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IDSA MARCH 2019

1. EMINENCE OF INDO- SAUDI STRATEGIC PARTNERSHIP

Why in news?

India and Saudi Arabia are working out various steps towards strategic partnership in areas of Trade and Defense.

What are the recent developments in security co-operation?

- Defense – India-Saudi Arabia ties had entered an era of strategic partnership with the signing of the Riyadh Declaration in 2010, followed by the Memorandum of Understanding (MoU) on defense cooperation in 2014.
- Recently both nations agreed to constitute a ‘Comprehensive Security Dialogue’ at the level of National Security Advisors and set up a Joint Working Group on Counter-Terrorism.
- The two countries also agreed to fortify the partnership by establishing a high level monitoring mechanism in the form of the Strategic Partnership Council.
- **Counter Terrorism** -During the last several years, Saudi Arabia has been cooperating with India in countering terrorism.
- It has been repatriating Indian citizens who have been found involved in terrorist attacks and related activities.
- Saudi Arabia also agreed to share intelligence on combat terrorist activities to India.
- **Combating Cyber Crimes** - India and Saudi Arabia also signed a MoU on Technical Cooperation in Cyber Space and Combating Cyber Crime.
- They expressed serious concern at the misuse of cyber space as a medium to promote subversive and extremist ideologies.

What are the significance of Indo-Saudi trade co-operation?

- **Energy Sector** - India imports nearly 80 per cent of its energy needs, and about 20 per cent of that comes from Saudi Arabia.
- India is dependent on the Persian Gulf for its energy security and the rise in oil prices can have a destabilizing effect on its economy.
- With the United States imposing fresh sanctions on Iran after withdrawing from the Joint Comprehensive Plan of Action (JCPOA) and the waiver granted with respect to continued oil imports from Iran slated to end in May 2019, India, which sources nine per cent of its oil imports from Iran, has to find alternate sources.
- This compulsion makes Saudi Arabia and other Gulf countries important for India to meet its energy requirements.
- **Investments** -Saudi Arabia aspires to diversify its economy and promote economic stability through long term investments in India.



- Saudi ARAMCO, along with Abu Dhabi National Oil Company (ADNOC), has pledged to invest in the Ratnagiri Refinery and Petrochemicals Limited (RRPL).
- India has signed a MoU to enable Saudi investments in the National Investment and Infrastructure Fund (NIIF) for the building of roads, ports, airports, power etc.
- Furthermore, a Framework cooperation programme was signed between Invest India and Saudi Arabia General Investment Authority (SAGIA) to facilitate investment by the private sector and the establishment of joint ventures in the fields of petrochemical industries, pharmaceuticals and medical equipment.
- **Socio economic co-operation** -The two countries agreed to align the Saudi Vision 2030 and thirteen Vision Realization Programs with India's flagship initiatives of Make in India, Start Up India, Smart Cities, Clean India and Digital India.
- The Saudi Vision 2030 also focuses on developing a vibrant entertainment industry.
- In order to enhance people to people contact, India has consented to increase the seats of Saudi Arabian Airlines from 80,000 seats per month to 112,000.
- For its part, Saudi Arabia has agreed to increase India's haj quota to two lakh.

What areas need further co-operation between the two nations?

- **Agriculture** - Saudi Arabia imports farm produce worth more than US\$ 19 billion a year, but India has only an 11 per cent share in this market.
- With a view to boosting Indian farm sector exports to West Asia, India has decided to remove all restrictions on organic products and processed products.
- Thus two countries can promote cooperation in the areas of agriculture, renewable energy and Indian diaspora in Saudi Arabia.
- Finding ways to enhance India's farm exports to Saudi Arabia needs to be explored.
- **Renewable energy** -Saudi Arabia intends to invest in renewable energy, new facets of collaboration can be explored in line with its agreement to join the International Solar Alliance.

2. DECLARATIONS OF PRINCIPLES IN ISRAEL-PALESTINE ISSUE

What is the issue?

Declaration of Principles (DoP) has identified seven issues that would be discussed in permanent status negotiations in Israeli-Palestine conflict.

What is Declaration of Principles about?

- The Oslo I Accord, officially called the Declaration of Principles on Interim Self-Government Arrangements or short Declaration of Principles (DOP).



- It was an attempt in 1993 to set up a framework that would lead to the resolution of the ongoing Israeli-Palestinian conflict.
 - It was the first face-to-face agreement between the government of Israel and the Palestine Liberation Organization (PLO).
 - The Accord provided for the creation of a Palestinian interim self-government, the Palestinian National Authority (PNA).
 - The Accords also called for the withdrawal of the Israel Defence Forces (IDF) from parts of the Gaza Strip and West Bank.
 - This agreement establishes the general guidelines for the negotiations to come and lays the foundations for a Palestinian Interim Self-Government in the West Bank and Gaza for a transitional period of five years.
 - Remaining issues such as Jerusalem, Palestinian refugees, Israeli settlements, security arrangements, borders and relations and cooperation with other neighbours and other issues of common interests." would be part of the "permanent status negotiations".
- What is the core issues of the Israeli-Palestinian conflict?**
- **Jerusalem** - Jerusalem is the heart of the Arab-Israeli conflict and the toughest to resolve, since there are multiple Jerusalems, with different historical claims, timeframes, logics, and layers.
 - The UN partition plan declared Jerusalem to be a corpus separatum, an international city not to be a part of either the Arab or Jewish state in the mandate Palestine.
 - This was never realized as the armies of Jordan and Israel captured East and West Jerusalem, respectively, a division that was formalized through the Armistice Agreement of 3 April 1949.
 - Later that year, Israel formally declared Jerusalem to be its capital and began shifting or establishing all its sovereign institutions such as the presidency, Knesset, Supreme Court, and government offices.
 - The contestation over Jerusalem is not only political but is also historical, territorial, theological, archaeological and emotional.
 - These transform Jerusalem into a truly global problem whereby the believers of the Abrahamic faiths Jews, Christians, and Muslims can stake a claim in its resolution.
 - In other words, when dealing with Jerusalem, the interlocutors are not just Israelis and Palestinians but also the Jewish diaspora, non-Palestinian Arabs, and Arab and non-Arab Muslims.
 - All in all, Jerusalem will be a deal breaker for an indefinite period or until all other issues are resolved.



- **Palestinian Refugees** -The United Nations General Assembly (UNGA) Resolution 194 offers them a general but conditional 'right-to-return'.
- However, the reference in the Resolution to refugees wishing 'to live in peace with the neighbours implies that the right-to-return is not unconditional or absolute as is commonly understood.
- Over the years, the Palestinian refugee population has expanded from about 600,000 in 1948 to over five million in 2017.
- With the sole exception of Jordan, Arab countries have refused to grant citizenship rights to them lest Israel is absolved of the responsibilities for the refugee problem and its aftermath.
- Israel's consistent opposition to a large-scale return of the refugees has a demographic dimension as such a course would dilute and negate Israel being a Jewish-majority state.
- If Israel were to concede the right to return for all Palestinians including five million refugees and two million citizens in Jordan, it would result in numerical parity between its Jewish and Arab populations.
- **Israeli Settlements** - Partly due to internal pressures and partly as a state policy, Israel has been building Jewish residential blocs in the Occupied Territories in the aftermath of the June War.
- Despite differing political motives, the settlement drive since the late 1960s has resulted in the fragmentation of the West Bank and undermined the territorial viability of a Palestinian state.
- Besides housing units, the settlement drive also includes access and bypass roads, security perimeters and fences, social service facilities such as schools, hospitals, synagogues, factories and banking systems, and infrastructure networks.
- These in turn, resulted in the expropriation of more Palestinian lands and resources.
- At the end of 2015, about 800,000 Israelis lived beyond the Green Line while Israel controls about 60 percent of the land area of the West Bank.
- As a result, Palestinians have been focusing their attention on the settlement activities and their negative impact upon the peace process.
- **Borders** -Israel is the only modern state that has avoided defining its territorial limits.
- During the Yishuv period (Yishuv is the term referring to the body of Jewish residents in the land of Israel) prior to the establishment of the State of Israel, it was a strategic choice for Zionism to keep the boundaries of a future national home vague and undefined, This left Israel with a legacy of multiple boundaries.



- The boundaries suggested by the majority United Nations Special Committee on Palestine (UNSCOP) plan and the one approved by the UN in November 1947 were not the same, as the latter was revised in favour of the Jews.
- **Relations and Co-operations** - UNSC Resolution introduced the concept of 'secured and recognised' borders this means that the borders Israel considers 'secured' must be recognised by the Arabs and vice versa.
- The peace treaty of 1994 formalised the Israel-Jordan border through the provision of 25-year leasing of Jordanian enclaves cultivated by Israeli farmers since 1950.
- Of late, this has become a thorny issue after the Jordanian government refused to renew the lease.

What measures are needed?

- Compelling Israel to define its borders will unravel the future of the Israeli-Palestinian conflict and its resolution.
- Israeli citizens living outside the BORDERS in the West Bank will have a simple, straightforward choice: to live as citizens of the Palestinian state or return to Israel proper.
- A defined border will result in the evacuation and dismantling of the settlements as happened in Sinai (1982) and Gaza Strip (2005).
- While the removal of settlements will not determine Israel's borders, the

determination of the borders will decide the fate of the settlements.

- Making Israel move away from its historical legacy of vagueness with respect to its borders will not be easy.
- But demanding a formal border is far easier than an agreement on settlements, refugees or Jerusalem.
- Rather than frittering away its limited leverage on a host of issues, big and small, the international community should focus on borders as a means of resolving the conflict.

3. USA'S DECISION ON GOLAN HEIGHTS

Why in news?

President Trump made new U.S. policy, with a tweet recognizing Israel's sovereignty over the Golan Heights on the border with Syria.

What is the strategic importance of Golan Heights?

- **Location** - The Golan Heights is a strategically valuable high-altitude plateau that overlooks Syria and the Jordan Valley.
- It is considered militarily significant for both Syria and Israel, and Israel also considers the territory a "buffer-zone" that contributes to its self-defence.
- **Natural Resources** - In addition to its military value, the Golan Heights is also a strategic asset due to its water resources and fertile land.



- It is roughly about 1,200 square kilometres (460 square miles) and borders the Sea of Galilee.
- The area houses the Jordan River's drainage basin, Lake Tiberias, the Yarmuk River and underground aquifers.
- Israel extracts a third of its water from the Golan Heights, the Golan Heights may also have oil.
- Exploratory drilling suggests that the territory's reservoirs could potentially yield billions of barrels.
- **Demography** -According to some estimates, there are around 50,000 people, with Israeli Jewish settlers making up nearly half.
- The rest are mostly people of Syrian ancestry who are Druze, a religion that has been described as an offshoot of Ismaili Islam.

- Druze residents of the Golan Heights have largely resisted obtaining Israeli citizenship and have maintained a strong connection to Syria for decades.
- But overall, life in the Golan Heights has been relatively tranquil compared with other places on Israel's frontiers.

What is the Golan Heights issue about?

- Israel captured the territory in the 1967 Six-Day War and applied Israeli law in 1981.
- UN Security Council resolution 497 refers to Israel's action as "null and void and without international legal effect."
- The two sides of Israel and Syria appeared close to a deal in 2000, but disagreement over its fate ultimately foiled the talks.
- The civil war in Syria over the past eight years has been the priority and the areas adjacent to the Golan nearly fell to the rebels at one point.
- Israeli and Syrian armies are separated by a 400 sq. km demilitarized zone, which neither side can enter nor Israel argues that Golan Heights is a security buffer against the war in Syria.

What is USA's policy on Golan Heights?

- For decades, the United Nations and the United States refused to recognize Israel's seizure of the Golan Heights and the West Bank in 1967, arguing





that the contours of Israel must be negotiated diplomatically.

- The President has earlier recognised the disputed city of Jerusalem as Israel's capital, moved the American Embassy there from Tel Aviv, and stopped aid to Palestinian refugees.
- Last year, the US voted against a ritual annual UN resolution condemning Israel's continued seizure of the Golan Heights.
- Recently USA administration mentioned that the time as ripe to fully recognize Israel's sovereignty over the Golan Heights, which is of critical strategic and security importance to the State of Israel and Regional Stability.
- Recognition of the Golan Heights could pave the way for US recognition of Israeli sovereignty in the Palestinian occupied territories.
- In a recent state department report on human rights, the administration changed its description of the West Bank and Gaza from "occupied territories" to "Israeli-controlled territories".

What are the issues with USA's decision?

- USA's decision on Golan Heights extend legitimacy to Israel's position.
- Russian Foreign Ministry condemned the move, calling it a "direct violation of UN decisions."
- They highlighted that changing the status of the Golan Heights bypassing

the Security Council is in direct violation of UN decisions.

- Some analysts pointed out that USA's gesture amounted to a form of compensation to Israel, since he has ordered American troops to withdraw from Syria leaving Israel more vulnerable to attacks.
- The Syrian government said in a statement it is now more intent on liberating the Golan, "using every possible means."
- The announcement was the latest in a series of steps under the Trump administration that have reshaped the United States role in conflicts between Israel and its Arab neighbours, to the benefit of Israel's right-wing government.
- Former diplomats said Mr. Trump's action was unnecessary and would inflame an issue that had been largely dormant.
- They also said it would embolden other world leaders who seized territory in violation of international norms.

4. INDIA'S OPTIONS IN OIC MEMBERSHIP

Why in news?

India participated in the 46th session of the Council of Foreign Ministers of the Organization of Islamic Cooperation (OIC) held in Abu Dhabi.



What is OIC about?

- OIC has established itself as the collective voice of the Islamic world based on its core aim of strengthening the “unity and solidarity” of the global Muslim community.
- The OIC Charter entails the organization “to assist Muslim minorities and communities outside the Member States.”

What is the significance of India's presence in OIC meeting?

- UAE royal family invited India for the 2019 OIC meeting, the importance of the invitation to New Delhi lies in the fact that

India attended an OIC meeting for the first time since 1969.

- Coming within days of the Pulwama attack by the Pakistan-based terrorist group Jaish-e-Mohammed (JEM) and the retaliatory Indian airstrike, Indian delegation's presence at the OIC held exceptional significance for India's relations with the OIC.
- Indian delegations issued a rallying cry about the adverse impact of terrorism in West and South Asia and called for the dismantling of infrastructure that provides shelter and funding to terrorists.
- India demanded OIC to make the right choices in a world in flux, and to work together with India, a rising economic power, to promote peace and development.

- Pakistan failed to block India's participation in the recent OIC meeting and in an unprecedented act of temper the nation had chosen to absent itself at the plenary session of the conference.
- Pakistani theatrics did not cut much ice with either the host UAE or with other OIC members including Saudi Arabia.

How Pakistan has used OIC to defame India so far?

- **Diplomatic Embarrassment** - In 1969 India faced a diplomatic embarrassment at the first Islamic Summit in September 1969 held in Rabat, Morocco.
- India was invited to be “represented at the government level” to attend the summit but eventually was kept out of the final session which adopted the communique due to opposition by the then Pakistani President General Yahya Khan.
- The Pakistani leader had taken exception to the participation of an official delegation of the Government of India instead of a representation from “the Muslim community of India”.
- **False Facts on Status of Indian Muslims** - Ever since the OIC's inception, Pakistan has used the platform to spread canards about the so-called mistreatment of Muslims in India and to alienate India from the Islamic world.



- At Pakistan's behest, the OIC has tended to tag Muslims in India as 'victims' of state policies and clubbed them with other minority Muslim communities around the world which have been suppressed, such as the Uighurs in the Xinjiang region of China, the Chechens in Russia and the Moro community in Philippines.
- **J&K Dispute** - Moreover, Islamabad has used the forum to internationalize issues concerning Jammu and Kashmir (J&K).
- At Pakistan's initiative, the OIC has established a 'contact group' on J&K, which has facilitated the adoption of several 'resolutions' and 'special declarations' that are critical of India.
- 45th session of the Council of Foreign Ministers held in Dhaka in May 2018 adopted a 'resolution' on the J&K issue emphasizing "that Jammu and Kashmir is the core dispute between Pakistan and India and its resolution is indispensable for realization of the dream for peace in South Asia."
- Moreover, OIC has at times asked India to allow "fact finding" teams to visit J&K to investigate alleged human rights violations.

What are the major takeaways from recent OIC meeting?

- India has the strength and resilience of a democracy backed by strong constitutional provisions and a vigilant judiciary to address all issues

put forth by Pakistan in OIC in a fair manner.

- The situation in India simply cannot be equated with the organized and structural discrimination and violence faced by Muslim or other minorities in many countries, including in some OIC member states.
- The Indian participation in the OIC's Council for Foreign Ministers meeting in 2019 provided New Delhi with a unique opportunity to set the record straight.

How demanding is OIC membership for India?

- In 2003, Qatar had raised the issue of changing the OIC's position on India during the 2nd Extraordinary Islamic Summit held in Doha and Saudi Arabia also proposed its desire to provide India 'Observer' status in the OIC akin to that of Russia.
- In 2018, Bangladesh had raised the issue during the 45th Council of Foreign Affairs Conference while discussing the question of reforming the OIC and had received the support of many members, including Turkey, which have traditionally supported the Pakistani stand on India in the OIC.
- The changing global situation is one of the factors behind the OIC's overture to India.
- OIC is realizing the implications of excluding one of the largest Muslim



communities in the world from its fold.

- UAE's recent invitation underlines OIC's probing proposal to India to associate with the grouping in some formal capacity.
- Above all, the invitation is a recognition of India's economic achievements and its enhanced status as a rising global power.

What lies ahead for India?

- According to OIC Charter there are two options before India either it can become a full time member or receive an observer status, if approved by consensus only by the Council of Foreign Ministers on the basis of the agreed criteria adopted by the Council of Foreign Ministers.
- If India is invited to join and accepts full membership, it will correct the historic anomaly of 1969 and may provide it an opportunity to deny Pakistan the use of the OIC to spread anti-India propaganda.
- However, given the current state of relations between India and Pakistan and the sensitivities of managing their own domestic public opinion, OIC members are unlikely to offer India full membership.
- It would also be difficult to pull off since such a proposal would vehemently be opposed by Pakistan from within the OIC.
- On the other hand, Observer status does not entail voting rights, and

Pakistan will continue to embarrass India by raising the J&K dispute in the OIC even if India had Observer status.

- Therefore, in the given circumstances, the best option would be for India to continue to work with individual members of the OIC to establish friendly relations and deepen bilateral cooperation, and work to negate the machinations of Pakistan within the OIC ranks.

5. INDIA'S STRATEGIC SHIFT IN ADDRESSING PROXY WAR

Why in news?

India took an offensive defense strategy and attacked the terrorist camps of Jaish-e-Mohammed (JeM) in Balakot, Pakistan.

What is brief account of Pakistan's role in terrorism?

- Pakistan's grand strategy has been based on the assumption that there are only two steps in the escalatory ladder, 'sub conventional war' and 'nuclear war', with no space for conventional operations in between.
- Having repeatedly failed to achieve its grand objectives through conventional war, the Pakistan Army changed its strategy in the early 1980s.
- The fueling of militancy in Punjab marked the beginning of Pakistan's 'Low Intensity Conflict' (LIC) warfare against India.
- In pursuit of its 'bleed India strategy', the Pakistan Army unleashed a 'Proxy



War' in Kashmir towards the late 1980's.

- The mainstay of this new game was Pakistani jihadi terrorist outfits, Lashkar-e-Taiba (LeT) and later Jaish-e-Mohammed (JeM), complemented by Hizbul Mujahidin (HM) cadres.

What are policy blunders of India in handling Pakistan?

- Ironically, India's approach of dealing with the Pakistan sponsored 'Proxy War' as 'cross border terrorism' was a strategic blunder.
- What this resulted in was a tactical response: the adoption of a counter infiltration posture astride the LoC and establishment of a 'Counter Insurgency' grid in the hinterland.
- There was no action plan to take on the jihadi breeding grounds inside Pakistan or raise the costs for the Pakistan Army – the real perpetrators of the new form of warfare.
- This 'low cost-high return' option served Rawalpindi well, evident from the fact that, during the last three decades, the Indian security forces suffered over 5000 fatalities.
- Despite eliminating some 21000 terrorists during this period, the security situation in the Kashmir Valley remains volatile.

What is significant strategic shift in India's terror retaliation?

- *Uri Surgical Attack -In response to the deadly terrorists attack carried out by*

JeM cadre on the Indian Army base camp in Uri on 18 September 2016, a retaliatory surgical strike was conducted by the Special Forces, targeting the terrorist launch pads across the LoC.

- The action was intended to give a clear political message to Pakistan, defining India's threshold.
- *Balakot Attack - JeM* owned up responsibility for the dastardly suicide attack on the CRPF convoy at Pulwama on 14 February 2019 which claimed more than 40 lives.
- As a retaliation Indian Air Force took a "non-military pre-emptive action" specifically targeted on a Jaish-e-Mohammad (JeM) terror training camp in Pakistan's Balakot.
- Hitting a military target would be construed as an act of war; a "Non-military "nonmilitary strike means that a military target has not been hit.
- By calling it a pre-emptive action, India clarifies that it was an act of "Pre-emptive" self-defense and not that of revenge.
- Through these attacks India takes note of the shift in global opinion and there is little tolerance today for terror groups that continue to find shelter on Pakistan soil.
- The events signifies a strategic shift in the Indian approach from 'Counter Terrorism' operations inside own territory to 'Counter Proxy War' inside Pakistan.



What are concerns with Pakistan's response to counter-terror?

- Due to intense international pressure and the fear of being black listed, Pakistan has commenced action against some terrorist organizations by banning the Jamat-ud-Dawa (JuD) and Fallah-e-Insaniyat (FeF).
- Its likely strategy in the near future Pakistan would scale down the intensity of terrorist activities to small actions by local militants.
- After the situation de-escalates, Pakistan is expected to be back at its game, may be with greater vigour, as spare Taliban hands from Afghanistan could well be diverted to the Kashmir Valley.
- Pakistan as a State is a combustible mix of religion and politics. Its Army runs the nation's foreign and defence policies, with nuclear weapons and terrorists serving as strategic assets.
- Therefore, the odd aerial strike by India is not going to change Pakistan's basic strategy of 'proxy war'.

What holistic measures are needed to counter-Pak?

- Due to the neglect of military modernization, the Indian Army has been repeatedly pitched against a better equipped enemy.
- To address this serious flaw, a concerted effort is needed to accelerate the capacity building of our Armed Forces.

- This entails enhancing defense budgetary allocations, fast-tracking arms cum equipment acquisition procedures and indigenization of defense production.
- India needs to combine its resources into a successful strategy through the intelligent integration and networking of diplomacy, defense, development and other tools of hard and soft power.
- There is an urgent need to formulate a 'Counter Proxy War Doctrine' that is multi-pronged and all-encompassing.
- There has to be a 'zero tolerance policy' against Pakistan providing safe haven to terrorists.
- A relentless diplomatic offensive to isolate Islamabad must be sustained and cooperation with nations like Iran, Afghanistan and Bangladesh, which too are victims of Pakistan sponsored terrorism, must be scaled up.
- On the economic front, a concerted effort is required to tighten the noose around Pakistan through international bodies like the IMF and FATF.
- Militarily, all options must be on the table including covert ones, to punish Islamabad if it continues with its misadventure. Simultaneously, internal fault lines need to be addressed on priority.



6. SIGNIFICANCE OF AK-203 RIFLES

Why in news?

Indian Army has expressed a strong desire to replace the INSAS with a modern assault rifle AK-203.

What is India Army's plan on replacement of weapon?

- Indian Small Arms System (INSAS) is a family of infantry arms consisting of an assault rifle and a light machine gun.
- It is manufactured by the Ordnance Factories Board at Ordnance Factory Tiruchirappalli, Small Arms Factory Kanpur and Ishapore Arsenal.
- The INSAS assault rifle is used as a standard infantry weapon of the Indian Armed Forces.
- Recently union government approved replacement of INSAS by AK-203 as the basic weapon for the vast majority of the Indian defense and security forces.
- The new weapon, the most advanced version of the famous AK series of rifles, will be manufactured in the country by the Indo-Russian Rifles Pvt. Ltd, a Joint Venture (JV) between the Ordnance Factory Board (OFB) and Russian partners.

What are the reasons behind dropping INSAS Rifle?

- Ever since the 5.56x45mm INSAS was inducted in 1994, the Army has been dissatisfied with this rifle designed by

the DRDO and manufactured by the OFB.

- The rifle's limitations in terms of lethality and reliability, as well as weight and lack of integrated sighting system, led the Army to look for an alternative even though a number of improvements were made over the years.
- After series of effort, Indian Army along with the OFB, DRDO and Directorate General Quality Assurance (DGQA) attempted to develop a new 5.56x45mm assault rifle.
- Although the new rifle, named INSAS 1C met the required technical and operational parameters including reliability test with firing of 2400 rounds, it did not progress further as initial trials were apparently not up to the Army's expectations.

What are the significance of AK-203 rifle?

- India's choice of AK-203 was influenced by the rifle's modern design and potency.
- It was selected over other AK series of rifles – AK-103, AK-103 (Modernised) and AK-15 – which were all evaluated by a team of Army officials who, along with OFB officials.
- The Army found that the AK-203 has better accuracy, more picatinny rails (required for mounting various types of day/night sights and grenade launcher on the rifle), reduced flash and recoil,



better ergonomics and greater ease of operation in combat.

- The rifle's proven lethality, accuracy, reliability, and advanced features would give every soldier in possession of the weapon the necessary confidence and morale to take on a wide spectrum of challenges effectively and efficiency.

What are the prospects of AK-203 trade?

- The AK-203 was developed in 2016 and supplied to the Russian armed forces in 2018.
- India will be the first country to which Russia would be transferring the design/manufacturing of this rifle.
- The procurement of bulk AK-203 rifles took a new and decisive turn when India and Russia reached an agreement to set up the Kalashnikov production center in India during President Vladimir Putin's visit in October 2018.
- An Inter-Governmental Agreement (IGA) soon followed to set up a joint venture to produce at least 750,000 7.62x39 mm AK-203 rifles in India.
- The signing of the IGA and the formation of the JV have finally brought to an end a decade-long saga involving an arduous process for inducting a modern rifle for the Indian armed forces.
- The AK-203 will not only boost the Army's fire power and morale but will also further the Make in India initiative in defense manufacturing through the

100 per cent indigenization of the rifle in a few years.

- India's current and future security environment necessitate the continued deployment of security forces, especially the Army, in a highly lethal environment involving both conventional and sub-conventional war.
- With the AK-203, the Army's long search for a modern assault rifle to deal with multiple challenges has finally come to a successful end.
- The fact that the rifle would be produced in India with 100 per cent indigenous content in less than three years makes it a win-win deal for the Army and the Make in India initiative.

7. INDIA'S ASAT CAPABILITY

Why in news?

Recently India has successfully tested its first ever Anti-Satellite missile.

What are the instances of ASAT tests by developed nations?

- The intention of developing an ASAT was seemingly to signal that the interception was driven by a safety contingency of a 'cold' satellite falling to Earth with toxic debris likely to hit population centers.
- The purpose of that system was to destroy the satellite vehicle just before atmospheric re-entry could be used to ensure that space assets in low-earth orbit are not affected.



- **China** - In 2007, China had undertaken its first ever Anti-Satellite (ASAT) test.
- **USA** - In 2008, US Missile Defense Agency (MDA) undertook an interception of a dysfunctional satellite in low-earth orbit.
- The agency used the ballistic missile defense (BMD) interceptor, the Standard Missile-3 (SM-3), fired from a Aegis-class destroyer deployed in the Pacific Ocean to successfully complete that mission.
- **India** - The first Indian demonstration of ASAT capability took place recently.
- India used a long-range BMD interceptor that is currently being developed by the Defense Research and Development Organization (DRDO).
- China and India too have been vociferous votaries of legal instruments against the weaponisation of, or arms race in, outer space.
- **Boasting Technological Advancement** - China's eventual decision to conduct both ASAT and BMD tests is evidence of the fact that great powers cannot abstain from technological races where their rivals have a clear edge or can swing the strategic balance.
- The Indian ASAT test has to be seen in this context, and follows a techno-strategic trajectory that might not be linear to the Chinese course of action but certainly illustrates the prevalence of a security dilemma and the urge to come up with technological ripostes to its arch rival.

What are in common between ASAT tests by powers competing?

- **Violation of Outer Space treaties** - All the three nations have been ardent advocates of mitigating arms race in space, and yet have contributed in considerable measure towards the militarization of outer space.
- US has largely been averse to negotiations on treaties to prohibit the weaponisation of space, there has been general consensus (since the post-Strategic Defense Initiative days) among successive US administrations until recently against steps that could trigger an arms race in outer space.

What is the significance of India's ASAT capability?

- The bigger significance of the test lies in its latent indication that India has attained the capability for exo-atmospheric interception of long-range missiles in their mid-course.
- The ASAT test was done using the long-range interceptor of the BMD programme, this demonstration of exo-atmospheric interception is a major milestone for the BMD programme.
- Having worked on two endo-atmospheric systems - Advanced Air Defense (AAD) and Prithvi Air Defence



(PAD) –for more than a decade, the DRDO has been struggling on the long-range system for exo-atmospheric interception, reportedly hampered by the absence of a long-range tracking radar.

- While the Israeli Green Pine radar with a range of 600 km was the mainstay for earlier systems, the DRDO and the Indian Air Force have been working on extending its range beyond 1000 km in order to guide the PDVs towards precision interception using Agni platforms.

What are concerns with India's ASAT test?

- India has stated that the ASAT test was done “to verify the capability to safeguard India’s space assets” but it is a problematic contention.
- An ASAT in itself is not a defensive system that could ‘safeguard’ any space asset.
- Instead, it is an offensive system that could solely be used for retribution in response to an attack on India’s space assets.
- In that sense, the capability can only be used as a deterrent against a potential rival (China seems to be the only threat), a fact, which, though, has not found mention in any statements.
- There are many space-faring nations (and communities like the European consortium) with far greater numbers of assets in space, but none is

considering the need to defend them using ASAT systems. Undoubtedly, competing with China seems to be the only driver for this test.

- However, considering that China is far ahead in strategic technologies, including Hypersonic Glide Vehicles (HGV), Directed-Energy weapons and MaRVs (manoeuvrable re-entry vehicles), it would be unwise for India to seek to match China on a competing scale.

What areas India needs to work on?

- As a developing nation with scarce resources for defense technological development, India cannot afford to divert massive resources on fictitious and hypothetical scenarios like space wars.
- Greater emphasis should, instead, be on addressing formidable gaps in India’s air-delivery platforms, air defense and propelling the mid-course interception capability towards fruition.
- As a supposed party to major international treaties relating to outer space, and having committed to ongoing initiatives like PAROS and No First Placement of Weapons in Outer Space, India needs to act in a moral basis not to initiate actions that amount to a weapons race in outer space.



8. PREVENTION FROM RANSOMWARE ATTACKS

What is the issue?

In recent years, ransomware attacks have become a trend for committing cybercrime.

What is a ransomware?

- Malware + Ransom = Ransomware
- Ransomware is a kind of malware (software that damages the functions or gains unauthorized access to a computer system) that is used to encrypt important documents or files within a system (Crypto ransomware) or simply lock the original user out of the system (Locker ransomware).
- The user is then asked for a ransom in return for decrypting the files.
- Once the ransom is paid within a stipulated period, then the system is either unlocked or the system's contents are deleted or the system is entirely corrupted.
- Unlike other cyber-attacks, in this form of attack, the user is notified of the attack.

What is the uptrend of Ransomware attacks?

- The first ever recorded use of ransomware occurred as early as 1989 in the form of the AIDS Trojan, which was used to encrypt hard disks followed by a demand for ransom in return for decryption, this method gained prominence only after the unleashing of the WannaCry Ransomware in 2017.

- The latter was a massive attack that affected more than 200,000 systems in some 150 countries and accounted for a loss of several million dollars.
- Since then, the use of ransomware has seen an upward trend.
- Initially, ransomware attacks followed a pattern akin to fire and forget, that is, it was used for small scale extortion from individuals.
- Now, however, the pattern has shifted to more focused and targeted attacks for larger returns like targeting the server of an organization.
- The effect is to turn entire organizations into victims rather than individual users, and the pay-off for the extra effort involved in performing this kind of an attack is often huge.

How a new form of ransomware threatens the globe?

- Recent reports has found that many new, better and customized ransomware are coming to the forefront, and the one which is in active stage is GandCrab.
- It is generally distributed by “phishing emails” (an attachment in a malicious email gives the ransomware the required information) and “exploit kits” (any security holes that are detected by hackers in any software installed in a system can deliver ransomware to the system).
- Following infiltration, ransomware starts collecting information like



username, PC name, OS (Operating System) and other such data.

- The virus also creates a unique ransom ID and starts encrypting files stored on the system.
- As a result, the user is no longer able to access encrypted files without a key which cannot be obtained without a ransom.
- GandCrab is the first ransomware that demands payment in DASH cryptocurrency (1 DASH cryptocurrency is approximately 1200 USD) and uses the “.bit” top level domain (TLD).
- Since TLD is not sanctioned by ICANN (Internet Corporation for Assigned Names and Numbers), this affords an extra level of security to the miscreants.
- Every time a cyber-security organization comes out with a decrypted to counter the effect of GandCrab, a brand new version of the ransomware is generated by effecting a small fix in the code.

What are best options to counter GandCrab?

- To stay ahead of ransomware threats, it is necessary for cyber defense corporations to have state-of-the-art defenses that are enabled with advanced technology like machine learning.
- Moreover, such attacks are only going to grow in the foreseeable future and

there is no fixed measure to prevent them.

- For now the only plausible option is prevention and risk management in the following ways:
 1. Regularly patching and updating software released by companies.
 2. Any important data should be spread across networks with appropriate backups, thus maintaining redundancy.
 3. Stronger passwords and two-prong authentication should be ensured.
 4. Continuous real-time monitoring within the system and firewalls to protect against any such attacks.
 5. In case of an attack, affected network must be isolated to prevent the virus from spreading.

9. INDIA'S CHALLENGES IN TAPPING 5G POTENTIAL

What is the issue?

- 5G cellular mobile telephony has promising data speed of the order of 20 Gbps.
- India need to look up opportunities for tapping 5G technology soon after global deployment.

What is potential of 5G?

- 5G is the next generation of mobile standards being defined by the International Telecommunications Union (ITU).
- ITU is a specialized agency of the United Nations for information and communication technologies



responsible for allocation of global radio spectrum and development of technical standards.

- Along with high data rate, 5G will also reduce latency, save energy, and enable massive device connectivity, paving the way for next-generation applications such as autonomous vehicles, smart homes and cities, and massive machine-to-machine communications for industries.
- 5G also dubbed as a game-changer in mobile telecommunications is ready for full-scale commercial deployment by 2020.
- The race towards full-scale commercial deployment has been marked by competition amongst countries to serve as test-beds which is being facilitated through measures ranging from partnerships with industry to offering test-bed facilities and speeding up spectrum allocation procedures.

What are the economic prospects of 5G technology?

- **Enhanced Mobile Broadband (eMBB)**
- It can enable high user mobility, especially under scenarios requiring high data rates across a wide coverage area or ultra-high speed connection such as on trains or in thickly populated areas.
- It can also support Virtual Reality and Augmented Reality services.

- 5G deployment is also an attractive business case as its demand has traction across the globe.
- **Massive Machine Type Communications (mMTC)** - It can support a very large number of connected devices, such as in the case of Internet of Things (IoT), with varying requirements of quality of service and located in a small area such as an industry or a production facility.
- This enables high density of connectivity (around one million connections per square kilometer) for smart cities, smart power grids, smart industries, etc.
- Enabling communications in mission critical applications, this technology finds applications in robotics and autonomous vehicles.

What are challenges in adapting 5G for India?

- India is not a key player in technology development or manufacture of telecommunication equipment.
- The commercial launch of 3G services took place in Japan in 2001, but arrived in India only in December 2008, 4G roll-out in 2012 came three years after the first commercial launch in 2009.
- Like its predecessors, 5G is also likely to rest upon either technology imports or equipment made by foreign vendors in India.



- The Optical fiber kilometers per capita in India is around one-tenth that in China and one-fifteenth of that in Japan.
- Indian telecom industry is under severe financial distress, with falling Average Revenue per User (ARPU), declining revenues, mounting losses and increasing debt.
- The import duty for equipment such as base stations, optical transport gear, 4G LTE products, gateway controllers, carrier Ethernet switches etc., has further been increased to 20 per cent.
- These segments of the telecom business are more capital intensive which actually generate Intellectual Property for the Original Equipment Manufacturers (OEM).
- Forcing foreign vendors to manufacture in India, as part of the flagship “Make in India” programme, could prove counterproductive if it entails disruption in the global supply chains of OEMs.

What measures can be taken by India?

- The government’s flagship BharatNet programme also plans to link 2.5 lakh gram panchayats through optical fibre network.
- However, to achieve these targets a major change is necessary in existing construction and clearance processes.
- The technical requirements for 5G call for significant changes in the national spectrum policy and regulation as well as the policies related to infrastructure development.
- Keeping in mind that India is a price sensitive market, 5G affordability will depend upon lower spectrum and equipment costs, efficient usage of the spectrum and network and infrastructure sharing across operators.
- In order to move up the value chain, Indian manufacturers need to think beyond assembly and manufacture, and build competency in areas such as R&D, design, testing and operational and support services built around telecom networks.