

1. What are your views on the recent Government's order to expand the BSF's jurisdiction in border states from 15 km to 50 km inside Indian territory? Discuss.

Approach

Candidate needs to discuss or cover comprehensively all dimensions on the recent Government's order to expand the BSF's jurisdiction in border states from 15 km to 50 km inside Indian territory.

INTRODUCTION:

The Ministry of Home Affairs (MHA) has extended the jurisdiction of the Border Security Force (BSF) up to 50 km inside the international borders in Punjab, West Bengal and Assam. The BSF's powers — which include arrest, search and seizure — were limited to up to 15 km in these states. At the same time, the Ministry has reduced BSF's area of operation in Gujarat from 80 km from the border, to 50 km.

OBJECTIVE:

The Centre's decision to expand the operational jurisdiction of the Border Security Force (BSF) from 15 km to 50 km in Assam, Punjab and West Bengal, and reduce it from 80 km to 50 km in Gujarat is aimed at standardising the Central paramilitary's role in the States with International Borders (IB) as also to break the nexus of the local police with the smuggling syndicates patronised by the local politicians.

WHAT KIND OF POWERS CAN THE BSF EXERCISE IN THIS JURISDICTION?

- Its jurisdiction has been extended only in respect of the powers it enjoys under Criminal Procedure Code (CrPC), Passport (Entry into India) Act, 1920 and the Passport Act, 1967.
- BSF currently has powers to arrest and search under these laws. It also has powers to arrest, search and seize under the NDPS Act, Arms Act, Customs Act and certain other laws.
- Its jurisdiction under these laws has not been changed, meaning its powers under these will continue to be only up to 15 km inside the border in Punjab, Assam and West Bengal, and will remain as far as 80 km in Gujarat.

WHY HAS THE GOVERNMENT EXTENDED THE JURISDICTION?

- The objective is to bring in uniformity and also to increase operational efficiency. Earlier we had different jurisdictions in different states. This has been done to bring uniformity to jurisdiction.
- BSF often gets information relating to crime scenes that may be out of their jurisdiction.

- The move is also necessitated due to increasing instances of drones dropping weapons and drugs in Jammu and Kashmir and Punjab. However, the kind of drones spotted so far do not have a range beyond 20 km.

IMPACT OF THE EXTENDED JURISDICTION:

- Until now, state police and border forces have been working in tandem with minor, occasional differences. Now, with the issue taking political colour, implementation could be tricky if there are difficulties in coordination in future.
- This is not an attack on the federal structure. Rather this is going to complement the efforts of the local police. It is an enabling provision.
- It's not that the local police can't act within the jurisdiction of the BSF. It's just that sometimes we don't have enough time and so BSF has been empowered to act till a greater distance and in turn strengthen the hands of the state police.

CONCLUSION:

At a basic level, the states can argue that law and order is a state subject and enhancing BSF's jurisdiction infringes upon powers of the state government.

The move is also expected to lead to fair investigation in smuggling cases, including through drones which have been reported to be dropping arms and narcotics 30-35 km inside the areas from the international boundary. In addition to these, illegal immigration from the bordering countries and their nexus with the terror groups is also a major concern for the Centre.

2. Is there a need to regulate the e-commerce sector? What are the key provisions of the new e-commerce rules? Discuss.**Approach**

The candidate needs to give his views on the need for regulation of the e-commerce sector. Also, one needs to discuss the need and the key provisions of the new e-commerce rules.

Introduction

India's roaring digital economy, with half a billion users and growing, is witnessing pitched battles in everything from online retail and content streaming to messaging and digital payments. Global corporations lead in each of these segments, while local start-ups have sought help from a sympathetic government that recently banned dozens of apps backed by Chinese technology giants. Hence there is a need to regulate the e-commerce sector.

Need To Regulate the E-Commerce Sector

- The government needs to make rules to help local start-ups and that can impose government oversight on how companies handle data.
- There is a need to reduce the dominance of global tech giants and need to protect the interest of domestic players, who have to face tough competition from e-retailers having deep pockets from foreign investors.
- There is a need of regulation to ensure the industry is competitive with broad access to information resources.
- The e-commerce platforms are both players and regulators, as they provide the marketplace and also compete directly with other sellers using it. This creates a conflict of interest hence the need for regulation.

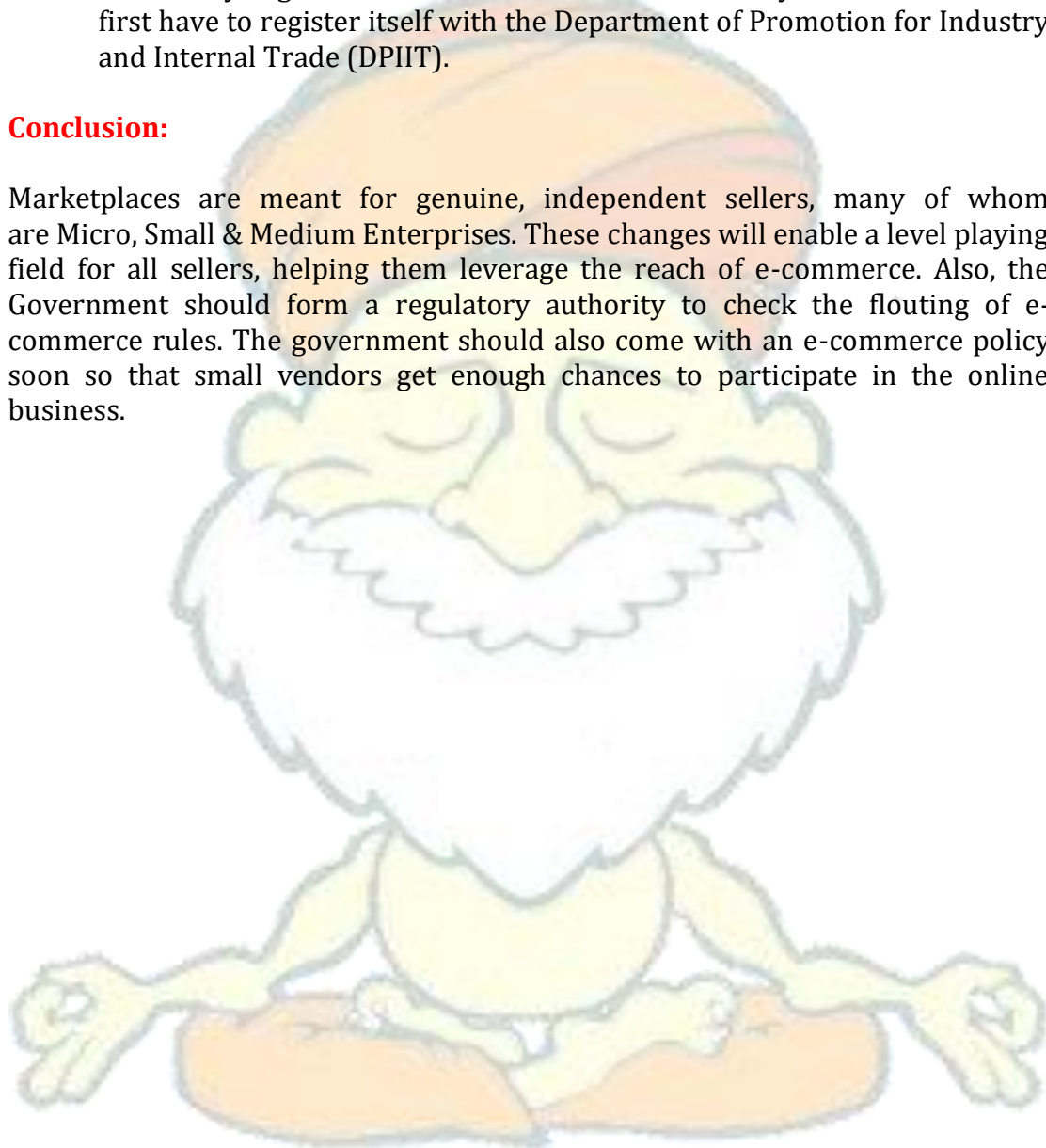
The Key Provisions of The New E-Commerce Rules:

- All e-commerce entities must provide information within 72 hours on any request made by an authorised government agency, probing any breach of the law including cybersecurity issues.
- Introduced the concept of "fall-back liability": The rules made the e-commerce firms liable in case a seller on their platform fails to deliver goods or services due to negligent conduct, which causes loss to the customer.
- E-tailers should not allow 'misleading' ads potentially on pricing, quality, guarantee.
- E-tailers have to ensure product listings have the details of country of origin
No e-commerce entity shall indulge in mis-selling of goods or services
Appointing a chief compliance officer and a nodal contact person for 24×7 coordination with law enforcement agencies,
- E-tailers shouldn't mislead users by manipulating search results

- E-tailers shouldn't permit usage of their name for brands—if such practices amount to unfair trade practice and impinges on the interests of consumers.
- E-tailers typically highlight certain products as non-returnable at pre-purchase stage and generally offer free exchange or refunds to consumers. Explicitly asking consumer consent can only strengthen the online shopping experience for consumers.
- Mandatory registration for e-commerce entities: Any online retailer will first have to register itself with the Department of Promotion for Industry and Internal Trade (DPIIT).

Conclusion:

Marketplaces are meant for genuine, independent sellers, many of whom are Micro, Small & Medium Enterprises. These changes will enable a level playing field for all sellers, helping them leverage the reach of e-commerce. Also, the Government should form a regulatory authority to check the flouting of e-commerce rules. The government should also come with an e-commerce policy soon so that small vendors get enough chances to participate in the online business.



3. How did the centre-state dynamics influence the mitigation strategies to fight COVID in India? Critically analyse.**Approach**

The candidate needs to throw light on the centre-state dynamics which influenced the mitigation strategies to fight COVID in India and as the directive is critically analyse, one must give both the positives as well as shortcomings of the issue at hand.

Introduction

The history of federal relationship between the states and the centre in India can be exemplified by the terms like cooperative federalism, bargaining federalism or quasi-federalism. Recently, the COVID-19 pandemic has revealed fissures in the idea of cooperative federalism and also highlighted the strains in centre-state dynamics.

Body

- From a federal perspective, the Seventh Schedule of the Constitution which distributes the powers between different constituent units (Union and the States) gives states precedence over the Centre on health.
- Entry 81 of the Union List grants the legislative power for “inter-state migration; inter-state quarantine” to the Centre; meanwhile, -Entries 1, 2 and 6 of the State List give power to the states.
- The Constitution further states under Article 73 and 162 that the executive power of the Union and states is “coextensive with the legislative power”.

Thus, from the constitutional scheme, the state governments are expected to play the primary role in the management of healthcare, as well as law and order, while the Centre is tasked to provide the overarching national leadership, facilitate coordination among key federating units, monitor, etc. In this context, the centre-state dynamics influence the mitigation strategies to fight COVID in the following manner:

- First Wave: Between Central Unilateralism and State Autonomy - the Centre’s blanket decisions and stringent measures regarding lockdowns and containment zoning impeded the states’ capacity to combat the spread of the virus.
- Beyond the political and administrative centralisation, India’s initial COVID-19 response was marked by fiscal centralisation. With the Centre enjoying monopolistic power over scarce financial resources, state governments in many instances were left at its mercy. Indeed, India’s federal design has a ‘central bias’ in terms of taxation powers and related jurisdictions.
- Both laws of Epidemic Disease act 1897 and National Disaster Management act of 2005 provides broad legal architecture to take a variety of emergency

measures to contain the pandemic. It allows both the central and state governments to regulate the spread of epidemic diseases.

- Second wave: Unilateral Decentralisation - The first wave of the pandemic was about unilateralism and overtly centralised response by the Union. The opposite has been the case during the second wave.
- The decentralisation logic became more visible in the case of the vaccination policy. As the country faced acute vaccine shortages, many state governments called for autonomy to procure vaccines from international markets. The Centre acceded, but the ensuing chaos led to further delays in national vaccination drive, leading to recentralisation of the process.
- Decentralisation by Default: The role of third-tier governments - Amidst the Centre-state tussles in managing the pandemic, the most neglected third-tier institutions have emerged as unsung heroes: the panchayats (rural bodies) and urban local bodies.
- While the Centre has frequently emphasised the involvement of these third-tier institutions, various states have delegated substantial powers and responsibilities to these bodies in managing the pandemic. For instance, the Odisha government delegated the sarpanch with the powers of a magistrate to control the movement of migrants and oversee physical-distancing norms.
- Another factor influencing the centre-state dynamics is siloed approach - Country's existing healthcare apparatus is highly regimented, with separate institutions in-charge of primary, secondary, and tertiary health care. Such a siloed approach is a serious impediment to the country's efforts at tackling any epidemic such as the current COVID-19.
- Information asymmetry: Despite the governmental assurances and policy declarations, the vulnerability of migrant workers is unlikely to be taken care of due to the ensuing lack of communication and absence of information sharing between the Centre and the migrants sending and receiving States.

However, for a large federal country of a mind-boggling diversity, India's ability to fight Covid-19 pandemic largely rests on how well it manages its Centre-state relation. When compared with other large federal countries such as the US, the country has done very well to minimize the frictions and provide a sense of direction to the states. In this regard, the existing institutional mechanisms like Inter-State Council which has remained largely moribund can be rejuvenated during this crisis.

Conclusion

The democratic capability of the Indian state will be tested with each new wave of the pandemic. A responsive and responsible government is fundamental to any success story of pandemic management. Collaborative federalism that chooses to ignore asymmetries will only strengthen democratic choices for better governance.

4. If there is a dispute between India and one of its neighbouring country over river water sharing, what would be the appropriate forum to settle that dispute? Examine. Can you mention more of such forums that address international disputes? Discuss.

Approach

The candidate needs to address the first part of the question by examining about the mechanism to settle the international river water disputes while in the second part, one can discuss about more such forums which address international disputes.

Introduction

Water is a vital resource and is an area of both contention and conflict. This is nowhere more destabilizing than in river basins that cross political boundaries, especially in Indian subcontinent where competition for water is becoming intense.

Body

- Resolution of some water disputes has been achieved by the parties themselves in some instances, and through third parties in others (Permanent Court of Arbitration, 2003).
- Settlement of international water disputes is no longer confined to the International Court of Justice (ICJ), The Permanent Court of Arbitration (PCA), and the International Centre for Settlement of Investment Disputes (ICSID), etc. Third parties and even regional and national courts are now playing an important role in dispute settlement.
- Legal agreements on water sharing have been negotiated and maintained even as conflicts have persisted over other issues.
- For example, Cambodia, Laos, Thailand and Vietnam, have been able to cooperate since 1957 within the framework of the Mekong River Commission, and they had technical exchanges throughout the Vietnam War.
- Further, the Indus River Commission survived many wars between India and Pakistan. The nine Niger River Basin countries have agreed on a framework for a similar partnership.
- In 1996, India and Bangladesh concluded a Treaty on Sharing of the Ganges Waters. The Treaty ended a bitter dispute that lasted for more than thirty years.

These cases reflect two important elements of international water resources cooperation: the need for an institution to effectively develop a process of engagement over time; and well-funded third-party support trusted by all factions.

- The more than 3,600 agreements and treaties signed are an achievement in themselves, but a closer look at them still reveals significant weaknesses.

- The 1997 United Nations Convention on Non-Navigational Uses of International Watercourses is one international instrument that specifically focuses on shared water resources.
- It established two key principles to guide the conduct of nations regarding shared watercourses: "equitable and reasonable use" and "the obligation not to cause significant harm" to neighbours.
- However, it is up to countries themselves to spell out precisely what these terms mean in their watersheds.
- Moreover, there are international watercourses where there are currently no agreements, or even attempts to address the existing or emerging disputes and build confidence and shared vision towards cooperation.
- Better cooperation also entails identifying clear yet flexible water allocations and water quality standards, taking into account hydrological events, changing basin dynamics and societal values.

Some of the forums addressing international disputes can be seen from the following points:

- Various multilateral treaties have been concluded that aim for the peaceful settlement of disputes. One of the most important ones is the Hague Convention, 1899 for the Peaceful Settlement of disputes.
- Article 2 para 3 of the UN Charter provides that all international disputes must be settled by the member by peaceful means while maintaining international peace, security, and ensuring justice is not endangered.
- Dispute Settlement Body - The General Council convenes as the Dispute Settlement Body (DSB) to deal with disputes between WTO members.
- International Centre for Settlement of Investment Disputes (ICSID) is the world's leading institution devoted to international investment dispute settlement.

Conclusion

With water becoming increasingly a scarce resource and with the steady growth in population, disputes will continue to erupt and the claims will get more complex and novel. Cooperation can, and indeed should, go beyond the classic approach of sharing the waters, or the river basins, to sharing the benefits derived from such waters.

5. What are the key ongoing issues with respect to judicial appointments in the Supreme Court? What are your views? Substantiate.

Approach

Candidate has to mention the key ongoing issues with respect to judicial appointments in the Supreme Court. The candidate then has to substantiate or provide evidence to support or prove the truth of his views.

Introduction

Recently the President of India notified the appointment of nine Supreme Court judges by accepting the recommendation of the Collegium. The history of the Supreme Court tells us about executive's displeasure, meddling with judicial elevations. While discharging the constitutional duty, the judges sometimes need to take hard decisions.

Body

The key ongoing issues with respect to judicial appointments in the Supreme Court: The appointment of Supreme Court judges in India has created quite a furore among the Indian executive and judiciary alike. It has been mired in controversies galore in the wake of the National Judicial Appointments Commission (NJAC) Act being struck down and declared unconstitutional by a five-judge Supreme Court bench headed by Justice J.S. Khehar, after a marathon hearing for 31 days on the issue of the validity of the 99th constitutional amendment and the NJAC Act.

'FLAWED' COLLEGIUM SYSTEM – THE 'CRUX' OF THE CRISIS

- In the Collegium system, the Chief Justice of India (CJI) and a panel comprising four senior-most judges of the Supreme Court recommend appointments and transfers of judges.
- The Central government criticised the Collegium system stating it has created an imperium in imperio, i.e., empire within an empire, within the Supreme Court.
- The Supreme Court Bar Association too blamed it for creating a "give-and-take" culture, causing a chasm between the haves and have-nots.
- The Collegium, since its constitution, never maintained a record of the minutes of its meetings of the five members and their deliberations.
- An absence of record implied that the Chief Justice of India (CJI) could present the Collegium's opinions to the government as unanimous decisions, thus suppressing any dissent within the body, until there was proof otherwise.
- The issue of 'lack of record' questions the Supreme Court's creation of the Collegium through its nine-judge bench's ruling in the Second Judges case in 1993.

- With the failure of the Collegium to keep a record of its proceedings, the government cannot know whether the original recommendation or a reiteration (when asked to reconsider) was a unanimous one, and it is compelled to rely on the CJI's word.
- But, if the CJI's word were to be contested by the other collegium members, then complying with CJI's word would create some issues to the government.
- Judicial appointment is too serious a matter that it cannot be left to the judges or their collegium alone. Therefore, a national debate on such appointment cannot be dismissed.
- Though seniority is not the sole criteria, it remains one among the relevant considerations.
- According to the law laid down by the top court, to choose a junior over a senior, the former should have "outstanding merit".
- It is an Indian tragedy that one of the most pivotal process in the democracy — selection of judges to the constitutional courts — is done by a body called Collegium which lacks democratic or constitutional legitimacy.
- The judgments of the top court on appointments, however, repeatedly endorsed the unelected body of Collegium which does not have a representative or participative character, in the democratic sense

Conclusion

The nation's aspiration for an independent Commission for judicial appointment is practically discarded by the executive and the judiciary. It is a challenge which the legal fraternity needs to take up, despite the egregious inertness of our political leaders in addressing this issue. A good way to end the executive-judiciary impasse would be to make public any future correspondence on the Memorandum of Procedure (MoP), which will act as a catalyst in infusing transparency in judicial appointments. MoP for collegium appointments, as suggested by the government, aims at having an institutional and transparent process of judicial appointments, wherein more people, instead of a closed group, are involved in the appointment of judges.

6. What are the key objectives of India's current Foreign Trade Policy (FTP)? What Are the areas of concern that the next trade policy should focus on? Why? Discuss.

Approach-

In this question candidates need to explain what are key objectives of India's current foreign trade policy .What are areas of concern that in next trade policy India should focus on. Discuss in detail.

Introduction-

India is known as one of the most important and emerging player in the global economy. Its foreign trade policies and government reforms have made it a significant destination for foreign investments around the world. Also, technological and infrastructural developments being carried out all over the country enable efficient trade and economic practices. For the successful economic development of a country, a vigorous foreign trade policy is of great importance.

Body-

Trade enables economic growth and national development. The main aim is not the mere earning of foreign exchange, but encouraging greater economic activity. The foreign trade policy of India is based on the following major objectives as follows:

Objectives of the Foreign Trade Policy in India

- To enable substantial growth in exports from India and import to India to boost the economy.
- To at least double the percentage share of global merchandise trade conducted within the next five years.
- To improve the balance of payment and trade.
- To act as an effective instrument of economic growth by creating employment opportunities for the citizens; the larger the expansion of trade activities, the more the workforce required.
- To provide for sustainable growth by giving access to essential raw materials for production and other components, consumables, and capital goods required for increasing production and providing efficient services.
- To raise the technological capacity for production and cost-effectiveness of industry and services, thereby improving their competitive strength in comparison to other countries, and to encourage the accomplishment of internationally accepted standards of quality.
- To provide buyers or clients with high-quality goods and services at globally competitive rates and quality. 'Canalization' - an important feature of Foreign Trade Policy under which specific class of goods can be imported only by designated agencies.

- Creation of opportunities by engaging in good and ethical practices.
- Accelerating the economy from low-level economic activities to high-level economic activities by making it a globally oriented and vibrant economy
- To derive maximum benefits from expanding the global market and seizing the best opportunities available.

India's Apprehensions in New Trade Regime

- India's lost opportunities: India lost out to China mainly due to absence of reforms and missing out on the manufacturing stage, hopping directly to the service sector for its growth and employment.
- This (over) reliance of India on service sector proved costly as it impacted its capacity building in manufacturing and absorbed only the skilled and educated labour, leaving behind a vast population.
- This also impacted India's prowess in global exports and trade, especially in perspective of 'America First' policy and protectionism of the US.
- RCEP anxiety: In the run-up to the RCEP negotiations, India hardly saw any benefits from joining the RCEP.
- The experience of India's FTAs with Asian countries has shown that the Indian industry has not experienced the anticipated gains as it did not undertake the reforms needed to improve competitiveness.
- By that implication, joining the RCEP would pose a problem. But it would then compel India to undertake requisite reforms and become competitive.
- Losing to China: The real loss in this period, however, has been through the growing trade with China.
- All that is imported was being made and can be made in India.
- Impact of Free Trade: Globally, there is stagnant demand in the West, excess, competitive manufacturing capacity in China and huge growing demand in India.

Way Forward

- India needs to take a hard look at its choices. Creating global competitiveness and doing all that it takes to do so, including abandoning conventional ways of thinking, cannot be delayed.
- Smarter, creative policies for developing and nurturing the nation's industrial and technological capacities need to be crafted.

Conclusion-

Foreign trade policy enables a nation to import certain products at the time of a natural calamity and therefore manage scarcity when demand is high by providing better quality and quantity of goods. It also assists in raising the standard of living and making commodities available at a lower cost. Therefore, the Foreign Trade Policy in India is a complete policy to enhance the position of India in the international market and create benefits for all.

7. What is the Omicron variant of COVID-19? How is it different from the other strains? Discuss.**Approach**

A simple straightforward question where candidate need to write about newly detected omicron virus in South Africa. Write down the difference between omicron and other strains of virus.

Introduction

WHO on 26 November designated the variant B.1.1.529 a variant of concern, named Omicron, on the advice of WHO's Technical Advisory Group on Virus Evolution (TAG-VE). This decision was based on the evidence presented to the TAG-VE that Omicron has several mutations that may have an impact on how it behaves, for example, on how easily it spreads or the severity of illness it causes.

Body

Researchers in South Africa and around the world are conducting studies to better understand many aspects of Omicron and will continue to share the findings of these studies as they become available

- Transmissibility: It is not yet clear whether Omicron is more transmissible (e.g., more easily spread from person to person) compared to other variants, including Delta.
- The number of people testing positive has risen in areas of South Africa affected by this variant, but epidemiologic studies are underway to understand if it is because of Omicron or other factors.
- Severity of disease: It is not yet clear whether infection with Omicron causes more severe disease compared to infections with other variants, including Delta.
- Preliminary data suggests that there are increasing rates of hospitalization in South Africa, but this may be due to increasing overall numbers of people becoming infected, rather than a result of specific infection with Omicron.
- There is currently no information to suggest that symptoms associated with Omicron are different from those from other variants. Initial reported infections were among university student's younger individuals who tend to have more mild disease but understanding the level of severity of the Omicron variant will take days to several weeks.
- All variants of COVID-19, including the Delta variant that is dominant worldwide, can cause severe disease or death, in particular for the most vulnerable people, and thus prevention is always key.
- Effectiveness of prior SARS-CoV-2 infection-Preliminary evidence suggests there may be an increased risk of reinfection with Omicron (ie, people who

have previously had COVID-19 could become reinfected more easily with Omicron), as compared to other variants of concern, but information is limited. More information on this will become available in the coming days and weeks.

- Effectiveness of vaccines: WHO is working with technical partners to understand the potential impact of this variant on our existing countermeasures, including vaccines. Vaccines remain critical to reducing severe disease and death, including against the dominant circulating variant, Delta. Current vaccines remain effective against severe disease and death.
- Effectiveness of current tests: The widely used PCR tests continue to detect infection, including infection with Omicron, as we have seen with other variants as well. Studies are ongoing to determine whether there is any impact on other types of tests, including rapid antigen detection tests.
- Effectiveness of current treatments: Corticosteroids and IL6 Receptor Blockers will still be effective for managing patients with severe COVID-19. Other treatments will be assessed to see if they are still as effective given the changes to parts of the virus in the Omicron variant.

How Omicron compares with other variants.

- The WHO has said the global risk of the Omicron variant is “very high”
- Currently, the Delta variant, first documented in India in October 2020, is the most dominant strain, accounting for more than 99 percent of global sequenced cases.
- Preliminary evidence suggests there may be an “increased risk of reinfection with Omicron as compared with other variants of concern, but information is limited”, it said.
- South African epidemiologist Salim Abdool Karim said on Monday that not enough data had been collected to determine the clinical implications of Omicron compared with previous variants, and that reinfections were likely but that vaccinated people had less probability of developing serious symptoms.
- Experts say that more information will be available in the coming days and weeks as the virus spreads more widely and researchers study how Omicron’s mutations work together.

Conclusion-

With the Omicron variant now detected in several regions of the world, putting in place travel bans that target Africa attacks global solidarity. COVID-19 constantly exploits our divisions. We will only get the better of the virus if we work together for solutions.

8. What is Paxlovid? How does it function? Explain.**Approach -**

A simple straightforward question where candidates need to define what is Paxlovid. and also explain how does it function.

Introduction-

Pfizer Inc has announced that it is seeking Emergency Use Authorization (EUA) of its investigational oral antiviral tablet PAXLOVID which will be able to treat Covid-19 in the early stages of the deadly virus. It will be used for mild to moderate treatment of patients suffering from Corona virus and will help decrease the risk of hospitalization or death.

Body

- Pfizer Inc. said its Covid-19 pill reduced hospitalizations and deaths in high-risk patients by 89%, a result that has the potential to upend how the disease caused by the coronavirus is treated and alter the course of the pandemic.
- The drugmaker said in a statement on Friday that it was no longer taking new patients in a clinical trial of the treatment “due to the overwhelming efficacy”
- The results mean there are now two promising candidates for treating Covid-19 patients early in the course of the disease. Last month, Merck & Co. and partner Ridgeback Biotherapeutics LP submitted their experimental pill to regulators after a study showed it slashed the risk of getting seriously ill or dying by half in patients with mild-to-moderate Covid-19.
- The results mean there are now two promising candidates for treating Covid-19 patients early in the course of the disease. Last month, Merck & Co. and partner Ridgeback Biotherapeutics LP submitted their experimental pill to regulators after a study showed it slashed the risk of getting seriously ill or dying by half in patients with mild-to-moderate Covid-19.
- A pill that could be taken at home at the first sign of symptoms is a crucial tool for taming the Covid-19 crisis globally, so long as it's widely available.
- Current treatment options for Covid aren't ideal. Monoclonal antibodies from companies like Regeneron Pharmaceuticals Inc. and Eli Lilly & Co. reduce hospitalizations, but the infusions are hard to manufacture and must be given in a medical office, adding to the strain on health systems.
- Other medications like Gilead Sciences Inc.'s remdesivir are used to treat much sicker people who are already in the hospital. Low-cost steroid dexamethasone, while very effective, is usually only given to gravely ill patients.

- Pfizer is exploring if the drug could be used as a prophylactic medicine for people who live with someone who has come down with Covid-19, meaning a person would take the drug to avoid contracting the virus.

How does it function-

- By inhibiting the main protease, PF-07321332 prevents the virus from cleaving long protein chains into the parts it needs to reproduce itself. Thus, PF-07321332 is the first orally administered coronavirus-specific investigational protease inhibitor to be evaluated in phase 3 clinical studies.
- Protease inhibitors bind to a viral enzyme (protease), preventing the virus from replicating in the cell. Protease inhibitors have effectively treated other viral pathogens such as HIV and hepatitis C virus alone and other antivirals.
- There is no orally administered therapy currently approved for the post-exposure or pre-emptive treatment of COVID-19, says Pfizer. Therefore, Pfizer is also investigating an intravenously administered investigational protease inhibitor, PF-07304814, which is currently in Phase 1b multi-dose trial in hospitalized clinical trial participants with COVID-19.
- Co-administration with a low dose of ritonavir helps slow the metabolism, or breakdown of (PF-07321332), to remain active in the body for more extended periods at higher concentrations to help combat the virus.
- PAXLOVID (PF-07321332) inhibits viral replication at a stage known as proteolysis, which occurs before viral RNA replication. It is an analog of GC373, where the aldehyde covalent cysteine acceptor replaced a nitrile. In this combination, ritonavir serves to slow down the metabolism of PF-07321332 by cytochrome enzymes to maintain higher circulating concentrations of the primary drug. In preclinical studies, PF-07321332 did not demonstrate evidence of mutagenic DNA interactions.
- The pill was internally developed by Pfizer researchers in the U.S. and U.K. During the early pandemic shutdowns, the scientists agreed to come back to their labs in an urgent effort to develop anti-Covid pills.
- The Pfizer drug works to block a crucial enzyme that the Covid-19 virus needs to replicate. It is taken twice a day for five days and used in combination with a second medicine called ritonavir that helps the Pfizer compound stay in the bloodstream longer.

Conclusion-

A new drug being developed by Pfizer offers the possibility of nearly putting an end to deaths from COVID-19. When given within five days of the onset of symptoms, the antiviral therapy, called Paxlovid, prevented almost 90% of deaths from COVID-19 compared with a placebo, a Pfizer study found.

9. How does facial recognition work? What are its potential applications in governance? Discuss.**Approach**

Candidates are expected to write about facial recognition technology and how it works. Then simply write its potential application in governance.

Introduction:

Facial recognition is a biometric technology that uses distinctive features on the face to identify and distinguish an individual. From the first cameras that could recognise faces in the mid-1960s up to now, facial recognition has evolved in many ways from looking at 3D contours of a face to recognising skin patterns. With machine learning, the technology has become capable of sorting out types of faces.

Body

Potential applications:

- Automated facial recognition system being implemented by the National Crime Records Bureau (NCRB), is a component of Crime and Criminal Tracking Network and Systems (CCTNS). It is a way of recognising a human face through technology. AFRS works by maintaining a large database with photos and videos of peoples' faces.
- In the Automated Facial Recognition System (AFRS), the large database (containing photos and videos of peoples' faces) is used to match and identify the person. Image of an unidentified person, taken from CCTV footage, is compared to the existing database using Artificial Intelligence technology, for pattern-finding and matching.
- For instance, the NCRB's Crime and Criminal Tracking Network & Systems (CCTNS) managing crime data for police, uses automated facial recognition to identify criminals, missing people, and unidentified dead bodies, as well as for "crime prevention".
- The project is aimed at being compatible with other biometrics such as iris and fingerprints. The integration of fingerprint database, face recognition software and iris scans will massively boost the police department's crime investigation capabilities.
- Force Multiplier: In India, where there are just 144 constables per 1 lakh citizens, this can act as a force multiplier. It neither requires too much manpower nor regular upgradation. Hence, this technology coupled with the present manpower in place can act as a game-changer.
- Recently, the Ministry of Civil Aviation's "DigiYatra" has started facial recognition for airport entry on trial basis in the Hyderabad airport. DigiYatra intends to offer air passengers a "seamless, hassle-free and paperless journey experience."

- Telangana's election commission piloted a facial recognition app in its civic elections on January 22, and claimed that it could address the issue of voter impersonation.
- It is increasingly being used for everything from unlocking of mobile phones to validating the identity, from auto-tagging of digital photos to finding missing persons, and from targeted advertising to law enforcement.

Concerns:

- Government although plans to address the question of privacy through the legal framework like data privacy regime, but keeping in mind the objectives it aims to achieve with the use of such technology, it comes into conflict with one another.
- As the data collected may be used in the court of law during the course of a criminal trial, the reliability and the admissibility of the data along with standards and procedure followed would be taken into consideration. Hence, the authenticity of the data is crucial.
- Facial recognition software is based on pre-trained models. Therefore, if certain types of faces (such as female, children, ethnic minorities) are under-represented in training datasets, then this bias will negatively impact its performance. With the element of error and bias, facial recognition can result in profiling of some overrepresented groups (such as Dalits and minorities) in the criminal justice system.
- Further, as anonymity is key to functioning of a liberal democracy, unregulated use of facial recognition technology will dis-incentivize independent journalism or the right to assemble peaceably without arms, or any other form of civic society activism.

Conclusion

There is a need to subject all government surveillance and government use of private surveillance technologies to the rule of law. Parliament should also make a "data protection" statute that regulates the sale and transfer in commerce of behavioural information about individuals that does not meet technical standards of safety and appropriateness of acquisition. It is only then that a democracy can safely begin to adopt technologies that, unregulated as they presently are, can corrode and destroy the very fabric of human freedom.

10. What are the potential applications of drones for welfare purposes? Discuss. What are the concerns related to the possible misuse of the drone technology? Examine.

Approach

A simple straightforward question where candidates need to write about what is drone technology and what are its applications. In second part write about what are concerns related to the possible misuse of drone technology

Introduction

Drones are the unmanned Aerial vehicle comes in variety of shape and size. It offers low-cost, safe and quick aerial surveys for data collection. This is useful for industries such as power, mining, oil and gas exploration, railways and highways, agriculture. It increases work efficiency and productivity, decreases workload and production costs, improving accuracy, refining service and customer relations,

Body

With exciting and wide range of applications drones are likely to have following advantages:

- Drones offer low-cost, safe and quick aerial surveys for data collection. This is useful for industries such as power, mining, realty, oil and gas exploration, railways and highways.
- Benefit E-commerce companies in delivery of products.
- Agriculture: Drones capable of better survey and mapping can be employed in fields, precision farming- like application of fertilizers.
- Security and monitoring: Drones could complement or replace static security cameras. Security drones might also replace or supplement foot and vehicle patrols at large commercial facilities like factories, office parks, and power plants.
- Film and photography – from recording documentary footage to capturing aerial views of breaking news stories, they're being used much more frequently by businesses and the media now.
- Can play role in urban issues like reducing traffic, air pollution.
- River Dam Monitoring, to check storage capacity, and water level
- To know flood Situation and weather conditions
- Storm tracking and forecasting hurricanes, cyclones.
- Drug and child Trafficking in Border area,
- Gathering information or supplying essentials for disaster management
- Improve Safety in military
- Express shipping and delivery
- Geographic mapping of inaccessible terrain and locations

- Drones Require Less Effort : catching videos , & pics

Concerns regarding misuse of drone technology-

Though there lots of usefulness also some sort of problems are coming from developed countries, those who are already using Drone.

- Increased Risk of Armed Attacks: Operation of drones without any adequate legal backing can pose several security threats.
- Incidents of arms being dropped by drones are also there such as the recent Jammu drone attacks.
- They can be put to destructive use, to slam into critical targets, destroy infrastructure and so on.
- Large-scale use of drones could give rise to concerns relating to privacy and security that policymakers may need to address.
- Vulnerable to Wild Animal Attacks.
- Security & Hacking Problem.
- Paramilitary Not Exempted from the Rules: As per the new draft, the rules and regulations are not applicable to the army, navy or the Airforce.
- However, it still includes paramilitary forces. BSF is suffering a lot of issues due to the drones coming across the lines.
- Cheaper Cost Enables a Larger Population to Procure Drones: Drones are relatively cheaper in comparison to conventional weapons and yet can achieve far more destructive results which is the primary reason for increased number of drone attacks.
- Delivery of Mass Destruction Weapons: What makes combat drones most dangerous is the threat of them being used to deliver weapons of mass destruction
- Procurement of combat drones by non-state actors poses serious threats.

Way forward:

- Strict Drone policy Implementation so that no one should get harm from that regulates private individual drone companies.
- Fix penalties for wild fires and privacy violations.
- Restrictions for certain areas for private Drones

Conclusion-

The drone technology in India has immense significance and potential. The security concerns should be dealt with judiciously and not just be allowed to restrict us from adopting the technology. However, security concerns must not be compromised.

In years to come, drone technology is expected to be the most cost effective choice and the most utilised system in the civilian as well as militarian domain.

11. What are biofilms ? What are its potential applications? Discuss.**Approach**

A simple straightforward question where candidates first need to explain what are biofilms . And in second part discuss what are the potential applications of biofilms .

Introduction

Biofilms are a collective of one or more types of microorganisms that can grow on many different surfaces. Microorganisms that form biofilms include bacteria, fungi and protists. Biofilms, however, also offer beneficial roles in a variety of fields including applications in plant protection, bioremediation, wastewater treatment, and corrosion inhibition amongst others.

Body

- A biofilm comprises any syntrophic consortium of microorganisms in which cells stick to each other and often also to a surface. These adherent cells become embedded within a slimy extracellular matrix that is composed of extracellular polymeric substances (EPSs).
- The cells within the biofilm produce the EPS components, which are typically a polymeric conglomeration of extracellular polysaccharides, proteins, lipids and DNA. Because they have three-dimensional structure and represent a community lifestyle for microorganisms, they have been metaphorically described as "cities for microbes".
- Biofilms may form on living or non-living surfaces and can be prevalent in natural, industrial, and hospital settings.
- The microbial cells growing in a biofilm are physiologically distinct from planktonic cells of the same organism, which, by contrast, are single cells that may float or swim in a liquid medium.
- Biofilms can form on the teeth of most animals as dental plaque, where they may cause tooth decay and gum disease.
- Microbes form a biofilm in response to a number of different factors, which may include cellular recognition of specific or non-specific attachment sites on a surface, nutritional cues, or in some cases, by exposure of planktonic cells to sub-inhibitory concentrations of antibiotics. A cell that switches to the biofilm mode of growth undergoes a phenotypic shift in behavior in which large suites of genes are differentially regulated.
- A biofilm may also be considered a hydrogel, which is a complex polymer that contains many times its dry weight in water. Biofilms are not just bacterial slime layers but biological systems; the bacteria organize themselves into a coordinated functional community.
- Biofilms can attach to a surface such as a tooth or rock, and may include a single species or a diverse group of microorganisms. Subpopulations of cells within the biofilm differentiate to perform various activities for motility,

matrix production, and sporulation, supporting the overall success of the biofilm.

- The biofilm bacteria can share nutrients and are sheltered from harmful factors in the environment, such as desiccation, antibiotics, and a host body's immune system. A biofilm usually begins to form when a free-swimming bacterium attaches to a surface.

Potential applications of biofilm-

In medicine-

- It is suggested that around two-thirds of bacterial infections in humans involve biofilms. Infections associated with the biofilm growth usually are challenging to eradicate. This is mostly due to the fact that mature biofilms display antimicrobial tolerance, and immune response evasions.
- Biofilms often form on the inert surfaces of implanted devices such as catheters, prosthetic cardiac valves and intrauterine devices. Some of the most difficult infections to treat are those associated with the use of medical devices.

For constructive purposes-

- Biofilms can also be harnessed for constructive purposes. For example, many sewage treatment plants include a secondary treatment stage in which waste water passes over biofilms grown on filters, which extract and digest organic compounds. In such biofilms, bacteria are mainly responsible for removal of organic matter (BOD), while protozoa and rotifers are mainly responsible for removal of suspended solids (SS), including pathogens and other microorganisms.
- Slow sand filters rely on biofilm development in the same way to filter surface water from lake, spring or river sources for drinking purposes. What we regard as clean water is effectively a waste material to these microcellular organisms. Biofilms can help eliminate petroleum oil from contaminated oceans or marine systems.

In food industry-

- Biofilms have become problematic in several food industries due to the ability to form on plants and during industrial processes.

In aquaculture-

- In shellfish and algal aquaculture, biofouling microbial species tend to block nets and cages and ultimately outcompete the farmed species for space and food.[124] Bacterial biofilms start the colonization process by creating microenvironments that are more favorable for biofouling species.

Biofilm cultivation devices -

- There is a wide variety of biofilm cultivation devices to mimic natural or industrial environments. Although it is important to consider that the particular experimental platform for biofilm research determines what kind of biofilm is cultivated and the data that can be extracted.

Conclusion-

The characteristic of biofilm formation is that microorganisms within biofilms are often much tougher and more resistant to environmental stress compared to

individual microorganisms. This phenomenon of enhanced resistance can be beneficial in industrial chemical production where microorganisms within biofilms may tolerate higher chemical concentration and act as robust biorefineries for various products. These microbes have also been used in bioremediation to remove contaminants from freshwater and wastewater. More novel uses of biofilms include generating electricity using microbial fuel cells.



12. What are the current ongoing efforts to ensure the indigenisation of technologies? Discuss.**Approach**

Candidates should discuss in detail the current ongoing efforts to ensure the indigenisation of technologies and providing examples in support of his discussion.

Introduction

Indigenization is the action or process of bringing something under the control, dominance or influence of the people native to an area. This basically means substitution of an imported product with the one manufactured within the country. In today's world where there is a cut-throat competition between countries with respect to economy, military and infrastructure, technology place an important factor in improving the rate of growth. But what is even more vital is that the men behind the machines can comprehend the technology. Therefore, indigenization of technology and shifting to new technology are one of the foremost priorities of the leaders across the globe, who want to see their nation prosper.

The extent of indigenization and development of new technology in India can be measured using six keystone sectors-

- Agriculture; as it has a major share in India's GDP.
- Automobile; since it is a vital part of connectivity and networking.
- Information and Communication Technology; fastest growing sector in India.
- Healthcare and biotechnology; emerging field of science and technology.
- Space; symbolic significance in field of science and technology.
- Defence; crucial for maintaining security of the state.

Several steps have been taken in the last 20 years, but the outcome of these efforts remains a matter of debate as the available data on indigenisation is confusing.

For example: while the Indian industry has done reasonably well in manufacturing foreign-origin equipment with the help of technology transfer from the foreign Original Equipment Manufacturers and in indigenising components, it still lacks the capability to indigenously design and develop major platforms, with a few exceptions like the Light Combat Aircraft Tejas, which is what indigenisation should be all about.

The Current Ongoing Efforts to Ensure the Indigenisation of Technologies

- India is number three in the world in the number of scientific publications, PhDs produced and start-ups. Its innovation index has made a rapid climb to the top 50. However, quality, relevance and absorption of R&D needs strengthening.

- It is now widely recognised that scientific advances and innovation are not only promoters of economic growth, but also crucial instruments for socially and environmentally sustainable development.
- The Science, Technology and Innovation Policy 2020 aims to provide relevant directives to the Indian STI ecosystem in order to realise the aspirations of technological self-reliance and place India among the top three scientific superpowers in the coming decade.
- Since STI is an important enabler of economic growth, social welfare and better livelihood for the citizens, a robust STI ecosystem will be of immense benefit.
- Moreover, a strong emphasis on science communication and citizen science in the STI policy is a timely step to improve participation of citizens in science.
- Several compelling lessons have been incorporated in the new STI policy. Some noteworthy ones are dissolving the boundaries among private, public, national laboratories, academic institutions to build strong collaboration for problem solving; more risk taking “profound” research than “incremental” research to achieve multi-fold jump in R&D; promoting time-bound projects to address focused challenges.
- Aligning R&D with national priorities to solve problems with a focus on “quality” and “relevance” is important.
- An enabling structure for ambitious missions is to create network of institutions (R&D labs, universities, IITs, industry, startups) in models such as a tertiary web of Hubs, Spokes and Spikes (individual projects that assemble to the big picture) and others.

Conclusion:

The STIP 2020 is India’s fifth policy on science, technology and innovation in around 73 years after independence. None of the previous four policies were made amidst a raging pandemic and economic distress. The present pandemic as well as persistent sustainability challenges demand a considerable departure of the new policy from the previous ones in terms of policy process and outcomes. Instead of catching up with others perceived to be ahead in the league, India’s path to a sustainable and equitable future could be marked by its own innovativeness, collective (albeit contradictory) imaginaries and support for experimentation towards sustainability.

13. What are India's concerns with respect to the global trade negotiations related to intellectual property rights? Is India's stand justified? Critically examine.

Approach -

In this question candidates need to write about India's concerns regarding global trade negotiations related to intellectual property rights. In second part of question write about is India's stand justified .Examine it critically.

Introduction-

Modern world's economic order which runs on capitalistic line has power to commodify almost anything. Clean air has been commodified by Kyoto protocol. Water is chargeable at most locations. One can also get Himalayan glacial water by paying much more, thanks to IPR regime. India is a member of the World Trade Organisation and committed to the Agreement on Trade Related Aspects of Intellectual Property (TRIPS Agreement). India is also a member of the following important WIPO-administered International Treaties and Conventions relating to IPRs.

Body-

Achievements under new IPR policy-

- Improvement in GII Ranking: India's rank in the Global Innovation Index (GII) issued by WIPO has improved from 81st in 2015 to 46nd place in 2021.
- Strengthening of institutional mechanism regarding IP protection and promotion.
- Increase in Patent and trademark Filings: Patent filings have increased by nearly 7% in the first 8 months of 2018-19 vis-à-vis the corresponding period of 2017-18. Trademark filings have increased by nearly 28% in this duration.
- IP Process Re-engineering Patent Rules, 2003 have been amended to streamline processes and make them more user friendly. Revamped Trade Marks Rules have been notified in 2017.
- Creating IPR Awareness: IPR Awareness programs have been conducted in academic institutions, including rural schools through satellite communication, and for industry, police, customs and judiciary.

Issues in India's IPR regime-

- Section 3(d) of the Indian Patent Act 1970 (as amended in 2005) does not allow patent to be granted to inventions involving new forms of a known substance unless it differs significantly in properties with regard to efficacy. This means that the Indian Patent Act does not allow ever greening of patents. This has been a cause of concern to the pharma companies.
- Section 3(d) was instrumental in the Indian Patent Office (IPO) rejecting the patent for Novartis' drug Glivec (imatinibmesylate).
- Issue of Compulsory licencing (CL): CL is problematic for foreign investors who bring technology as they are concerned about the misuse of CL to replicate their products. It has been impacting India-EU FTA negotiations.

- CL is the grant of permission by the government to entities to use, manufacture, import or sell a patented invention without the patent-owner's consent. Patents Act in India deals with CL.
- CL is permitted under the WTO's TRIPS (IPR) Agreement provided conditions such as 'national emergencies, other circumstances of extreme urgency and anti-competitive practices' are fulfilled.
- India continues to remain on the United States Trade Representative's (USTR's) 'Priority Watch List' for alleged violations of intellectual property rights (IPR).
- In its latest Special 301 report released by the United States Trade Representative (USTR), the US termed India as "one of the world's most challenging major economies" with respect to protection and enforcement of IP.
- Data Exclusivity: Foreign investors and MNCs allege that Indian law does not protect against unfair commercial use of test data or other data submitted to the government during the application for market approval of pharmaceutical or agro-chemical products. For this they demand a Data Exclusivity law.
- Enforcement of the Copyright act is weak, and piracy of copyrighted materials is widespread.
- The protection of Intellectual Property Rights (IPR) is important for the economy and for its further growth in areas such as research, innovation and employment. Effective IPR enforcement is also essential to health and safety. For these reasons, IP rights are worth protecting, both domestically and internationally.

What steps India should take –

- Promoting an environment of innovations in schools. The academic curricula need to be rebooted.
- A proper resolution mechanism for resolving IPR related issues is needed.
- India will be unable to take full advantage of the transformative benefits of a strong IP system unless and until it addresses gaps in its IP laws and regulations.
- Success of India's flagship programmes - Make in India and Start up India - depends on the boost of innovation ecosystem with better IPR safeguarding.
- More awareness is needed about the creation, protection and enforcement of IPRs to encourage the Indian industry not only to innovate but also to protect and enforce their innovations.

Conclusion-

Government's effort to strengthen National IPR policy, IP appellate tribunal, e-governance and commitment to abide by the TRIPS agreement of WTO in letter and spirit will help in improving perception of India globally. An efficient and equitable intellectual property system can help all countries to realize intellectual property's potential as a catalyst for economic development and social & cultural well-being.

14. What is nanorobotics? What are its key applications? Discuss.**Approach**

A simple straightforward question where candidates need to explain first what is nanorobotics. And discuss its key applications.

Introduction

Nanorobotics is an emerging technology field creating machines or robots whose components are at or near the scale of a nanometer (10⁻⁹ meters). More specifically, nanorobotics refers to the nanotechnology engineering discipline of designing and building nanorobots, with devices ranging in size from 0.1 to 10 micrometres and constructed of nanoscale or molecular components. The terms nanobot, nanoid, nanite, nanomachine, or nanomite have also been used to describe such devices currently under research and development.

Body

- They're tiny machines that work on the nanoscale, being up to 100,000 times smaller than the width of a human hair. These machines, otherwise known as nanorobotics, are set to augment the human race in unforeseen ways.
- However, this microscopic technology has remained in the prototype phase for the past two decades, failing to truly live up to its promise, and lagging due to difficult manufacturing processes, a lack of standardization, and scant reviews of the available literature.
- Nanorobotics describes the technology of producing machines or robots at the nanoscale. 'Nanobot' is an informal term to refer to engineered nano machines. Though currently hypothetical, nanorobots will advance many fields through the manipulation of nano-sized objects.

Applications of nanorobotics -

Nanorobotics in Gene Therapy-

- Nanorobots are also applicable in treating genetic diseases, by relating the molecular structures of DNA and proteins in the cell. The modifications and irregularities in the DNA and protein sequences are then corrected.
- Nanodentistry is one of the topmost applications as nanorobots help in different processes involved in dentistry. These nanorobots are helpful in desensitizing tooth, oral anesthesia, straightening of irregular set of teeth and improvement of the teeth durability, major tooth repairs and improvement of the appearance of teeth, etc.

Nanorobotic Applications in the Field of Hematology-

- Current research is developing nanorobotic applications for the field of hematology. This ranges from developing artificial methods of transporting oxygen in the body after major trauma to forming improved clotting capabilities in the event of a dangerous hemorrhage.

- Respirocytes are hypothetical nanobots engineered to function as artificial red blood cells. In emergencies where a patient stops breathing and blood circulation ceases, respirocytes could be injected into the blood stream to transport respiratory gases until the patient is stabilize

Nanorobotics Applications for Cancer Detection and Therapy-

- As cancer survival rates improve with early detection, nanorobots designed with enhanced detection abilities will be able to increase the speed of a cancer diagnosis and therefore enhance the prognosis of the disease.
- Nanobots with embedded chemical sensors can be designed to detect tumor cells in the body. Proposed designs currently include the employment of integrated communication technology, where two-way signaling is produced. This means that nanobots will respond to acoustic signals and receive programming instructions via external sound waves along with transmitting data they have accumulated.
- Nanorobots with chemical sensors can also be utilized for therapy. Through specific programming to detect different levels of cancer biomarkers such as e-cadherins and beta-catenin, therapy can be provided in both primary and metastatic phases of cancer.
- Nanobots have the advantage of producing targeted treatment. Current cancer treatments have severe side effects caused by the destruction of healthy cells. Targeted treatment can be formed by designing nanorobots with chemotactic sensors on their surface which correspond to specific antigens on the cancer cells.

Nanorobotics Applications for Biohazard Defense-

- Nanorobots will also have useful applications for biohazard defense, including improving the response to epidemic disease. Nanobots with protein based biosensors will be able to transmit real-time information in areas where public infrastructure is limited and laboratory analysis is unavailable.
- This is particularly applicable for biomedical monitoring of areas devastated by epidemic disease as well as in remote or war torn countries during humanitarian missions.
- Reliable applications for nanorobotics in medicine include early diagnosis and targeted drug delivery for cancer, arteriosclerosis, tissue engineering, dental surgery, pharmacokinetics monitoring of drug delivery, cellular assistance in inflammatory responses, ophthalmology, and many others.

Conclusion-

Nanotechnology is going to revolutionize the world. Nanorobotics describes the technology of producing machines or robots at the nanoscale. 'Nanobot' is an informal term to refer to engineered nano machines. Though currently hypothetical, nanorobots will advance many fields through the manipulation of nano-sized objects.

15. What are India's economic and strategic interests in Central Asia? Examine. Discuss the initiatives taken by India to increase outreach in this region.

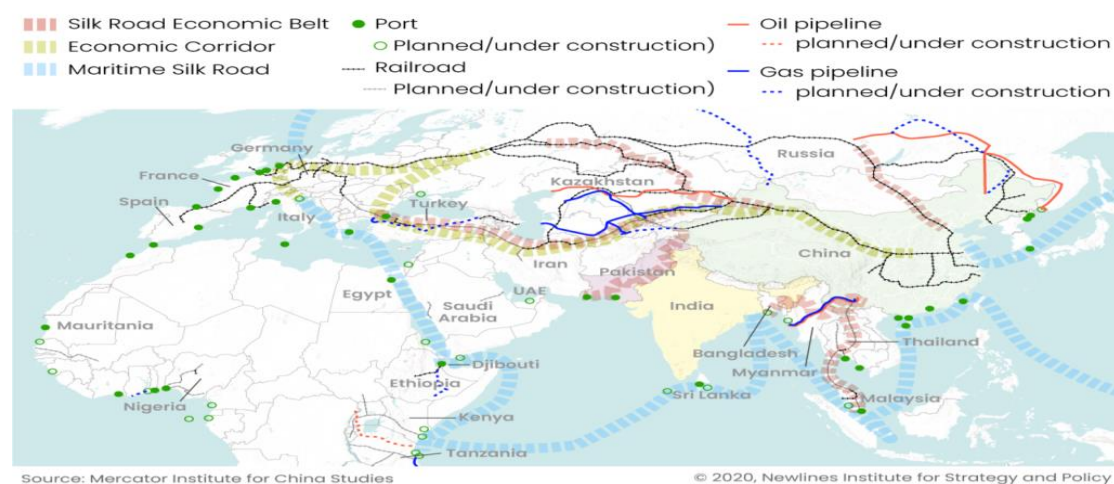
Approach

The candidate has to examine by going deep into India's economic and strategic interests in Central Asia. Also discuss the initiatives taken by India to increase outreach in this region.

Introduction:

India's key objectives in the central Asia region were articulated in India's 2012 "Connect Central Asia" policy document, but in recent years Indian efforts to engage in the region have taken on a greater urgency as China's economic influence in the region has grown.

South Asia and China's Belt and Road Initiative



India's economic and strategic interests in central Asia

Among India's key economic and strategic interests are the following:

- India's key long-term strategic interests in Central Asia include accessing energy resources, expanding India's economic influence, and deepening its regional integration.
- India seeks access to Central Asia's supplies of uranium, natural gas, oil, and coal as part of its national energy security strategy
- India seeks to become a regional economic power in Central Asia, limit Pakistan's influence, and compete more effectively with China's influence in the region.
- In Kazakhstan, India's major strategic interest is to access its uranium deposits for supporting India's national nuclear energy security strategy.

- Uzbekistan, which is the seventh-largest exporter of uranium in the world, is also strategically significant for India's nuclear power industry, and the two countries signed a long-term supply.
- Turkmenistan, which holds the world's fourth-largest reserves of natural gas, is primarily of significance to India because of the long-planned Turkmenistan-Afghanistan-Pakistan-India natural gas pipeline, which could ultimately provide energy-dependent India with up to 33 billion cubic meters of gas per year.
- Kyrgyzstan has had minimal economic relations with India, but there are signs that this could change as India has interests in its gold, coal, uranium, antimony, and other metal deposits, and in developing its hydroelectric capacity for exporting electricity to India.
- Tajikistan has a small economy that has been of little economic interest to India, but its geographic location in the center of Central Asia is of significant strategic interest to India.

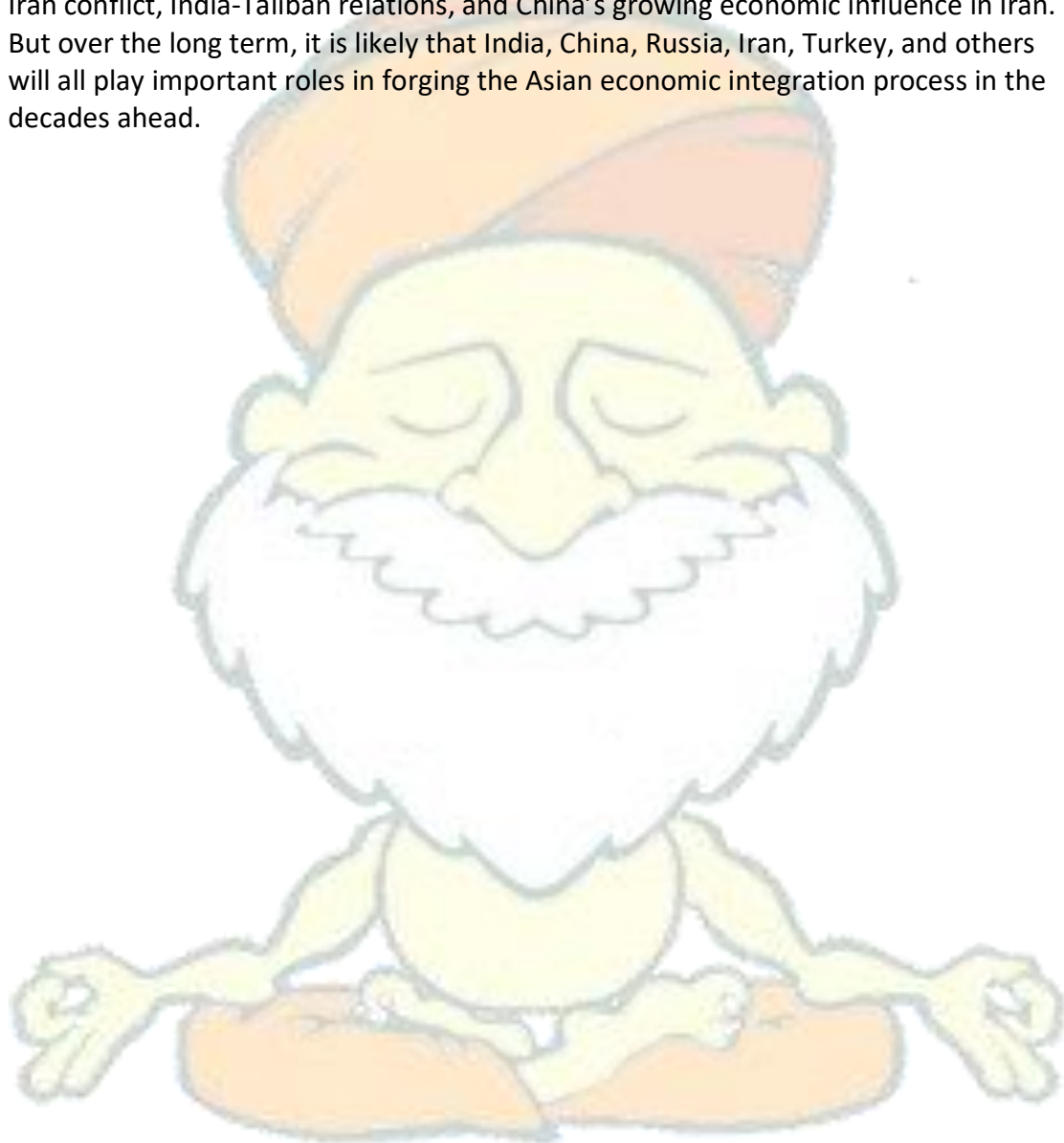
The initiatives taken by India to increase outreach in this region

- The focal point of Indian-Iranian economic relations has undergone a fundamental shift in recent years, from being primarily about Indian oil imports to being about how Iran can serve as an entry point to facilitate India's economic integration with Central Asia and beyond.
- India has been engaged with Iran and a host of regional partners in recent years to develop two major north-south infrastructure corridors designed to expand Indian trade and investment in Afghanistan, Central Asia, Russia, and Europe.
- While China's east-west BRI has received a great deal of attention, India has been working with Iran and Russia to establish the International North-South Transport Corridor (INSTC) – a 7,200-kilometer, multi-modal route that brings Indian goods across the Arabian Sea to the southern Iranian port of Bandar Abbas, where it moves northward by road and rail through Iran and Azerbaijan to Russia and Europe.
- Today, Indian goods are shipped across the Arabian Sea to the southern Iranian ports of Bandar Abbas and Chabahar, and from there northward by road and rail through Afghanistan, and into the Central Asian republics, Russia, Turkey and Europe.
- India is working with Iran and Afghanistan to develop the southern Iranian port of Chabahar on the Arabian Sea and transport goods shipped from India northward through Iran to Afghanistan and Central Asia via the Chabahar-Zahedan-Mashhad railway.
- The Ashgabat Agreement is another international multi-modal transport corridor being developed to facilitate trade and investment between Central Asian and Persian Gulf countries, which India joined in 2018.
- Additionally, India and the five Central Asian nations are exploring the establishment of "air corridors" similar to what India established in 2018 with Afghanistan, which would provide special clearing and customs facilities to

expedite regular cargo flights to facilitate trade. India has invested in all of these initiatives to facilitate its long-term economic integration into Central Asia and beyond.

Conclusion:

In the short term, India's strategic initiatives in Iran and Central Asia will be challenged by the need to navigate through complicating factors such as the U.S.-Iran conflict, India-Taliban relations, and China's growing economic influence in Iran. But over the long term, it is likely that India, China, Russia, Iran, Turkey, and others will all play important roles in forging the Asian economic integration process in the decades ahead.



16. Trade ties must be the central plank for India's relations with the EU. Do you agree? Substantiate your views.

Approach

The candidate has to give his views if the trade ties must be the central plank for India's relations with the EU. The candidate needs to substantiate his views by giving evidence or proof in form of examples, etc to support his views.

Introduction:

India's partnership with the European Union (EU) has come a long way since the signing of the strategic partnership in 2004 that led both partners to intensify and deepen their cooperation through summits, dialogues and high-level working groups. Their economic relation has emerged to be a cornerstone of their partnership and has evolved from that of development aid to development partnership.

Trade ties must be the central plank for India's relations with the EU

- USA and China are the leading trading partner of India by the year 2021 which is following by Gulf & Asian countries along with European Union.
- Despite a robust start in the 2000s, the India-EU partnership lost much of its momentum over the next decade.
- While India's bilateral relations with EU member states — like Germany, France and the United Kingdom (UK) — developed substantially, it did not lead to the expected intensification of ties with the grouping.
- India and EU's pre-occupation with their neighbourhoods contributed to the relations taking a backseat.
- This was further affected by the lack of progress in the FTA and the 2012 arrest of Italian marines, which not only affected ties between Italy and India but also led to increased tensions with the EU.
- During this period, the EU largely turned its attention to China as a key partner and larger market in Asia.
- The need for investment protection has been illustrated by the devastating impact of the COVID-19 on European countries and its subsequent disruption of supply chains and manufacturing, which potentially endangers Indian investments in Europe and vice versa.
- The EU can make use of India's ICT and manufacturing potential to enhance capacities for sourcing components and supporting technological development.
- India and the EU have emerged as important stakeholders in the multilateral global system. Economic cooperation between the two sides has been grown despite the stalled FTA negotiations.

- Although India and the EU have not been able to tap into each other's strengths, there is tremendous opportunity to overcome long-standing differences in trade relations.
- Given India's growing regional and international relevance, it is crucial for the EU to renew its focus on developing the economic, political and defence partnership.
- Digital trade can be facilitated by adjusting the existing bilateral trade policy.
- The lockdown consequences like the decline in production and exports and temporary suspension of projects have a direct impact on several partnerships.
- India and the EU can build strong domestic technological bases via talent exchanges, providing work permits for students and professionals, reciprocal market access for business, joint initiatives for research and innovation.

Conclusion:

Intensified dialogue and deliberations, a realignment of trade policies and emerging prospects of collaboration in the post-pandemic world provide India and the EU an opportunity to transform their economic ties into a robust strategic partnership.



17. Describe India's major strategic challenge in dealing with small neighbours like Nepal, Bhutan and Myanmar.**Approach-**

A simple straightforward question where candidates need to explain what are key strategic challenges faced by India while dealing with small neighbours like Nepal, Bhutan, and Myanmar.

Introduction-

India has a very large and complex border covering around 15106.7km, which it shares with Bangladesh, China, Pakistan, Nepal, Myanmar, Bhutan as well as small portion with Afghanistan. Porous nature of border with Nepal Bhutan provides safe route to human traffickers, illegal arms dealers, drug smugglers which creates major security challenges to India .

Body-**India Nepal Border**

- India and Nepal have shared an open border since 1950. The conception of such a border can be found in the Treaty of Peace and Friendship that the two countries signed that year.
- Open border has been a great facilitator of strong and unique bilateral relations. At the same time, it has given rise to many irritants and problems that raise serious concerns.
- Allegations of excesses such as intimidation, and forcible grabbing of land by either side along the disputed border also surface from time to time. All terrorist organizations, be it from Punjab, Kashmir, northeast or those of Maoists have fully exploited open borders with Nepal.
- It has been reported that many terrorists have sneaked into India through the porous and poorly guarded Indo-Nepal border. Apart from insurgents and terrorists, many hard-core criminals pursued by Indian and Nepalese security forces escape across the open border.
- These anti-national elements indulge in illegal activities, such as smuggling of essential items and fake Indian currency, gun-running, and drugs and human trafficking.
- The problem is further aggravated by intelligence inputs that Pakistani Inter-Services Intelligence (ISI) has been using Nepalese territory to carry out anti-India activities since the 1990s.

India Bhutan Border-

- Like with Nepal, India's boundary with Bhutan is also an open boundary. The border was peaceful till Indian insurgent groups established camps in the southern districts of Bhutan.

- This problem has been effectively dealt with during the Bhutanese government's 'Operation All Clear', which saw the destruction and uprooting of all insurgent camps in Bhutanese territory.

India Myanmar Boundary-

- The location of the Indo-Myanmar boundary throws up many challenges for the effective management of the boundary. Though the boundary is properly demarcated, there are a few pockets that are disputed.
- The rugged terrain makes movement and the overall development of the area difficult. The internal dynamics of the region in terms of the clan loyalties of the tribal people, inter-tribal clashes, insurgency, and transborder ethnic ties also adversely affect the security of the border areas.
- India has been concerned over some militant groups like the United National Liberation Front (UNLF) and National Democratic Front of Bodoland (NDFB) from the North-East region taking shelter in Myanmar.
- Myanmar handed over 22 cadres of Indian insurgent groups in May 2020. The maintenance of security and stability in their border areas and mutual commitment not to allow their respective territories to be used for activities inimical to each other were re-stressed is the challenge for Indian foreign policy.

To control Chinese factor:

- The last thing Delhi policymakers would want is a failed Myanmar state at India's doorstep and a weakened Myanmar falling into the clutches of China as a satellite state, thereby being pressured to do Beijing's bidding in regional affairs.
- Without colliding head-on with China, Delhi scours for ways to outsmart Beijing so that the balance of power in mainland Southeast Asia is tilted in favour of India.
- India's long-term strategic goal is to create a Special Economic Zone surrounding the Sittwe port, and in so doing, cement India's footprint in Rakhine and boost its presence in the Bay of Bengal.
- The Sittwe port is meant to be India's answer to the Chinese-fronted Kyaukpyu port, which is intended to cement China's geostrategic footprint in Rakhine.

Conclusion –

Main threat to the Himalayan region in contemporary times is posed by India–China hostility and the Doklam incident very nearly escalated into a war, Bhutan's careful diplomatic navigation of the standoff was a crucial contribution to averting it, thereby illustrating that Coordination among neighbouring countries is vital and would also strengthen the measures taken for security and border management.

18. What are the implications of the ongoing US-China trade war for India? Explain.**Approach-**

In this question write about what is nature of US –China trade war and what will be the implications of this ongoing trade war on India.

Introduction-

A trade war is defined as an economic war between two or more countries when they try to impose extreme foreign policies so as to protect or gain more control over their own economy. Their profound motive is to reduce competition of commerce by blocking inward trade towards the home country. China and the United States have been engaged in a trade war through increasing tariffs and other measures since 2018.

Body-

The trade war between the US and China, the world's two biggest giants, slows down the world economies at a larger scale. This trade war will help India to tap the international market very easily. India could increase its trade particularly on which the US has imposed heavy tariffs on Chinese goods and services.

US – China trade war and India's economic interests

Positive impact

- Several economists have indicated the possibility of India benefiting through increasing exports to the US and a shift of foreign direct investment (FDI) to India.
- India is among a handful of countries that stand to benefit from the trade tensions between the world's top two economies, the UN has said in a report.
- India can strengthen its trade relationships with both superpowers.
- As the US is being protectionist and unilateral, China and India would have to incline towards a multilateral world. China could cultivate a relationship with India as a substitute. It could also open up its markets for Indian goods and services – so could the US.
- There has been a rise in the export of goods to both countries. Export to the US grew by 9.46% to \$52.4 billion. As many as 203 Indian goods are likely to displace Chinese exports to the US, like rubber, carpets, graphite electrodes, etc.
- Favourable goods that can replace the Chinese goods in the US are sacks, bags, polymers, printed circuits, automobile lighting equipment, Christmas-lighting sets, etc.
- Diversion in investment flows is an opportunity that India could benefit from, as manufacturers seek alternative origination destinations.

Negative impact-

- There could be a short-term impact on the stock markets.
- In a report earlier this year, the IMF noted that the US-China trade tension was one factor that contributed to a “significantly weakened global expansion” late last year, as it cut its global growth forecast for 2019.
- India’s shipments track the global trade closely. Regressing past data suggests that for every one percentage point increase in global exports, India’s shipments tend to rise by half that much and vice versa.

India is not equipped enough to address the emerging challenges-

- India has been relatively immune to the collateral damage inflicted on other countries from Australia to Japan, South Korea and Singapore by the sparring between China and the US for geopolitical influence.
- But that apparent good fortune owes little to diplomatic skill and even less to any economic clout. Instead, it reflects India’s lack of global competitiveness, its slowing domestic economy, and its high cost of money and the paucity of risk capital.
- Exports to the US from some other Asian economies, notably Vietnam and Cambodia, have picked up much more.
- Out of 56 companies that relocated their production out of China between April 2018 and August 2019, only three went to India.
- Make in India scheme, designed to encourage manufacturing — is not very effective because of infrastructure bottlenecks.
- India need to further liberalise trade, spend more on infrastructure construction, reform land and labour laws and offer tax breaks for foreign investors. Legal reforms, liberalisation and favourable taxes are necessary for economies to reach their full potential.

Conclusion-

Indian policy of adoption of non-alignment in the Cold War era helps India to save itself from the counter effects of the trade war compared to other economies. It maintains economic and diplomatic relationships with countries from either side. Although, if the trade war stretches for a considerable time it would help Indian economy to make strides. Yet, India should not officially push forward any such policy that intends to take advantage of the crisis. We should stick to our fundamental foreign policy of non-alignment and wait and watch without getting involved in the core trade war.

19. What role do you envisage for India in a war torn Afghanistan? Should India keep distance? Discuss.

Approach

The candidates has to introduce with the recent Afghanistan crisis and then highlight the role of India in war torn Afghanistan. Discuss whether India should keep distance from afghan situation.

Introduction:

India and Afghanistan have had a strong relationship based on historical and cultural links. The relationship was not limited to the governments and had its foundations in the historical contacts and exchanges between the people. But the recent events of Taliban take over of Afghanistan after withdrawal of Western forces have put India-Afghanistan relationships at the crossroads. In this context it becomes imperative to evaluate what are the points of convergence and divergence between both nations in current context.

Body

Indian role in Afghanistan:

Developmental Projects

- The massive reconstruction plans for the country to offer a lot of opportunities for Indian companies.
- Three major projects: the Afghan Parliament, the Zaranj-Delaram Highway, and the Afghanistan-India Friendship Dam (Salma Dam), along with India's assistance of more than \$3 billion in projects, hundreds of small development projects (of schools, hospitals and water projects) have cemented India's position in Afghanistan.

Economic and Strategic

- Afghanistan is a gateway to the oil and mineral-rich Central Asian republics.
- Afghanistan's main advantage is its geography, as anyone who is in power in Afghanistan controls the land routes connecting India with Central Asia (via Afghanistan).
- Major Indian exports to Afghanistan are man-made filaments, apparels and clothing accessories, Pharma products, cereals, dairy and poultry products. Afghan exports to India primarily comprise of dry and fresh fruits. This will remain a link between both the nations as the new Afghanistan government would want to diversify its financial resources.

Security Point of view

- India has been the victim of state-sponsored terrorism emanating from Pakistan supported terrorist group operating in the region (e.g. Haqqani network).
- Thus, India has two priorities in Afghanistan to prevent Pakistan from setting up a friendly government in Afghanistan, and to avoid the return of jihadi groups, like al Qaeda, which could strike in India.

India must be proactive in dealing with afghan crisis rather distancing itself:

- India should take the diplomatic route to press for its inclusion in “6+2+1” dialogue, to claim its legitimate role in the Afghan peace process.
- India should leverage the United Nations’s call for a pause in conflicts during the Covid-19 pandemic to restart dialogue with Pakistan, which in turn is necessary for lasting peace in Afghanistan.
- For India, given its abiding interest in Afghanistan’s success and traditional warmth for its people, making that leap should be a bit easier. Thus, India can consider the appointment of a special envoy and start Track II diplomacy with the Taliban.
- India should pursue the issue of peace in Afghanistan through Shanghai Cooperation Organisation where the neighbouring countries of Afghanistan such as China, Pakistan, Russia and India are members.
- India has invested heavily in Afghanistan both in material and moral support over the years. The current government may do away with all these linkages which might hurt India both economically and strategically.
- Afghanistan is the hotbed of drug trafficking as it is the largest producer. The inability to curb the movement of opium can become a point of friction between both the nations.
- The huge population of Hindus and Sikhs in Afghanistan and the atrocities and forceful conversions has to be dealt by New Delhi.
- The current situation of Covid-19 can be an opportunity to converge for both nations to help Afghanistan in essential medicines and vaccines.
- The peaceful Afghanistan can be beneficial for Indian trade and which in return will prosper and stabilise the Afghan country from the current war-torn scenario and fear on the street.

Conclusion

The situation in Afghanistan has evolved very rapidly. Therefore the most prudent step for India will be to align with the opinion of the world and also start a diplomatic dialogue with Taliban to secure its strategic and economic assets and leverage historical relationships with the people of Afghanistan. A peaceful Afghanistan is very essential for India from both security and strategic point of

view. Therefore India should wait and take appropriate steps to through Security council and direct diplomacy to reduce future frictions between both nations.



20. How do immigration policies in the developed countries affect India's interests?**Explain.****Approach**

The candidate has to explain how the immigration policies in the developed countries affect India's interests.

Introduction:

India has been a major source of human resource for many countries of the world for long. Substantial migration of people from the Indian subcontinent, which started in the 1830s and led thousands of Indians to colonial destinations, still continues. However, the later migrants differ markedly, particularly from the earlier migrants of the 19th century, in terms of various socio-economic attributes, intentions to migrate, and the diversity in destinations as well.

Some immigration policies of developed countries

- European Union immigration policies include divergent national approaches to accepting Asylum Seekers, using EU budgets to support refugee integration, strengthening external borders, collaborating with third countries to cut off transit routes, tying Foreign Assistance to stemming migration, etc.
- U.S. has also made some changes in its Immigration policy. Last year the US administration extended the 60-day ban on immigration and non-immigrant worker visas till the end of 2020. Popular work visas including the much-coveted H-1B and H-2B, and certain categories of H-4, J, and L visas would also remain suspended until December 31.
- Also in 2019, USA, under the new administration, had changed its immigration policy under its protectionist measures by calling for an America First approach in its economic services.
- Italy has called for detention and deportation of migrants, who it blames for the instability and threats in the country.

How the immigration policies in the developed countries are affecting India's interests

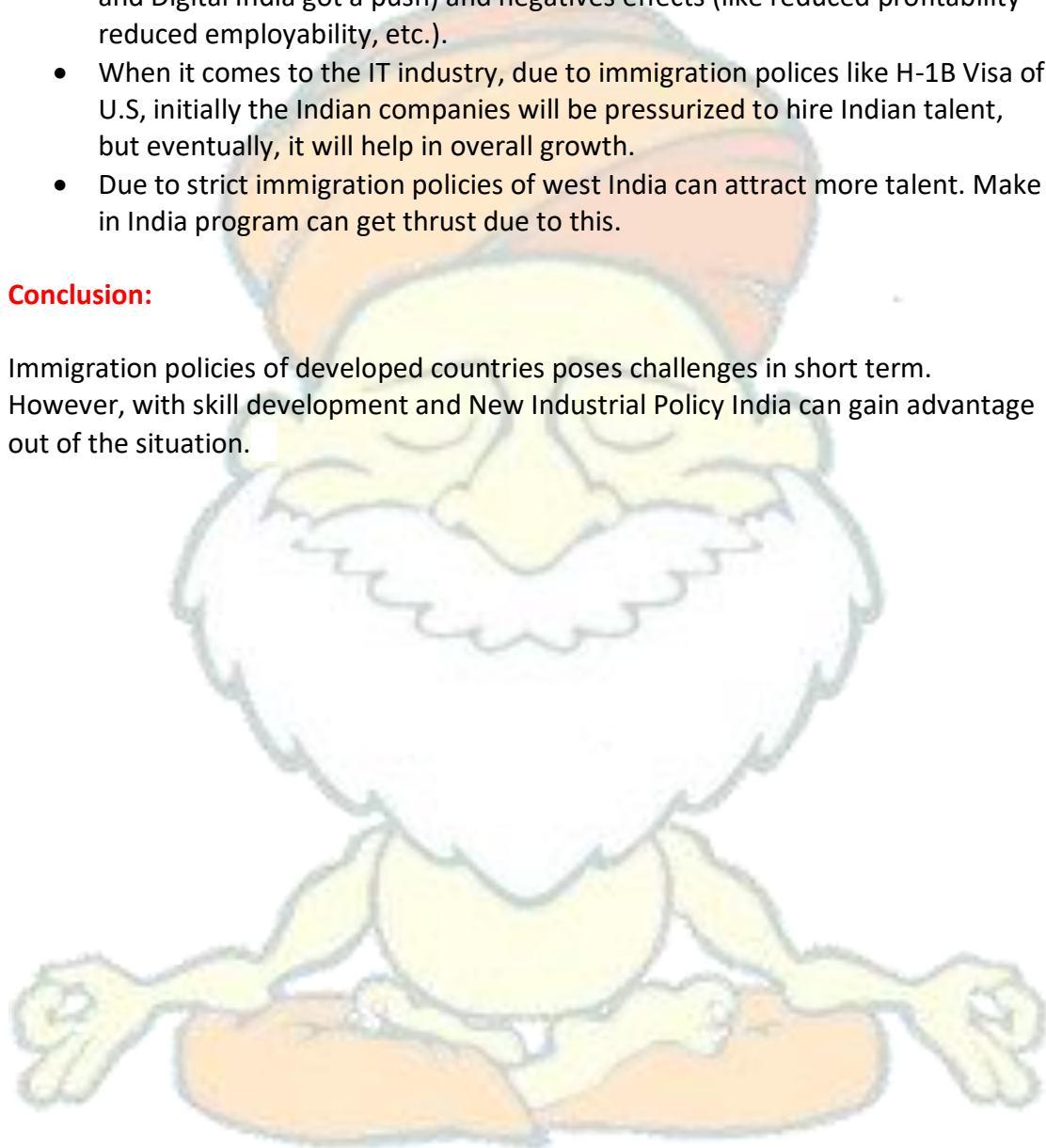
- The USA 60-day ban on immigration (2020) came at a crucial inflexion point for the Indian economy when restrictions on the movement of people and goods slowly were lifted after India passes its peak viral case numbers creating a knock-on effect from IT to other sectors.
- Increased labour mobility has led to an upsurge in the magnitude of money transfers across international borders as migrant workers send a large proportion of their earnings home to help families left behind. In case of

India, Remittances hit adversely. Ex: Kerala remittance was nearly 40% of their GDP in 2011-2014 but after that there was sharp decline in remittances.

- Recent merit-based immigration system of US — one that admits people who are skilled — has been welcomed by Indian professionals.
- It will increase unemployment as people who are not getting jobs overseas need jobs in India.
- After the 2019 America First approach, India had both positive (like Skill India and Digital India got a push) and negative effects (like reduced profitability, reduced employability, etc.).
- When it comes to the IT industry, due to immigration policies like H-1B Visa of U.S, initially the Indian companies will be pressurized to hire Indian talent, but eventually, it will help in overall growth.
- Due to strict immigration policies of west India can attract more talent. Make in India program can get thrust due to this.

Conclusion:

Immigration policies of developed countries pose challenges in short term. However, with skill development and New Industrial Policy India can gain advantage out of the situation.



21. Examine the significance of India's diaspora as a soft power.**Approach**

The candidate has to examine or dig deep into the significance of India's diaspora as a soft power.

Introduction:

Soft power can be defined as "the ability of a country to persuade others to do what it wants without force or coercion". In other words, soft power is a power of appeal and attraction, which has the ability to shape the preferences of others. The concept of soft power like any other power is very vital in the international relations or politics also.

The significance of India's diaspora as a soft power

- India's Diaspora policy has evolved over time from disengagement to active engagement and it's considered as a soft power in the foreign policy strategy which germinates from India's moral and political philosophy shaped by Indian thinkers like Tagore, Gandhi and Nehru. It is also considered as a catalyst for economic development in India and host countries.
- The basis of India's soft power is its culture, secularism, spiritualism, music, dance, Bollywood, Yoga, Ayurveda, a tradition of good learning and most importantly the "Indian Diaspora (ID)".
- The vibrant Indian diaspora is yet another significant source of our soft power. The over 17.5 million strong diasporas (as per *Global Migration report 2020*) has led to the universalization of Indian culture.
- The Indian Diaspora is beneficial for the soft power of India as they have the power of attractive ideas through their position of wealth and education.
- One more reason for their being beneficial is that they are mostly skilled migrants and their level of education as well as income is very high.
- The Indian Diaspora is not only a source of India's soft power but it is also an agent of India's soft power; the Indian expatriate community also disseminates i.e., the other soft power sources of India at world level.
- The Indian Diaspora is using India's other sources of soft power like culture, Ayurveda, Bollywood, Indian cuisine, knowledge, spirituality, etc. and luring the populace all over the world.
- The knowledge, which Indian Diaspora carries with them to the visiting countries especially, in case of professional migration or the post-colonial migration in the western developed countries, clearly indicates the claim of India to become a knowledge super power very soon.
- One of India's most important therapies of longevity i.e., yoga has now embraced by almost everyone in the world. It is through Indian Diaspora that people across the globe came to know about this Indian enchanted therapy.

- The delicious Indian food is not less in contributing the soft power of India. It creates attraction for India every single time the foreigners taste the Indian food.
- Wherever Indian diasporic community has a strong position in terms of wealth, knowledge and political participation or influence in the host country, it has played a very proactive role in influencing various issues concerning the interest of the home country.

Conclusion:

The soft power has changed the earlier notions about the power. It has shown a hope that the coexistence of states is possible. The soft power based on cooperation not coercion or control. India is a global player in almost every sphere i.e., political, cultural and economic. The Indian diaspora helps in identity creation, image projection, image cultivation, etc. It is the 'soft power' which, as defined by the American political scientist Joseph Nye, is the ability to persuade others without the use of coercion.



22. What are the current challenges faced by the World Trade Organisation (WTO)? What recommendations do you have for making WTO a more effective Organisation?

Approach-

In this question candidates need to explain what are the current challenges WTO is facing ,and in second part write about which steps should be taken by WTO for making it more effective organisation.

Introduction-

The World Trade Organization (WTO) has been the cornerstone of the multilateral rules-based global trading system since its inception in 1995. However, even before the Covid-19 pandemic, all three of the organization's functions – providing a negotiation forum to liberalize trade and establish new rules, monitoring trade policies, and resolving disputes between its 164 members are facing challenges. Hence a modernized and fully functioning WTO is more essential than ever.

Body-

Issues Related to WTO-

China's State Capitalism:

- The nature of China's economic system, combined with the size and growth of its economy, has created tensions in the global trading system.
- China's state-owned enterprises present a major challenge to the free-market global trading system.
- However, a critical part of the problem is that the rulebook of the WTO is inadequate for addressing the challenges that China presents in respect of intellectual property, state-owned enterprises and industrial subsidies.
- It is due to this US-China are engaged in Trade war.

Institutional Issues:

- The Appellate Body's operations have effectively been suspended since December 2019, as the US's blocking of appointments has left the body without a quorum of adjudicators needed to hear appeals.
- The crisis with the dispute settlement function of the WTO is closely linked to the breakdown in its negotiation function.

Lack of Transparency:

- There is a problem in WTO negotiations as there is no agreed definition of what constitutes a developed or developing country at the WTO.
- Members can currently self-designate as developing countries to receive 'special and differential treatment' – a practice that is the subject of much contention.

E-commerce & Digital Trade:

- While the global trade landscape has changed significantly over the past 25 years, WTO rules have not kept pace.

- In 1998, realizing that e-commerce would play a growing role in the global economy, WTO members established a WTO e-commerce moratorium to examine all trade-related issues relating to global electronic commerce.
- Recently, however, the moratorium has been called into question by developing countries because of its implications for collecting revenue.
- Moreover, as the Covid-19 pandemic accelerates the shift to e-commerce, rules to regulate online trade will be more important than ever. But in contrast to trade in goods and services, few international rules govern cross-border e-commerce.

Agriculture and Development:

- The WTO Agreement on Agriculture, which came into force in 1995, was an important milestone.
- Agreement on Agriculture targets reform of subsidies and high trade barriers, which distort agricultural trade.
- However, agreement on agriculture is facing issues due to food security and development requirements for developing countries like India.

Recommendation for making WTO more effective –

- New Set of Rules: Modernizing the WTO will necessitate the development of a new set of rules for dealing with digital trade and e-commerce.
- WTO members will also have to deal more effectively with China's trade policies and practices, including how to better handle state-owned enterprises and industrial subsidies.
- Environmental Sustainability: Given the pressing issues around climate change, increased efforts to align trade and environmental sustainability could help to both tackle climate change and reinvigorate the WTO.
- Trade and the WTO have key roles to play in efforts to achieve the UN Sustainable Development Goals (SDGs) and the Paris Agreement climate goals.
- Also, the WTO can play a role in reforming fossil fuel subsidies.
- For example, at the Buenos Aires Ministerial Conference in 2017, a coalition of 12 WTO members led by New Zealand called on the WTO 'to achieve ambitious and effective disciplines on inefficient fossil fuel subsidies that encourage wasteful consumption.

Conclusion-

In future, WTO members will have to strike a balance between moving forward with negotiations on 21st-century issues and keeping sight of the unresolved 'old trade issues' such as agriculture and development. so This will leads to a more prosperous, peaceful and accountable economic world.

23. What are development banks? What sort activities do they pursue? Discuss.**Approach -**

A simple straightforward question where candidates need to write about what are development banks. In second part write about what sort of activities they pursue. Discuss in detail.

Introduction -

A development financial institution (DFI), also known as a development bank or development finance company (DFC), is a financial institution that provides risk capital for economic development projects on a non-commercial basis. DFIs can play a crucial role in financing private and public sector investments in developing countries, in the form of higher risk loans, equity positions, and guarantees.

Body-

Development banks are different from commercial banks, which mobilize short- to medium-term deposits and lend for similar maturities to avoid a maturity mismatch.

- In India, the first DFI was operationalized in 1948 with the setting up of the Industrial Finance Corporation (IFC).
- DFIs in India like Industrial Development Bank of India (IDBI), Industrial Credit and Investment Corporation of India (ICICI) and IFCI did play a significant role in aiding industrial development in the past with the best of the resources made available to them.
- However, after 1991 reforms, the concessional funding they were getting from Reserve Bank of India (RBI) and the government was no longer available in the subsequent years.
- As a consequence, IDBI and ICICI had to convert themselves into universal banks.
- While these DFIs disappeared, a new set of institutions like IDFC (1997), IIFCL (2006) and more recently, National Investment and Infrastructure Fund (NIIF) (2015) emerged to focus on funding infrastructure.
- In budget 2021, with the initial capital base of ₹20,000 crore as committed by the government, the new DFI, assuming a leverage of around 7 times, can lend up to ₹1.4 trillion.

Activities perused by developmental banks –

- Development financial institutions provide long-term credit for capital-intensive investments spread over a long period and low yielding rates of return, such as urban infrastructure, mining and heavy industry, and irrigation systems.
- They act as critical intermediaries for channelling long-term finance required for infrastructure and realising higher economic growth.

- In India, after the 1991 reforms, major DFIs were converted into commercial banks. However, after these there were few institutions in the country which could take care of industrial or infrastructure development.
- Therefore, in order to plug the infrastructure deficit, the government has taken a positive step by making a proposal to re-establish the DFIs in India.

Need for DFI-

- Infrastructure Building-Inadequate and inefficient infrastructure leads to high transaction costs, which in turn stunts an economy's growth potential.
- Therefore, DFIs makes sense as the Centre government envisages mobilizing nearly ₹100 lakh crore for the ambitious National Infrastructure Pipeline.
- International Precedent-Irrespective of the level of development, countries across the world have set up development banks to finance key infrastructure and manufacturing projects.
- For instance, the European Investment Bank (EIB) acts like a DFI for Europe.
- Lack of Finance for Infrastructure: Although India has a long-term debt market for the government securities and corporate bonds cut, it is still out of reach of retail investors and unable to meet the large infrastructure financing needs.
- Economic Crisis Triggered By Covid-19 Pandemic: The Covid-19 pandemic has exacerbated inequality, the poverty gap, unemployment, and the economy's slowing down. Thus, infrastructure building through DFIs can help in quick economic recovery.

Conclusion-

In order to provide the financing needed in the developing world. Development banks can thus be key players for development by providing long-term financing directly from their own funding sources, by tapping into new sources and by leveraging additional resources. For a developing country like India, it is desirable that the new DFI remains viable and sustainable to be able to cater to the long-term development financing requirements.

