived as supported by the "Big Brother" India, Nepal wants to overcome its dependence on India for roads and ports and hence, is shifting focus towards China.

India should work towards strengthening its ties with Nepal given its strategic location and also because of the cultural ties we share.

Steps to be taken:

- Strengthen people to people ties.
- Use soft diplomacy to counter China.
- Remain committed to strengthen cooperation in all areas of mutual interest.
- Shed off the Big Brother image so it is not seen as interfering in Nepal's internal matters.

10. The Trans-Pacific Partnership agreement (TPP), touted as the world's biggest trade deal to date, has danger of bending the WTO rules. In this context, discuss the impact TPP can have on India's foreign trade. What are the options that India has to deal with the issues arising out of the TPP?

विश्व के सबसे बड़े व्यापार समझौते के रूप में प्रचारित ट्रांस-पेसिफिक पार्टनरशिप (टी.पी.पी.) समझौते द्वारा डब्ल्यू.टी.ओ. के नियमों को प्रभावित करने की आशंका है। इस परिप्रेक्ष्य में भारत के विदेश व्यापार पर टी.पी.पी. के संभावित प्रभावों की चर्चा कीजिए। टी.पी.पी. से उत्पन्न मुद्दों से निपटने के लिए भारत के पास क्या विकल्प हैं?

TPP, involving 12 Pacific rim nations was the biggest trade deal ever signed accounting for 40% of the world's trade. It facilitated movement of goods, services, investment among these countries and had rules regarding labour laws, environmental standards, IP protection.

India stood to lose a lot on account of trade diversion.

TPP also involved the danger of bending the WTO rules since TPP as a block must have had a huge bargaining power affecting countries like India negatively.

With the election of Donald Trump as the President of US, TPP is dead but India should take this opportunity to bring about certain changes

like:

- Increasing the cost competitiveness of our exports.
- Finalising deals like the Bilateral Investment Treaty with the EU, RCEP which will boost trade ties with ASEAN nations, China, etc.
- Strengthening our IPR regime.
- Improving labour laws, environmental standards so they conform to the International standards.

11. Legal proceedings initiated by the Marshall Islands against India, Pakistan and Britain over nuclear weapons in the International Court of Justice highlights the issues of jurisdiction of the court. What is India's position vis-a-vis the jurisdiction of the ICJ? Also differentiate between binding and advisory pronouncements of the court with suitable examples.

अंतर्राष्ट्रीय न्यायालय (आई.सी.जे.) में मार्शल द्वीपसमूह द्वारा भारत, पाकिस्तान तथा ब्रिटेन के खिलाफ परमाणु हथियारों को ले कर आरम्भ की गयी कानूनी कार्यवाहियाँ वस्तुतः इस न्यायालय के क्षेत्राधिकार के मुद्दे को उजागर करती हैं। अंतर्राष्ट्रीय न्यायालय के क्षेत्राधिकार के संदर्भ में भारत का क्या रुख है? साथ ही उचित उदाहरण प्रस्तुत करते हुए न्यायालय के बाध्यकारी तथा सलाहकारी निर्णयों के बीच अंतर स्पष्ट कीजिए।

Marshall Islands filed a case under 9 nuclear states justifying its position saying that the nuclear arms race has done a lot of harm to it. It contends that states like India, Pakistan and Britain did not fulfil their legal obligation to disarm.

All members of the UN are automatic parties to the statute of the International Court of Justice. That, however, does not mean that ICJ has jurisdiction over disputes involving them. ICJ gets jurisdiction subject to the approval from the parties involved.

ICJ adjudicates matters relating to:

- International law, submitted to it by states.

It is called Jurisdiction in Contentious Cases. Court's judgement in such cases is binding.

Maritime cases, International Waters, etc. generally make this category.

Only states can appeal to or appear before the court.

• Advisory Jurisdiction

This is only available to international organisations like the organs of UN or specialised agencies authorised to do so.

Jurisdiction in such cases is only advisory & hence, non-binding in nature.

India's Position:

India declared in 1974 the matters over which it accepts ICJ's jurisdiction. India does not accept it when:

- the dispute is with a party which is or has been a member of the Commonwealth of Nations
- dispute involves armed conflict, hostility, self-defence
- involves multilateral treaties like the NPT.

12. Even though the refugee crisis in Europe does not affect India directly, it presents an opportunity for India to showcase its commitment and capability to take greater responsibility in dealing with global issues. Comment in light of India's strengths, experience and international commitments regarding refugees.

यद्यपि, यूरोपीय शरणार्थी संकट का भारत पर कोई प्रत्यक्ष प्रभाव नहीं है, लेकिन यह भारत के लिए वैश्विक मुद्दों से निपटने हेतु अधिक बड़ी जिम्मेदारी ग्रहण करने संबंधी प्रतिबद्धता तथा क्षमता को प्रदर्शित करने का अवसर प्रदान करता है। शरणार्थी संबंधी भारत के सामर्थ्य, अनुभव तथा अंतर्राष्ट्रीय प्रतिबद्धताओं के आलोक में इस पर टिप्पणी कीजिए।

Rise of extremism, poverty, unemployment ~~has~~ in Middle-East and North Africa has led to people fleeing and taking refuge in the nearby Europe.

Even though India is not a direct party in the crisis, it is a remarkable opportunity for India for strengthening its moral credentials so it can play a major role in the multi-polar world of today. This will help in India's ambitions of securing a permanent seat in UNSC and other reforms it desires in the world order.

India is not a signatory of the 1951 UN Convention on Refugees or its 1967 protocol but it recognises the right to seek and enjoy

asylum being a signatory to Universal Declaration of Human Rights, 1948.

SC of India in NHRC v/s State of Arunachal Pradesh case declared that Chakmas had enjoyed Fundamental Rights under Article 21 of the Constitution.

India had close to 2 million refugees in 2011 according to the UNHCR. India drew an effective resettlement and rehabilitation plan for refugees and should share its experience with the world. It faced an influx of refugees during 1971 from Bangladesh and efficiently dealt with it.

Also, India is a multi-cultural and secular society. It can leverage such strengths to house a mix of refugees without affecting the internal situation.

Thus, India should use this opportunity to increase its role as a major player in the world order.

13. India is endowed with an amazing variety and wealth of soft power resources. Providing examples, illustrate the utilisation of soft power in diplomatic initiatives of the recent past. What are the limitations of the soft power approach in diplomacy in case of a developing country such as India?

भारत सॉफ्ट पावर (मृदु शक्ति) संसाधनों की आश्चर्यजनक विविधता एवं बहुलता से संपन्न है। उदाहरण प्रस्तुत करते हुए, हाल के कूटनीतिक पहलों में सॉफ्ट पावर के उपयोग का वर्णन कीजिए। भारत जैसे किसी विकसमशील देश के लिए कूटनीति में सॉफ्ट पावर एप्रोच (मृदु शक्ति उपागम) की क्या सीमाएं हैं?

Soft power refers to the ability to modify other states' preferences without force or coercion.

India's soft power includes films, yoga, ayurveda, diaspora, religious diversity, foreign aid and so on.

Soft power in diplomatic initiatives:

- Giving Yoga an international recognition by getting 21st June recognised as Yoga Day by UN.
- providing humanitarian & development assistance to African & Asian nations.
- Rebuilding Nalanda Buddhist University to develop ancient cultural ties with China, Japan, South Korea and Singapore.
- Look East, Act East, Look West policies to reinvigorate cultural ties.
- India has a huge diaspora present abroad.

Limitations of soft power:

- In soft power requires resources to be spent which developing countries like India find themselves short of.
- Soft power also requires hard power to have its real impact. India is still far behind countries like USA or China in that respect.
- India only recently recognised its soft power potential and started using it in diplomacy.

India has a huge soft power potential and it should utilise it fully.

14. Highlight the features of NAVIC and bring out its significance for India. How is it different from GAGAN? Examine whether NAVIC can be a replacement of GPS for India.

नाविक (NAVIC) की विशेषताओं पर प्रकाश डालिए तथा भारत के लिए इसके महत्व को उजागर कीजिए। यह गगन (GAGAN) से किस प्रकार भिन्न है? परीक्षण कीजिए कि क्या नाविक भारत के लिए जी.पी.एस. को प्रतिस्थापित कर सकता है।

NAVIC is the Indian counterpart of US' GPS, Russia's Glonass, EU's Galileo.

Features of NAVIC :

- It has a total of 9 satellites - 7 in space and 2 on ground as standby.
- It provides 2 kinds of services - Standard Positioning System for civilian use and Restricted Service for authorized use.
- It provides an accuracy of more than 10m in the Indian mainland and 20m in the Indian Ocean and areas extending till 1500km around India.

NAVIC is significant for India as it reduces its dependence on foreign systems like the GPS which will be not be available during hostile times.

GAGAN is a Satellite-Based Augmentation System developed jointly by AAI and ISRO to better regulate air traffic. It uses Indian satellites in space and on ground to increase the accuracy of GPS data unlike NAVIC which is a standalone Navigation system.

NAVIC can be a replacement of GPS for India but it might take some time to switch to it. Its use requires the development of receivers compatible with receiving signals from NAVIC and since most devices are GPS enabled, the switch might take time.

15. What are Carbon Nanotubes (CNTs) and how are they an improvement over carbon fibres? Highlight the various unique properties of CNTs which makes them suitable to the manufacturing industry.

कार्बन नैनोट्यूब (सी.एन.टी.) क्या होते हैं तथा वे किस प्रकार कार्बन फाइबर से श्रेष्ठ हैं। सी.एन.टी. के उन विशिष्ट गुणधर्मों पर प्रकाश डालिए जो इसे विनिर्माण उद्योग हेतु उपयुक्त बनाते हैं।

Carbon Nanotubes are hollow fibres made entirely of carbon with diameter in Nanometers.

Carbon Fibres are composed mostly of Carbon Atoms and have diameter in micrometers.

They have high stiffness, high tensile strength, low thermal expansion, high temp. tolerance, low weight which makes them very popular.

Carbon Nanotubes are an improvement over Carbon Fibres in all these respects.

Their applications include automobile industry, electronic packaging industry, aerospace, sports, batteries etc.

Properties that make them suitable for manufacturing industry:

- High thermal conductivity and low thermal expansion.

- Stiff and strong
- extremely low weight
- excellent electrical properties
- high corrosive resistance
- Economically viable

16. Explain the significance of gravitational waves recently detected by LIGO. What are the objectives of the recently envisaged LIGO-India project and what benefits will India accrue from it?

हाल ही में एल.आई.जी.ओ. (लिगो) द्वारा खोजे गए गुरुत्वीय तरंगों के महत्व की व्याख्या कीजिए। हाल ही में परिकल्पित एल.आई.जी.ओ.-इंडिया प्रोजेक्ट (लिगो-भारत परियोजना) के क्या उद्देश्य हैं, तथा भारत को इससे क्या लाभ होंगे?

Gravitational Waves are distortions (ripples) in the space-time continuum caused by some of the most violent and energetic process of the universe. They are generally so weak that it's very difficult to detect them.

Significance :

- It is the first discovery of gravitational waves.
- It is the first discovery of a binary system of Black Holes, as predicted by Einstein's theory.
- Gravitational waves carry "pure information" about the objects and events they get created from because unlike light waves, they do not get altered by interactions with matter as they travel through space.

LIGO-India project is a part of INDIGO (Indian Initiative for in Gravitational Waves Observation) and it aims to move an advanced detector from

Hanford, USA to India. At present, there are 3 LIGO detectors - 2 in Hanford, USA and one in Livingston, USA.

Benefits:

- It will make detection of Gravitational waves in the future more probable.
- encourage young scientists and students to join the field.
- boost industry - academic research partnerships since project needs capital & other high-end requirements.
- promote India as a science and technology advanced nation that takes research seriously.
- bring together scientists from various fields and countries.

17. What are the criteria employed for a pandemic to be declared a Public Health Emergency of International Concern (PHEIC) by the WHO? In the wake of recent Ebola and Zika virus outbreaks examine the efficacy of the prevalent architecture of global health governance. Also, assess India's preparedness in handling such global epidemics.

डब्ल्यू.एच.ओ. द्वारा किसी महामारी को पब्लिक हेल्थ इमरजेंसी ऑफ इंटरनेशनल कंसर्न (PHEIC) के रूप में घोषित करने के लिए क्या मानदंड अपनाए जाते हैं? हाल ही में इबोला तथा ज़ीका विषाणु के प्रसार के मन्दर्भ में वैश्विक स्वास्थ्य प्रबंधन की प्रभावोत्पादकता की जाँच कीजिए। ऐसी वैश्विक महामारियों से निपटने के लिए भारत की तैयारियों का मूल्यांकन कीजिए।

Criteria:

The pandemic should be a serious, unusual situation which involves

- A health risk to other others through its international spread.
- Requires potential response from the international community.

The recent Ebola and Zika virus outbreaks brought to fore many carcets in the prevalent architecture of Global Health governance.

- The requirement of a disease transcending national border to be declared a PHEIC leads to delays in declaration and response.
- Such declarations involve economic costs for the nations involved since most nations impose travel bans, border closures on affected countries as was seen during Ebola outbreak. Due to

this, countries have a disincentive in declaring a health emergency.

- Ebola outbreak showed the ~~to~~ lack of response capacity of International Health Regulations (IHR).

Hence, there is a need to redefine PHEIC and strengthen ~~int~~ the architecture of global health governance to ensure an active, effective and coordinated International response.

India took certain steps in the wake of the recent outbreaks :

- Increased surveillance and Rapid Response Team were activated.
- Risk communication, travel advisory, coordination with international agencies etc. were adopted.

However, India might not be as prepared for such global epidemics due to its ~~to~~ weak medical facilities, lack of trained healthcare professionals, dense population, poverty and lack of awareness among public.

18. Give a brief explanation of CRISPR - gene editing technology. Also discuss its significance in modern biology and agriculture.

जीन एडिटिंग प्रौद्योगिकी - सी.आर.आई.एस.पी.आर. (CRISPR) की संक्षिप्त व्याख्या प्रस्तुत कीजिए। आधुनिक जीव-विज्ञान तथा कृषि में इसके महत्व पर भी चर्चा कीजिए।

CRISPR - gene editing technology is a revolutionary technology due to its inexpensive and faster nature.

- It involves the use of Cas9 as "molecular scissors" which cut the DNA sequence.
- It allows for replacement / introduction of more than one gene at a time.
- It is not species-specific.
- It is highly accurate & flexible.

Significance:

Biology:

- ① New treatment methods can be developed.
- ② New methods for testing by creating transgenic animals like mice etc.
- ③ Introduction of disease resistance in species.
- ④ Create human organs.

Agriculture:

- ① Helps in developing species of crops, fruits etc. resistant to climate change.
- ② Pest resistance in insects and herbicide resistance in weeds can be reversed.
- ③ Development of transgenic animals with more yield. e.g. cattle.

19. Even though large infrastructure projects like High Speed Rail (HSR) facilitate greater technological development, they come with their own set of challenges. Examine in the context of proposed HSR projects in India. Suggest some measures on how HSR can truly be 'Made in India'.

यद्यपि हाई स्पीड रेल (एच.एस.आर.) जैसी बड़ी अवसंरचना परियोजनाएं व्यापक स्तर पर प्रौद्योगिकीय विकास में सहायता करती हैं, लेकिन उनकी भी अपनी चुनौतियां होती हैं। भारत में प्रस्तावित एच.एस.आर. परियोजनाओं के परिप्रेक्ष्य में परिक्षण कीजिए। कुछ उपाए बताइये कि कैसे सही मायने में एच.एस.आर. 'मेड इन इंडिया' हो सकता है।

Challenges:

- ① Lack of highly skilled manpower.
- ② Such projects are highly capital intensive.
- ③ Technology has to be transferred from abroad, which is not easy.
- ④ Land acquisition process involves delays and red tapism.
- ⑤ Construction in difficult terrain adds to the cost.
- ⑥ Such projects are mostly under PPP which is stuck in litigation.
- ⑦ Indian companies cannot contribute much since design & technology is provided by foreign companies.
- ⑧ Cost of construction is more than 10 times that of normal tracks.

Thus, there are huge costs and little benefits for the local industries.

Measures:

- Promote R+D through increased expenditure.
- Skill development at high levels through institute - industry link-ups.
- Technology transfer, not just investment should be promoted under FDI.
- Capital goods industry should be developed.

20. What do you understand by Big-data? Using SDGs as an example, discuss its role in effective implementation of public policy. Also mention challenges faced in using Big-Data and measures to overcome them.

बिग-डेटा से आप क्या समझते हैं? एस.डी.जी. को एक उदाहरण के रूप में प्रस्तुत करते हुए सार्वजनिक नीतियों के प्रभावी कार्यान्वयन में इसके महत्व पर चर्चा कीजिए। इसके अतिरिक्त, बिग-डेटा के प्रयोग में आने वाली चुनौतियों तथा उनके समाधान के उपायों पर भी चर्चा कीजिए।

Big-Data refers to data sets which are so large or complex that traditional data processing applications are inadequate. Big Data has huge volume, huge variety & variability.

However, it is what organizations do with data that matters. Big Data can be used for effective policy making.

Eg. Health Goals under SDGs.

- Data can be collated, analysed from various places like hospitals, doctors, etc.
- Observe trends of diseases.
- Observe treatments available and seek thereof
- Analyse the trends in access to healthcare, govt. schemes, patterns of expenditure.
- Analyse complaints received
- Sort out best domestic and international

practices.

Public policy implementation is a process involving implementation, monitoring, feedback, review & better implementation based on that. Big Data can help with this in a big way.

Challenges:

- It requires high level of technology.
- It requires highly skilled IT personnel.
- It is an expensive process.
- In India, digitisation of data is low & if available, not very authentic.
- Privacy concerns.

Measures to Overcome them:

- Digital India initiative can be used to spread digital literacy and increase digitisation.
- Skill development through industry-institute linkages.
- R&D to bring down the cost.
- Proper policies, legislations & institutions to ensure data privacy.

