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Indian Culture And Heritage**Kumbha Mela in Guinness Records****In News**

- Prayagraj Kumbh Mela 2019 has been placed in the Guinness World Records in **three sectors**. These includes largest traffic and crowd management plan, the biggest painting exercise of public sites under "paint my city" scheme, and biggest sanitation and waste disposal mechanism.
- Kumbha Mela is a mass Hindu pilgrimage in which Hindus gather to bath in a sacred or holy river.
- Traditionally, four fairs are widely recognized as the Kumbh Melas - the Prayagraj Kumbha Mela, Haridwar Kumbha Mela, Nashik-Trimbakeshwar Simhastha and Ujjain Simhastha.
- Each site's celebration is based on a distinct set of astrological positions of the Sun, the Moon, and Jupiter, the holiest time occurring at the exact moment when these positions are fully occupied.
- The main festival site is located on the banks of a river - Ganga at Haridwar; the confluence of the Ganga, Yamuna and the invisible Sarasvati at Allahabad; Godavari at Nashik; and Shipra at Ujjain. Bathing in these rivers is thought to cleanse a person of all their sins.
- Tradition ascribes the Kumbh Mela's origin to the 8th-century philosopher Shankara, who instituted regular gatherings of learned ascetics for discussion and debate.
- The founding myth of the Kumbh Mela—attributed to the Puranas —recounts how the gods and demons fought over the pot (kumbha) of amrita, the elixir of immortality. During the struggle, drops of the elixir fell on the Kumbh Mela's four earthly sites, and the rivers are believed to turn back into that primordial nectar at the climactic moment, giving pilgrims the chance to bath in the essence of purity, auspiciousness, and immortality.
- The term Kumbh comes from this mythic pot of elixir, but it is also the Hindi name for Aquarius, the sign of the zodiac in which Jupiter resides during the Haridwar Mela.

Kashi Vishwanath Corridor**In News**

- One of the most ancient living cities on Earth and the epicentre of Hindu religion and mythology, Kashi is undergoing a makeover.
- The main temple, Kashi Vishwanath temple, which is located on the left bank of the holy river Ganga is surrounded by narrow and small claustrophobic lanes. The prime place of worship in the city, and perhaps the country, struggles to manage humongous crowds in its congested lanes during festive times, which is literally round the year.
- It is after 1780 AD that the city is going through such a transformation. Then, Maratha queen Ahilyabai Holkar of Indore had renovated the temple and the area surrounding it.
- The 50-foot-wide Kashi Vishwanath Corridor will connect the ancient shrine and one of the 12 Jyotirlinga temple to the famous ghats of Varanasi.
- Once completed, the corridor will ease the congestion and provide the pilgrims and travellers other amenities such as wider and cleaner roads and lanes, better lighting with bright street lights, and clean drinking water. On the way, pilgrims and travellers will see a newly built museum, depicting Varanasi's ancient history and culture.

Ramakrishna Paramahansa**In News**

In a bid to conserve environment, the Ramakrishna Math and Ramakrishna Mission broke an age-old tradition this year, by doing away with its practice of having a fireworks display as part of the birth-anniversary celebrations of Ramakrishna. The fireworks display is usually held on the last day of the celebrations, which fell on March 17 this year.

About Ramakrishna Paramahansa

- RamaKrishna Paramhansa, born as Gadadhar Chattopadhyay, was an Indian Hindu mystic and saint from Bengal.
- One of the most prominent religious figures of India during the nineteenth century, he was a mystic and a yogi who translated complex spiritual concepts into lucid and easily intelligible manner.
- He pursued divinity throughout his life in various forms and believed in divine embodiment of the Supreme Being in every individual.
- Ramakrishna was perhaps one of the very few yogis who had tried to experience divinity through a host of different avenues and did not stick to one single way of spirituality. He schooled under a number of different Gurus and absorbed their philosophies with equal eagerness.
- Having practiced different facets of Hinduism as well of other religions like Islam and Christianity, he preached that all of these religions were different paths that lead up to a single goal – God.
- Reverence and admiration for him among Bengali elites led to the formation of the Ramakrishna Mission by his chief disciple Swami Vivekanand, who carried on his teachings and philosophy to the world through the Mission.

Bihar Diwas**In News**

- Bihar Diwas or Bihar Day is celebrated every year on March 22 indicating the development of the territory of Bihar. It was on this day when the British cut out the state from the Bengal Presidency in the year 1912.
- In 1911, King George V was coronated in Delhi and the capital of British India was shifted to Delhi. On March 21, 1912, Thomas Gibson Carmichael, the new Governor of Bengal took charge and announced that from the next day, March 22, the Bengal Presidency will be split into four subhas of Bengal, Orissa, Bihar, and Assam.
- The Day is a public holiday in Bihar and is celebrated by organising programmes and numerous state functions across the state.

Sharda Peeth Corridor**In News**

- The Pakistan government has approved a proposal to establish a corridor that will allow Hindu pilgrims from India to visit Sharda Peeth, an ancient Hindu temple and cultural site in Pakistan-occupied Kashmir.
- It will be the second religious tract after Kartarpur corridor in Pakistan-controlled territory that will connect the two neighbouring nations.

- The temple sits close to the Line of control (LoC) in PoK's Sharda village in the Neelum Valley and has been completely deserted since Partition in 1947. Travel restrictions on Indians also discouraged the devotees from visiting the shrine
- Established in 237 BC during the reign of Ashoka, the 5,000-year-old Sharda Peeth is an abandoned temple and ancient centre of learning of vedic works, scriptures and commentaries dedicated to the Hindu goddess of learning, *Goddess Saraswati*.
- Between the 6th and 12th centuries CE, Sharda Peeth was one of the foremost temple universities of the Indian subcontinent and was once at par with Nalanda and Takshila.
- It is also one of the three famous holy sites for Kashmiri Pandits, the other two being the Martand Sun Temple in Anantnag and the Amarnath temple. Kashmiri Pandit organisations have been demanding opening of the Sharada Peeth corridor for many years now. The temple also has close resemblance with the Martand temple in architecture, design and construction style.
- Sharada Peeth is one of 18 Maha Shakti Peethas, or Grand Shakti Peethas – highly revered temples throughout South Asia that commemorate the location of fallen body parts of the Hindu deity Sati.

Society

Mizoram Maintenance of Household Registers Bill, 2019

Syllabus: Population and Associated Issues

In News

The Mizoram Assembly has passed the The Mizoram Maintenance of Household Registers Bill, 2019 that **seeks to detect foreigners illegally residing in the northeastern state** that shares an over 700-km border with Bangladesh and Myanmar. The register would be similar to Assam's National Register of Citizens, which is being currently updated.

Need for Legislation

- The influx of foreigners into the state through its porous borders has remained a serious concern for several decades.
- The bill states that in many cases the **benefits of development and welfare programmes are found eaten away** to a large extent by such foreigners, hence the update is required for **improvement of the system of delivery of benefits of welfare schemes**.
- The Chief Minister claimed that such influx has resulted in **abnormal increase in the population** which **poses a serious threat to law and order** as well as the state's internal security
- The Supreme Court has also expressed concern over such continuous influx of foreigners and their assimilation in the mainstream. The Centre had also mooted a system of National Register of Citizens and issue of Multi-purpose National Identity Cards (MNICs) based on such a register, as suggested before the apex court.

Provisions

- It shall be the responsibility of every householder as well as every member of household in the state to furnish all such information and particulars of the members of the household as may be required by the registering authorities. The President of village council, town committee will be the registering authority.
- The information submitted would be verified and counter-signed by the president of the local branch of the state-level NGOs as may be prescribed by the state government.

- The bill defines citizens as a person registered as such, or having requisite qualification as prescribed under the Citizenship Act, 1955.
- The register will also be divided into two parts, one bearing the names of citizen residents, the other with details of non-citizen residents.
- For an offence committed under this act the person may be punished with imprisonment for a term which may extend to one year or with fine of Rs 3000 for willfully making false statements or destroying the whole or any part of the form.
- All government departments and police may use the household registers for administrative purposes, during implementation of development schemes and law enforcement.

Concerns

- At the centre of these allegations are the Bengali Muslims and the Buddhist Chakma community, which lives in the state's south-western parts and are often branded as infiltrators by Mizo groups. Christians account for over 87% of Mizoram's population.
- While most Chakmas have been in Mizoram for centuries, many of them also came down from the Chittagong Hill Tracts of eastern Bangladesh in the 1960s after their land was submerged by the Kaptai dam. As practising Buddhists, they also reportedly fled Bangladesh to escape religious persecution.
- According to a 2009 report by the United States-based non-profit Human Rights Watch, Mizoram is home to around 10,000 Chin refugees from Myanmar.
- Minority communities like Brus and Chakmas perceive the bill to be against their interests and are concerned for their goodwill.
- In 1994, thousands of Chakma voters were left out of electoral rolls under the pressure of student groups. The Chakmas fear that the state government might be similarly arm twisted into leaving the Chakmas out of the register.

World Happiness Report 2019

Syllabus: Poverty and Developmental Issues

In News

- The World Happiness Report for 2019 has been released by the **UN Sustainable Development Solutions Network** on March 20, the date that the **United Nations has declared to be the International Day of Happiness**. This report is the 7th to come out since 2012.
- It ranked 156 countries by *how happy their citizens perceive themselves to be*.
- This year's World Happiness Report focuses on happiness and the community: how happiness has evolved over the past dozen years, with a focus on the technologies, social norms, conflicts and government policies that have driven those changes.
- The report bases its ranking on six key variables: **gross domestic product per capita, social support, healthy life expectancy, freedom to make life choices, generosity and freedom from corruption**.

Key Highlights

- **Finland**, for the second consecutive year, has topped this list.
- **Top 10 happiest countries** – Finland (1), Denmark, Norway, Iceland, Netherlands, Switzerland, Sweden, New Zealand, Canada and Austria (10).

- **Top 10 unhappiest countries** - South Sudan (156), Central African Republic, Afghanistan, Tanzania, Rwanda, Yemen, Malawi, Syria, Botswana and Haiti (147).
- The **United States came in 19th place**, dropping one spot since last year and a total of five spots since 2017.
- **Superpowers are not super happy** - The **United Kingdom** came in 15th place, up from 18th place, while **Germany** came in 17th place, down from 15th.
- **Japan** came in 58th place (down from 54th), **Russia** came in 68th place (down from 59th) and **China** came in 93rd place (down from 86th).
- **Bhutan** came in 95th place (up two spots from last year) in this year's report.
- The report highlighted that with the increase in population, the **overall happiness has dropped worldwide**.
- The report admits there has been an **increase in negative emotions, including worry, anger and sadness in all countries**.

India Specific Observations

- India was ranked at 140. It has **dropped down seven spots** in the happiness rankings as compared to its 2018 ranking.
- In 2018, India was placed on 133 position. In 2015, India was on 117 spot; in 2016 it was ranked on 118 spot. The position went up to 122 in 2017.
- India's South Asian neighbours ranked higher with Pakistan pegged at 67, Bhutan at 95, Bangladesh at 125, Nepal at 100 and Sri Lanka at 130.
- India featured in the list of five countries that had the largest drop since 2005-2008 in the index, along with Yemen, Syria, Botswana and Venezuela.

About The Report

- The World Happiness Report is an **annual publication of the United Nations Sustainable Development Solutions Network**.
- The tiny country of **Bhutan brought attention to happiness as a metric for its people**. Its Prime Minister proposed a World Happiness Day to the United Nations in 2011, which created an international focus on happiness.
- One year later, the U.N. General Assembly **declared March 20 as World Happiness Day**, recognizing "the relevance of happiness and well-being as universal goals and aspirations in the lives of human beings around the world and the importance of their recognition in public policy objectives."

Sustainable Development Solutions Network (SDSN)

- **In 2012**, UN Secretary-General Ban Ki-moon launched the UN Sustainable Development Solutions Network (SDSN).
- Its aim is to mobilize global scientific and technological expertise to promote practical problem solving for sustainable development including the design and implementation of the Sustainable Development Goals (SDGs).
- The SDSN works closely with United Nations agencies, multilateral financing institutions, the private sector and civil society for the sustainable development of the world.

Why Happiness Eludes India?

- **Glaring disparity in the purchasing power** of the population. Along with poverty, comes malnutrition and abysmal public health for a huge section of the population.
- **Shortfall in public infrastructure for education** - According to a report, access to education beyond higher secondary schooling is restricted to a mere 10 per cent among the university-age population in India. The disparity exists across genders, socio-economic religious groups and geographical regions.
- **Safety and security of women's bodies**
- **Perception of personal liberties:** Substituting peaceful discourse of ideas with violence is bound to have poor ramifications of societal peace and inclusivity in a diverse society with several fault lines.
- **Mental Health:** Mental health care continues to be grossly underfunded.
- **Corruption** – Widespread corruption in public institution is also responsible for India's poor ranking in the report.
- People also remain unhappy because of **factors like rapid urbanisation and congestion in cities, environmental pollution and problems of commute.**

Mercer Quality of Living Survey

Syllabus: Urbanization, Their Problems, and Their Remedies

In News

Mercer, a global consulting leader in advancing health, wealth and careers, and a wholly owned subsidiary of Marsh & McLennan Companies has released its 21st Quality of Living survey.

Metrics Used

- In addition to valuable data on relative quality of living, the survey provides assessment for more than 450 cities throughout the world and the ranking includes 231 of these cities.
- Living conditions are analysed according to 39 factors, grouped in 10 categories:
 1. *Political and social environment* (political stability, crime, law enforcement, etc.).
 2. *Economic environment* (currency exchange regulations, banking services).
 3. *Socio-cultural environment* (media availability and censorship, limitations on personal freedom).
 4. *Medical and health considerations* (medical supplies and services, infectious diseases, sewage, waste disposal, air pollution).
 5. *Schools and education* (standards and availability of international schools).
 6. *Public services and transportation* (electricity, water, public transportation, traffic congestion, etc.).
 7. *Recreation* (restaurants, theatres, cinemas, sports and leisure).
 8. *Consumer goods* (availability of food/daily consumption items, cars).
 9. *Housing* (rental housing, household appliances, furniture, maintenance services).
 10. *Natural environment* (climate, record of natural disasters).

Significance

- The survey is one of the most comprehensive of its type in the world and is conducted annually to enable multinational companies and other organisations to compensate employees fairly when placing them on international assignments.

- Strong on-the-ground capabilities are integral to the global operations of most international businesses and are in large part driven by the personal and professional wellbeing of the individuals that companies place in those locations. The key is relevant, reliable data and standardised measurement, which are essential for employers to make critical decisions.
- It also helps municipalities to assess factors that can improve their quality of living rankings. It advises municipalities by using a holistic approach that addresses the goals of progressing towards excellence and attracting both multinational companies and globally mobile talent by improving the elements that are measured in the survey.
- Leaders in many cities want to understand the specific factors that affect their residents' quality of living and address those issues that lower a city's overall quality of living ranking.
- The scores attributed to each 10 factors, which are weighted to reflect their importance to expatriates, permit objective city-to-city comparisons. The result is a Quality of Living index that compares relative differences between any two locations evaluated.

Report Findings

- It shows that many cities around the world still offer attractive environments in which to do business, and the best understand that the quality of living is an essential component of a city's attractiveness for businesses and mobile talent.
- Globally, **Vienna** tops the ranking for the 10th year running, closely followed by **Zurich (2)**. In joint third place are Auckland, Munich and Vancouver – the highest ranking city in North America for the last 10 years.
- In Asia, **Singapore (25)** has the highest quality of living, followed by the five Japanese cities of Tokyo (49), Kobe (49), Yokohama (55), Osaka (58), and Nagoya (62).
- This year, the survey provides a separate ranking on personal safety, which analyses cities' internal stability; crime levels; law enforcement; limitations on personal freedom; relationships with other countries and freedom of the press. Personal safety is the cornerstone of stability in any city, without which business and talent cannot thrive.
- Western Europe dominates the safety rankings, with **Luxembourg** named as the safest city in the world, followed by Helsinki and the Swiss cities of Basel, Bern and Zurich in joint second and Damascus was ranked last at the 231st place.
- In Southern Asia, the Indian cities of New Delhi (162), Mumbai (154) and Bengaluru (149) remained unchanged from last year's ranking for overall quality of living, with **Colombo (138)** topping the ranking.
- In 105th place, Chennai ranks as the region's safest city, while Karachi (226) is the least safe.

Swachh Survekshan Awards 2019

Syllabus: Urbanization, Their Problems, and Their Remedies

In News

- The awards for central government's cleanliness survey, Swachh Survekshan Awards 2019, were recently announced.
- The Swachh Survekshan exercise was started with the objective of inculcating a spirit of healthy competition among cities in the race towards becoming India's cleanest cities. The annual survey has managed to galvanize citizens to become active partners in progress.

- Ministry of Housing and Urban Affairs conducted its first survey for ranking 73 cities (Urban Local Bodies) in January 2016, under the ambit of the Swachh Bharat Mission (Urban).
- Indore has now retained the top spot in the survey of being the cleanest city for a consecutive three years, while Bhopal has been declared as the cleanest capital. Indore has also reported a 70% drop in vector-borne ailments in 2019, which is being attributed to Swachh Bharat Abhiyan.
- Ujjain has bagged the award for being the cleanest city in the population category of 3 lakh to 10 lakh.
- Sixty-four lakh citizens participated in the survey which included more than 4,000 cities in 2019.
- Swachh Survekshan 2019 has seen several innovations and best practices emerging from the cities. Through a mix of innovative thinking, technological interventions and active stakeholder engagement, cities have found novel ways to address issues of sanitation and waste management in their areas.
- Some of these innovations include conducting zero-waste public events, converting floral waste to value-added products, cultivation of oyster mushrooms from agricultural and kitchen waste in used plastic bottles.

Constitution, Polity, And Governance

Jammu and Kashmir Reservation (Amendment) Ordinance, 2019

Syllabus: Indian Constitution - Historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

In News

The Union Cabinet approved the **Jammu and Kashmir Reservation (Amendment) Ordinance, 2019** to the provisions of **Constitution (Application to Jammu and Kashmir) Order, 1954**.

About The Amendment

- **Extension of Reservation Benefits:** The Ordinance add the words 'and International Border' after the word 'LAC' to extend benefits of reservation to residents of LAC, along those near the International Border in **Jammu, Samba, Kathua regions**. Over **36 lakh** residents from J&K will benefit from these measures.
- **Limit of Reservation:** Thus, it will pave the way to extend reservation in jobs, promotions and education to people living within **10 km** from the **International Border (IB)** in Jammu. Earlier the benefits were only reserved for people living **10 km** beyond the Line of Control (LoC) and affected by shelling and firing from across the border.
- Thus, the Centre is set to extend **Constitution (77th amendment) Act, 1995**, and **Constitution (103rd amendment) Act, 2019 (EWS reservation)**, to J&K through this fresh order after amending the 1954 Presidential order.

About The 1954 Order

The 1954 order is an executive order issued by the President under **Article 370** to extend provisions of an Act by Parliament, but with prior concurrence of the State government.

The Rationale

- **Equal Treatment:** People living along the IB in Jammu live under similar conditions as those along the LoC. They also face continuous shelling and firing from across the border. While the population along the LoC was getting reservation benefits, those along the IB were not. Thus, through this ordinance the anomaly has been corrected.
- **Benefit Poor:** Extension of EWS reservation to J&K will benefit the poor population as seen in other part of the India.
- **Does not impact special status:** The ordinance in no way affected the rights of people of the State nor did it tinker with **Article 35-A** or **Article 370**, which provides special rights and privileges to permanent residents of J&K.
- **Humanitarian step:** Due to continuous cross border tensions, persons living alongside the IB suffer from socio-economic and educational backwardness. Shelling from across the border often compels these residents to move to safer places and is adversely impacting their education as Educational Institutions remain closed for long periods.
- **Not for the first time:** Governor's administration has given such a consent to extend an Act of Parliament also in year 1986, under former Governor Jagmohan. Thereafter, the nc leaders had moved J&K High Court against it and the petition is still pending with the Court.

Opposition To The Move

- **Move to repeal Article 35A:** The Centre's decision to amend the Constitution order, to extend provisions of two Acts of Parliament to J&K, is seen in the State as a prelude to repeal **Article 35A**.

- **Violates Article 370:** The Article 370 defines State Government (for granting approval to the amendment of 1954 order) as the Head of the state acting on the advice of Council of Ministers. Thus, in the absence of an elected government, Governor does not have the requisite constitutional power to provide his consent. Thus, such amendment decision is unconstitutional and in violation of Article 370.
- **Widen Trust Deficit:** Amending Constitutional provisions in absence of an elected government also lead to further trust deficit between people in J&K and the Centre.

Ordinance On University Faculty Reservation

Syllabus: Indian Constitution - Historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

In News

The Union Cabinet has approved an ordinance to return faculty reservations in higher education institutions on basis of earlier **200-point roster system**, whereby the University or college as a whole is considered as a unit, rather than each department.

Method Of Reservation In University Teachers

- **Different eligibility criteria:** Earmarking reserved posts in teaching jobs in universities is more complex. This is because fewer vacancies are advertised and vacancies in different departments are not comparable. For instance, the eligibility for the post of assistant professor in political science is different from the eligibility for the same post in another subject.
- **13 point roster:** As per the formula for determining reserved posts, it is only after 13.33 positions (14 in round figure) are filled that every reserved category gets at least one post. Thus, the expression '13-point roster' reflects the fact that 13.33 (or 14) vacancies are required to complete one cycle of reservations.
- **Not adequately reserved:** Based on above rule, every 4th, 7th, 8th, 12th, and 14th vacancies are reserved for OBCs, SCs, OBCs, OBCs, STs respectively in the 13-point roster. Which means (i) there is no reservation for the first three positions and, (ii) even in the full cycle of 14 positions, only five posts or 35.7%, go to the reserved categories, which is well short of the constitutionally mandated ceiling of 49.5% (27% + 15% + 7.5%).
- **200 point roster:** In order to provide the constitutionally mandated 49.5% reservation, the UGC started to treat the university/college as a 'unit' (rather than individual departments) and adopted what is called the '200-point roster'. It is called '200-point' since all reserved categories can get their constitutionally mandated quantum of reservation once 200 seats are filled in the whole institution/university (rather than the department).
- **Decision of Allahabad HC:** Thus, the 200-point system of implementing reservations was adopted by all central universities by 2014. But, in April 2017, Allahabad High Court struck down the 200-point roster, saying that if the University is taken as a 'Unit' for every level of teaching and applying the roster, it could result in some departments/subjects having all reserved candidates and some having only unreserved candidates.
- **Decision of the SC and consequent ordinance:** This decision was also upheld by the Supreme Court (SC). Thus, the UGC in accordance with the SC judgement, notified changes to its guidelines, directing universities to treat the department, rather than the university or college, as the unit, thus bringing back the 13-point system. But, following a furore, the Cabinet cleared an ordinance to bring back the 200-point roster.

The Rationale

- **Earlier system phased out reservation:** The proportion of reservation in the **13-point roster**, irrespective of the number of posts filled, falls far short of the constitutionally mandated quota, in effect violating the Constitution itself.
- **Evidence of actual working:** The UGC report of 2016-17, shows the combined representation of SCs, STs, and OBCs among assistant professors, associate professors, and professors in all central universities (excluding colleges) were 32%, 7.8% and 5.4% respectively — less than the 49.5% reservation ceiling.
- **Protect rights of marginalized:** The ordinance will address the long standing demands of persons belonging to SCs/STs/SEBCs/Scheduled Caste/Scheduled Tribe and ensure their rights envisaged under the Constitution.
- **Two system of reservation:** The HC and SC order created two standards in the implementation of reservations in faculty recruitment: department as the unit (13-point roster) for SC/ST/OBC appointments and institution as the unit (200-point roster) for appointment of Physically Handicapped.
- **13 point roster also riddled with problem:** The problem of some departments/subjects having all reserved candidates and some having only unreserved candidates exists in the 13-point roster as well.

Way Forward

The best solution, without affecting the interests of unreserved categories, would be to make the roster (either 13-point or 200-point) for reserved positions by taking all reserved categories together (49.5%). In this way, every second post ($100/49.5 = \sim 2$) will be reserved, which can then be distributed among all reserved categories as per their respective quotas (OBC 27%, SC 15%, ST 7.5%).

IPU UN Women Map of Women in Politics

Syllabus: Parliament and State Legislatures- structure, functioning, conduct of business, powers & privileges and issues arising out of these.

In News

- The biennial Inter Parliamentary Union-UN Women map of Women in Politics was launched during the Commission on the Status of Women at the United Nations headquarters in New York.
- Equal representation in government positions is fundamental for a democracy to be truly representative and effective. More women in politics leads to more inclusive decisions and can change people's image of what a leader looks like.

Highlights Of The Report

- As per the report, the proportion of women ministers is at an all time high at 20.7 percent, 2.4 percentage points higher compared to last year. Whereas, the global share of women MPs at 24.3 percent has increased by nearly one point.
- However, women's representation in top-level leadership has decreased from 7.2 per cent of elected Heads of State to 6.6 per cent (10 out of 153), and from 5.7 per cent of Heads of Government to 5.2 per cent (10 out of 193)
- Nine countries (Spain, Nicaragua, Sweden, Albania, Colombia, Costa Rica, Rwanda, Canada and France) up from six in 2017, have 50 per cent or more women in ministerial positions. The number of countries with no women ministers decreased from 13 in 2017 to 11.

- Among countries in Asia, Pakistan progressed from having no women ministers since 2012 to reaching its highest-ever share of women ministers at 12 per cent.
- Electoral quotas for women have now spread to all regions of the world with more than 130 countries adopting quota policies. Evidence from elections held in 2018 demonstrates that well-designed quotas can pave the way to greater gender parity.
- The type of electoral systems also have an impact on women's representation, with the average share of women elected notably higher in proportional and mixed systems (26.5 per cent) compared with majoritarian systems (20 per cent).
- The types of portfolios held by women ministers are shifting. Although women continue to mainly hold portfolios on Social Affairs, strikingly, more women are in charge of portfolios traditionally occupied by men compared to last year: 30 percent more women ministers cover Defence, 52.9 percent more women cover Finance and 13.6 per cent more women cover Foreign Affairs.

Indian Scenario

- Lok Sabha had 11.8 percent (64 of 542 MPs) and Rajya Sabha had 11 percent (27 of 245 MPs) women MPs.
- Politically, women have been making their presence felt in voter turnouts. According to the Election Commission, the female voter turnout was higher than male turnout in 16 states and union territories out of 35 in the 2014 general elections.
- Among its eight South Asian neighbours, India ranks below Afghanistan, Bangladesh, Pakistan and Nepal.
- Factors such as domestic responsibilities, prevailing cultural attitudes regarding roles of women in society, lack of support from family, lack of confidence and finance are among the main reasons that prevent women from entering politics.
- 1993 was a watershed moment for women in Indian politics when 33 percent seats were reserved for women across all the local bodies of the country. It gave women an opportunity to come out of their houses and lead their block or municipality.
- However, the same political will has been missing at the State and Central levels, leading to numbers that do not inspire any confidence and continue to dish out a step-motherly treatment to the daughters of the country.

Way Ahead

- Despite some positive movement, the overwhelming majority of government leaders remain male. It is a shared responsibility between men and women to change this and ensure gender equality at all political levels by identifying the main barriers that are stopping women from accessing decision-making positions
- More emphasis should be given on girls education with courses that create awareness among girls regarding their political rights and how to exercise them, along with raising gender sensitive boys who appreciate the presence of women in various walks of life including politics.
- Greater political will is required in adopting well designed quotas and electoral systems that eliminate any legal barrier that might be hindering the opportunities for women to enter legislative and executive halls.

Conclusion

Recognising the significance of roles of women in decision making process is critical to strengthen women's agencies for building a progressive society with equality of opportunities among all citizens.

BJD Decides To Field 33 Per Cent Women

Syllabus: Parliament and State Legislatures- structure, functioning, conduct of business, powers & privileges and issues arising out of these.

In News

Biju Janata Dal (BJD) has shown a way out of chronic tokenism for women political participation (*i.e.* non-passing of women reservation bill) by promising that it will give 33% of Lok Sabha tickets to women.

Background

- **Data:** Women account for **49 %** of India's **90 crore voters**. The turnout of women voters has risen sharply over the years, and was the highest ever in the last Lok Sabha elections (at 65.5 per cent).
- **Current representation:** Currently, less than **12 per cent** of its Lok Sabha legislators are women.
- **Bill:** The **Constitution (One Hundred and Eighth Amendment) Bill, 2008** was introduced in Rajya Sabha with an aim to reserve **33% seats** in Lok Sabha and state legislative assemblies for women. However, bill lapsed with the dissolution of the 15th Lok Sabha.

Current Challenges To Women Reservation

- **Right to choice:** Reservation of seats in Parliament restricts choice of voters to women candidates.
- **Perpetuate inequality:** It would perpetuate the unequal status of women since they would not be perceived to be competing on merit.
- **Nepotism:** Reservation might promote wives and daughters of politicians whose constituencies.
- **Panchayat Pati:** It has been seen at the Panchayat level that male exercises undue influence on the work of their wives elected to power. This may also be done for women elected in Lok Sabha and Vidhan Sabha.
- **Diversion from critical issues:** Such policy will diverts attention from the larger issues of electoral reform such as criminalization of politics and inner party democracy.

Way Forward

BJD decision to field 33 per cent women in elections is enormously welcome, must be imitated by other parties. Thus, each party must push more women candidates into the fray.

Meghalaya High Court: Contempt of Court Order

Syllabus: Structure, organization, and functioning of Judiciary and Related Issues

In News

- The Meghalaya High Court found the Editor and Publisher of **Shillong Times** guilty of contempt and asked them to 'sit in a corner' till the rising of the court and imposing a fine of Rs. 2 lakh each.

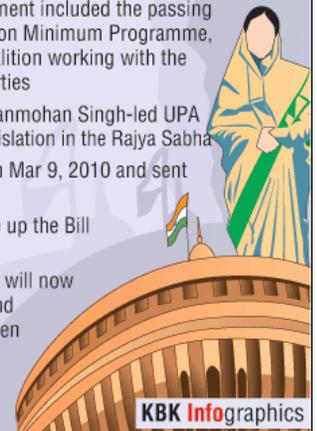
Women's Reservation Bill

Two decades and still pending

20 years after it was first introduced on Sept 12, 1996, the constitutional amendment bill to reserve 33% seats for women in Lok Sabha and state legislatures is still a work in progress

A look at the major milestones of Women's Reservation Bill

- Introduced in the Lok Sabha by the Deve Gowda government on Sept 12, 1996
- Referred to a Joint Parliamentary Committee chaired by Geeta Mukherjee, which presented its report to the Lok Sabha on Dec 9, 1996. The bill got lapsed with the term of the 11th Lok Sabha
- Atal Bihari Vajpayee-led NDA government re-introduced the bill in the 13th Lok Sabha in 1999. It moved the Bill second time amid pandemonium in 2002, but failed and Bill lapsed with the tenure of the House
- In 2004, the new UPA government included the passing of the Bill as part of its Common Minimum Programme, the touchstone of the UPA coalition working with the outside support of the Left parties
- On May 6, 2008, a resolute Manmohan Singh-led UPA government introduced the legislation in the Rajya Sabha
- Rajya Sabha passed the Bill on Mar 9, 2010 and sent to Lok Sabha for ratification
- 15th Lok Sabha could not take up the Bill and it got lapsed again
- For the Bill to become a law, it will now have to be again introduced and passed by both Houses and then have to be passed by half of India's state legislatures and signed by the President



- It has been seen as the heavy-handed response for comments in the newspaper and raise the issue of use of contempt law against freedom of expression. Further, what makes the order even more unfortunate is the explicit threat to ban the newspaper and jail them if they fail to pay the fine.

Meaning Of The Contempt And Law Governing The Same

- **Meaning:** It means publication of a thing which prejudices or interfere with due course of judicial proceeding or interfere or obstruct administration of justice.
- **Law governing the same:** Article 129 and 215 empower SC and HC to punish people for contempt of court. Further, the Parliament has also enacted **Contempt of Court Act, 1971**, which recognizes civil and criminal contempt.

Problem With The Contempt Law

- **Misuse:** It has been observed that these provisions has been used by judges to cover up their own misdeeds than to uphold the law.
- **Ambiguity in application:** There has been no clear-cut rule governing contempt law. This has been seen in case where **Arundhati Roy** was found to be in contempt of Bombay High Court for criticizing HC decision rejecting bail of Professor Saibaba.
- **Impact freedom of speech:** The Contempt law has also been seen to be in violation of the freedom of speech and expression guaranteed by **Article 19(1)(a)** of the Constitution.
- **International experience:** The European democracies such as Germany, France, Italy *etc.*, there is no power to commit for contempt for scandalizing the court. In UK, the offence of scandalizing the court has become obsolete.

Way Forward

While there may be a need to curb tendentious criticism of the judiciary and self-serving comments on ongoing proceedings in mainstream and social media, there is a compelling case to use the contempt law sparingly and avoid the impression that it is being used to stifle free speech or dissent.

Issue Of Tribalization Of Justice

Syllabus: Structure, organization, and functioning of Judiciary and Related Issues

In News

- Recently, the Chief Justice of India Ranjan Gogoi said that the numerous tribunals, once meant to lighten the burden of high courts across the country, have now become virtually non-functional, crippled by a chronic lack of infrastructure, manpower and an irregular appointment mechanism.
- The Bench is hearing a batch of petitions, led by the **Madras Bar Association**, challenging the amendments in the **Finance Act, 2017** which have modified the terms of appointment and functioning in various key statutory tribunals, including the National Green Tribunal (NGT). The petitioner also allege that the amendments amount to dilution of judicial independence and a threat to the Constitution.

Challenges

- **Separation of power:** Tribunalization is seen as encroachment in judiciary by the government.
- **Devalue the authority of HCs:** The appeals from tribunal goes directly to the SC, bypassing High Courts. In this case, SC would have less time and resources for constitutional matters.
- **Rampant Tribunalization:** It has also been seen that various tribunal have been established in regular course without considering need or making any due analysis.

- **Costly:** Tribunals lead to justice becoming costly and less accessible as unlike HC's, tribunals are not present in all states.
- **High backlog of cases:** As per the report of the of the law panel, the top five central tribunals in the country have a combined backlog of **over 3.50 lakh cases**.

Way Forward

- As per the SC decision in **R. Gandhi Case**, it is incumbent upon the government that when the existing jurisdiction of a court is transferred to a tribunal, its members should be persons of a rank, capacity and status as nearly as possible equal to the rank, status and capacity of the court.
- Moreover, the appointments to members should be done by an impartial and independent selection committee. Further, the administrative support for all Tribunals should be from the Ministry of Law & Justice.

Amendment In Form 26

Syllabus: Elections and Representation of People's Act

In News

- The Law Ministry made it mandatory for election candidates to reveal their income-tax returns of the **last five years**, as well as the details of their offshore assets (for self, spouse, HUF and dependents). This was done by amending **Form 26**.
- Earlier, a candidate had to only declare the last I-T return (for self, spouse and dependents). Moreover, details of foreign assets were not sought.

About Form 26

- **Introduction:** A candidate in an election is required to file an affidavit called **Form 26** that furnishes information on her assets, liabilities, educational qualifications, criminal antecedents (convictions and all pending cases) and public dues, if any.
- **Nomination paper:** The affidavit has to be filed along with the nomination papers and should be sworn before an Oath Commissioner or Magistrate of the First Class or before a Notary Public.
- **Result of incorrect information:** The nomination paper can be rejected if the candidate fails to fill it in full. Moreover, if it is alleged that a candidate has suppressed information or lied in her affidavit, the complainant can seek an inquiry through an **election petition**. If the court finds the affidavit false, the candidate's election can be **declared void**.

Rationale For Such A Move

- **Help voters:** The objective behind bringing changes in Form 26 is that it would help voters make an informed decision. Thus, with the recent amendment, voters will know the extent to which a serving MP's income grew during his five years in power.
- **Prevent criminalization:** The affidavit would make them aware of the criminal activities of a candidate, which could help prevent people with questionable backgrounds from being elected to an Assembly or Parliament.

Enforcement of Model Code of Conduct

Syllabus: Elections and Representation of People's Act

In News

Recently, after announcement of the election date, the Election Commission (EC) has ordered that social media post showing Wing Cdr. Abhinandan to be taken down as part of its regulation under Model Code of Conduct (MCC).

About MCC

- **Introduction:** The model code refers to a set of norms laid down by the EC, with the consensus of political parties. It is not statutory rules and regulations. Thus, not legally enforceable and EC usually uses moral sanction to get political parties and candidates to fall in line.
- **List of Do's and Don'ts:** It spells out the dos and don'ts for elections. Political parties, candidates and polling agents are expected to observe the norms, on matters ranging from the content of election manifestos, speeches and processions, to general conduct, so that free and fair elections take place.
- **Other regulations:** The code also states that the party in power, should ensure that it does not use its official position for campaigning. Ministers and other government authorities cannot announce financial grants in any form. No project or scheme which may have the effect of influencing the voter in favour of the party in power can be announced, and Ministers cannot use official machinery for campaign purposes.
- **Time of enforcement:** The Code comes into force on the **announcement of the poll schedule** and remains operational till the process is concluded, as provided in the notification. The MCC is also applicable to a caretaker government on premature dissolution of a State Assembly, as was the case in **Telangana**.
- **Mode of enforcement:** In case of electoral offences, malpractices and corrupt practices like inducements to voters, bribery, intimidation or any undue influence, the EC takes action against violators. The EC has also devised several mechanisms to take note of the offences, which include **joint task forces of enforcement agencies** and **flying squads**. The latest is the introduction of the **cVIGIL mobile app** through which audio-visual evidence of malpractices can be reported.
- **Application to social media:** The EC has taken the view that the MCC will also apply to content posted by political parties and candidates on the Internet, including on social media sites. On October 25, 2013, the Commission laid down guidelines to regulate the use of social media by parties and candidates. Candidates have to provide their email address and details of accounts on Twitter, Facebook, YouTube, etc., and add the expenditure on advertisements posted on social media to their overall expenditure for the election.

Election and Social Media

Syllabus: Elections and Representation of People's Act

In News

- The misuse of social media in democratic processes has been a cause for concern in multiple countries. Earlier, Facebook chief executive Mark Zuckerberg testified before Senate committees for Facebook's failure to stop Russian election interference in US polls.
- Recently, the Election Commission of India (ECI/EC) and the Internet and Mobile Association of India (IAMAI), representing six social media platforms, have enacted a '**Voluntary Code of Ethics**'

for the Lok Sabha polls, as part of which the social media firms will act against paid advertisements that violate the poll panel's norms.

- But the problem is that the **Section 126** of The Representation of the People (RP) Act, which prohibits campaigning in the last two days before voting is not applicable to the new media and social media.

Background

- **Rise of internet use:** ECI began conversations on social media in 2013, but the scale and reach of public engagement on Internet-based platforms has increased enormously since then. The Internet base has more than doubled to almost half a billion users since the time of the last elections.
- **Increased expenditure:** Political parties have made a significant advertisement push online. According to Facebook's advertisement portal, Indians spent almost Rs 10 crore between February 24 and March 9 this year on political ads on the platform.
- **Cambridge Analytica issue:** Facebook's Cambridge Analytica controversy made election integrity and social media a topic of discussion in India. Cambridge Analytica's Indian partner Ovleno Business Intelligence (OBI) named the BJP, Congress, and JD(U) as clients on its website, but all the parties denied working with the data firm.
- **International scenario:** Social media executives have been called into European and American government hearings and Indian government institutions too, have joined in the questioning of these companies. Twitter came under fire earlier this year for alleged anti-right-wing bias.

Suggestions

- **Pre-certification for political advertisements online:** All political advertisements on social media should require pre-certification from **EC's Media Certification and Monitoring Committees (MCMCs)**.
- **Removing content in the silence period:** The social media companies must remove content within the 48 hour silence period within three hours of notice.
- **Coordination:** The social media platforms should also engage with the office of the ECI to train the designated officer and collaborating to ensure purity of election.

Pinaki Chandra Ghose: India's First Lokpal

Syllabus: Constitutional/Statutory/Regulatory/Quasi-Judicial Bodies

In News

- Former Supreme Court (SC) judge and current member of the National Human Rights Commission (NHRC), Pinaki Chandra Ghose, has been appointed as India's first anti-corruption ombudsman, or Lokpal.
- The four judicial members appointed by the President are former Allahabad High Court Chief Justice Dilip Babasaheb Bhosale, former Jharkhand High Court Chief Justice Pradip Kumar Mohanty, former

A long-drawn debate
A short history of the Lokpal Bill from the 1960s to the present

- 1963:** The idea of an Ombudsman first came up in Parliament during a discussion on budget allocation for the Law Ministry
- 1966:** The First Administrative Reforms Commission recommended two independent authorities — one at the Centre and one at the State level — to probe complaints against public functionaries, including MPs
- 1968:** Lokpal Bill introduced in Parliament, but was not passed. Eight attempts were made till 2011 to pass the Bill, but all in vain
- 2002:** The Constitution review commission headed by M.N. Venkatachaliah recommended appointment of the Lokpal and the Lokayuktas. It also recommended that the Prime Minister be kept out of the Lokpal's ambit
- 2005:** The second ARC recommended that a Lokpal be established without delay
- 2013:** Lokpal Act, 2013, passed in Parliament
- 2016:** Lok Sabha agreed to amend the 2013 Act
- 2017:** The SC on April 27 clarified that the Lokpal appointment process need not be stalled merely due to the absence of the Leader of the Opposition, who is a member of the Lokpal selection committee as per the 2013 Act

Manipur High Court Chief Justice Abhilasha Kumari and current Chief Justice of Chhattisgarh High Court Justice Ajay Kumar Tripathi.

- The non-judicial members are Maharashtra Chief Secretary Dinesh Kumar Jain, retired IPS officer and ex-DG of Sashastra Seema Bal Archana Ramasundaram, retired IRS official Mahender Singh and retired IAS officer I P Gautam, the full time managing director of Gujarat Metro Rail Corporation (GMRC) Limited.

About The Lokpal Act

- **Jurisdiction:** The Act provides for setting up of Lokpal at the centre and Lokayuktas in the States to probe corruption complaints against top functionaries and public servants, including the Prime Minister and the Chief Ministers. It also covers any society or trust or body that receives foreign contribution above **Rs. 10 lakh**.
- **Composition:** Lokpal will also consist of not more than **eight members** out of whom **50 per cent** shall be judicial members.
- **Eligibility:** The Lokpal is to be headed by a chairperson, who is or has been a Chief Justice of India or is or has been a Judge of the SC or an eminent person of impeccable integrity and outstanding ability having special knowledge and expertise of not less than **twenty-five years** in matters relating to anti-corruption policy, public administration, vigilance, finance including insurance and banking, law and management.
- **Two stage appointment process:** The appointment system is a two-stage process. A **search committee** has to be formed. It recommends a panel of names to the high-power **selection committee**, which comprises the Prime Minister, the Speaker of the Lok Sabha, the Leader of the Opposition, the Chief Justice of India (or his nominee) and an eminent jurist.
- **Salary & allowances:** Salaries, allowances and service conditions of the Lokpal will be the same as those for the Chief Justice of India; those for other members will be the same as those for a judge of the SC.
- **Wings of Lokpal:** The Lokpal will have an **Inquiry Wing**, headed by the Director of Inquiry, for the purpose of conducting preliminary inquiry into any offence alleged to have been committed by a public servant punishable under the **Prevention of Corruption Act, 1988**. It will also have a **Prosecution Wing**, headed by the Director of Prosecution, for the purpose of prosecution of public servants in relation to any complaint by the Lokpal under this Act.
- **Power of Lokpal:** Lokpal will take over the work of sanctioning prosecution, besides exercising its power to order preliminary inquiries and full-fledged investigations by any agency, including the CBI.
- **Disclosure of assets:** The public servants will have to declare their assets and liabilities in a prescribed form. If any assets found in their possession is not declared, or if misleading information about these are furnished, it may lead to an inference that assets were acquired by corrupt means.

Loopholes In the Act

- **Non-compliance: Section 63** of the Act mandates establishment of the Lokayukta in every state, where it is not established within a period of **one year** from the date of commencement of this Act. But many states have not done so till now. Tamil Nadu, for instance, has enacted the law only now, but Lokayukta appointments are yet to be made.
- **Against federation:** Section 63 further shows that it encroaches on the legislative powers of States.
- **Limited scope:** The Act is only applicable to public servants, who come within the purview of the Union of India and not the states. Thus, a very large part of the corruption that one talk about

involves state governments, their agencies and bodies of the local self-government, which would fall entirely outside the purview of the central Lokpal.

- **Not a complete solution:** A fully empowered lokayukta in Karnataka, enjoying terms of service equivalent to the chief justice of India, has failed to contain corruption in that state. There were instances when the institution there itself came under a serious cloud, and when the lokayukta himself had to resign following a controversy involving his own son.

Final Analysis

Now that the Lokpal has been chosen, victims of corruption have a viable avenue of redress. But at the same time, it may be unrealistic to expect any dramatic impact on the lives of the common people, but the Lokpal and other members have a historic responsibility to live up to popular expectations.

Need For Independent Institutions Bill

Syllabus: Constitutional/Statutory/Regulatory/Quasi-Judicial Bodies

In News

After the recent controversy in the Independent institutions such as Reserve Bank of India (RBI), Central Bureau of Investigation, there has been demand for separate legislation to ensure independence of these organization.

About Independent Institutions

- **Fourth branch of the government:** The independence Institutions have been characterized as the **4th branch** of the state, because of their distinctiveness from the executive, legislature and judiciary.
- **Example of such institutions:** In the Indian context, institutions of the fourth branch include the Election Commission, Lokpal, Central Bureau of Investigation, Reserve Bank, National Statistics Commission, National Human Rights Commission, Information Commission, Central Vigilance Commission, C&AG, Attorney General, Public Service Commission, University Grants Commission, Finance Commission, NITI Aayog, media regulators and many others. Some of these institutions are **constitutional**; others have **quasi-constitutional status**.
- These institutions are tasked with the protection of key constitutional values such as democracy, legality, impartiality, probity, human rights and price stability.

Objective/Provisions Of Such Bill

- **Need for separate legislation:** While **Chapter Nine** of the **South African Constitution** explicitly guarantees independence to the fourth branch of the state, the Indian Constitution does so implicitly by expecting Parliament to enact a law prescribing detailed mechanisms for appointments to and functioning of such institutions. For example, **Articles 280(2)** (Finance Commission) and **Article 324(2)** (Election Commission). However, an Independent Institutions Bill remains a long-unrealized constitutional aspiration.
- **Overall objective:** An independent institutions bill should seek the following objectives: one, multi-partisan appointments, two, operational independence and impartiality, and three, accountability to the legislature rather than the executive.
- **Setting up IICs:** There is a need to put multi-partisan legislative committees called **Independent Institutions Committees (IICs)**, in the driving seat. Parliamentary IICs could include two nominees of the ruling party/alliance and a nominee each from the three largest opposition parties in each House. The Vidhan Sabha IICs could have one governmental nominee and one each from the two largest Opposition parties.

- **Manpower and resources:** The IICs should be guaranteed adequate staff and resources to permit the proper discharge their functions.
- **Appointment process:** The Rajya Sabha's IIC should issue a public advertisement at least **three months** before a post in an institution is due to become vacant. Based on applications and consultations with relevant stakeholders, the IIC should draw up a shortlist. From this shortlist, the final selection should be made by the Lok Sabha's IIC for central institutions, and the relevant Vidhan Sabha's IIC for state institutions.
- **Security of tenure:** The appointments should be for a fixed term. Removal from office should require at least four votes in the Rajya Sabha IIC, after a specially-instituted independent inquiry finds a breach of a statutorily specified offence. Salaries, perks and staff provisions should be statutorily protected. Transfers and interim appointments may be made only by a majority vote in the Rajya Sabha IIC.
- **Ensuring just decisions:** All institutional decisions should be made by a governing committee rather than the chief officer acting on her own. Except promotions within the institution, appointees should not be eligible for any public office after stepping down.

World Consumer Rights Day

Syllabus: Government Policies and Interventions For Development In Various Sectors and issues arising out of their design and implementation.

In News

- World Consumer Rights Day is celebrated every year on 15 March as part of an initiative by Consumer International, a membership organisation for consumer groups around the world.
- It is a day marked to raise global awareness about consumer rights and needs, to demand that the rights of all consumers are respected and protected, and to protest against market abuses and social injustices which undermine those rights.
- By definition, consumer rights mean that each consumer has the right to have information about the quality, potency, quantity, purity, price and standard of goods or services.
- **Background:** World Consumer Rights Day was inspired by President John F Kennedy, who sent a special message to the US Congress on 15th March 1962, in which he formally addressed the issue of consumer rights.
- **Theme:** The theme for World Consumers day 2019 is "Trusted Smart Products" chosen in view of the increased popularity of smart gadgets like smart phones to wearable fitness trackers, to voice-activated assistants and smart TVs.
- It highlights the needs of consumers from a connected world and underlines the importance of putting them at the heart of the development of such digital products and services.

Indian Scenario

- The National Consumer Rights Day is observed every year in India on December 24, as the Consumer Protection Act, 1986 has been enacted on the same day in 1986.
- The Act applies to all goods and services unless specifically exempted, which covers the private, public and cooperative sectors.
- The rights under the Act flow from the rights enshrined in the Constitution of India. The Right to Information Act (RTI), which has opened up governance processes of the country to the common public, also has far-reaching implications for consumer protection.

- The Act mandates establishment of **Consumer Protection Councils** at the Centre as well as in each State and District. The Central Council is headed by Minister In-charge of the Department of Consumer Affairs in the Central Government and the State Councils by the Minister In-charge of the Consumer Affairs in the State Governments.
- To provide inexpensive, speedy and summary redressal of consumer disputes, quasi-judicial bodies have been set up in each District and State and at the National level, called the **District Forums**, the **State Consumer Disputes Redressal Commissions** and the **National Consumer Disputes Redressal Commission** respectively.
- The Act also confers six basic rights that every Indian must know.
 - The right to be protected from all kind of hazardous goods and services
 - The right to be fully informed about the performance and quality of all goods and services
 - The right to free choice of goods and services
 - The right to be heard in all decision-making processes related to consumer interests
 - The right to seek redressal, whenever consumer rights have been infringed
 - The right to complete consumer education
- However, lack of awareness remains a big challenge in the way of the benefits fully reaching the people.

JI-VAN Yojana

Syllabus: Government Policies and Interventions For Development In Various Sectors and issues arising out of their design and implementation.

In News

The Cabinet Committee on Economic Affairs has approved the Pradhan Mantri JI-VAN (Jaiv Indhan-Vatavaran Anukool fasal awashesh Nivaran) Yojana for **providing financial support to Integrated Bioethanol Projects** using lignocellulosic biomass and other renewable feedstock.

Background

- Government launched the Ethanol Blended Petrol (EBP) programme in 2003 for undertaking blending of ethanol in petrol to address environmental concerns due to fossil fuel burning, provide remuneration to farmers, subsidize crude imports and achieve forex savings.
- Presently, EBP is being run in 21 States and 4 UTs of the country. Under EBP programme, OMCs are to blend upto 10% of ethanol in petrol. The present policy allows procurement of ethanol produced from molasses and non-food feed stock like celluloses and lignocelluloses material including petrochemical route.
- Ministry of Petroleum & Natural Gas has targeted to achieve 10% blending percentage of ethanol in petrol by 2022. Despite efforts of the government such as higher ethanol prices and simplification of ethanol purchase system, the highest ever ethanol procurement stands around 150 crore litres during Ethanol supply year 2017-18 which is sufficient for around 4.22% blending on pan India basis.
- Therefore, an alternate route viz. Second Generation (2G) ethanol from biomass and other wastes is being explored by MoP&NG to bridge the supply gap for EBP programme. In this direction, JI-VAN Yojana is being launched as a tool to create 2G ethanol capacity in the country and attract investments in this new sector.

Provisions

- The scheme focuses to **incentivise 2G Ethanol sector** and support this nascent industry by creating a suitable ecosystem for setting up commercial projects and increasing research and development in this area.
- The JI-VAN Yojana will be supported with total financial outlay of Rs.1969.50 crore for the period from 2018-19 to 2023-24. Under this Yojana, 12 commercial scale and 10 demonstration scale Second Generation (2G) ethanol Projects will be provided a Viability Gap Funding (VGF) support in two phases.
- **Centre for High Technology (CHT)**, a technical body under the aegis of MoP&NG, will be the implementation agency for the scheme

Benefits

Apart from supplementing the targets envisaged by the government under EBP programme, the scheme will also have the following benefits:

- Meet the government's vision of **reducing import dependence** by way of substituting fossil fuels with biofuels.
- Achieve **GHG emissions reduction targets** through progressive blending/ substitution of fossil fuels.
- **Address environment concerns** caused due to burning of biomass/ crop residues & improve health of citizens.
- **Improve farmer income** by providing them remunerative income for their otherwise waste agriculture residues.
- **Create rural & urban employment opportunities** in 2G ethanol projects and biomass supply chain.
- **Contribute to Swacch Bharat Mission** by supporting the aggregation of non-food biofuel feedstocks such as waste biomass and urban waste.
- Indigenization of second generation biomass to ethanol technologies.

Rafale Facts And Use Of Official Secrets Act

Syllabus: Important aspects of governance, transparency and accountability

In News

- Recently, in the Rafale case, the government has claimed in the Supreme Court (SC) that documents related to the Rafale fighter deal were stolen from the Ministry of Defence and threatened to invoke the **Official Secrets Act, 1923** (OSA) and initiate criminal action against two publications, which ran reports on the basis of these documents.
- Recent high-profile case involve scientist **Nambi Narayanan**, who was charged, tried and acquitted of espionage charges and later directed to be paid compensation by the SC.

About The OSA

- **Aim:** The Act is designed to keep certain kinds of information confidential, including, but not always limited to, information involving the affairs of state, diplomacy, national security, espionage and other state secrets.

- **Penalties for information leak:** The Act also classifying certain categories of information as 'official secrets'. Further, it punishes the communication of any information obtained in contravention of the Act, which could prejudice the security of the state, or friendly relations with foreign states. Furthermore, it punished people who knowingly receive such information — a provision clearly designed to capture investigative journalism.

Arguments In Favour Of Use Of OSA

- **Overall issues:** The matter involves the national security and stolen material could not be relied upon unless the source is established.

Arguments Against Use Of OSA

- **Impact on freedom of speech:** The attempt to target the messenger and to criminalize the whistleblower, all under cover of national security or official secrecy, is an attack on the freedom of expression, press freedom and the people's right to know.
- **RTI to trump OSA:** Since the passing of the Right to Information Act (RTI) 2005, the right to freedom of speech and expression and right to know has trump the archaic and increasingly anachronistic OSA. Further, **Section 22 of the RTI Act** declares that the RTI is to have an overriding effect over OSA. Further, **Section 24** mandates even security and intelligence organizations to disclose information on corruption and human rights violations. Finally, **Section 8(2)** compels the government to disclose information, if public interest in disclosure outweighs the harm to protected interests.
- **Archaic law and its misuse:** The OSA is a left-over from the despotism of the colonial era, was intended to protect the empire from its enemies but is now a key tool for silencing a questioning citizenry. This law has remained on the book, reinforcing the parent-child relationship between the state and its subjects.
- **Problem with Section 5:** The law primarily targets officials entrusted with secret documents, codes and other material. But, **Section 5** criminalizes voluntarily receiving and possessing such documents, if given to them in contravention of the Act. The **Law Commission in 1971 report** observed that its wording was quite wide. However, it left it to the government to decide against prosecution, if the information leak did not materially affect the state's interest.
- **Issue of corruption:** The use of OSA in such a situation has also been seen as the attempt to protect the wrongdoers in the corruption scandal.
- **Suggestion of the Committee:** **Justice Goswami Committee** established by the Janata government in 1977 recommended to immediately repeal the OSA.
- **International convention:** The modern trend in today's world is towards less secrecy and more information. **The International Covenant on Civil and Political Rights (ICCPR), 1966**, specifically includes the right to freedom of expression.

Final Analysis

- What falls under the Official Secrets Act in a democracy is something that needs constant contest, the need for official secrecy has to be weighed against the citizen's right to know.
- There is undoubtedly a case for distinguishing between an act that helps the enemy or affects national security, and one that advances legitimate public interest.

Centre For Disability Sports

Syllabus: Mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

In News

- The Union Cabinet has approved the setting up of a Centre for Disability Sports in Gwalior, a move which is likely to benefit para-sports in the country. The centre will be built at an estimated cost of Rs 170.99 crore, spread over a period of five years.
- In many developed countries, opportunities exist from the grassroots to elite levels for people with disability to showcase their abilities in sports and physical activity. However, India does not have a single specialized sports training facility for the specially abled.
- The decision is in line with **Section 30 of the Rights of Persons with Disabilities (RPwD) Act, 2016** which requires the government to take steps to ensure effective participation of disabled persons in sports activities by creating appropriate infrastructure.
- It will be registered under the Societies Registration Act, 1860 and the project is expected to be completed in two years time by March, 2021.
- The centre will have a governing body comprising a maximum of 12 members, some of them experts from national level sports federations apart from experts in para games.
- The facilities so developed would be multi-functional centres with provision for training, selection, sports academics and research, medical support, spectator galleries and suitable for holding national/international events.

Significance

- Improved sports infrastructure created by the centre will ensure effective participation of persons with disabilities in sports activities and also **enable them to compete at the national and international levels.**
- Numerous studies have revealed that sports participation results in **improved functional status and quality of life** among people with selected disabilities.
- It has also been shown to **improve physical fitness and general mood in psychiatric patients with depressive and anxiety disorders.** Additionally, it has been linked to improvements in self-confidence, social awareness and self-esteem and can contribute to empowerment of people with disabilities.
- While sport has a value in everyone's life, it is even more important in the life of a person with a disability. Rehabilitative influence of sport is not only restricted to the physical domain but also goes a long way on **rehabilitating people with a disability into society.**

Drugs and Clinical Trials Rules, 2019

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- The Union Health Ministry has notified the Drugs and Clinical Trials Rules, 2019. The rules will apply to all new drugs, investigational new drugs for human use, clinical trials, bio-equivalence studies and ethics committees.

- The aim is to **promote clinical research in India, have predictable, transparent and effective regulations** for such trials and also **make faster accessibility** of new drugs to the Indian population.

Background

- Following a public interest litigation (PIL) filed in the Supreme Court, and subsequent findings by a Parliamentary Committee over many irregularities in clinical trials, which included **lack of consent and compensation** to the clinical trial subjects, the government had tightened the rules.
- This halted most of the clinical trials, and **led to the shutdown of several Clinical Research Organisations (CROs)**, leaving others to relocate their trials to other countries.
- India has the second largest population in the world and carries the **highest burden of diseases, but carries out less than 1.2 percent of the clinical trials** conducted globally.
- The industry has been on a recovery path after the number of clinical trial approvals granted by the Drug Controller General of India (DCGI) hit a low of 17 approvals in 2013.

Rules

- **Reduction in time for approving applications** for conducting a clinical trial of a new drug or investigational new drug to **30 days for drugs manufactured in India and 90 days for those developed outside the country**. In case of no communication from DCGI, the application will be deemed to have been approved.
- The requirement of a local clinical trial may be waived for approval of a new drug **if it is approved and marketed in any of the countries** (EU, UK, Australia, Japan, US), to be specified by the DCGI with the approval of government from time to time
- The validity of clinical trial approvals has been determined as two years for pharmaceutical companies to initiate a study, which is extendable by one year.
- Patients will be **enlisted for trials with informed consent** and an ethics committee will monitor the trials and decide on the amount of compensation in cases of adverse events. Also, compensation in cases of death and permanent disability or other injuries to a trial subject will be decided by the DCGI.
- In case of injury to a clinical trial subject, medical management will be provided as long as required as per the opinion of the investigator or till such time it is established that the injury is not related to the clinical trial.
- Conditions for providing post-trial access of drugs to patients who require it have been defined for the first time. In a first, orphan drugs have been defined as a drug intended to treat conditions which affects not more than five lakh persons in India. In addition, fee waivers for orphan drug trials will encourage more trials for rare diseases in India.

Significance

- As per the Indian Society for Clinical Research (ISCR) the new rules are well balanced and **will further the conduct of ethical and quality clinical trials in the country** which, in turn, will benefit patients.
- The new rules will **protect the rights, safety and well-being of patients while ensuring a strong scientific base** for the conduct of clinical trials.
- It will **lead to more stability and growth in clinical research** being done in India, which will ultimately ensure that the patients have access to faster and more effective treatment.

- It has the potential to invigorate the clinical research industry, which was nearly on its death bed a few years ago and will go a long way in **reassuring local and global stakeholders about India's commitment to building a robust regulatory and clinical research ecosystem.**

West Nile Virus

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

The death of a child in Kerala's Malappuram district has drawn attention to the epidemiology of the little-known West Nile Virus in India. Though awareness is low, the virus is endemic to several states.

Epidemiology

- According to the World Health Organisation (WHO), the virus is a member of the flavivirus genus and belongs to the Japanese encephalitis antigenic complex of the family Flaviviridae.
- First detected in a woman in West Nile district of Uganda in 1937, the virus was later identified in birds (crows and columbiformes) in Nile delta region in 1953. The first sign of its presence in India came from positive antibody tests among residents of Bombay in 1952.
- Commonly found in Africa, Europe, the Middle East, North America and West Asia, WNV is a viral infection which is typically spread by mosquitoes and can cause neurological disease as well as death in people. It has so far been detected in almost all kinds of mosquitoes, not just the common three — Anopheles, Culex and Aedes — but also in lesser-known types such as Culiseta, Mansonia and Psorophora.
- The largest outbreaks of the virus were recorded in Greece, Israel, Romania, Russia and USA.

Transmission of Virus

- The disease is transmitted to humans through mosquito bites. Mosquitoes become infected when they feed on infected birds, which circulate the virus in their blood for a few days.
- It can also spread through blood transfusion, from an infected mother to her child, or through exposure to the virus in laboratories.
- It is not known to spread by contact with infected humans or animals, or even when the infected animal is ingested, provided it has been adequately cooked. Till date, no human-to-human transmission through casual contact has been reported.

Symptoms

- The infection is either asymptomatic (no symptoms) or can result in West Nile fever or severe West Nile disease. People infected with WNV suffer from fever, headache, fatigue, body aches, nausea, vomiting, occasionally with a skin rash (on the trunk of the body) and swollen lymph glands.
- According to WHO, one in five people develop symptoms and require medication and one in 150 persons infected develop a severe form of the disease.
- While this can occur in people of any age, those over the age of 50 and some immunocompromised persons (for example, transplant patients) are at more risk of getting severely affected. However, WNV is dreaded because of the effects, often irreversible, that it has on the brain.
- The incubation period is usually 3 to 14 days. Those infected with the virus are required to be hospitalised and put on respiratory support and intravenous fluids. No vaccine is available for humans.

Cause For Concern

- There are no reports so far of the virus spreading to other parts of the country. Over the years, cases have been sporadic and have occurred mostly in the Northeast. In the last three years, 12 cases have been reported outside the Northeast.
- According to ICMR, the path the virus took en route to Malappuram, where the six-year-old victim is originally from, may be of academic interest, but has little relevance from a public health perspective.
- The fact that the numbers of WNV are far lower than those of the other better known mosquito-borne diseases like dengue etc explains, that the transmission is not very efficient and the replication rate of the organism is significantly low.

WHO Strategy To Fight Flu Pandemics

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- WHO has recently released a **Global Influenza Strategy for 2019-2030** aimed at protecting people in all countries from the threat of influenza.
- The strategy meets one of WHO's mandates to improve core capacities for public health, and increase global preparedness and was developed through a consultative process with input from member states, academia, civil society, industry, and internal and external experts.
- Influenza remains one of the world's greatest public health challenges. Every year across the globe, there are an estimated 1 billion cases, of which 3 to 5 million are severe cases, resulting in 290 000 to 650 000 influenza-related respiratory deaths.

The Strategy

- The aim of the strategy is to prevent seasonal influenza, control the spread of influenza from animals to humans, and prepare for the next influenza pandemic.
- The new strategy outlines a path to protect populations every year and helps prepare for a pandemic through strengthening routine programmes. It has two overarching goals:
 - Build **stronger country capacities** for disease surveillance and response, prevention and control, and preparedness. To achieve this, it calls for every country to have a tailored influenza programme that contributes to national and global preparedness and health security.
 - Develop **better tools** to prevent, detect, control and treat influenza, such as more effective vaccines, antivirals and treatments, with the goal of making these accessible for *all* countries.

Pandemic Influenza

- An **influenza pandemic** is an epidemic of an influenza virus that spreads on a worldwide scale and infects a large proportion of the world population. In contrast to the regular seasonal epidemics of influenza, these pandemics occur irregularly – there have been about 9 influenza pandemics during the last 300 years, the most recent one being the 2009 flu pandemic, involving H1N1 influenza virus (swine flu)
- Pandemics can cause high levels of mortality and they occur when a new strain of the influenza virus is transmitted to humans from another animal species. Species that are thought to be important in the emergence of new human strains are pigs, chickens and ducks

- These novel strains are unaffected by any immunity people may have to older strains of human influenza and can therefore spread extremely rapidly and infect very large numbers of people.

Pulse Polio Program 2019

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- President Ram Nath Kovind recently launched the Pulse Polio Program 2019 by administering polio drops to children less than five years old, at the Rashtrapati Bhawan. The drops were administered on the eve of National Immunisation Day, which is observed on March 10.
- More than 17 crore children below five years across the country will be given polio drops as part of the central government's drive to sustain polio eradication from the country.
- To provide additional protection to children, the government has also introduced the injectable Inactivated Polio Vaccine (IPV) into its routine immunization program.
- The polio eradication programme in India aims to protect children from the crippling disease by conducting two nationwide mass polio vaccination campaigns and two to three sub-national campaigns each year.
- The last reported cases of wild polio in India were in West Bengal and Gujarat in January 2011. On 27 March 2014, the WHO declared **India a polio free country**.

Polio

- Polio also called as Poliomyelitis, is a highly infectious viral disease, caused by a human enterovirus of the *Picornaviridae* family, which mainly affects young children. The virus is transmitted by person-to-person, spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food).
- Initial symptoms of polio include fever, fatigue, headache, vomiting, stiffness in the neck, and pain in the limbs. In a small proportion of cases, the disease causes paralysis, which is often permanent. There is no cure for polio, it can only be prevented by immunization.
- Paralytic poliomyelitis, experienced in less than 1% of poliovirus infections, occurs when the virus enters the central nervous system and replicates in anterior horn cells (motor neurons) of the spinal cord. When it multiplies in the nervous system, the virus can destroy nerve cells (motor neurons) which activate skeletal muscles. The affected muscles lose their function due to a lack of nervous enervation, a condition known as acute flaccid paralysis.
- In May 1988 the World Health Assembly resolved to eradicate polio from the world. As a result of this eradication program, the number of poliomyelitis cases have been reduced by over 99%, and the endemic circulation type 2 virus has been halted.

Polio Vaccine

- Poliovirus infection can provide lifelong immunity against the disease, but this protection is limited to the serotype involved. Infection with one type does not protect an individual against infection with the other two types.
- The development of effective vaccines to prevent paralytic polio was one of the major medical breakthroughs of the 20th century. Two different kinds of vaccines are available, an inactivated (killed) polio vaccine (IPV) and a live attenuated oral polio vaccine (OPV).

Oral Polio Vaccine

- OPV was first introduced in 1961 and consists of a mixture of the three live attenuated poliovirus serotypes (Sabin types 1, 2 and 3), selected for their lower neurovirulence and reduced transmissibility.
- Following oral administration, OPV strains produce a local immune response in the lining of the intestines which is the primary site for poliovirus replication. Mucosal immunity decreases the replication and excretion (shedding) of the virus, and thus provides a potential barrier to its transmission.
- This mechanism, combined with the ease of oral administration and the very low cost of the vaccine, have made it the vaccine of choice for the global eradication programme.
- Although OPV is a safe vaccine, on rare occasions adverse events may occur. Vaccine-associated paralytic poliomyelitis (VAPP) is the most important of these rare adverse events.
- Sabin viruses can spread in populations where the coverage of OPV is low and they can acquire the neurovirulence and transmissibility characteristics of WPV. This may result in polio cases and outbreaks as circulating vaccine-derived poliovirus (cVDPV).

IPV

- IPV was first introduced in 1955 and is produced from wild-type poliovirus strains of each serotype that have been inactivated (killed) with formalin. It provides serum immunity to all three types of poliovirus, resulting in protection against paralytic poliomyelitis.
- As an injectable vaccine, it can be administered alone or in combination with other vaccines (e.g., diphtheria, tetanus, pertussis, hepatitis B, and haemophilus influenza).
- IPV has been used successfully in the polio eradication programs in a few countries, notably in Scandinavia and the Netherlands, but until recently most countries have used the oral polio vaccine.
- Amid a global shortage of injectable inactivated polio vaccine (IPV), countries in the South-East Asia Region are opting to use fractional doses of IPV, an evidence-based intervention that not only ensures continued protection of children against all types of polioviruses, but also helps save vaccine – a move bound to positively impact global vaccine supply in the coming years.
- India became the first country globally to introduce fractional doses of IPV in childhood immunization programme in early 2016.

Lancet Commission on Tuberculosis

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

The Lancet Commission on Tuberculosis was recently released. It provides critical reflection on progress to-date and a roadmap for countries and their development partners to achieve global commitments towards ending the tuberculosis epidemic.

Background

- The WHO first declared TB a public health crisis in 1993, and in 2018, the first-ever UN High-Level Meeting on TB made ending the disease a global priority. This included ambitious goals to treat 40 million people and to prevent 30 million new cases between 2018-2022.

- Today, around a quarter of the world's population has a tuberculosis infection, which causes about 1.6 million annual deaths, making it the leading infectious killer of the time. Although progress has been made in reducing the global burden of tuberculosis in the past 25 years, it has occurred at a frustratingly slow rate.
- Declines in tuberculosis mortality are not keeping pace with reductions in deaths from other infectious diseases of global importance such as HIV and malaria, and the world is not on track to meet targets set out in the Sustainable Development Goals and the WHO End TB Strategy.

India's Status

- India has the highest burden of TB mortality in the world and accounts for 27.3 per cent of the global TB burden. In 2017, India saw 4,21,000 deaths due to the disease followed by 1,55,000 in Nigeria and 1,16,000 in Indonesia.
- 10% of individuals with TB die or self-cure before presenting for care. Patient delay before first presentation for care is 4.1 months. Even initiation of treatment after diagnosis happens after 2.1 days. The proportion of people with TB completing treatment is 85% however, systematic efforts to screen high-risk populations have already begun in India.
- With 1,35,000 cases in 2017, India has the highest number of multidrug-resistant TB (MDR-TB) cases in the world and only 14% of people with MDR-TB completed treatment and just 11% remained disease-free at the end of one year.
- Increasing evidence shows that the majority of MDR-TB cases in India are due to direct transmission, hence, early diagnosis and prompt initiation of effective treatment should be high priority to curb MDR-TB transmission.
- High out-of-pocket expenditure incurred during TB treatment keeps people in poverty for seven years after completing treatment.
- India has set an ambitious goal of **eliminating TB by 2025**, but integration of TB services with the primary health system to reduce diagnostic delays is not happening.
- It is on target in areas like tobacco taxation will but needs improvement in air pollution levels, anti-retro viral treatment for HIV patients and meeting UN diagnosis and treatment targets on drug susceptibility testing.
- The country has shown strong political commitment to end TB and the programme has moved into high gear, prioritising person-centered care, engaging the private sector and focusing on prevention.
- Instead of waiting for people with TB to reach diagnostic centres for testing, India has now undertaken case-finding campaigns to cut the transmission cycle. So far 144 million people at risk of the disease in 447 districts have been screened and more than 50,000 new cases have been detected

Way Ahead

- The report outlines what is needed to end TB — political will and funding, so that new prevention methods and treatments can be developed and made accessible to those who need them.
- Preventive treatment could interrupt the cycle of infection, illness and death. **WHO's End TB Strategy target of reducing TB mortality by 90% by 2030** will not be reachable without a substantial increase in global R&D investment, from 2 million per year in 2017 to at least billion per year in next four years.

- In India, if diagnostic tests are subsidised and patients supported to complete treatment, 28 % of TB deaths could be averted over the next 30 years. This would cost an extra US\$290 million each year, which is significantly less than India's US\$32 billion losses associated with TB mortality each year
- India must now accelerate on multiple fronts — involving TB survivors and affected communities as key drivers of the TB response, improving the quality of care of TB services and integrating TB services into the primary health system to reduce diagnostic delays and out-of-pocket expenditure, optimise engagement of private sector providers and guarantee universal access to second line drugs
- The report is optimistic about ending TB, but there is no room for complacency and it is imperative to act quickly and strategically to save the next generation from TB

Quality Assurance Scheme for Basic Composite Medical Laboratories

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- NABL has launched a voluntary scheme, Quality Assurance Scheme (QAS) for Basic Composite (BC) Medical Laboratories (Entry Level), for sensitizing small laboratories to basic doable quality practices.
- Accurate, reliable pathology laboratory results are critical aids which enable doctors to provide evidence-based patient care and treatment.

Current Status

- A pertinent problem currently faced by Indian healthcare industry pertains to the access of diagnostic healthcare in rural India. There is an utter lack of good and well-functioning licensed laboratory services in rural India. Laboratory services that are present in the rural India are marred with outdated and subpar diagnostic equipments and shortages of pathologists, technicians and biochemists.
- Rural India has one-fourth the doctors and diagnostic facilities as compared to urban areas, which is a huge issue with the chronically ill. Rural people have to go to urban cities to access diagnostic services, where better diagnostic facilities are available.

Provisions

- The laboratories performing only basic routine tests like blood glucose, blood counts, rapid tests for common infections, liver & kidney function tests and routine tests of urine will be eligible to apply under this scheme.
- Minimal documentation and a nominal fee has been prescribed for availing the scheme. Components of competence assessment have been added for assuring quality and validity of test results.
- Successful laboratories will be issued a certificate of compliance to QAS BC scheme by NABL and they will be allowed to use a distinct symbol on the test reports as a mark of endorsement to the basic standard for a defined time frame before which they will have to transition to full accreditation as per ISO 15189.
- To familiarize and encourage more and more small labs, even in the remotest part of the country, to avail the scheme, NABL will organize awareness programs in various cities of India.

- State Governments are being encouraged to adopt this entry level scheme for registering labs as establishments under Clinical Establishment Act. So far, the Act has been implemented in 11 states and all Union Territories. This will help organize the diagnostics sector in these states.

Benefits

- Through this scheme, patients availing services of small labs in primary health centers, community health centers, doctor's clinic, standalone small labs, labs in small nursing homes will also have access to quality lab results.
- It is expected to bring transformational change in more than 5000 laboratories over the next 5 years and to transform them into labs providing quality service.
- It will inculcate the habit of quality and facilitate the laboratories to achieve benchmark accreditation of ISO 15189 over a period of time.
- The scheme will enhance the intent of Ayushman Bharat Yojana of universal access to quality healthcare for majority of citizens especially those residing in villages and small towns by providing them access to quality diagnostics.

NABL

- National Accreditation Board for Testing and Calibration Laboratories (NABL) is a constituent board of Quality Council of India (QCI) under the Ministry of Commerce and Industry, Government of India.
- NABL is Mutual Recognition Arrangement (MRA) signatory to International bodies like International Laboratory Accreditation Co-operation (ILAC) and Asia Pacific Accreditation Co-operation (APAC) for accreditation of Testing including Medical and Calibration laboratories.
- MRA is based on evaluation by peer Accreditation Bodies and facilitates acceptance of test/calibration results between countries which MRA partners represent. Thus NABL accredited laboratory results are accepted across more than 80 economies around the world.

Swachh Bharat Mission Grameen

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- The National Annual Rural Sanitation Survey (NARSS) 2018-19, conducted by an Independent Verification Agency (IVA) under the World Bank support project to the Swachh Bharat Mission Grameen (SBM-G), has submitted its report. The third party includes IPE Global in a joint venture with Hindustan Thompson Ltd represented by Kantar Public.
- The IVA presented the findings to the Expert Working Group (EWG) constituted for oversight of NARSS, comprising representatives from organizations including the World Bank, UNICEF, Water Aid, Bill & Melinda Gates Foundation, India Sanitation Coalition, NITI Aayog, and Ministry of Statistics and Program Implementation.
- Data was collected using the Computer Assisted Personal Interviewing (CAPI) platform. The survey also covered schools, anganwadis and public/community toilets in the villages and covered 92,040 households in 6,136 villages across the states and union territories of India.
- The findings of the survey show that **93.1 % of rural Indian households have access to toilets** and 96.5 % of these toilets are in constant usage. The results are optimistic when compared to the previous recorded household coverage of 77% (2017-18).

- The other key finding is that **90.7 % of all 2,891 ODF-verified villages surveyed were confirmed to be ODF** and 95.4 % of the villages surveyed found to have minimal litter and minimal stagnant water. This means that there has been a better management of solid and liquid waste.

Doubts Over The Findings

- Though the results are welcoming and influence the positive implication of SBM (G), however, this gigantic claim of **96.5 % of rural households that have access to toilets with potential usage is somewhat questionable**, especially in a scenario where other ground reports depict a different picture.
- A recent study released by the Research Institute for Compassionate Economics (RICE) and accountability initiative of the Centre for Policy Research (January 2019) claimed that while there was a huge increase in toilet ownership, it did not translate into a proportionate increase in usage.
- About school sanitation, the 13th Annual Status of Education Report (ASER) report released in January 2019 showcases that **22.8 per cent rural schools** surveyed have unusable toilets.
- The ASER report says the working and usage of sanitation facilities is ignored at the institutional level and the situation is concerning in north-eastern states, particularly Assam, Manipur, Meghalaya, Mizoram and Tripura, where the percentage of schools with unusable toilets has been increasing in the last four years.
- Moreover, another major issue is the management of black and grey water, especially, in *areas near the coast*, areas having shallow groundwater, and hilly terrain, where the **twin-pit toilet model's efficacy is seriously challenged**.
- Despite these facts, if the prolonged exercise of Information, Education and Communication (IEC) and technological options for management of solid and liquid waste will be employed, the success of SBM will be sustainably matched by the futuristic goals.

SBM

- Swachh Bharat Mission (SBM) is a nation-wide campaign in India for the period 2014 to 2019 that aims to clean up the streets, roads and infrastructure of India's cities, towns, and rural areas.
- The mission aims to achieve an "open-defecation free" (ODF) India by 2 October 2019, the 150th birth anniversary of Mahatma Gandhi by constructing 90 million household-owned and community-owned toilets in rural India and establishing an accountable mechanism of monitoring toilet use.

Status

- Rural sanitation coverage in the country at the launch of Swachh Bharat Mission (Gramin) on October 2014 was 38.7 per cent according to data from the Union Ministry of Drinking Water and Sanitation (MDWS).
- Entering the fifth year, the countrywide coverage in rural sanitation has been increased to 98 %.
- The work scale is huge in SBM as over nine crore toilets have been built, and 5.5 lakh villages and 615 districts have been declared open defecation free.

Bolo App

Syllabus: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

In News

- Google has launched a speech-based reading-tutor app called Bolo for Android-based smartphones to help children in rural India with their reading and comprehension skills.

- The app was earlier piloted as an open beta program in about 200 villages in Uttar Pradesh, with the help of ASER over the course of past few months.
- It is aimed at helping kids who are unable to go to schools or have no access to it by leveraging technology that has the power to help transform teaching and learning.

Features

- Designed for primary grade children, the app helps to improve both English and Hindi reading skills of kids by encouraging them to read aloud while giving instant feedback.
- It comes bundled with 50 stories in Hindi and 40 stories in English. These stories are completely free and the company plans to add more stories in the coming days.
- It comes with Google's speech recognition and text-to-speech technology or reading buddy called **Diya** that not only explains the words and their meanings to the kids as they read the text out loud but it also corrects them as they do so.
- Currently it is designed for native Hindi speakers, however, over the time, the company plans to add native support for other Indian languages.
- Additionally, the app also features interesting word games and earn in-app rewards and badges that are designed to encourage children to learn words in a fun and playful manner.
- The app works even when offline, so children can just focus on reading and is completely ad free. This is particularly important as swathes of the country are still struggling with internet connectivity issues.
- To ensure privacy of the child, all personal information always stays on the device. The users are also not asked for details like email ID and gender for logging into the app
- Over the next 6 months, Google will be working closely with four of its nonprofit partners - Pratham Education Foundation, Room to Read, Saajha and Kaivalya Education Foundation (a Piramal Initiative) to take the app to more children and further expand its efforts across the country.

International Relations

Pakistan National Day Event

Syllabus: India and its neighbourhood- relations.

In News

Pakistan has celebrated its National Day on **23 March** 2019 in Islamabad.

Key Highlights

- Malaysian Prime Minister Mahathir Mohammad was the Guest-of-Honour at the Pakistan Day celebrations in Islamabad and conferred Pakistan's highest civilian award, the Nishan-e-Pakistan.
- The event was celebrated with a military parade showcasing its missiles, tanks and aircraft.
- **Turkish aerobatics team** took part in the celebrations highlighting the solid relations between Ankara and Islamabad.

India's Response

- Pakistan National Day celebration in India took place at Pakistan high commission in New Delhi on 22 March.
- **India boycotted** the Pakistan National Day event after it was reported that *Kashmiri separatists were to attend the event.*

- It is noteworthy that the current Indian government had sent **official representatives at the National Day celebration of Pakistan from 2015 till last year.**

About Pakistan National Day

- Pakistan Day, which commemorates **both the passing of the Lahore Resolution** in 1940 and the **adoption of Pakistan's first Constitution** in 1956, is observed every year on March 23.
- The 1940 Lahore Declaration proposed the creation of an 'independent state' based on a predominantly Muslim population of British India.
- The resolution demanded a new state Pakistan comprising of *Muslims from regions like North-West Frontier Province, Punjab, Bengal, Assam, Sindh, and Baluchistan.*
- Also known as '**Pakistan Resolution**', this event marks an important event in Pakistani's history.
- A monument '**Minar-e-Pakistan**' at **Lahore** was erected by Pakistan to commemorate the famous resolution.

Malaysia-Pakistan Relations : Growing Bonhomie

- Malaysian PM was the Guest of Honour for this year's Pakistan Day event.
- During the visit, two leaders signed a series of Memorandums of Understanding worth an estimated US\$900 million (S\$1.22 billion) pertaining to the telecommunication, information technology, power, halal food and agriculture sectors.
- Mahathir also laid the foundation stone for **Proton's first South Asian manufacturing assembly plant**, located near Karach, which will bolsters Pakistan Automotive Development Policy.
- During his visit, Mahathir also inspected the JF-17 Thunder combat jets that are jointly manufactured by Pakistan and China.
- In 2007, the two countries had inked a free trade agreement known as **The Malaysia Pakistan Closer Economic Partnership Agreement (MPCEPA).**

Analysis:

- Besides providing market for Pakistani goods, Malaysia could also provide an *alternative to Pakistan's (over)reliance on the Middle East and China for financial assistance and foreign policy agendas.*
- On its part, Malaysia could benefit from **penetrating the Pakistani automobile and power market**, and use it as a **point of entry to markets in Western and Central Asia.**
- Malaysia has been a **strong supporter of Pakistan's bid to be a full dialogue partner of the Association of Southeast Asian Nations.**
- Malaysia has already committed to buying anti-tank missiles from Pakistan and the purchase of the JF-17 may have implications on its strategic relationship with Pakistan, and potentially China too.

Italy Joins China's BRI

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

In News

- Italy has joined China's signature foreign policy Belt and Road initiative (BRI), making it the **first G7 country** to officially do so.

- This step has potential to **upset Italy's other partners including the US** and other European countries as it would mean **Chinese economic domination in the region.**

Analysis

- Italian membership in the BRI club is being touted as a **potential investment** for Italy.
- The country is **facing its third recession** since the 2008 financial crisis, and this membership will provide a platform to deliver more Italian goods, from industrial robots and furniture to designer fashion, to China.
- However, many analysts feel that this step could backfire. It could come at the expense of Italy's long and deep **political, security and investment relationship** with the United States and other G7 countries and the European Union.
- The US had urged Italy not to "**lend legitimacy**" to China's "**infrastructure vanity project**" while referring to the One Belt One Road (OBOR) initiative.

Golan Heights

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

In News

- The Trump administration has backed Israel's claim to sovereignty over the Golan Heights.
- The move comes weeks before Israeli general elections and reverses the **position U.S. administrations have held for decades.**
- Though welcomed by Israeli Prime Minister Benjamin Netanyahu, the move prompted a **backlash from a number of other states**, including Syria, Russia and Iran.

Why US Had Not Recognized Israeli Control Over The Past Few Decades?

- A desire not to **offend Arab states**,
- A fear that such a **move could legitimize annexations through war** and
- The belief that it would **run counter to U.N. resolutions.**

What Has Changed Now?

- Many experts believe that this step has nothing to do with geopolitics, rather has much more to do with US domestic politics.
- Trump has enjoyed a close relationship with Netanyahu and has made a number of policy moves that the Israeli leader has greeted warmly, including moving the U.S. Embassy in Israel from Tel Aviv to Jerusalem.
- Israeli PM is seeking reelection in April and is facing unprecedented competition in his bid to form a new government.

Background

- Israel captured the **Golan Heights from Syria in a 1967 war** and annexed the territory.
- So far, this move **was not recognized by the U.S. or the international community.**
- For years, the U.S. has tried to broker a regional agreement that would involve Israel exchanging captured territory for peace.

About Golan Heights

- The Golan Heights is a strip of land, a little under 500 square miles, that sits high along the border between Israel and Syria.
- It was seized by Israeli forces from Syria during the Six-Day War of 1967.
- Since then, it has been claimed by both countries, but in reality, at least two-thirds of it has been controlled by Israel.

Importance of Golan Heights

- **Southern Syria and the capital Damascus**, about 60 km north, are **clearly visible from the top** of the Heights while Syrian artillery regularly shelled the whole of northern Israel from 1948 to 1967 when Syria controlled the Heights.
- The heights give Israel an **excellent vantage point** for monitoring Syrian movements.
- The topography provides a **natural buffer against** any military thrust from Syria.
- Israel hopes it can use areas such as the Golan Heights to **initiate a negotiation process that implicitly legitimises it as a state**.
- Israel wants to retain the control of the **eastern shore of the Sea of Galilee - Israel's main source of fresh water**. Complete withdrawal would mean losing this control to Damascus.



State Visit of the President of India to Croatia

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

In News

- President of India paid a State Visit to Croatia from 25-28 March.
- This was the **first-ever visit** of a head of state from India to Croatia.

Key Highlights

- The Indian President has been conferred the **Grand Order of the King of Tomislav**, the highest award of the Republic of Croatia.
- **A Hindi Chair** was created at the Indology Department of the University of Zagreb.
- In response to the enormous interest in learning Hindi, both countries have signed an agreement to **continue this Chair for another three years**.
- In order to promote study of Sanskrit, both countries have intensified their cooperation with the Indology Department of the University of Zagreb.

- Leaders of both the countries have signed **an agreement on cooperation in the field of tourism.**
- An agreement was signed between the **Sports Authority of India** and the **Department of Kinesiology of the University of Zagreb** that will lead to joint initiatives for *capacity building in sports.*

India – Croatia Relation: In Brief

A. Importance of Croatia

- Croatia is an **important Central European country** from the point of view of its geo-strategic location, membership of the European Union and the NATO, as well as being a significant **Gateway to Europe through the Adriatic coastline.**

B. Bilateral Relation

- The bilateral relations between India and Croatia are *modest at around 200 million US Dollars in 2017.*
- There is good scope to enhance trade in textiles, pharmaceuticals, chemicals, leather goods, engineering goods and food processing sectors.
- There are already investments by some Indian companies in areas of pharmaceuticals, information technology and renewable energy.
- The two countries are now focussing on strengthening trade and investment linkages.

C. Cultural Relation

- India-Croatian relations are characterized by historical connections links between India and Croatia dating back to the 16th century.
- The **Indology Department at the University of Zagreb** has a long history of over six decades, and an **ICCR Hindi Chair** was set up a decade ago.
- Our noted poet and the first non-western nobel laureate, Rabindranath Tagore, visited Zagreb in 1926.

Visit of Minister for Foreign Affairs of the Republic of Gambia to India

- Dr. Mamadou Tangara, The Gambian Minister of Foreign Affairs, International Cooperation and Gambians Abroad visited India from 7-12 March, 2019.
- The visit is in the context of 10th Anniversary of establishment of the Gambian High Commission in New Delhi and the 54th Independence Day celebration of the Republic of The Gambia.
- During the visit, Memorandum of Understanding between the Foreign Service Institute, Ministry of External Affairs, New Delhi and the Ministry of Foreign Affairs, International Cooperation and Gambians Abroad, Republic of The Gambia was signed.

Relation:

- The bilateral relations have witnessed greater engagement and momentum in the recent years.
- India is among the top trading partners of The Gambia. The Gambia is one of the **beneficiaries of the Duty Free Trade Preference Scheme** enjoying zero duty on nearly 95% of its exports to India.
- The Government of India has extended Lines of Credit of total value USD 78.58 million for various developmental projects in The Gambia.
- The **National Assembly Building Complex in Banjul** is one of the prominent projects in West

Africa built under Line of Credit extended by India.

- India and The Gambia share cordial and warm relations and there is active cooperation between the two countries in the international forums, particularly in the UN.
- The Gambia is also a **member of the OIC**.

Visit of Vice President to Paraguay

Syllabus: Effect of policies and politics of developed and developing countries on India's interests

In News

- The Vice President of India paid an official visit to Paraguay from 5 March to 7 March 2019.
- He is **the highest-level representative** of the Republic of India to visit Paraguay since the *establishment of diplomatic relations between both countries on 13 September 1961*.

Key Highlights

- India offered capacity building through **enhanced scholarships for higher education and its ITEC** (Indian Technical and Economic Cooperation) program.
- **MoU** between the Diplomatic and Consular Academy, Ministry of Foreign Affairs of the Republic of Paraguay and the Foreign Service Institute, Ministry of External Affairs of the Republic India was signed.
- Both sides *agreed to jointly celebrate 150th Birth Anniversary of Mahatma Gandhi* and, in his context, India welcomed the issue today of a **commemorative postal stamp by Paraguay in Asuncion**.
- The two sides exchanged views on the **Preferential Trade Agreement between MERCOSUR and the Republic of India**, in force as of 1 June 2009 and expressed their interest to further explore comparative advantages and the complementarity between the economic bloc and India so as to expand and diversify trade.

India – Paraguay

- India and Paraguay traditionally share warm and friendly ties. Trade is one of the main drivers of our relationship.
- Bilateral trade has increased almost ten-fold over the last ten years and **reached USD 334 million in 2017-18 from USD 40 million in 2008-09**.
- Main export items from India to Paraguay include iron and steel, plastics, chemicals, vehicles and auto parts; while Paraguay's exports to India are composed mainly of vegetable oil, oils and resinoids, and aluminum.
- Brand India in the automobile sector has a strong presence in Paraguay.

Complementary Relationship:

- As democracies, **having similar demographic profile** with youth forming more than 65% of their respective populations, India and Paraguay have similar aspirations as well as the need for imparting requisite skills to their youth.
- *India with its technological strength and Paraguay as a major food producer* have natural complementarities for further strengthening of bilateral trade and economic ties.
- Paraguay itself was a growing economy and India should look at Paraguay as a strategic economic hub to reach out to countries in Latin America.

Japan Becomes The Chair of G20

Syllabus: Bilateral, regional and global groupings and agreements.

In News

- Japan has become the **Chair of the G20 for 2019** under the established system of annual rotation of chairmanship among member countries.
- It is the **first time for Japan** to take on the G20 presidency. The **G20 Osaka Summit** will be held on June 28-29, as well as relevant ministerial meetings in eight cities in 2019.

Analysis

- The G20 **does not have a permanent secretariat** and a specific mandate beyond discussing the most critical issues facing the global economy. As a result, it has now become common practice for the **chair country to set the agenda** for the year of its chairmanship.
- So far priorities listed by Japan for 2019 are consistent with its avowed intent of leading the debate on global challenges in pursuit of the UN's sustainable development goals. This includes – *establishing multilateral rules-based trading order against the growing protectionism, infrastructure for development, climate change and sustainable development, impact of ageing populations, and health as an international public good.*
- Japan will have to overcome multiple challenges, as pointed out below, on each of these priorities.

A. Multilateralism:

In championing free trade, Japan has a **three-fold challenge**.

- It will have to **convince USA** that the US' attempt to balance trade on a bilateral basis is self-defeating.
- It will have to **convince China** that it has to fall in line with internationally accepted policies regarding intellectual property and investor protection.
- Japan **will have to persuade other countries, notably the European Union (EU)**, to stay committed to the multilateral order.

B. Impact of Ageing Populations:

- Developed countries, especially Japan, have not been able to ward off a structural recession largely because the demographic decline has undercut the economy's growth potential.
- Paradoxically, developing countries, especially in South Asia, are confronting a mirror problem – heavy population burden and demand constantly exceeding the economy's production capacity.
- In other words, while the rich world is **demand constrained**, South Asia is **supply constrained**.
- This complementarity itself suggests the obvious solution to the problem of demographic decline – relax regulations on migration, from poor to rich countries.
- How far Japan will push this agenda will therefore have significant long-term implications for South Asia.

C. Climate Change and Sustainable Development

- There are two major battle lines. The first is between climate change sceptics who believe that market forces will take care of combating climate change and climate change activists.
- The other major battle line is between developed countries and developing countries.
- Developed countries want developing countries to accept mandates at par with them. While, developing countries that climate mitigating policies militate against their growth aspirations and that

industrialized countries have the obligation of bearing a higher share of the cost of climate change mitigation.

D. Global Cooperation

- The daunting challenges confronting the world today cannot be managed without global cooperation. Yet, in a world divided by nation states, there is no voice for the global optimal.

About G20

- The G20 Summit is formally known as the “**Summit on Financial Markets and the World Economy**”.
- As the “premier forum for international economic cooperation” (agreed by leaders at the Pittsburgh Summit in September 2009), representing more than 80% of the global GDP, the G20 has made continuous efforts toward achieving robust global economic growth.
- The participants are leaders from 19 countries and the European Union (EU).
- The 19 countries are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Republic of Korea, Republic of South Africa, Russia, Saudi Arabia, Turkey, United Kingdom, United States of America.

Indo-Pacific Regional Dialogue

Syllabus: Bilateral, regional and global groupings and agreements.

In News

- The second edition of Indo-Pacific Regional Dialogue (IPRD) – 2019 was held in New Delhi.
- This dialogue examined the following five fresh themes:
 - Practical solutions for achieving cohesion in the region through maritime connectivity;
 - measures to attain and maintain a free-and-open Indo-Pacific;
 - a regional approach to the region’s transition from a ‘Brown’ to a ‘Blue’ economy;
 - opportunities and challenges arising from the maritime impact of ‘Industry 4.0’; and
 - how the twin conceptualisations of ‘SAGAR’ and ‘SAGARMALA’ might best be made mutually-reinforcing on a regional level.
- This event witnessed active participation from thirteen countries of the Indo-Pacific — Australia, Bangladesh, Canada, China, Indonesia, Israel, Japan, Seychelles, Singapore, South Korea, Sri Lanka, the United Kingdom, and the United States of America.

Background:

- The idea of an Indo-Pacific Regional Dialogue (IPRD) was first conceptualised and conducted in 2018, as the **apex level conference of the Indian Navy, organised by the National Maritime Foundation** as the Navy’s Knowledge Partner.
- The **permanent theme** of this annual dialogue is a review of India’s opportunities and challenges in the Indo-Pacific region.
- The aim is to focus attention on the Indo-Pacific, as a maritime geographical-entity, while deliberating aspects of great relevance to regional geopolitics.
- This first edition dwelt upon four basic theme:

- (i) The growth, opportunities and vulnerabilities of maritime merchandise trade, including associated infrastructure such as ports and multi-modal connectivity, as seen from the very different perspectives of large and small littoral and island nations;
- (ii) Regional connectivity-models;
- (iii) Pan-regional challenges such as sustaining persistent surveillance at sea, the increasing digitisation of the maritime space, the dangers of cyber-malevolence that are already afflicting the maritime domain, etc.;
- (iv) the role of Indian industry within both, the private and the public sectors, in enhancing holistic maritime-security.

First TIR Shipment via Chabahar Port from Afghanistan

Syllabus: Bilateral, regional and global groupings and agreements.

In News

- The first shipment under the **United Nations ‘Transports Internationaux Routiers’ (TIR)** convention arrived in India from Afghanistan through Iran’s Chabahar Port.
- The consignments arrived at port of Nhava Sheva, Mumbai and Mundra.
- India had ratified the convention in June 2017 and become the 71st country to ratify this.

About UNTIR

- The **Customs Convention on International Transport of Goods under cover of TIR Carnets, 1975** (TIR Convention) is an international transit system under **United Nations Economic Commission for Europe (UNECE)**.
- The convention facilitates seamless movement of goods within and amongst the parties to the Convention.
- It is **managed and developed** by the **International Road Transport Union**.
- As per the Convention, Customs clearance can take place at internal Customs locations thereby avoiding clearances at Border Crossing Points and ports that may often be congested.
- Movement under the TIR can be allowed by checking only the seals and the external conditions of the load compartment or the container thereby reducing border delays, transport and transaction costs thereby leading to increased competitiveness and growth for the trade and transport sectors.
- Compliance with the Convention ensures enhanced security in the supply chain as only approved transporters and vehicles are allowed to operate in terms of the Convention.
- The **TIR Carnet** (*A custom document that allows temporary duty free importation of the particular good*) represents a guarantee for Customs duties and taxes and traffic in transit. Hence there is no need for payment of such taxes and duties en route.
- The TIR carnet also serves as a Customs declaration and hence it precludes the need to file multiple declarations satisfying national laws of the different transiting countries.

Benefits of Joining TIR for India

- It is expected to boost **India’s status as a trade transit hub in Asia** and also help counter the impact of China’s OBOR (One Belt, One Road) project on India’s prospects as an emerging power.
- India will be able to **better integrate** its economy with global and regional production networks.

- The Convention will help Indian traders to have access to **fast, easy, reliable and hassle free international system for movement of goods** by road or multi-modal means across the territories of other contracting parties.
- Since the convention allows only approved transporters and vehicles to operate it will help Indian traders use a fast, easy and reliable international system to move their goods.
- TIR will allow India to **integrate its trade with Myanmar, Thailand, Bangladesh, Bhutan and Nepal** as well as to move goods along **the International North-South Transport Corridor via the Chabahar port** in Iran and to access Afghanistan.

International Air Transport Association (IATA)

Syllabus: Bilateral, regional and global groupings and agreements.

In News

SpiceJet has joined the global airlines' grouping the International Air Transport Association (IATA) as a member.

Key Facts

- The airline is the **first Indian low-cost carrier** to join the trade association representing more than 290 airlines.
- IATA's current Indian carriers include **Air India, Jet Airways, Jet Lite and Vistara**.

Benefits

- The membership is significant on account of SpiceJet's plans for rapidly expanding its international footprint.
- The membership will allow the airline to "explore and grow its collaborations with international member airlines of IATA through interlining and code shares
- This, in turn, will enable SpiceJet to seamlessly expand the network options for its passengers in future.
- It will further enable the airline to inculcate global best practices and innovations.

About IATA

- IATA is the trade association for the world's airlines, representing some 290 airlines or 82% of total air traffic.
- It is **based in Geneva** and has over 60 offices worldwide.
- Founded in Havana, Cuba, in April 1945, IATA ensures safety and security in aviation services.
- It represents 290 airlines in 120 countries, carrying 82 percent of the world's air traffic.
- It supports many areas of aviation activity and help formulate industry policy on critical aviation issues.

Report By World Gold Council

Syllabus: Important International institutions, agencies and fora- their structure, mandate.

In News

World Gold Council (WGC) has released a report on gold holdings of various countries.

Key Highlights

- India, which is the world's **largest consumer** of gold, has the **11th** largest gold reserve.
- The current holding of India has been pegged at 607 tonnes.
- International Monetary Fund (IMF) has been **ranked third on the list** with total gold reserves of 2,814 tonnes.
- Had IMF not been included in the list, India's overall position in terms of total gold holding would have been tenth.
- Top 5 in the list – US, Germany, IMF, Italy, France
- Among Asian countries, China and Japan have more reserves of the precious metal when compared to India.
- Pakistan, with its gold reserves of 64.6 tonnes, occupies the 45th position.

About WGC

- The World Gold Council is the market development organisation for the gold industry.
- Its purpose is to stimulate and sustain demand for gold, provide industry leadership, and be the global authority on the gold market.
- It is headquartered in the UK, and has offices in India, China, Singapore, Japan and the United States.

Philippines Leaves the International Criminal Court

Syllabus: Important International institutions, agencies and fora- their structure, mandate.

In News

- The Philippines officially withdrew from the International Criminal Court.
- This happened after the country's highest court declined to overrule President Rodrigo Duterte's decision to leave the world's only permanent war crimes tribunal.

Background

- In March 2018, Manila announced that it was withdrawing from the court. However, under court rules, it could not take effect for at least 12 months.
- The decision was announced by President Rodrigo Duterte after ICC prosecutors, in March 2018, opened a preliminary examination into the president's "war on drugs", which has led to the death of thousands since it began in July 2016.
- Although the government of Philippines is terming this crackdown as war on drugs, however, international community has accused President Rodrigo Duterte of encouraging extrajudicial killings and other rights abuses in his bid to rid the country of drugs since his election in 2016.
- The Philippines is not the first country to quit the ICC. Burundi, Russia, South Africa and Gambia all moved to withdraw from the court.

About International Criminal Court (ICC)

- The ICC in The Hague has been part of the **global justice system since 2002**. It was established by **Rome Statute** and has been ratified by 123 countries. Some countries, **like the United States**, have **never joined** due to concerns about ceding sovereignty to an international body.
- The **ICC is not part of the UN**, but the two bodies have a cooperation agreement.

- A number of important countries seem determined not to submit to the jurisdiction of the ICC. **Some have not even signed the treaty**, such as *China, India, Pakistan, Indonesia and Turkey*.
- Others, including Egypt, Iran, Israel and Russia, **have signed** but remain dubious and **have not ratified**. Only one Arab state has ratified so far - Jordan.
- The International Criminal Court (ICC) investigates and, where warranted, tries **individuals charged with the gravest crimes of concern** to the international community: *genocide, war crimes, crimes against humanity and the crime of aggression*.
- The ICC is meant to be a "**court of last resort**," a place to try dictators and other people who cannot be brought to justice domestically. As a court of last resort, it seeks to complement, not replace, national Courts.
- The court has automatic jurisdiction only for crimes committed on the territory of a state which has ratified the treaty; or by a citizen of such a state; or when the United Nations Security Council refers a case to it.
- The court has no retrospective jurisdiction - it can only deal with **crimes committed after 1 July 2002** when the Rome Statute came into force.
- The court's first verdict, in March 2012, was against Thomas Lubanga, the leader of a militia in the Democratic Republic of Congo.

How Does The System Work

- The prosecutor begins an investigation if a case is referred either by the UN Security Council or by a ratifying state.
- He or she can also take independent action, but prosecutions have to be approved by a panel of judges.
- Both the prosecutor and the judges are elected by the states taking part in the court. Each state has a right to nominate one candidate for election as a judge.
- For a country to withdraw from the court, it must formally notify the United Nations secretary general of its decision.
- It will then be a year before this takes effect. Throughout that time, the country remains a full member of the court and the prosecution of any international crime that it is allegedly linked to can continue.

Criticism

- The ICC has been criticised, **particularly by the African Union**, for its focus on Africa. In the court's history, it has **only brought charges against black Africans**.
- Although, the ICC denies any bias, pointing to the fact that some cases - such as the LRA in Uganda - were self-referred by the country affected, and some were referred by the UN.
- The ICC **has no police force of its own** to track down and arrest suspects. Instead, it must rely on national police services to make arrests and seek their transfer to The Hague. The case of Mr Bashir (Sudanese President against whom the court had issued arrest warrant - the first against a serving head of state) illustrates the problem this can present for the court. Several **ICC signatory countries**, including Chad and Kenya, **have refused to co-operate in his arrest**.

Malaysia Accedes To The Rome Statute

- Malaysia has acceded to the Rome Statute of the International Criminal Court, becoming the 123rd State Party.

- The agreement was deposited with the United Nations Treaty Office on 4 March and Malaysia's accession will enter into force on 1 June 2019.
- Although the Rome Statute was adopted in 1998, Malaysia had never signed the treaty, with some government authorities strongly opposed to membership in the International Criminal Court.

France As The Monthly President Of The UN Security Council

Syllabus: Important International institutions, agencies and fora- their structure, mandate.

In News

France has assumed the March Presidency of the United Nations Security Council.

What Is The Presidency Of The Security Council?

- The Presidency of the Council is carried out by each of the permanent and non-permanent members of the Council for **a period of one month on a rotational basis according to alphabetic order in English.**
- France will preside over the Security Council in March 2019. Germany will take over from France in April 2019.
- Due to these presidencies falling one after each other, France and Germany have decided to launch joint initiatives in the humanitarian field regarding the safety of humanitarian workers on the ground and respect for international humanitarian law in armed conflict which has declined at an alarming rate in recent years.

What Does The President Of The Security Council Do?

- The Presidency of the Security Council is responsible for facilitating the debates and the general organization of the Council's work for the month.
- While the position **does not have any particular prerogatives**, it is nevertheless an opportunity to give political impetus in certain direction.

Economic Growth and Development**RBI's Rupee-Dollar Swap Auction**

Syllabus: Indian Economy and Issues relating to mobilization of resources

In News

The Reserve Bank of India (RBI) conducted its first dollar-rupee swap auction and infused liquidity worth about Rs. 35,000 crore into the banking system in exchange for dollars (worth about \$5 billion).

Rupee-Dollar Swap Auction

- The RBI has different tools through which it injects liquidity into financial markets. Adjusting repo rates and purchasing bonds by conducting open market operations (OMO) are a couple of tools which the RBI uses regularly either to increase or decrease the currency supply in the market.
- However, in order to meet the durable liquidity needs of the system, the Reserve Bank has decided to come up with a new tool - the **swap auction**. The dollar-rupee swap is a simple buy/sell foreign exchange swap from the Reserve Bank side.
- It basically means that the RBI will buy dollars from banks for three years and offer them rupees in return. A bank selling Dollars to the RBI simultaneously agree to buy the same amount of US Dollars at the end of the swap period (three years here).

Benefits Of The Swap Auction

- **New innovative tool to infuse liquidity:** This new tool will augment RBI's liquidity management toolkit and inject Rupee liquidity into the banking system to ease the liquidity crunch for longer duration. Banks that need liquidity to expand credit have rushed to the auction.
- **Forex reserves:** The move will improve the central bank's foreign-exchange reserves.
- **Reduce Interest Rates:** Despite cutting its policy rates recently, the RBI has struggled to get banks to reduce lending rates due to tight cash conditions and high deposit rates. By injecting liquidity, the auction will also help push the interest rates down.
- **Credit flow:** The RBI move could increase fund flows to credit-starved shadow banks.
- **Exchange Rate management:** Many private equity and acquisition deals (some also related to IBC process) are in the pipeline which would lead to large dollar inflows. Thus, this large swap auction could also help in keeping the rupee from rising sharply.
- **Reduced hedge costs for importers** as the forward currency rate at various tenures have come down substantially as a result of the auction.

Limitations

- **RBI's involvement in debt operations:** There are concerns that using forex swap may reduce the need for the central bank to buy debt from the market (for example, the RBI has bought three trillion rupees of bonds this fiscal).
- **Not all FIs benefit:** Only the Category-I banks are allowed to participate in the auction, not all players in the financial services sector will be able to get the benefits or lower their rates.
- **No certainty of liquidity to NBFCs:** If the participating banks decide not to loosen up on credit to specific segments such as NBFCs, the credit crunch for them is likely to continue.
- **Balance sheet risks:** These swaps will mature in the month of March in 2022. Unless liquidity management is done very carefully, seasonal tightness in liquidity at the time of reverse swap would be exacerbated.

Final Analysis

- The dollar-swap auction done in March drew three times more bids than the sum on offer indicating that it was well received, giving the central bank a potent tool to manage future system liquidity without compromising the direction in yields.
- When RBI sees bond yields are too high for comfort, it will come in the bond market with OMOs. If the rupee is expensive, RBI will step in the FX market through swaps. Thus, the swap increases options for RBI to act depending on where it is comfortable on the valuation front. However, this tool must be used carefully as swap deals increase RBI's liabilities and the risk on the central bank's balance sheet.

SBI, ICICI, HDFC Bank To Remain D-SIBs

Syllabus: Indian Economy and Issues relating to mobilization of resources

In News

The Reserve Bank said SBI, ICICI Bank and HDFC Bank will have to comply with additional capital requirement norms by April 1, 2019 as the banks continue to remain **'too big to fail'** lenders, referred to as D-SIB (Domestic Systemically Important Bank).

Background

- During the global financial crisis of 2008, it was observed that problems faced by certain large and highly interconnected financial institutions hampered the orderly functioning of the financial system, which in turn, negatively impacted the real economy. Government intervention was considered necessary in many jurisdictions to ensure financial stability.
- Therefore, a need was felt for regulatory policies aimed at reducing the probability of failure of Systemically Important Banks (SIBs) and the impact of the failure of these banks. The Basel Committee on Banking Supervision (BCBS) came out with a framework in 2011 for identifying the Global Systemically Important Banks (G-SIBs) and the magnitude of **additional loss absorbency capital requirements** applicable to these G-SIBs.

D-SIB (Domestic Systemically Important Bank)

- **What they are:** Some banks, due to their size, cross-jurisdictional activities, complexity, lack of substitutability and interconnectedness, become systemically important. The disorderly failure of these banks has the potential to cause significant disruption to the essential services they provide to the banking system, and in turn, to the overall economic activity. Therefore, the continued functioning of SIBs is critical for the uninterrupted availability of essential banking services to the real economy. For India, RBI has come up with the regulatory policies for Indian banks i.e. D-SIBs.
- **Additional risks posed by SIBs:** Since SIBs are perceived as banks that are 'Too Big To Fail (TBTF)', it creates an expectation of government support for these banks at the time of distress. Due to this perception, these banks enjoy certain advantages in the funding markets. However, the perceived expectation of government support amplifies risk-taking, reduces market discipline, creates competitive distortions, and increases the probability of distress in the future. These considerations require that SIBs should be subjected to additional policy measures to deal with the systemic risks and moral hazard issues posed by them.
- **Identifying D-SIBs:** In 2014, the RBI released a framework for identifying the D-SIBs and additional regulatory / supervisory policies which D-SIBs would be subjected to. Four broad indicators are used for D-SIB identification: Size, Interconnectedness, Substitutability, and Complexity. The D-SIB Framework requires the RBI to disclose the names of banks designated as D-SIBs every year in

August starting from 2015 and place these banks in appropriate buckets depending upon their Systemic Importance Scores (SISs).

- **Banks categorized as D-SIBs:** The Reserve Bank had announced State Bank of India, ICICI Bank Ltd. and HDFC as D-SIBs in 2015, 2016 and 2017 respectively.
- **Additional Policy Measures For SIBs:**
 - **Capital requirement:** These banks will be required to have additional Common Equity Tier 1 capital requirement ranging from 0.20% to 0.80% of risk weighted assets, depending upon the bucket they are plotted into. The additional CET1 core capital requirement in case of the State Bank of India applicable from 1st April 2019 has been prescribed at 0.6% of Risk Weighted Assets (RWAs) while for the other two banks it is 0.2%.
 - **Supervision:** The banks designated as D-SIBs will also be subjected to more intensive supervision in the form of higher frequency and higher intensity of on- and off- site monitoring.
 - **Governance:** It is also important that these banks should adopt sound corporate governance of risk and risk management culture.
- **Other regulatory requirements applicable to D-SIBs:** One of the recommendations of the FSB (Financial Stability Board) in its 2010 paper was that further regulatory measures including liquidity surcharges, tighter large exposure restrictions, etc. may also be effective in dealing with SIBs. RBI will consider implementing these measures for D-SIBs as and when international frameworks on these aspects are agreed at BCBS.

Launch Of India's First Real Estate Investment Trust (REIT)

Syllabus: Indian Economy and Issues relating to mobilization of resources

In News

The initial public offering (IPO) of Embassy Office Parks REIT, India's first REIT to be listed, took place recently. The successful listing of the Embassy Office Parks REIT could pave the way for more such offerings by real estate companies with large commercial portfolios.

REIT (Real Estate Investment Trust)

- REIT is an investment tool that owns and operates rent-yielding real estate assets, and allows individual investors to make investments in real estate without actually having to go out and buy, manage or finance property.
- By leasing space and collecting rent on its real estate, the company generates income which is then paid out to shareholders in the form of dividends.
- Unlike shares, investors in a REIT get units, similar to units in a mutual fund. Similar to MFs, REITs will be available in demat form and will be regulated by SEBI.
- In India, REITs are only allowed for holding commercial properties. REIT units have to be listed with exchanges and consequently traded as securities. As with stocks, the investors will be able to buy the units from either primary and/or the secondary markets. The REIT platform has already been approved by the Securities and Exchange Board of India (SEBI).

Advantages of REITs

- **Higher dividend:** REITs provide for 90% of distributable cash to its investors and a regular income to its investors.
- **Transparency:** These are transparent as they disclose the capital portfolio annually and semi-annually. REITs are regulated by SEBI; hence chances of fraud are minimal.

- **Easy investment:** The biggest benefit is the ease of investment as investing in REIT can be done through a demat account.
- **Good earnings:** REIT regulations mandate the distribution of 90% of the rental income to unit holders, which provides high profit to the investors. Besides the rental income, any increase in the value of units will also add to overall capital appreciation.
- **Diversifies investment options:** Retail investors can diversify their portfolio by investing in high-end commercial properties and earn rental and dividend income.
- **Transparency and liquidity:** REIT will bring transparency and liquidity in the real estate segment by allowing domestic and global investors to invest in the sector with regulations.
- **Cash flow for property developers:** Developers already holding large commercial properties can sell to group of investors through REIT to raise cash to further invest in new properties. REIT will also offer a developer more options to raise money and complete his pending projects.
- **Reduction in bad loans:** It enables infra and real estate developers to sell their assets partially and raise resources for repayment of debt, thus leading to a reduction in bank bad loans.

Risks of REITs:

- **No History in India:** Since REITs are in operation for the first time in India, there is no comparable data in terms of REITs' performance or risks.
- **Prone to litigations and operational challenges:** Real estate properties are always prone to litigation and operational challenges.
- **Low returns in future:** With future development of new office spaces, the old buildings may lose premium to get higher rental. The management fee and operating expenses can rise, lowering the returns of investors.
- **Valuation of the units:** Since the Net Asset Value of the REIT is based on estimated future cash flows and certain assumptions, it is difficult to gauge the margin of safety for an investor.

Final Analysis

Allowing Reits will be a sign of the maturity of the Indian real estate market. Reits reduce individual speculation in real estate assets and allow for more professional investment and management in the sector. Most importantly, they enable greater cash flow in the segment while also providing investment opportunities for retail investors. In March 2019, SEBI even reduced the minimum investment limit in REIT to Rs 50,000 from Rs 2 lakh. The overall success of REIT will depend on the returns after tax in dividends and subsequent capital gains

States To Use Enemy Properties

Syllabus: Indian Economy and Issues relating to mobilization of resources

In News

- According to a recent notification issued by the Home Ministry, the guidelines for disposal of the Enemy Property Order, 2018 have been amended to facilitate usage of enemy properties by the State Government exclusively for public use.
- The move comes amid the central government's efforts to sell more than 9,400 enemy properties, worth over Rs 1 lakh crore, and Rs 3,000 crore worth of enemy shares. The Central Government had constituted a high-level committee to recommend the quantum and price or price band for sale of enemy shares.

- Enemy properties are those properties that were left behind by the people who took citizenship of Pakistan and China. There are 9,280 such properties left behind by Pakistani nationals and 126 by Chinese nationals.
- Of the total properties left behind by those who took Pakistani citizenship, 4,991 are located in Uttar Pradesh, the highest in the country. West Bengal has 2,735 such estates and Delhi 487.
- The highest number of properties left by Chinese nationals is 57 in Meghalaya. West Bengal has 29 such properties and Assam seven.
- A total 6,50,75,877 shares in 996 companies of 20,323 shareholders are under the custody of the Custodian of Enemy Property for India. Of these companies, 588 are functional or active companies, 139 of these are listed and the remaining are unlisted.
- The Enemy Property Act was **enacted in 1968 following the Indo-Pakistani War of 1965** and it regulates such properties and lists the custodian's powers.
- The act was **amended in 2017 to ensure that the successors of those who migrated to Pakistan and China will have no claim over the properties left behind in India.**

ILO Report On Trade In South Asia

Syllabus: Indian Economy and Issues relating to employment

In News

The report titled 'Exports to Jobs: Boosting the Gains from Trade in South Asia' has been jointly released by the World Bank and the International Labour Organization (ILO). The report analyses the **effect changes in exports will have on local employment and wages** by looking at the combined data from household-level or worker-level surveys with trade data.

Impact Of Changes In Exports On Local Employment And Wages In India

- **Higher exports lead to higher wages:** The wage improvement is larger for college graduates and urban workers. Males benefit slightly more than females, and there is significant variation across states. Rural workers and less-educated workers do not benefit.
- **Higher exports increases formalisation:** Higher exports seem to draw workers from the informal sector into the formal sector, especially the male and low-skilled workers.
- **Higher exports do not mean higher aggregate employment:** Employment shifts between formality and informality but does not increase at the aggregate level in the local labour markets.
- **Effect of higher exports not uniform:** Higher wages and less informality from higher exports will have differentiated effects across the population based on their geography, skill level, nature of job etc.

Policies Needed To Spread The Gains From Exports

- **Increasing the scale of exports:** The degree to which exports might contribute to better labor market outcomes in general depends on the scale of export growth.
- **Changing the composition of exports to help disadvantaged groups:** The extent to which the increase in exports would benefit specific groups in society depends on the type of exports. For example, an increase in labor-intensive (as opposed to capital-intensive) production is likely to have a broader impact on the wages of workers across all educational backgrounds, even those in rural areas.

- **Changing the composition of the export workforce to help disadvantaged groups:** Increasing the skills of workers and increasing the participation of rural and young workers in the labor force yield substantial reduction in informality if the export boom comes from labor-intensive industries.
- **Other policies:** Improving the quality of infrastructure; Removing policy distortions that limit the flexibility of labor, capital, and land markets; Greater participation of women in export-oriented industries; Improving skills so that the workforce can handle the complexities of globalized production systems; Suitable trade assistance programs for workers affected by trade.

Final Analysis

Growth rate in India over the recent years is high, and is helping reduce the number of people living in poverty. However, most Indians do not have regular jobs in the formal economy and differences in wages across regions and in the quality of employment opportunities prevail. In this regard, the report helps identify the significance of labour-intensive exports in addressing precisely these problems. Overall, the report helps policy makers better understand of how exactly globalisation affects both workers and national labour markets, in terms of jobs, wages, formalisation etc.

Oxfam Report

Syllabus: Indian Economy and Issues relating to employment.

In News

- Oxfam, an international non-profit organisation has released its report **Mind The Gap - State of Employment in India**.
- The report has based its estimates on employment unemployment survey (EUS) 2011-12, done by the National Sample Survey Organisation (NSSO), International Labour Organization (ILO) studies and also builds on the first inequality report launched by Oxfam in 2018.

Report Findings

General

- 92 per cent of women and 82 per cent of men were earning a monthly wage less than ₹10,000, far below the 7th Central Pay Commission's recommendation of minimum salary of ₹18,000 a month.
- The formal social security system in India is accessible to only a small percentage of workers and this access is extremely inequitable across sex, social group, religion, and economic class.
- There has been an **increasing informalisation in formal manufacturing through the rise of contractual labour** and increasing wage differences between regular workers and managers
- Job generation was adversely impacted after demonetisation and hit the women workforce the most. Women, were forced to move out of the labour force to make way for men to get the few jobs that were available.

Gender Inequities

- Women's labour force participation in India is one of the lowest in the world and women's unpaid care work and household work is not even categorised or counted as work. As per the NSSO, the female labour force participation rate (FLFPR) is 20.5 **Three in four Indian women** do not work in the country. If women's unpaid care and household work is included in the NSSO's definition of work, then the FLFPR would rise from 20.5% to 81.7%, which would surpass that of men. Women's participation is **lowest among BRICS nations** and India is only better than Saudi Arabia, among G20 countries.

- Irrespective of employment category (casual and regular/salaried), organised or unorganised sector, and location (urban and rural), women workers in India are paid a lower wage rate. The **gender pay gap was 34 % in India**, that is, women get 34 per cent less compared to men for performing. Further, the wage difference is lesser for more skilled workers and more for semi-skilled or unskilled workers.
- While inequality in jobs has increased, inequality in education has decreased between boys and girls. But this situation further exacerbates the crisis in jobs when it comes to women. Even as girls frequently outperform boys in school examinations, they are not finding suitable jobs for the skills that they have.
- Factors underlying the weak situation of women in the work force include a **decline in rural jobs, transforming urban areas, the burden of unpaid care work and the stubborn presence of regressive social practices.**

Agriculture

- The report also talks about the **feminisation of agriculture** and why it should not be celebrated. While both men and women are diversifying out of agriculture, almost **75 % of rural women are still engaged in it**. Within agriculture, women are **relegated to low-wage roles** such as weeding, threshing and paddy transplantation.
- A **patriarchal ideology and local socio-cultural traditions** confine women to the village where agriculture continues to be their most important (but insufficient) source of food and income. Male outmigration has also pushed women into taking on more responsibility of cultivation and to perform wage labour to ensure households' daily survival

Caste and Religion

- **Caste-determined occupations continue to be rigid in rural and urban India.** Scheduled caste women are seen concentrated in the construction sector and in waste collection jobs whereas non-scheduled caste women are more likely to work in health or education. Discrimination also exists in terms of market participation; milk produced by dalit families, for instance, fetches a lower price.
- There is no major divergence in urban FLFPR in terms of religion; it is similar in terms of caste but occupational segregation exists with Muslim women concentrated in household manufacturing.

Way Ahead

- The country needs a labour market where people are adequately remunerated for their skills and provided social protection to access quality education and healthcare in order to help uplift families out of the cycle of poverty.
- It is important to shift development focus towards labour-intensive sectors to create more jobs, along with substantially higher investments in health and education to improve productivity, as these sectors could be large employment generators in the future.
- Growth in jobs must also be inclusive and new jobs need to be secure with better work conditions, including the right to organise.
- The inequality in formal social security system in India should be addressed through labour policy instruments and by an expansion of social security among uncovered workers
- Appropriate policy choices should look to create a gender just society to ensure equal and dignified opportunities for all, to overcome the gender blindness in perspectives.

US Withdrawal Of GSP Benefits To India

Syllabus: Effects of liberalization on economy

In News

- The US government has announced that it intends to terminate India's designation as a beneficiary developing country under the Generalised System of Preferences (GSP).
- US said that this decision is due to India's failure to provide the United States with assurances that it will provide "equitable and reasonable access to its markets in numerous sectors". This, despite that fact that the preferences offered under GSP are supposed to be unilateral.

Generalised System of Preferences (GSP):

- The GSP is a non-contractual instrument by which industrially developed countries extend tariff concession (like reduced MFN tariff or duty free treatment of eligible products) to certain goods originating in developing countries.
- The principles underlying GSP were formally accepted in 1968 during the 2nd UNCTAD Conference held at New Delhi, and were first put into operation in the year 1971. The objective has been to offer the developing countries a more preferential tariff compared to that given to developed countries in order to enable a more favorable access to the developed market for their exports.
- GSP assists developing countries in increasing their export earnings, promoting their industrialization and accelerating their rates of economic growth. 36 developed countries are offering preferential tariff treatment to the eligible Indian goods through 12 schemes.

India and US GSP

- The US GSP programme, established by the U.S. Trade Act of 1974, eliminated certain duties on thousands of products when imported from one of the 129 preferred countries. India got preferential access for its exports of about 3,500 Indian products to the US markets under GSP. The top GSP products exported by India to the US (as of 2017) were motor vehicle parts, ferro alloys, precious metal jewellery, monumental/building stone, rubber tyres etc.
- **Benefit to India:** GSP allows Indian exporters a competitive edge and furthers India's export base. It also allows India to integrate with global value chains (GVC) and hence, with global markets. In the fiscal year 2018, Indian goods worth US\$5.6 billion out of a total of US\$49 billion were exported to the US under this scheme, with a duty benefit of about \$190 million annually.
- **Benefit to US:** Most of US imports from India under the GSP are raw materials or important intermediaries of value chains. This enables cheaper production for US consumers and also helps the US economy to be more globally competitive.

Reasons Behind This Step**A. US' Claim**

- According to the US government, India has not assured the United States that it will provide equitable and reasonable access to the markets of India (a discretionary criteria for the evaluation of eligibility).
- US claimed that **India has implemented a wide array of trade barriers** that create serious negative effects on United States commerce.
- India's new **e-commerce rules, price controls on medical devices and tariffs on ICT** products are among the issues that have caused trade frictions between the two countries.
- At the heart of the dispute was the US insistence that India should remove the price cap on **knee implants and stents** – which New Delhi now regulates as "essential medicine".

B. India's Counter claim:

- However, **India has rejected the US** claims of imposing "tremendously high" tariffs and said that its import duties are **within the norms** of the World Trade Organisation (WTO).
- The US has **also been raising the issue of trade deficit** with India.
- However, due to various initiatives resulting in enhanced purchase of US goods like oil and natural gas and coal, **the US trade deficit with India has substantially reduced** in 2017 and 2018.
- As far as **e-commerce rules** are concerned, India is also a thriving market for US services and e-commerce companies like Amazon, Uber, Google etc.
- Historically, GSP has been extended to developing nations to **as a non-reciprocal preferential treatment**.
- However, while making a case for acting against India, the **US has linked it with market access and tariff reduction**, which is **against the basic tenets** of GSP.

Impact on India

- Around **US\$5.7 billion of exports by India** to the US in 2017 were under the GSP, **amounting to 13 per cent** of total Indian exports to the US.
- If removed from the beneficiaries' list, India would no longer be allowed to enter the United States duty-free.
- However, India has maintained that since **most of its US-bound shipments are already out of the GSP purview**, the impact of Trump's new decision **may not be very significant**.
- Under the existing GSP framework, India was getting **tariff preference on 5111 tariff lines** out of 18770 tariff lines in the US -and on only 2165 tariff lines, the tariff advantage was 4% or more.
- India's exports to the US stood at \$50.57 billion in 2017 with a GSP tariff advantage of only \$190 million, which was less than 0.4% of our exports. Naturally, its withdrawal will have a marginal impact.

What Steps Could India Take?

- **Make exports more competitive:** The sectors likely to be adversely affected by the recent decision must enhance their cost competitiveness. This will enable them to make up for the loss of benefits under the preference regime, and still retain their market share in the US. In the short term, the Indian government could provide some financial support as an emergency measure to these sectors.
- **Impose retaliatory tariffs:** Before the withdrawal of GSP benefits, US had in 2018 imposed additional tariffs on Indian steel and aluminium exports without any retaliatory tariffs from India. Now, India could go ahead and impose retaliatory tariffs on US products.
- **Challenge US at WTO:** Under the rules of the WTO, tariff preference schemes such as America's GSP are required to be non-reciprocal, and so the US' decision goes against WTO rules. Indian government must challenge it under WTO's dispute settlement mechanism, sending a broader signal that it expects America (and other countries) to play by multilateral, not unilateral, trade rules.
- India could give US additional market access to some sectors/products

Final Analysis

Overall, termination of India's benefits under the GSP suggests a difficult road ahead in bilateral trade relations between India and the US, especially with the two nations negotiating a trade package. The best course for both countries would be to continue to talk and explore ways of resolving the trade issues.

National Policy on Software Products 2019

Syllabus: Changes in industrial policy & their effects on industrial growth.

In News

The Union Cabinet has approved the National Policy on Software Products - 2019 (NPSP-2019) to develop India as a software product nation. An initial outlay of Rs.1500 Crore is involved, divided into Software Product Development Fund (SPDF) and Research & Innovation fund, to implement the programmes/ schemes envisaged under this policy over the period of 7 years.

Why The Software Product Policy Was Needed

- **India is a net importer of software products:** As per NASSCOM Strategic Review 2017, the Global Software Product Industry is estimated to be USD 413 billion. However, the contribution of Software Products in Indian IT-ITES revenue is just USD 7.1 billion (out of which 2.3 billion USD are exports). On the other hand, import of Software Products is estimated to be nearly 10 billion USD, making India a net importer of software products at present.
- **The sector can aid in inclusive and sustainable growth:** Software product ecosystem has the potential to significantly boost revenues and exports in the sector, create substantive employment and entrepreneurial opportunities in emerging technologies and leverage opportunities available under the Digital India Programme. The sector can give a boost in inclusive and sustainable growth.
- **Huge potential in software products:** There is tremendous scope for Indian Software Products to build upon the strength of Indian IT industry (services led industry), and the innovative & technological capabilities in the country. The development of the software product industry will, in return, result in positive externalities for the entire spectrum of the Indian IT/ITeS sector.
- **Leveraging new and emerging technologies** like Artificial Intelligence, Internet of Things, Block Chain etc. to the maximum advantage across sectors of the economy requires higher levels of innovation, keeping pace with the advancement of technology globally.

National Policy on Software Products 2019

The Policy provides a basic roadmap for formulation of initiatives, schemes and other measures for the development of software products sector in India. To achieve the vision of NPSP-2019, the Policy has the following five Missions:

1. **To promote the creation of a sustainable Indian software product industry**, driven by intellectual property (IP), leading to a ten-fold increase in share of the Global Software product market by 2025.
2. **To nurture 10,000 technology startups** in software product industry, generating direct and indirect employment for 3.5 million people by 2025.
3. **To create a talent pool** for software product industry through up-skilling of IT professionals and motivating students
4. **To build a cluster-based innovation driven ecosystem** by developing 20 sectoral and strategically located software product development clusters
5. **Setting up of National Software Products Mission (NSPM)** with participation from Government, Academia and Industry to evolve and monitor schemes & programmes for the implementation of this policy.

Final Analysis

India's IT industry is predominantly a service led industry, while India is a net importer of software products. Therefore, it is sensible to develop a conducive Software product ecosystem to transform a

predominantly service oriented Indian IT/ITeS industry into a technology oriented products industry. The policy make a good beginning towards developing India as the global software product hub, driven by innovation, improved commercialisation, sustainable Intellectual property (IP), promoting technology start-ups and specialised skill sets, for development of the sector, based on ICT. Its implementation will have transformational effect on the technology-driven future.

National Mineral Policy 2019

Syllabus: Changes in industrial policy & their effects on industrial growth.

In News

- The Union Cabinet has approved National Mineral Policy 2019. It is aimed at bringing about more effective regulation and more sustainable approach to mining sector development in future while also addressing the issues of project affected persons.
- The new policy makes some important improvements compared to the extant National Mineral Policy 2008. It seeks to promote domestic industry (while enabling greater private sector participation), reduce import dependency, and feed into Make in India initiative.

National Mineral Policy 2019

1. Encouraging Private Sector Participation:

- **Right of First Refusal for those who discover minerals:** Earlier, if a firm that has a reconnaissance permit (RP) finds evidence of minerals, it has to inform the government. The government then auctions off the area. This was not an exciting option for explorers. The new policy gives firms with reconnaissance permit (RP) and prospecting license (PL) the right of first refusal to mine them if they discover minerals.
 - **Auctioning in virgin areas:** Firms will be allowed to give the government the coordinates of the area they would like to mine in, and this will then be put up for auction in a short period of time. This is similar to the open acreage policy (OALP) in the oil and gas sector.
 - **Rationalizing PSU acreages:** PSUs often have a lot of good acreage (with good mineral prospects) that they may not necessarily be exploiting. The new policy allows these acreages to be auctioned off to the private sector.
 - **Long term import export policy:** The policy also mentions that Long term import export policy for mineral will help private sector in better planning and stability in business, and prove to be an incentive for investing (including FDI) in large scale commercial mining activity.
 - **Harmonizing taxes, levies & royalty with world benchmarks:** The new policy also promises to harmonise taxes and various levies in keeping with global benchmarks, as high levies currently are making mineral exploration uncompetitive. This is important because, as compared to 8-12% levels globally, Indian levies on most non-oil minerals works out to around 30% of top-line revenues.
 - **Merger and acquisitions** of mining entities and transfer of mining leases granted transparently will be encouraged by introducing appropriate incentives in existing laws.
2. **Strengthening Regulation Through Technology:** There will be an emphasis on strengthening the regulatory mechanism by incorporating e-Governance, including satellite and remote sensing applications. Provisions shall be made for end-to-end accounting of mineral/ore in the supply chain with use of IT enabled systems.
 3. **Promoting Ease Of Doing Business** with simpler, transparent and time-bound procedures for obtaining clearances.

4. **Financing:** Steps shall be taken to facilitate financing of prospecting, exploration and mine development. Efforts shall be made to grant mining the status of industry to boost financing of mining for private sector and for acquisitions of mineral assets in other countries by private sector.
5. **Infrastructure: Dedicated mineral corridors** shall be planned to facilitate transport of minerals from mining areas in hinterland.
6. **National Inventory Of Mineral Resources** will be based on comprehensive and up to date review of exploration data which will be maintained in digitised form.
7. **Welfare of Project Affected Persons:**
 - **Relief and Rehabilitation:** A careful assessment of the economic, cultural, environmental, and social impact on the affected persons need to be undertaken to ensure that suitable, appropriate, relief and rehabilitation packages are evolved.
 - **Skilling through DMF funds:** Devolution of mining benefits under District Mineral Foundation (DMF) for inclusive and equitable development of project affected persons and areas is to be guided by the provisions of the Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY).
 - **Welfare of Tribal Communities:** Grant of mineral concessions in Scheduled Areas shall be guided by the provisions in Fifth and Sixth Schedules to the Constitution, PESA Act, Forest Rights Act and other relevant laws protecting the interests of tribals.
8. **Prevention And Mitigation Of Adverse Environmental Effects** due to mining in accordance with the latest scientific norms and modern afforestation practices shall form integral part of mine development strategy.

More Reforms Needed

- **Sorting Out Delays In Permissions:** Along with getting the policy right, it is also critical to fix the implementation, such as the delays in getting permission. Niti Aayog's recommendation that all statutory approvals should mandatorily be granted within a period of 180 days or they shall be deemed-approved may be considered.
- **Quality controls:** It is also important to do more stringent 24x7 checks on the quality of mining, through use of technology like drones and satellite imagery.
- **Using District Mineral Foundation fund:** As per law, every mining lease holder of will pay a fraction of royalty to the District Mineral Foundation (DMF) in any district affected by mining related operations. However, it is not being utilized fully for welfare of the people affected. For example, in 2018, less than 25% of the fund has been spent.

Final Analysis

Minerals are a valuable natural resource being the vital raw material for the core sectors of the economy. The mining sector has potential to create millions of jobs as well as save billions of dollars of forex. Also, with mineral imports comprising around 55% of imports, and India having a large current account deficit so big, it was important to fix this sector. The new policy is a welcome step in this regard, and represents a significant improvement on the 2008 policy.

Global Energy Transition index

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

In News

- World Economic Forum's Energy Transition Index (ETI) has been released.

- This index has ranked 115 economies on *how well they are able to balance energy security and access with environmental sustainability and affordability.*

Key Highlights

- The report said that **energy systems have globally become less affordable and less environmentally sustainable** than they were five years ago, though access to energy has improved with less than 1 billion now living without access to electricity.
- **Sweden** remains on the top followed by Switzerland and Norway.
- **China** is ranked lower than India at 82nd position
- Among major economies, **the United Kingdom (UK)** is ranked seventh.
- **Singapore** has been ranked thirteenth, while **Germany, Japan and the US** have bagged the seventeenth, eighteenth and the twenty-seventh place respectively.

India Specific Observations

- India **has moved up two places to rank 76th** on this index.
- While India has **scored low** in terms of **system performance** (ranking 97 and 86, respectively), it ranks considerably higher when it comes to **readiness** (45 and 61, respectively).
- The report said that India is amongst the countries with **high pollution levels** and has a **relatively high CO2 intensity** in its energy system.
- India has made *significant strides to improve energy access* in recent years, and currently **scores well** in the area of **regulation and political commitment** towards energy transition.
- India is the **second best in the BRICS block** of emerging economies, with **Brazil being the best** at 46th place globally. However, *India is the only amongst the five economies to improve its rank since last year.*

Seven Steps Suggested By The Report For An Effective Energy Transition

- **Convene** – Identify and engage influential energy sector champions
- **Align** – Apply the fact-base framework for an effective energy transition to foster a common understanding of national energy transition imperatives and enablers.
- **Structure** – Establish an operational structure to drive ongoing collaboration among the stakeholders of energy system.
- **Plan** – Define specific milestones and action plans to deliver impact on the ground, including a framework to measure progress against goals
- **Implement** – Accelerate policy formulation and business decision making by piloting inclusive public-private collaboration models and building business cases to ensure value creation for society
- **Track** – Monitor and evaluate improvements in the energy system to determine corrective actions
- **Refine** – Adjust roadmaps and action plans as well as the operational structure as needed to seize new opportunities over time.

International Energy Agency

The IEA works to ensure reliable, affordable and clean energy for its 30 member countries and beyond. It was founded in 1974 to help countries collectively respond to oil supply disruptions. While this remains a key aspect of its work, the IEA has evolved and expanded. US, UK, France and Germany are its prominent members. A candidate country must be a member country of the OECD. In 2017, India joined the IEA as an association country (China and Brazil are also among 8

association members).

National Common Mobility Card

Syllabus: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

In News

In order to ensure seamless travel across metros and other transport systems, the Ministry Of Housing & Urban Affairs (MoHUA) has launched the National Common Mobility Card (NCMC).

Current Status

- Public transport is extensively used across India as an economical and convenient mode of commuting for all classes of society. Cash continues to be the most preferred mode of fare payments across the public transport. However, there are multiple challenges associated with the cash payment such as cash handling, revenue leakages and cash reconciliation.
- Various initiatives have been taken by transit operators to automate and digitize the fare collection using Automatic Fare Collection System (AFC). The introduction of closed loop cards helped to digitize the fare collection to a significant extent; however, the restricted usability of these payment instruments limits the digital adoption by customers.
- AFC system (gates, readers/validators, backend infrastructure etc.) is the core of any transit operator to automate the fare collection process. The major challenge associated with AFC system implementation in India till now is the lack of indigenous solution provider.
- In order to avoid the vendor lock-in and create an interoperable system, there was a need to develop indigenous standards and AFC system under the Make in India initiative.

Features Of The Card

- The National Common Mobility Card (NCMC) is a **bank-issued debit, credit or prepaid card** which can be used for payments for all transport facilities including metro, bus, suburban railways, toll, parking, smart city and retail.
- The stored value on card supports offline transaction across all travel needs with minimal financial risk to involved stakeholders. The service area feature of this card supports operator specific applications e.g. monthly passes, season tickets etc.
- The **One Nation One Card** is India's first indigenously developed payment ecosystem. The initiative is supported by the Automatic Fare Collection Gate called **SWAGAT** (Swachalit Gate) and an open Loop Automatic Fare Collection System called **SWEEKAR** (Swachalit Kiraya: Automatic Fare Collection System). Both Swaagat and Sweekar have been developed in India.
- In most cases, travel cards issued in a particular city do not function in a different city or state. This newly launched card will eliminate this issue and will be usable across the country.
- Along with a swipe-to-pay option, it will also be contactless, allowing quick payment options like the metro smart card.
- NCMC has partnered with 25 banks for this initiative. In addition to this, the Paytm payments bank can also be used to issue the card.
- The automatic fare collection system has been installed in a few stations of the Delhi Metro Rail Corporation and the first level trials have been marked as successful.

Significance For Various Stakeholders

Customers:

- One card for all payments across various categories like transport and retail
- Super quick contactless transactions
- Secure as it comes with EMV Technology
- Auto Top-up facility

Acquirers/Operators:

- Reduced operating cost on account of common standards, lower cash handling, infrastructure & manpower cost, lower card lifecycle management cost
- Fast deployment of digital payments due to standardized implementation process
- No vendor lock in due to open loop standard platform.
- Business intelligence with rich data insights aimed at business optimization

Banks:

- Customer loyalty & stickiness
- Additional revenue opportunities with large customer base
- Increased usability of bank issued cards
- Rich data insights with valuable customer data for data analytics

Make in India:

- Indigenization: India joins the very few elite nations who have indigenous capacity on Automatic Fare Collection System (AFC) gate and reader production. Till now, AFC implementation in India was dependent on foreign players.
- International standards: The ecosystem has the first indigenous payment reader which has been manufactured by an Indian company and certified as per International standards.

Technology

Matter Antimatter Draft

Syllabus: Science and Technology- developments and their applications and effects in everyday life

In News

- Physicists from the Large Hadron Collider beauty (LHCb) Collaboration at CERN have observed, for the first time, the **matter-antimatter asymmetry** known as **charge-parity (CP) violation** in the decays of a D^0 meson.
- D^0 meson is a subatomic particle made up of a charm quark and an up antiquark.

Charge-Parity

- The term CP refers to the **transformation that swaps a particle with the mirror image of its antiparticle**.
- According to charge-parity conservation, which states that the laws of physics shouldn't change when all the signs of a particle's spatial coordinates are flipped.
- However, the weak interactions of the Standard Model of particle physics are known to induce a difference in the behavior of some particles and of their CP counterparts, an asymmetry known as CP violation.
- This asymmetry is one of the key ingredients required to explain why today's Universe is only composed of matter particles, with essentially no residual presence of antimatter.

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- The phenomenon was first observed in 1964 in the decays of particles called neutral K mesons and the two physicists who made the discovery, James Cronin and Val Fitch, were awarded the Nobel Prize in physics in 1980.
- Such a discovery came as a great surprise at the time, as it was firmly believed by the community of particle physicists that the CP symmetry could not be violated.
- There have been many attempts to measure matter-antimatter asymmetry, without any success until now hence it is a milestone in antimatter research.

Matter and Anti Matter

- Antimatter particles share the same mass as their matter counterparts, but have an opposite charge to that of the matter.
- Matter and antimatter particles are always produced as a pair and, if they come in contact, annihilate one another, leaving behind pure energy.
- According to theory, matter and antimatter should have been created in equal amounts at the big bang, yet, there is strong evidence that the observable universe is **composed almost entirely of ordinary matter**, as opposed to an equal mixture of matter and antimatter.
- During the first fractions of a second of the Big Bang, the hot and dense universe was buzzing with particle-antiparticle pairs popping in and out of existence. If matter and antimatter are created and destroyed together, it seems the universe should contain nothing but leftover energy.
- Nevertheless, a tiny portion of matter – about one particle per billion – managed to survive. This is what is seen today.
- Comparatively, there is not much antimatter to be found. Something must have happened to tip the balance. This asymmetry of matter and anti matter in the visible universe is one of the great unsolved problems in physics.
- The process by which this **inequality between matter and antimatter particles developed is called baryogenesis**.

Role of CERN

- Microscopic numbers of antiparticles are generated daily at particle accelerators and in natural processes like cosmic ray collisions and some types of radioactive decay, but only a tiny fraction of these have successfully been bound together in experiments to form anti-atoms. No macroscopic amount of antimatter has ever been assembled due to the extreme cost and difficulty of production and handling.
- At CERN, physicists make antimatter to study in experiments. The starting point is the Antiproton Decelerator, which slows down antiprotons so that physicists can investigate their properties.

Abel Prize

Syllabus: Science and Technology- developments and their applications and effects in everyday life

In News

- American mathematician **Karen Uhlenbeck** has broken new ground by becoming **the first woman** to win the prestigious Abel Prize, considered widely to be the Mathematics equivalent to the Nobel Prize.
- Named after the 19th century **Norwegian mathematician Niels Henrik Abel**, the annual prize was established by the Oslo government in 2002

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- It was first awarded a year later, to honour outstanding scientific work in the field of mathematics, a discipline not included among the Nobel awards.
- Along with the **Fields Medal**, which is awarded **every four years** at the Congress of the International Mathematical Union (IMU), it is one of the world's most prestigious maths prizes.
- **Only one woman has won the Fields Medal** - Maryam Mirzakhani of Iran in 2014.
- Of the 607 Nobel prizes in physics, chemistry or medicine between 1901 and 2018, only 19 women have been awarded the Nobel Prize.

Karen Uhlenbeck's Pioneering Work

- She received the award for her work in the fields of **gauge theory** and her pioneering work in **geometric analysis**, with her contributions said to have had a major impact in areas of both mathematics and physics.
- Some of her most notable work has been in describing the mathematics behind a special form of complex shapes, the most everyday example of which being the soap bubbles that cling together in a soapy film in order to minimize surface tension and more general minimization problems in higher dimensions.
- Ultimately, her work laid the foundation for one of the major events in the last century of physics, the unification of the electromagnetic force and the weak nuclear force, two of the four fundamental forces in the Universe.

National Supercomputing Mission

Syllabus: Awareness in the fields of IT and Computers

In News

- **Indian Institute of Technology, Kharagpur**, is all set to ramp up its research and development activities with the acquisition of a **1.3 petaflop high power computing facility and a data centre** under the National Supercomputing Mission (NSM).
- The institute has signed a memorandum of understanding with the Centre for Development of Advanced Computing (C-DAC) to facilitate supply, installation, commissioning and operations of the system.
- The research activities will include building hardware and software for high performance computing systems, data management, analytics, and visualizations.
- The institute will also offer academic programmes and training in high power computing. It will conduct degree and doctoral programs and micro-specializations for undergraduate students and short-term courses for industry professionals.

NSM

- **National Supercomputing Mission** was launched in **2015**, to connect national academic and R&D institutions with a grid of over 70 high-performance computing facilities in order to enable India to leapfrog to the league of world-class computing power nations.
- It is implemented by the Department of Science and Technology and Department of Electronics and Information Technology (DeitY) through Centre for Development of Advanced Computing (C-DAC) and Indian Institute of Science (IISc), Bangalore.
- The Mission also includes development of highly professional High Performance Computing (HPC) aware human resource for meeting challenges of development of these applications.

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- These supercomputers **will also be networked** on the **National Supercomputing grid over the National Knowledge Network (NKN)**.
- The NKN is another programme of the government which connects academic institutions and R&D labs over a high speed network.

Turing Award

Syllabus: Awareness in the fields of IT and Computers

In News

- Three researchers, **Yoshua Bengio, Geoffrey Hinton** and **Yann LeCun** , have been awarded the **2018 Turing Award**.
- This award is known as the '*Nobel Prize of computing*' for conceptual and engineering breakthroughs in artificial intelligence.
- Working independently and together, the researchers developed conceptual foundations for AI, identified surprising phenomena through experiments and contributed engineering advances that demonstrated the practical advantages of deep neural networks.
- Loosely modelled on the web of neurons in the human brain, a neural network is a complex mathematical system that can learn discrete tasks by analyzing vast amounts of data.
- Rather than coding behaviour into systems by hand, one logical rule at a time, computer scientists can build technology that learns behaviour largely on its own.
- Neural networks are the electronic engines that power tasks such as facial and speech recognition, self-driving cars, warehouse robots and automated medical diagnoses.

AM Turing Award

- The ACM AM Turing award carries a one million USD prize.
- The award is an annual prize given by **Association for Computing Machinery** (ACM) to an individual selected for contributions of lasting and major technical importance to the computer field.
- It is named after **Alan Mathison Turing**, the British mathematician who articulated the mathematical foundation and limits of computing. Turing was also instrumental in British code-breaking work during World War II.
- **The first recipient, in 1966, was Alan Perlis of Carnegie Mellon University.** The first *female recipient* was *Frances Allen of IBM in 2006*.

Artemis Mission

Syllabus: Awareness in the fields of Space

In News

- With NASA planning to put astronauts back on the Moon, scientists have explored how Sun's harmful radiation left scars on the lunar surface.
- A team from the University of California-Berkeley studied data from **NASA's ARTEMIS mission** along with simulations of the Moon's magnetic environment.
- The data suggests that the solar wind and the Moon's crustal magnetic fields work together to give the **Moon a distinctive pattern of darker and lighter swirls**.

How It Happens

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- The Sun releases a continuous outflow of particles and radiation called the solar wind, which spreads over the planets, Moons and other bodies in the solar system.
- As the solar wind is magnetized, Earth's natural magnetic field deflects the solar wind particles around the planet so that only a small fraction of them reach Earth's atmosphere due to which people on Earth are largely protected from the damaging effects of solar wind.
- Unlike Earth, the **Moon has no global magnetic field**. However, **magnetized rocks near the lunar surface** do create small, localized spots of magnetic field that extend only a short distance.
- These small bubbles of protection deflect some of the damaging solar-wind particles but on a much smaller scale than Earth's magnetic field.
- Under these miniature magnetic umbrellas, the material that makes up the Moon's surface, **called regolith**, is shielded from the Sun's particles.
- As those particles flow toward the Moon, they are deflected to the areas just around the magnetic bubbles, *where chemical reactions with the regolith darken the surface*.
- This creates the **distinctive swirls of darker and lighter material** that are so prominent they can be seen from Earth
- The magnetic field bubbles by themselves are not robust enough to protect humans from the harsh radiation environment, but studying their structure could help develop techniques to protect future explorers.

ARTEMIS

- **ARTEMIS (Acceleration, Reconnection, Turbulence and Electrodynamics of the Moon's Interaction with the Sun)** is made up of two probes P1 and P2.
- They were originally members of the **successful mission THEMIS** (launched in 2007 and successfully completed in 2010) in Earth orbit studying Earth's aurora, but were redirected to the moon in an effort to save the two probes from losing power in Earth's shade.
- Through ARTEMIS scientists look forward to learn more about the Earth-moon Lagrange points, the solar wind, the Moon's plasma wake and how the Earth's magnetotail and the moon's own weak magnetism interact with the solar wind.

Pulsar

Syllabus: Awareness in the fields of Space

In News

- NASA has recently discovered a **pulsar speeding through space** at nearly four million kilometres an hour.
- Pulsar is a celestial object that **emits regular pulses of radio waves and other electromagnetic radiation** at rates of up to one thousand pulses per second.
- They are super dense, rapidly spinning neutron stars left behind when a massive star explodes.
- This pulsar is dubbed **PSR J0002+6216 (J0002 for short)** and sports a radio-emitting tail pointing directly towards the expanding debris of a recent supernova explosion.
- It was discovered in 2017 by a **citizen-science project called Einstein@Home**, which uses time on the computers of volunteers to process Fermi gamma-ray data.

- Due to computer processing time collectively exceeding 10,000 years, the project has identified 23 gamma-ray pulsars to date.
- Located about 6,500 light years away in the constellation Cassiopeia, J0002 spins 8.7 times a second, producing a pulse of gamma rays with each rotation.
- Its rapid motion through **interstellar gas results in shock waves that produce the tail of magnetic energy** and accelerated particles detected at radio wavelengths using the Very Large Array (VLA).
- The speed of the pulsar in the space is so fast that it could travel the distance between the Earth and the Moon in just six minutes. It is speeding through space five times faster than the average pulsar, and faster than 99 per cent of those with measured speeds. It will eventually escape the Milky Way galaxy.
- Further study of this object will help better understand how these explosions are able to kick neutron stars to such high speeds.

GRAPES 3

Syllabus: Awareness in the fields of Space

In News

- For the first time in the world, researchers at the **GRAPES-3 muon telescope facility** in Ooty have measured the electrical potential, size and height of a thundercloud that passed overhead on December 1, 2014.
- At 1.3 gigavolts (GV), the cloud had 10 times higher potential than the previous record in a cloud.
- This is not because clouds with such high potentials are a rarity, but rather, because the methods of detection have not been successful so far.

Measurement of Electric Potential

- Clouds have negative charges along their lower side and positive charges on top and can be several kilometres thick.
- If balloons are used to measure potential difference between top and bottom, they will take hours to traverse the distance and as thunderstorms last only for about 15-20 minutes, this method fails.
- Muons and other particles are produced when cosmic rays bombard air particles surrounding the earth. The muons produced can have positive or negative charge.
- When a positively charged muon falls through a cloud, it loses energy. If its energy falls below 1 giga electron volt (GeV), which is the threshold of detection of the GRAPES-3 muon telescope, it goes undetected.
- On contrary, a negatively charged muon gains energy when falling through the cloud and gets detected.
- Since there are more positive than negative muons produced in nature, the two effects don't cancel out, and a net change in intensity is detected.

Significance

- Learning about the properties of thunderclouds can be useful in navigation of aircraft and preventing short circuits.
- The method can be used to solve a 25-year-old puzzle of **terrestrial gamma ray bursts** — huge flashes of light that accompany lightning, but which have not been explained in theory until now.

Muons

- A muon is a type of elementary subatomic particle similar to the electron but 207 times heavier.
- It is not made up of any other particles and is not a bag of electrons or any other element, but is an elementary or *fundamental* particle on its own.
- It has two forms, the negatively charged muon and its positively charged antiparticle.

GRAPES 3

- GRAPES-3 (**G**amma **R**ay **A**stronomy **P**eV **E**nergie**S** phase-3) experiment is located at Ooty in India.
- It started as a collaboration of Tata Institute of Fundamental Research, Mumbai and the Osaka City University, Osaka, Japan and now also includes the Japanese Nagoya Women's University,
- It is designed to study cosmic rays with an array of air shower detectors and a large area muon detector.

Global Registry for Gene Editing

Syllabus: Awareness in the fields of bio-tech

In News

A newly formed advisory panel on Human Genome editing has called for the **creation of a global registry to monitor gene-editing research** in humans.

Background

- The committee was formed after the recent controversy in China, where scientist He Jiankui secretly created the **world's first genome edited babies** to make them resistant to HIV infection using the CRISPR/Cas9 approach to genome editing.
- Jiankui's efforts prompted swift international backlash from scientists and bioethicists calling for a moratorium on human germline editing as the moratorium would allow time for ethical and moral debate and for the agreement of an international regulatory framework.

Committees' Deliberations

- In the next two years, the committee plans to provide recommendations for a framework that is scalable, sustainable and appropriate for governing human genome editing research from local to international levels.
- Going forward, *a subcommittee will be set up to work with WHO* on how to implement the registry and to promote compliance with the registry.
- WHO will ask publishers and research funders to require that studies be registered prior to publication or receiving funding.
- The committee advised that any genome editing which creates changes to the DNA that can be passed on to the next generation, should be for research purposes only.
- It refrained from calling for a permanent moratorium on such research.

Genes and Gene Editing

- A gene is the basic physical and functional unit of heredity and it are made up of DNA. As per The Human Genome Project, humans have between 20,000 and 25,000 genes.
- Every person has two copies of each gene, one inherited from each parent. Most genes are the same in all people, but a small number of genes (less than 1 percent of the total) are slightly different between people.

- **Alleles** are forms of the same gene with small differences in their sequence of DNA bases. These small differences contribute to each person's unique physical features.
- The genetic information contained in DNA is in the form of a chemical code, called the genetic code.
- Genome editing is a method that lets scientists change the DNA of many organisms, including plants, bacteria, and animals and is widely practised in agriculture, to increase productivity or resistance to diseases.
- Gene editing holds incredible promise for health, but it also poses some risks, both ethically and medically.
- The first genome editing technologies were developed in the late 1900s. More recently, a new genome **editing tool called CRISPR**, invented in 2009, has made it easier than ever to edit DNA.

CRISPR-Cas9

- **CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats)** technology replicates a natural defence mechanism in bacteria to fight virus attacks, using a special protein called **Cas9**.
- CRISPR-Cas9 technology behaves like a cut-and-paste mechanism on DNA strands that contain genetic information.
- The specific location of the genetic codes that need to be changed, or edited, is identified on the DNA strand, and then, using the Cas9 protein, which acts like a pair of scissors, that location is cut off from the strand.
- A DNA strand, when broken, has a natural tendency to repair itself. Scientists intervene during this auto-repair process, supplying the desired sequence of genetic codes that binds itself with the broken DNA strand.
- It is simpler, faster, cheaper, and more accurate than older genome editing methods.

Issues Around Gene Editing

- Most of the discussions related to genome editing revolves around human germline editing. This is because *changes made in the germline **would be passed down to future generations***.
- Due to the possibility of off-target effects (edits in the wrong place) and mosaicism (when some cells carry the edit but others do not), **safety is of primary concern**. In such scenarios, **unintended impacts** cannot be ruled out
- In most countries of the world such experiments are banned, in the absence of regulatory frameworks there will be data and information gaps about the experiment.
- There are concerns that any genome editing, even for therapeutic uses, will start us on a *slippery slope to using it for non-therapeutic and enhancement purposes*, which many view as controversial.
- There is also a highly **problematic issue of trying to produce designer babies** or human beings.
- It is impossible to obtain **informed consent for germline therapy** because the **patients affected by the edits are embryos** and the future generations.
- As with many new technologies, there is a concern that it **will only be accessible to the wealthy** and will increase existing disparities in access to health care and other interventions.
- Taken to its extreme, it could create **classes of individuals defined by the quality of their engineered genome**.
- Many people have **moral and religious objections** to the use of human embryos for research.

Biomedical Research Career Programme

Syllabus: Awareness in the fields of bio-tech

In News

- Union Cabinet has approved continuation of the Biomedical Research Career Programme (BRCP) beyond its initial 10-year term (2008-09 to 2018-19) to a new five year phase (2019-20 to 2023-24).
- The research is an alliance between Wellcome Trust (WT) and Department of Biotechnology.
- Over its 10 years, the Programme has fulfilled its objectives of building and nurturing talent of highest global standards in cutting-edge biomedical research in India.
- BRCP has made it attractive for high quality Indian scientists working abroad to return to India and has increased the number of locations geographically within India where world-class biomedical research is undertaken.
- In the extending phase, the Programme would continue to build this capacity and also strengthen clinical research and work towards addressing important health challenges for India.

Cabinet Approves Alignment With Global Trademark System

Syllabus: Issues Relating to IPR

In News

- The Cabinet has approved the proposal for **India's Accession to the Nice, Vienna and Locarno Agreements, that would harmonise the classification systems** for examination of *trademark and design applications*, in line with the systems followed globally.
- The **Nice Agreement** deals with the international **classification of goods and services for the purposes of registration of marks**, the **Vienna Agreement** deals with an international **classification of the figurative elements of marks** and the **Locarno Agreement** deals with an **international classification for industrial designs**.

Significance

- The accession is expected to **instil confidence in foreign investors** in relation to protection of IPs in India.
- It will **facilitate in exercising rights in decision-making processes** regarding review and revision of the classifications under the agreement.
- It will also give an opportunity to include Indian designs, figurative elements and goods in the international classification systems.

Sirsi Supari and Marayoor Jaggery Get GI Tag

Syllabus: Issues Relating to IPR

Sirsi Supari

- For the first time in the areca nut sector, **Sirsi Supari grown in Uttara Kannada** has received the Geographic Indication (GI) tag.
- An agriculture cooperative, Totgars' Cooperative Sale Society Ltd., Sirsi, is the registered proprietor of the GI.
- Areca nut is grown in several places and the Sirsi Supari is only around 5% of the areca nuts grown in Karnataka.

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- However, a GI tag will protect the identity of the Sirsi areca nut and will help customers identify authentic Sirsi-grown areca nuts.
- It is **cultivated in Yellapura, Siddapura and Sirsi taluks**. The areca nut grown in these taluks have unique features like a round and flattened coin shape, particular texture, size, cross-sectional views, taste, etc.
- These features are not seen in areca nut grown in any other regions. It is somewhat ash coloured, and has a hard seed.
- It has a unique taste due to differences in chemical composition. The total average flavonoids content in it is around 90 whereas in others it is around 80.
- It is used both as 'chali' (white areca nut) and red areca nut. The 'chali' variety is made by peeling the ripened nuts and sun drying them later. The red areca nut is produced by harvesting the tender nuts, then boiling and colouring them, then making them into different grades and finally sun drying them.

Marayoor Jaggery

- Marayoor jaggery from Idukki district, has finally received the Geographical Indication (GI) tag from central government making it safe for consumption while rejuvenating the traditional way of production.
- One of the major challenges the farmers have been facing is the **sale of fake jaggery from Tamil Nadu**, which is being sold with the tag of Marayoor jaggery.
- This has led to a constant fall in the price of the original jaggery, thus forcing several farmers not to take up sugarcane cultivation anymore.
- **Marayoor 'Unda Sharkarai'** (Marayoor Jaggery) is made from sugarcane, **no chemicals are added** during the manufacturing process and the **sugar cane fields are free of chemical pesticides and fertilisers**.
- It is **dark brown in colour, has high sweetness with less saltiness, high content of iron and less sodium and insoluble impurities**.
- It is **made using only traditional methods** and is not produced in modern factories or using modern equipment.
- It is handmade at household units on the sugarcane farms in Marayur and Kanthallur.
- The GI tag will provide **more marketing facility** to the product in India and abroad and would help get **more acceptance in the international market** for the product. It will also be available in government stalls.
- Also, with the status, **only the natives of the area can produce and market the product** exclusively and would **aid in initiating legal action against fake jaggery being sold as Marayur jaggery**.

GI

- Geographical Indications of Goods are defined as that aspect of industrial property which refer to the geographical indication referring to a country or to a place situated therein as being the country or place of origin of that product.
- Typically, such a name conveys an assurance of quality and distinctiveness which is essentially attributable to the fact of its origin in that defined geographical locality, region or country.

- Geographical indications are covered as an element of IPRs, under the **Paris Convention for the Protection of Industrial Property**.
- They are also covered under the **Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement**.
- India, as a member of the World Trade Organization (WTO), enacted the Geographical Indications of Goods (Registration & Protection) Act, 1999 and has come into force with effect from 15th September 2003.

Shanti Swaroop Bhatnagar Prize

Syllabus: Achievements of Indians in science & technology

In News

- The Shanti Swaroop Bhatnagar Prize was recently **awarded on the National Science Day**, which marks the 1928 discovery of the Raman Effect by India's first Nobel Laureate in science, CV Raman.
- The prize is **divided into seven disciplines**, namely Biological Sciences, Chemical Sciences, Earth, Atmosphere, Ocean and Planetary Sciences, Engineering Sciences, Mathematical Sciences, Medical Sciences and Physical Sciences.
- The awards were presented for the years 2016, 2017, and 2018. A skewed gender-ratio was clearly visible – there was only one woman among the awardees.
- Several Indian Institutes of Technology (IITs) combined won eight awards at the ceremony. Close behind the IITs was the Indian Institute of Science, Bengaluru (IISc), which won seven prizes at the ceremony.

Details of the Prize

- The Shanti Swarup Bhatnagar Prize is **among the most sought after multidisciplinary awards in the fields of science and technology in the country**, given by the **Council of Scientific and Industrial Research (CSIR)**.
- The award is **named after the founder Director of the CSIR, Shanti Swarup Bhatnagar. it was first awarded in 1958**.
- The purpose of the prize is to recognize outstanding Indian work in science and technology. Some of India's top scientists, like M S Swaminathan and C N R Rao have been recipients of this award in the past.
- **Any citizen of India engaged in research in any field of science and technology up to the age of 45 years is eligible for the prize**. The prize is awarded on the basis of contributions made through work done in India only during the five years preceding the year of the prize.
- The prize comprises a citation, a plaque, and a cash award of ₹5 lakh. In addition, recipients also get Rs. 15,000 per month up to the age of 65 years.

Combat Casualty Drugs

Syllabus: Indigenization of technology and developing new technology

In News

- With 90 per cent of gravely wounded security personnel succumbing to injuries within a few hours, **DRDO's medical laboratory Institute of Nuclear Medicine and Allied Sciences** has come up

with a range of **combat casualty drugs (CCDs)** that can extend the golden hour till the trooper is shifted to hospital.

- The **golden hour**, also known as **golden time**, refers to the period of time following a traumatic injury during which there is the highest likelihood that prompt medical and surgical treatment will prevent death.

List of CCDs

- **Glycerated Saline** a battlefield intravenous fluid that does not freeze till -18 degrees Celsius and is useful in handling trauma cases in high altitude areas. Unlike normal saline, it reduces inflammation. The drug can be life saving, particularly if the traumatic edema, collection of fluid in tissues and cavities of the body, is in the brain or lungs.
- A **special medicated dressing material** which is 200 times more absorptive than normal dressings during bleeding wounds. The cellulose fibre-based dressings are more effective in stopping bleeding and keeping the wound clean. Additionally, antiseptics, antibiotics and curcumin can be impregnated in the dressing which acts as a slow drug release system
- **Chitosan gel**, helps in preventing blood loss by forming a film over the wound. Coupled with platelets and red blood cells aggregation, it stops the bleeding. Its antibacterial and wound health properties are of added benefit.
- It is suitable for sealing wounds by twin action: **haemostasis** by chemical action and filing action. It can be used for wounds on the limbs and also cavities such as abdomen and thorax. The gel is poured onto the wound and held with physical pressure for few minutes till the bleeding stops. It is topped by Chitosan wound cover, if the wound is deep, filters like silk and cellulose granules may be used after Chitosan gel.
- **Hypochlorous acid (HOCL)**, a disinfectant for troopers involved in jungle warfare. It is helpful in treating necrotising fasciitis, a rapidly progressing bacterial infection of soft tissues.
- Bacterial toxins cause local tissue damage and necrosis, as well as blunt immune system responses. In such cases, pure 0.01 per cent HoCL has both broad-spectrum antimicrobial activity and can rapidly neutralise bacterial toxins.
- A **new route for administering the Nalbuphine injection** to reduce pain during mutilating war injuries has also been discovered. A 10 mg injection of Nalbuphine hydrochloride is more effective for an injured trooper if it is given through the submental/sublingual route instead of intra-muscular or intravenous route.

Need Of The Hour

- Citing the February 14 terror attack in Pulwama where 40 CRPF soldiers were killed, the developers claim that the medicines could have brought down the death toll. Chances of survival and minimum disability are highest when effective first aid care is given within the golden hour.
- The main battlefield emergencies are excess bleeding, sepsis, shock, hypovolemia (decreased blood volume) and pain.
- The challenges are many, as there is only one medical person and limited equipment to take care of soldiers during combat in most cases. This is compounded by battlefield conditions such as forests, hilly terrain and inaccessibility of vehicles.
- DRDO's indigenously made medicines will be a boon for paramilitary and defence personnel during warfare.

Smart India Hackathon 2019

Syllabus: Indigenization of technology and developing new technology.

In News

- In order to make development a comprehensive mass movement and innovate on all fronts, **MHRD, AICTE, i4c and Persistent Systems** came together to organise the 3rd edition of Smart India Hackathon (SIH) 2019.
- It is a nationwide initiative to provide students a platform to solve some of pressing problems faced in daily lives, and thus **inculcate a culture of product innovation and a mindset of problem solving**.
- It also gave the students an opportunity to work on challenges faced within the private sector organisations thus **helping the private sector hire the best minds from across the nation**.
- It is the **world's biggest Software and Hardware hackathon**, harnessing expertise of students from IISc, IITs, NITs and AICTE/UGC approved institutions.

Benefits

The Hackathon helps to

- Harness creativity & expertise of students
- Spark institute-level hackathons
- Build funnel for Startup India campaign
- Crowdsource solutions for improving governance and quality of life
- Provide opportunity to citizens to provide innovative solutions to India's daunting problems

Environment and Biodiversity**FAME II****In News**

- The Union cabinet chaired by the Prime Minister Shri Narendra Modi has approved the proposal for implementation of scheme titled '**Faster Adoption and Manufacturing of Electric Vehicles in India Phase II (FAME India Phase II)**' for promotion of Electric Mobility in the country.
- The scheme with total outlay of Rs 10000 Crores over the period of three years will be implemented with effect from 1st April 2019.
- This scheme is the expanded version of the present scheme titled 'FAME India1' which was launched on 1st April 2015, with total outlay of Rs. 895 crores.
- The main aim of the scheme is to encourage faster adoption of Electric and Hybrid vehicles by way of offering upfront incentive on purchase of electric vehicles and also by establishing necessary charging infrastructure for electric vehicles.

Provisions Of The Scheme

- The emphasis is on electrification of the public transportation that includes shared transport. Demand incentives on operational expenditure mode for electric buses will be delivered through State/City Transport Corporation (STUs).
- In three and four wheeler segment, incentives will be applicable mainly to vehicles used for public transport or registered for commercial purposes. In the e-two wheelers segment, the focus will be on private vehicles.

- The government plans to support ten lakh two wheelers, five lakh three wheelers, 55,000 four wheelers and 7,000 buses.
- To encourage advanced technologies, the benefits of incentives will be extended to only those vehicles which are fitted with advanced battery like a lithium-ion and other new technology batteries.
- The scheme proposes establishment of charging infrastructure, whereby about 2,700 charging stations will be established in metros, other million-plus cities, smart cities and cities of hilly states across country so that there is availability of at least one charging station in a grid of 3 km x 3 km.

Analysis

- The Govt's ambitions is clear, notwithstanding the fact that Indian EV market currently has one of the lowest penetration rates in the world. Local production of inputs for EVs is at just about 35% of total input production.
- Batteries make up 50% of EV costs and it is important to shift the focus from **subsidizing vehicles to subsidizing batteries**.
- **Incentivizing electric two-wheelers** is a step in the right direction as two-wheelers account for 76% of the vehicles in the country and most of the fuel usage and are currently seeing much better uptake of e-vehicles than cars.
- Recently, the Union Power Ministry categorized **charging of batteries as a service**, which will help charging stations operate without licences. But plenty remains to be done viz. addressing technical concerns like AC versus DC charging stations, handling of peak demand and grid stability.
- If a switch to e-vehicles is to have any **significant effect on pollution**, the sector cannot be seen in isolation. An EV is only as clean as the electricity source it uses. In India, thermal sources account for about 65% of capacity and it is equally important to change the energy matrix.
- India does not have any known reserves of lithium and cobalt, which makes it entirely dependent on **imports of lithium-ion batteries from Japan and China**. Private investment in battery manufacturing plants and developing low cost production technology is a must.

Way Ahead

- E-mobility is a nascent industry in India and in most countries as **capital costs are high and the payoff is uncertain**. Manufacturers are unlikely to raise e-vehicle and battery capex, when demand is uncertain and hence will not achieve economies of scale. This leads to a situation where quality remains poor, and thus demand dormant. Some form of government support is necessary to break the impasse; no country has managed to make headway in e-vehicle adoption without this so far.
- But a brute force subsidy approach is not the answer in an industry where there is, as yet, no certainty about what the right solutions are and manufacturers are likely to continue experimenting. Stabilizing the policy environment when it comes to taxes, non-fiscal incentives, and the infrastructure needed to tackle the anxiety will go a long way in developing the industry.

Global Environment Outlook 2019

In News

- The **sixth Global Environment Outlook (GEO) 2019**, or GEO-6, has been released during the build up to the fourth United Nations Environmental Assembly.
- It calls on decision makers to take immediate action to address pressing environmental issues to achieve the Sustainable Development Goals as well as other Internationally Agreed Environment Goals, such as the Paris Agreement.

- UN Environment launched the **first Global Environment Outlook (GEO) in 1997** as its flagship environmental assessment. GEO reports aims to provide stakeholders with the information needed to guide societies to a truly sustainable world by 2050.
- GEO-6 outlines the current state of the environment, illustrates possible future environmental trends and analyses the effectiveness of policies. GEO-6 focusses on the theme “**healthy planet, healthy people**”, and emphasizes that urgent action is needed by decision makers at all levels to achieve it.

Key Highlights

A. Health Emergencies - The GEO-6 has compiled a list of pollution-related health emergencies:

- Poor environmental conditions cause approximately 25% of global disease and mortality - around 9 million deaths in 2015 alone.
- Lacking access to clean drinking supplies, 1.4 million people die each year from preventable diseases such as diarrhoea and parasites linked to pathogen-riddled water and poor sanitation.
- Chemicals pumped into the seas cause potentially multi-generational adverse health effects.
- Land degradation through mega-farming and deforestation occurs in areas of Earth home to 3.2 billion people.
- Air pollution causes 6-7 million early deaths annually.

B. The State Of The Environment

I. Air

- Emissions generated by human activity continue to alter the composition of the atmosphere, leading to air pollution, climate change, stratospheric ozone depletion and exposure to persistent, bioaccumulative and toxic chemicals.
- Air pollution is the main environmental contributor to the global burden of disease.

II. Biodiversity

- Genetic diversity is declining, threatening food security and the resilience of ecosystems, including agricultural systems and food security.
- Environmental and human health are intricately intertwined, and many emerging infectious diseases are driven by activities that affect biodiversity.
- The critical pressures on biodiversity are habitat change, loss and degradation; unsustainable agricultural practices; the spread of invasive species; pollution, including microplastics; and overexploitation, including illegal logging and trade in wildlife.
- Greater focus on strengthening governance systems; improving policy frameworks through research; policy integration; implementation; and encouraging partnerships and participation, are all measures that have the potential to address the greatest pressures on biodiversity.

III. Oceans and Coasts

- Oceans and coasts are facing challenges in the form of ocean warming and acidification, ocean pollution and the increasing use of oceans, coasts, deltas and basins for food production, transportation, settlement, recreation, resource extraction and energy production.
- Improving waste management, including recycling and end-of-life management, is the most urgent short-term solution to reducing input of litter to the ocean.

- A holistic, integrated monitoring and assessment of the marine environment needs to be fostered hand in hand with the implementation of pollution reduction measures to achieve and maintain the targets of “Good Environmental Status” of the marine environment.

IV. Land and Soil

- Food production is the largest anthropogenic use of land, using 50 per cent of habitable land.
- Land degradation and desertification have increased. Whilst the pace of deforestation has slowed, it continues globally.
- Securing land rights for local communities can help to turn land assets into development opportunities and secure more sustainable use of land.
- Achieving the land-related Sustainable Development Goals requires adequate land and water resource management.

V. Fresh water

- Population growth, urbanization, water pollution and unsustainable development are all increasing pressure on water resources across the world, and that pressure is further exacerbated by climate change.
- Promoting water-use efficiency, water recycling, rainwater harvesting and desalination is becoming increasingly important to ensure greater water security and more equitable water allocation for different users and uses. Good governance includes integrated water resource management.
- The decomposition, due to human intervention, of peatlands, a type of wetland that stores more carbon than all the world’s forests combined, currently contributes approximately 5 per cent of annual global carbon emissions

C. Effectiveness of Environmental Policies

- **Most countries have introduced environmental policies** and established a governance structure for such policies, and there are now hundreds of multilateral environmental agreements in existence.
- In many cases, **environmental policymaking does not meet the suggested criteria for effective policies**, meaning that it does not reach its full potential.
- **Policy innovation is increasingly taking place in developing countries.** An analysis of policy-related indicators shows that despite considerable innovation and effort in advancing environmental policies, the **efforts and effects to date remain insufficient.**

D. Changing The Path We Are On

- Transformative change and an **integrated approach** are needed. For example, eliminating hunger, preventing biodiversity loss and halting land degradation is possible by combining measures related to consumption, production, waste and redistribution of food, and nature conservation policies.
- Coordinated and ambitious policy, coupled with **social and technological innovation**, could enable the achievement of SDGs and other environment goals.
- Investments are needed in **policies that address environmental issues promote human health and well-being**, prosperity and resilient societies.
- **Improved data** and greater knowledge enable better and more effective actions and solutions in more places.

India Cooling Action Plan (ICAP)**In News**

The Union Ministry of Environment, Forest and Climate Change has released the India Cooling Action Plan (ICAP).

Need For India To Address Cooling

- India has one of the lowest access to cooling across the world, which is reflected in its low per-capita levels of energy consumption for space cooling, at 69 kWh, as compared to the world-average of 272 kWh.
- India is a growing economy characterized by low penetration of air-conditioning, rising per capita income, rapid urbanization and a largely tropical climate, which would lead to rise in the requirement for cooling.
- Rising cooling requirement provides a challenge (of emissions) as well as a unique opportunity (sustainable and accessible cooling to all).

Issues Related To Cooling

A large part of the cooling demand is catered through refrigerant-based cooling. An important aspect related to refrigerant-based cooling is energy use. According to the International Energy Agency (IEA), refrigeration and air conditioning (RAC) causes 10% of the global CO2 emissions.

India Cooling Action Plan (ICAP)

- The ICAP provides a **20-year perspective** (2017-18 to 2037-38) and recommendations, to address the cooling requirements across sectors and ways and means to provide access to sustainable cooling for all, and lists out actions which can help reduce the cooling demand.
- **Goals:** The overarching goal of ICAP is to provide sustainable cooling and thermal comfort for all while securing environmental and socio-economic benefits for the society. Various sub-goals to be achieved by 2037-38 include **reducing cooling demand** (by 20% to 25%), **refrigerant demand** (by 25% to 30%), **reducing cooling energy requirements** (by 25% to 40%) etc. as well as **training and certification** of 100,000 servicing sector technicians by 2022-23.
- **Priority Areas Identified by the ICAP**
 - **Enhancing energy efficiency:** To reduce the energy footprint of active cooling, by promoting development and commercialization of technology pathways, especially low energy cooling technologies
 - **Reduce cooling demand:** By reducing the cooling load of the building sector through fast-tracked implementation of building energy codes, and increasing adoption of adaptive thermal comfort standards, energy efficiency devices and awareness.
 - **Equitable cooling:** Targeted programmes to enable cooling for the economically weaker segment, especially through design and construction of housing for EWS and LIG with thermal comfort, supporting initiatives such as cool-roof programs etc.
 - **Formalisation of technicians:** There is a need to bring the service technicians in this area into the formal sector through training and certification programme.
 - **Ensure harmonization of policies:** ICAP recommendations bring in synergies with ongoing government programmes and schemes.
 - **Refrigerant transition:** ICAP seeks synergy between the existing plans to phase-out HCFCs (Hydrofluorocarbons) and the new plans to phase-down the use of high GWP HFCs (high global warming potential hydrofluorocarbons), to ensure that costs are minimised and environmental benefits are maximised.

- **Create an ecosystem for promoting robust and collaborative R&D:** A robust, comprehensive and R&D innovation ecosystem for effectively addressing India's cooling requirement, with an important role for public-private-partnerships.

Benefits from ICAP

- Reduction of cooling demand
- Enhanced energy efficiency
- Sustainable cooling – low GHG emissions related to cooling
- Thermal comfort for all – provision for cooling for EWS and LIG housing
- Doubling Farmers Income – better cold chain infrastructure – better value of produce to farmers, less wastage of produce
- Skilled workforce for better livelihoods and environmental protection
- Make in India – domestic manufacturing of air-conditioning and related cooling equipment
- Robust R&D on alternative cooling technologies – to provide push to innovation in cooling sector

Way ahead

India is one of the first countries in the world to develop a comprehensive Cooling Action plan. Given the cross-cutting nature of cooling demand, the success of ICAP implementation requires active collaboration among the relevant ministries as well as the private sector entities. For effective implementation, the ICAP must be monitored and executed under the governance of a high level multi-ministerial framework.

UN Environment Assembly

In News

- The fourth session of the UN Environment Assembly (UNEA) of the UN Environment Programme (UNEP) took place in March 2019 in Nairobi, Kenya.
- The theme was "**Innovative Solutions for Environmental Challenges and Sustainable Consumption and Production**".

Significance of UNEA

- The UNEA was created in 2012, when world leaders called for UN Environment to be strengthened and upgraded during the United Nations Conference on Sustainable Development.
- The Assembly is the only UN congregation (outside the General Assembly) where all member states convene to address the critical environmental challenges facing the world today.
- Decisions at UNEA have a profound impact on the goals of the Paris Agreement and the 2030 Agenda for Sustainable Development, as well as paving the way towards the UN Climate Change Summit 2019 and impacting the overall UN agenda.

India's Resolutions

- UNEA adopted resolutions piloted by India on two important global environment issues at the fourth session of UNEA relating to:
- **Single-use Plastics:** India moved a resolution to phase out single-use plastics by 2025, while committing itself to phase them out by 2022. However, the adopted resolution at UNEA only talked about addressing single-use plastic pollution and finding affordable and environment friendly alternatives.

- Why India took it up: Only a small proportion of the plastics produced globally are recycled with most of it damaging the environment and aquatic bio-diversity.
- **Sustainable Nitrogen management:** India also proposed a resolution to address nitrogen pollution as the global nitrogen use efficiency is low, resulting in pollution by reactive nitrogen which threatens human health, ecosystem services, contributes to climate change and stratospheric ozone depletion.

Livestock Emissions

Concerns:

- A draft report of the United Nations Environment Programme (UNEP) brought focus on the **rising meat consumption and its global warming potential**.
- Livestock is the largest source of agricultural anthropogenic methane (through release of gas by these animals).
- It is estimated that each year livestock production emits greenhouse gases that equal to global warming effects of 7 giga tonnes of carbon dioxide, tentatively same as that of the transport industry.
- Two-fifths of this emission, mostly methane, is produced during the digestive process (called **enteric methane**).
- The environmental impact of unsustainable agricultural practices costs an estimated US \$3 trillion per year. Most of the environmental impacts of food production are due to the meat production.

Strategies To Address This Issue:

- **Generating lesser gas:** Worldwide there have been numerous experiments going on to reduce emission from livestock. These include breeding livestock that emit less gases, fodder that doesn't produce much gas during digestion and also microbiome transfers.
- **Changing food consumption patterns:** There will soon need to be a country-level as well as global strategy to bring in change in the world's food consumption sector to bring down emissions responsible for warming. Per capita meat consumption would have to be brought down.
- **A "food systems" approach:** This approach to policymaking allows actors across the whole life cycle of food production and consumption to take a holistic view. This needs to value resource use efficiency, food security and nutrition, and environment and health, as well as ensuring the equitable distribution of economic benefits throughout the supply chain.

Global Chemicals Outlook II

In News

- The UN Environment Programme (UNEP) released the **Synthesis Report for the Global Chemicals Outlook II (GCO II)** during the 4th session of the UN Environment Assembly (UNEA-4).
- The summary is titled, '**Global Chemicals Outlook II: From Legacies to Innovative Solutions – Implementing the 2030 Agenda for Sustainable Development.**'

Background

- GCO II was **mandated by United Nations Environment Assembly (UNEA-2)** in 2015.

- The emphasis was given on areas where data were found to be lacking or inadequate, and to assess progress towards the UN's goal of sound chemicals management globally by 2020.
- The **first report**, published in 2013, examined trends in worldwide chemicals production, use, disposal, and provided policy options.

Key Highlights

- The global goal to minimize adverse impacts of chemicals and waste will not be achieved by 2020.
- Globally Harmonised System (GHS) for **classification and labelling** has not been implemented in more than 120 countries, mostly developing nations and economies in transition.
- This itself reflects that the progress on reducing the impacts of chemicals and wastes has been **uneven and implementation gaps** remain.
- The current chemical production capacity of 2.3 billion tonnes is projected to double by 2030.
- Hazardous chemicals continue to be released to the environment in large quantities.
- Alongside risks, growth in chemical-intensive industry sectors such as construction, agriculture and electronics creates opportunities to foster sustainable consumption, production and product innovation.
- The **World Health Organization (WHO)**, the report states, **estimates the burden of disease from selected chemicals at 1.6 million lives in 2016.**
- **On knowledge sharing**, the report emphasizes that significant resources can be saved by sharing knowledge on chemical management instruments more widely.

The Report Calls For More Ambitious Actions To

- **accelerate progress** on sound management of chemicals and waste in order to achieve sound management, and the minimization of adverse impacts, within the context of the 2030 Agenda;
- **develop a framework** for the sound management of chemicals and waste beyond 2020 that is aspirational and comprehensive and creates incentives to foster commitment and engagement by all actors in the value chain;
- **implement actions** to and beyond 2020 that also reach relevant SDGs; and
- **use the SDGs and targets** to stimulate integrated action beyond 2020.

About United Nations Environment Programme

- It was **established in 1972** to guide and coordinate environmental activities within the United Nations (UN) system.
- UNEP promotes international cooperation on environmental issues, provides guidance to UN organizations, and, through its scientific advisory groups, encourages the international scientific community to participate in formulating policy for many of the UN's environmental projects.
- **Headquartered in Nairobi, Kenya**, the organization also has encouraged participation by the private sector to promote the sustainable use of the world's natural resources.

Security

Mission Shakti

In News

- India has shot down a live **Low-Earth Orbit (LEO) satellite** in space thereby showing India's growing space prowess.

- This was the **first Indian demonstration** of anti-satellite (ASAT) capability.
- This test has been dubbed as **Mission Shakti**.

About The Mission

- The ASAT, launched under this mission, destroyed a **pre-determined target** which was situated at **300 kilometres in the low earth orbit**.
- It took three minutes to complete its mission and used a long-range ballistic missile defence (BMD) interceptor.
- With this feat, India became the 4th country in the world to have this capability. The **other three countries are U.S, Russia and China**.
- The project was commissioned two years back and the anti-satellite system was **developed by DRDO**.

Significance

- The use of ASAT is seen as **crossing new frontier** just like India's 1998 nuclear tests.
- The acquisition and demonstration of this technology make India a **member of an elite group of countries**.
- Indigenous development of ASAT **adds to India's credentials**, given that for many decades *India was kept away from acquiring key technologies*.
- It shows India's **focus on security challenges**, emanating beyond Pakistan. Besides securing our land, water and air, we are now capable of defending our space.
- The acquisition of this technology **is expected to have spin-offs** that India can exploit for commercial use, both domestic and globally.
- It will also provide a boost to "**Make in India**" programme.
- The bigger significance of the test, however, lies in its latent indication that India has **attained the capability for exo-atmospheric interception of long-range missiles in their mid-course**.

Criticism

- India has been an **ardent advocate** of mitigating arms race in space, and yet has contributed in **considerable measure towards the militarization** of outer space.
- ASAT test has provided '**credible deterrence**' **against threats to space-based assets** from long-range missiles.
- However, many analysts believe that this will not be effective at all as most of the countries' satellites **are in the higher orbit**, and with this India will **not be able to knock out those satellites**.
- ASAT weapons tests, like the one India carried, risk making a "**mess**" in space because of **debris fields they can leave behind**.

What are Anti-Satellite Weapons?

- They are missile-based systems to attack moving satellites. ASAT weapons are capable of shooting down space objects from ground or airborne sources.

History of ASAT

- The development of such systems has a long history — fuelled by the Cold War between the United States and the former Soviet Union.

- In 1985, the United States had used an anti-satellite system to destroy its P-781 satellite that had instruments aboard to study solar radiation.
- China conducted an anti-satellite missile test on January 11, 2007 by targeting a Chinese weather satellite — the FY-1C – that sailed at an altitude of 865 kilometres (537 mi).
- A year later, the United States launched ‘Operation Burnt Frost,’ the code name to intercept and destroy a non-functioning U.S. National Reconnaissance Office (NRO) satellite named USA-193.

What are Low-Earth Orbit satellites

- These are satellites roughly at an altitude of 2,000 kilometres from the earth and that’s the region where majority of satellites are concentrated.
- These satellites are mainly used for **data communication** and move at extremely high speeds.

[For detailed analysis on this issue as well as on India’s Space Security Policy, please refer the topic **The US ‘Space Force’** from CA magazine of July 2018]

Trends in International Arms Transfers, 2018

In News

- The **Stockholm International Peace Research Institute (SIPRI)** has released the “**Trends in International Arms Transfers 2018**” Report.
- Assessment Period – Five year period from 2014 to 2018

Key Highlights of the Report

- The volume of international transfers of **major arms in 2014–18 was 7.8 per cent higher than in 2009–13** and 23 per cent higher than in 2004–2008.
- The **five largest exporters** in 2014–18 were the *United States, Russia, France, Germany and China*.
- The **five largest importers** were *Saudi Arabia, India, Egypt, Australia and Algeria*.
- The top five exporters accounted for 75 per cent of all arms exports.
- The top five importers accounted for 35 per cent of total arms imports. Of these, **Saudi Arabia and India** were among the top five importers in both 2009–13 and 2014–18.
- The **arms imports of Pakistan** was decreased by 39 per cent between 2009-13 and 2014-18. The US has become increasingly reluctant to provide military aid or sell arms to Pakistan.
- **US arms exports to Pakistan** fell by 81 per cent between 2009-13 and 2014-18. Pakistan has instead turned to other suppliers.

India Specific Observation:

- **Russia's arms export to India fell by a whopping 42 per cent** between 2014-18 and 2009-2013.
- As a result, **Russia accounted for 58 per cent of total Indian arms imports** in 2014-2018, compared **with 76 per cent in 2009-2013**.
- Israel, the USA and France have increased their arms exports to India in 2014-18.
- India's import of **arms decreased by 24 per cent** between 2009-2013 and 2014-2018.
- **This fall was in line** with India’s strategic programme **Make in India- Defence** to reduce India’s dependence on foreign arms.

- This decline is **also partly due to delays in deliveries** of arms produced under license from foreign suppliers, such as combat aircraft ordered from Russia in 2001 and submarines ordered from France in 2008.
- Still, **India was the world's second largest importer** of major arms in 2014-18 and accounted for 9.5 per cent of the global total.

Stockholm International Peace Research Institute (SIPRI):

- SIPRI is an independent international institute dedicated to research into conflict, armaments, arms control and disarmament.
- Established in 1966, SIPRI provides data, analysis and recommendations, based on open sources, to policymakers, researchers, media and the interested public. Based in Stockholm, SIPRI also has a presence in Beijing, and is regularly ranked among the most respected think tanks worldwide.
- Its mission is to:
 - undertake research and activities on security, conflict and peace;
 - provide policy analysis and recommendations;
 - facilitate dialogue and build capacities;
 - promote transparency and accountability; and
 - deliver authoritative information to global audiences.

J&K Draft of Return Policy for Militants

Syllabus: Role of external state and non-state actors in creating challenges to internal security.

In News

- New “reintegration policy” is under the consideration of the J&K government headed by Governor Satya Pal Malik.
- The aim of the new policy is to **encourage militants hailing from the state to give up arms.**

Key Highlights

- The new initiative addresses the need for rehabilitation at a **policy level through a two-pronged approach: reformative measures and opportunities of livelihood.**
- There is also provision for a **monthly stipend of Rs 6,000** for a militant who surrenders with a view to “**encourage him to join the mainstream**”.
- The initiative, however, **will not cover militants** found to have been involved in “heinous crimes”.

Status Of The Current Policy

- The policy draft “is presently at the pre-SAC stage”. It is subject to clearance by the State Home Department and the Chief Secretary.
- The **State Administrative Council (SAC)** is the body governing J&K, which is under President’s rule, and is led by the Governor and includes his four advisors and Chief Secretary.

Earlier Initiatives

- **In 2004**, a fresh “rehabilitation policy” was implemented by the then PDP government under Mufti Mohammad Sayeed.

- This policy had made provisions to provide vocational training for militants who surrender if they wished to pursue a trade, and a monthly stipend of Rs 2,000 for the first three years.
- One of the key decisions in the 2004 policy was the **establishment of counselling centres** “where all the returnees alongwith their wives and children would be lodged for a period of three months or for such longer time as would be necessary”.
- In 2010, the focus was on facilitating the return of ex-militants from J&K who had **crossed over between January 1989 and December 2009** for training but later gave up insurgent activities “due to a change of heart and are willing, to return to the state”.

Flood Management and Border Areas Programme

Syllabus: Security challenges and their management in border areas

In News

- The Union Cabinet has approved the "**Flood Management and Border Areas Programme (FMBAP)**".
- It aims for **Flood Management Works** in entire country and *River Management Activities and works related to Border Areas* for the period 2017-18 to 2019-20.

Key Features

- The Scheme "FMBAP" has been framed by **merging the components** of two continuing XII Plan schemes titled "**Flood Management Programme (FMP)**" and "**River Management Activities and Works related to Border Areas (RMBA)**".
- The works under the scheme will protect **valuable land from erosion and flooding** and help in maintaining peace along the border.
- The Scheme aims at completion of the on-going projects already approved under FMP.
- The scheme also caters to *Hydro-meteorological observations and Flood Forecasting* on common rivers with the neighbouring countries.
- It also includes survey and investigations, preparation of DPR etc. of water resources projects on the common rivers with neighbouring countries like **Pancheshwar Multipurpose Project, Sapta Kosi-Sun Kosi Projects** in Nepal which would benefit both countries.
- The **funding pattern** for **FM Component** for works in general category States will continue to be 50% (Centre) : 50% (State) and for projects of North Eastern States, Sikkim, J&K, Himachal Pradesh and Uttarakhand, the funding pattern will continue to be 70% (Centre) : 30% (State).
- **RMBA component** being specific to activities in border areas with neighbouring countries and in accordance with bilateral mechanisms, the projects / works will continue to be funded as **100% grant-in-aid / central assistance**.

BOLD-QIT Project

Syllabus: Security challenges and their management in border areas

In News

- The Union Home Minister inaugurated the project **BOLD-QIT (Border Electronically Dominated QRT Interception Technique)**.

- This project is being constructed under **CIBMS (Comprehensive Integrated Border Management system)** on India-Bangladesh border in Dhubri District of Assam.

Key Highlights

- In January 2018, **Information and Technology Wing of BSF** undertook the project BOLD-QIT.
- It is the project to install technical systems, which enables BSF to equip Indo-Bangla borders with different kind of sensors in unfenced riverine area of Brahmaputra and its tributaries.
- Now, the entire span of River Brahmaputra has been covered with data network generated by Microwave communication, OFC Cables, DMR Communication, day and night surveillance Cameras and intrusion detection system.
- These modern gadgets provide feeds to BSF Control Rooms on the Border and enable BSF Quick Reaction Teams to thwart any possibility of Illegal Cross Border Crossing/ Crimes.

Need For The Project

- Border Security Force is responsible for safeguarding of 4,096 Km long International Border with Bangladesh.
- At various places, it is not possible to erect Border Fence due to the geographical barriers.
- The 61 Kms of Border area in District Dhubri, Assam where River Brahmaputra enters into Bangladesh is consisting of vast char lands and innumerable river channels thus making border guarding in this area, a daunting task especially during rainy season.
- Hence, the need was felt for technological solution besides the physical presence of manpower of BSF.

Comprehensive Integrated Border Management System (CIBMS)

- The CIBMS is designed to guard stretches where physical surveillance is not possible either due to inhospitable terrain or riverine borders.
- It uses a number of different devices for surveillance, communication and data storage.
- A **comprehensive integration of different sensors and other technical systems** of communication and data processing have been achieved in the CIBMS project.
- The signals reach the **Unified Command and Control Centre** where the BSF can monitor the border on real-time basis.
- The CIBMS enables round-the-clock surveillance on border and under different weather conditions be it in dust storm, fog or rain.
- CIBMS is being implemented since 2016.

India, A Key Hub For Illicit Drug Trade: UNODC

Syllabus: Linkages of organized crime with terrorism

In News

United Nations Office of Drugs and Crime (UNODC) has released its latest report has termed India as a **Key Hub for Illicit Drug Trade**.

Key Highlights

- India is one of the **major hubs of illicit drug trade ranging from age-old cannabis to newer prescription drugs** like tramadol, and designer drugs like methamphetamine.

- The global trend of **purchasing drugs over the internet**, particularly **on darknet trading** platforms **using cryptocurrencies** has already spread across South Asia, it is particularly **rampant in India**.
- India is also a **transit country** for illicitly produced opiates, in particular heroin.
- The route used by traffickers to smuggle opiates through South Asia is an alternative part of the so-called “**southern route**”.
- This route runs through *Pakistan or the Islamic Republic of Iran, via the Gulf countries, continues to East Africa and on to destination countries*.
- India, Australia, France and Turkey **accounted for 83 per cent of global production of morphine-rich opiate** raw materials in 2017.

About UNODC

- UNODC is a global leader in the fight against illicit drugs and international crime.
- It was established in **1997** through a merger between the **United Nations Drug Control Programme and the Centre for International Crime Prevention**.
- It is headquartered in Vienna.
- UNODC's work is based on **three major areas: health, justice and public safety**.
- UNODC helps member countries in different areas such as - *Organized crime and trafficking, Corruption, Crime prevention and criminal justice reform, Drug abuse prevention and health, Money Laundering and Terrorism prevention*.

Reasons For Widespread Drug Abuse In India

- To escape from hard realities of life
- Loosening of the traditional methods of social control
- Cultural acceptance in some part of the country
- Peers pressure
- Easy Availability - India is poorly situated in the sense that on its west is the ‘*Golden Crescent*’ and on east is the ‘*Golden Triangle*’.