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1. INDIAN SOCIETY & POLITY

1. Paternity Leave in India

Why in News?

- Indian cricket captain has opted for paternity leave amidst an ongoing tournament. This has led to his criticism as well as praise for prioritizing family.

What is Paternity leave?

- Paternity leave is a short period of leave for the father to take immediately following childbirth to help care for the child and assist the mother.
- Parental leave is a longer period of leave granted to look after the infant child, usually after the expiration of paternity/maternity leave.

Legal Aspects of Paternity Leave in India:

- There is no specific or explicit law for paternity leave in India.
- Maternity leave is governed by the Maternity Benefit Act, 1961 which was last amended in 2017 to enhance the period of maternity leave to 26 weeks from the previous 12 weeks.
- The Central Civil Service (Leave Rules), 1972 allows for 15 days of paid paternity leave before childbirth or up to 6 months from the date of the delivery of the child.
- An attempt was made to introduce a pan India legislation on paternity leave in 2017 as a private member's bill in Lok Sabha, but it was not successful.
- The Paternity Benefit Bill, 2017, provided for a paid leave of fifteen days which could be availed up to three months from the date when the child was born.
- It also included an adopted child below the age of three months and applied to men in the organised i.e. private as well as unorganised sectors.

Popular Trends:

- The longest leave -- six months -- is provided by Ikea, which extends rules from home country Sweden to India. Among Indian companies, Zomato made news in 2019 when it decided to give 26-week paternity leave to its employees.

Precursors in India:

- The Central Government recently announced that male government employees who are 'single parents' which included widowers, divorcees, or unmarried men raising children single-handedly would now be entitled to "child care leave" (CCL).
- Here, they would receive 100% of the leave salary for the first 365 days of leave and 80% of leave salary for the next 365 days.

- This leave was previously only available to women employees.

Why Paternity Leave Matters?

- Most working new mothers (for those who can make that choice) opt for maternity leave either just before the birth or after childbirth.
- It paves the way for at least their temporary, and sometimes their permanent exit from the workplace.
- On the other hand, not many fathers experience much difference in their employment and workplace situation after their child is born, which may either be voluntary by not taking time off or involuntary.
- This structural difference is one of the key components that influence gender dynamics both in the workplace and at Home.

The Gender Dynamics Behind:

- Lack of paternity leave not only robs new fathers of the crucial chance to bond with their newborn child but also reinforces women's role as the primary caregiver and underpins the belief that child care is predominantly the mother's job.
- Paternity leave is a way to directly address the gender dynamic that prevails both at the workplace and at home.
- The undue burden of childcare that is placed on women at home is bound to and does, spill over into their workplace and professional lives.
- The natural effect of it is that it puts hurdles across women's careers and might slow their growth prospects while some women might choose to Quit altogether.

Way Forward:

- By only having maternity leaves and not giving due consideration to paternity leave, the stereotype that women belong at home, taking care of children is reinforced.
- By no means is the introduction of paternity leave a panacea for gendered workplaces, but it will be a significant step in combating and overcoming stereotype.
- For India, a decent way to begin would be to have a national policy on paternity leave that would include all fathers and would apply irrespective of whether they worked in the organised or unorganised sectors.
- Shifting from a purely maternity oriented care framework to a parental care framework which would involve both parents would be beneficial for all stakeholders and is what we need today.

2. Disclosure of Interest in info under RTI Necessary: Delhi HC

Why in News?

- The Delhi High Court has observed that the disclosure of interest regarding the information being sought by an applicant under the RTI Act would be necessary to establish their Bonafides.

Highlights:

- The decision came in the backdrop of a petition seeking information with regard to appointments made for Multi-tasking Staff of the Presidential Estate, Rashtrapati Bhavan.
- Provision of information under RTI Act:
- Section 6(2) of the RTI Act, 2005, states that “an applicant making request for information shall not be required to give any reason for requesting the information or any other personal details except those that may be necessary for contacting him”.

Right To Information (RTI) Act:

- RTI act mandates that any Indian citizen can request any information (which is supposed to be public knowledge) from the offices and departments of the state or central governments.
- The act mandates that the said offices and departments must process such requests in a timely manner.
- Authority is under liability to respond to such a request within a period of 30 days from the date of receiving such an application.
- However, the information sought must not be related to defence, national security, or personal details. Before the advent of the RTI act, the disclosure of information in India was restricted by the Official Secrets Act and some other special laws.
- The RTI act has also made it mandatory for computerizing the records for the purpose of wide spread relay so that any information sought by the public can be processed quickly aided by the information categorization.

Background of RTI Act:

- In 1987, a few laborers in Rajasthan were refused their wages on charges of inconsistent performance.
- Mazdoor Kissan Shakti Sanghatan (MKSS), an activist group fought for these workers and demanded that the government produced the necessary proof to verify the worker's Performance Records.

- After a series of protests, the MKSS got the copies of rolls, which also brought to surface the corruption existed among the officials.
- Provoked by such discrepancies, the MKSS protested for the RTI.
- This protest turned into a national event leading to the passing of the Freedom of Information Act 2002 which became the RTI Act 2005.
- A Pune police station received the first RTI application in the year 2005.

Objective:

- To enable Indian citizens to exercise their rights to ask some pertinent questions to the Government and different public utility service providers in a practical way.
- To help the citizens avail of quicker services from the government agencies since the act enables them to ask questions like why a particular application or an official proceeding gets delayed.
- To achieving a corruption-free India.

3. WhatsApp's contentious Privacy Policy

Why in News?

- The Government of India has asked WhatsApp to withdraw the proposed changes in its privacy policy.
- WhatsApp has been Embroiled in a Controversy over its updated Privacy Policy.

What was the News Privacy Policy?

- When one goes to the status tab on the app, one can see the WhatsApp icon and its four posts, along with the statuses of one's contacts.
- While one reads 'We are committed to your privacy', another reads, 'WhatsApp can't read or listen to your personal conversations as they're end-to-end encrypted'.
- Another post reads 'WhatsApp can't see your shared location' and yet another reads 'WhatsApp doesn't share your contacts with Facebook'.
- The messaging app reviewed its privacy policy and asked users to accept the terms and conditions by February 8. Following this, the app faced severe backlash from its users and privacy advocates.

Issues Pointed by Govt:

- said that the proposed changes raised "grave concerns" over the implications of the choice and the autonomy of Indian citizens.

- It pointed out that the Indian users, who have not been given the option to opt-out of data-sharing with Facebook companies, were being subjected to differential treatment.
- The issue is the impact it has on informational privacy, data security and user choice.

Data at Stake:

- The government asked WhatsApp to reconsider its approach to respect the informational privacy, freedom of choice and data security of Indian citizens.
- It said that India's distinct identity and its people must be properly respected and any unilateral changes to WhatsApp Terms of Service and Privacy would not be fair and Acceptable.

A Discriminatory Move:

- India formed the largest segment of WhatsApp's user base globally and any change in policies would have a disproportionate impact on its citizens.
- The privacy policy offered by WhatsApp to its European users specifically prohibits the use of any information shared with a Facebook company for those companies' own purposes.
- This Clause is not present in the privacy policy offered to Indian users.
- This differential and discriminatory treatment of Indian and European users is attracting serious criticism and betrays a lack of respect for the rights and interest of Indian citizens.

What lies Ahead?

- India has a huge user base of WhatsApp and Facebook in India.
- The consolidation of sensitive information exposes a very large segment of Indian citizens to greater information security risks.
- By not providing Indian users with the ability to opt-out of this data sharing with other Facebook companies, WhatsApp is treating users with an 'all-or-nothing' approach.

4. Supreme Court dismisses Aadhaar Review Petition

Why in News?

- The Supreme Court, in a majority view (4:1), dismissed a series of petitions seeking a review of its 2018 judgment upholding the Lok Sabha Speaker's certification of Aadhaar law as a Money Bill and its Subsequent passage in Parliament.

Highlights:

- The review petitions had highlighted how the Aadhaar Act was passed as a Money Bill by superseding the Rajya Sabha. It was called as a "fraud on the Constitution".

- The review petition had argued that the Aadhaar Act clearly did not fall within the ambit of Article 110 (1) of the Constitution, which restricted Money Bills to certain specific fields only.

What is Review Petition?

- Article 137 of the Constitution provides that subject to provisions of any law and rule made under Article 145 the Supreme Court of India has the power to review any judgement pronounced (or order made) by it.
- Thus the binding decision of the Supreme Court/High Court can be reviewed in Review Petition.

Aadhaar Case: Two Questions for Review:

- Two questions had come up for review regarding the five-judge Aadhaar Bench's judgment in 2018.
- One, whether the Speaker's decision to declare a proposed law as Money Bill was "final" and cannot be challenged in court.
- The second, whether the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016 was correctly certified as a 'Money Bill' under Article 110(1) of the Constitution.

What is the Majority Judgment?

- On the first question, the majority judgment in 2018 said the Speaker's decision could be challenged in court only under "certain circumstances".
- On the second, it concluded that the Aadhaar Act was rightly called a Money Bill.

Money Bill:

- A Bill is said to be a Money Bill if it only contains provisions related to taxation, borrowing of money by the government, expenditure from or receipt to the Consolidated Fund of India. Bills that only contain provisions that are incidental to these matters would also be regarded as Money Bills.
- A Money Bill may only be introduced in Lok Sabha, on the recommendation of the President as per Article 110 of the Constitution.
- Then, it is transmitted to the Rajya Sabha for its recommendations. Following this, it may be sent to the Rajya Sabha for its recommendations, which Lok Sabha may reject if it chooses to.
- If such recommendations are not given within 14 days, it will be deemed to be passed by Parliament.

How is a Money Bill different from a financial bill?

- While all Money Bills are Financial Bills, all Financial Bills are not Money Bills.
- For example, the Finance Bill which only contains provisions related to tax proposals would be a Money Bill.
- However, a Bill that contains some provisions related to taxation or expenditure, but also covers other matters would be considered as a Financial Bill.

5. Appointment of the Law Commission

Why in News?

- The Supreme Court has asked the Home and Law Ministries to explain the nearly three-year-long lapse in making appointments to the Law Commission.

Highlights:

- The posts of Chairperson and Members have been vacant ever since the 21st Law Commission under the former Supreme Court judge, Justice B.S. Chauhan completed its tenure in August.
- The government approved the constitution of the 22nd Law Commission on February 19 last. However, it has not appointed the Chairperson and Members to date.

What is the Law Commission?

- It is an executive body established by an order of the Government of India. First law commission of independent India was established post the Independence in 1955
- **Tenure:** 3 Years
- **Function:** Advisory body to the Ministry of Law and Justice for “Legal Reforms in India”
- **Recommendations:** NOT binding
- First Law Commission was established during the British Raj in 1834 by the Charter Act of 1833.
- Chairman: Macaulay; It recommended for the Codifications of the IPC, CrPC etc.

Composition:

- The 22nd Law Commission will be constituted for a period of three years from the date of publication of its Order in the Official Gazette. It will consist of:
 - ✓ a full-time Chairperson;
 - ✓ four full-time Members (including Member-Secretary)
 - ✓ Secretary, Department of Legal Affairs as ex-officio Member;

- ✓ Secretary, Legislative Department as ex officio Member; and
- ✓ not more than five part-time Members.

Terms of Reference:

- The Law Commission shall, on a reference made to it by the Central Government or suo-motu, undertake research in law and review of existing laws in India for making reforms therein and enacting new legislations.
- It shall also undertake studies and research for bringing reforms in the justice delivery systems for elimination of delay in procedures, speedy disposal of cases, reduction in the cost of litigation etc.

The Law Commission of India shall, Inter-Alia: –

- identify laws which are no longer needed or relevant and can be immediately repealed
- examine the existing laws in the light of DPSP and Preamble
- consider and convey to the Government its views on any subject relating to law and judicial administration that may be specifically referred to it by the Government through Ministry of Law and Justice (Department of Legal Affairs);
- Consider the requests for providing research to any foreign countries as may be referred to it by the Government through the Ministry of Law and Justice (Department of Legal Affairs);
- take all such measures as may be necessary to harness law and the legal process in the service of the poor;
- revise the Central Acts of general importance so as to simplify them and remove anomalies, ambiguities and inequities.

2. GOVERNANCE

1. Remission of Duties and Taxes on Exported Products (RoDTEP) Scheme

Why in News?

- The Union govt. has decided to extend the benefit of the Scheme for Remission of Duties and Taxes on Exported Products (RoDTEP) to all export goods with effect from 1st January 2021.

RoDTEP Scheme:

- RoDTEP is a scheme for the Exporters to make Indian products cost-competitive and create a level playing field for them in the Global Market.
- It has replaced the current Merchandise Exports from India Scheme, which is not in compliance with WTO norms and rules.
- The new RoDTEP Scheme is fully WTO compliant scheme.
- It will reimburse all the taxes/duties/levies being charged at the Central/State/Local level which are not currently refunded under any of the existing schemes but are incurred at the manufacturing and distribution process.

Why Need such a Scheme?

- The scheme was announced last year as a replacement for the Merchandise Export from India Scheme (MEIS), which was not found not to be compliant with the rules of the World Trade Organisation.
- Following a complaint by the US, a dispute settlement panel had ruled against India's use of MEIS as it had found the duty credit scrips awarded under the scheme to be inconsistent with WTO norms.

Merchandise Exports from India Scheme (MEIS):

- MEIS was launched with an objective to enhance the export of notified goods manufactured in a country.
- This scheme came into effect on 1 April 2015 through the Foreign Trade Policy and will be in existence till 2020.
- MEIS intended to incentivise exports of goods manufactured in India or produced in India.
- The incentives were for goods widely exported from India, industries producing or manufacturing such goods with a view to making Indian exports competitive.
- The MEIS covered almost 5000 goods notified for the purpose of the scheme.

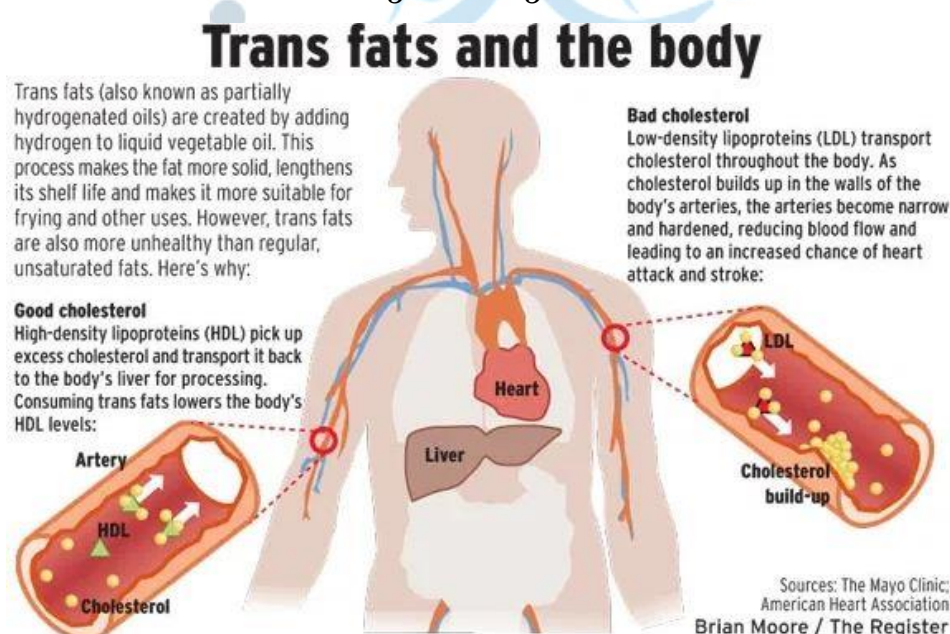
2. FSSAI Slashes limit for Trans Fats Level in Food

Why in News?

- The Food Safety and Standards Authority of India (FSSAI) has capped the amount of trans fatty acids (TFA) in oils and fats to 3% for 2021 and 2% by 2022 from the current permissible limit of 5%.

New FSSAI Norms:

- FSSAI has acted in response to the amendment to the Food Safety and Standards (Prohibition and Restriction on Sales) Regulations.
- The country's food regulatory body notified the amendment on December 29, more than a year after it issued a draft on the subject for consultation with stakeholders.
- The revised regulation applies to edible refined oils, vanaspati (partially hydrogenated oils), margarine, bakery shortenings, and other mediums of cooking such as vegetable fat spreads and mixed fat spreads.
- It was in 2011 that India first passed a regulation that set a TFA limit of 10% in oils and fats, which was further reduced to 5% in 2015.



What are Trans Fats?

- Artificial Trans fats are created in an industrial process that adds hydrogen to liquid vegetable oils to make them more solid.
- Since they are easy to use, inexpensive to produce and last a long time, and give foods a desirable taste and texture, they are still widely used despite their harmful effects being well-known.

Why Such a Regulation?

- Trans fats are associated with increased risk of heart attacks and death from coronary heart disease.
- As per the WHO, approximately 5.4 lakh deaths take place each year globally because of intake of industrially-produced trans-fatty acids.
- The WHO has also called for global elimination of trans fats by 2023.

3. School Bag Policy, 2020

Why in News?

- The Directorate of Education has issued a circular asking school to follow the new 'School Bag Policy, 2020' released by the National Council of Educational Research and Training (NCERT).

School Bag Policy, 2020:

- According to the circular, schoolteachers should inform the students in advance about the books and notebooks to be brought to school on a particular day.
- They frequently need to check their bags to ensure that they are not carrying unnecessary material.
- It adds that the teachers should take the responsibility of checking the weight of school bags of the students every three months on a day selected for the whole class.
- It also holds that any information about heavy bags should be communicated to the parents.
- The circular also says that it is the duty and the responsibility of the school management to provide quality potable water in sufficient quantity.
- It adds that files and thin/light exercise books should be preferred to thick/heavy ones.

Prescribed Weights:

- The weight of the school bags, as per the policy, should be
- 6 to 2.2 kg for students of Classes I and II
- 7 to 2.5 kg for Classes III, IV and V
- 2 to 3 kg for Classes VI and VII
- 5 to 4 kg for Class VIII
- 5 to 4.5 kg for Classes IX and X
- 5 to 5 kg for Classes XI and XII

Why Heavy School Bags are a Curse?

- Heavy school bags are a serious threat to the health and well-being of students.
- A heavy backpack can pull on the neck muscles contributing to headache, shoulder pain, lower back pain and neck and arm pain.
- Not just this, carrying backpacks over one shoulder is a wrong practice as it makes muscles strain.
- The spine leans to the opposite side, stressing the middle back, ribs, and lower back more on one side than the other and this muscle imbalance can cause muscle strain, muscle spasm, and back pain.
- Heavy school bags are also one of the major reasons for cervical and lumbar pains.
- The posture of the body also gets affected to a great extent which in the long term develops imbalances in the body and affects the health of the Nervous System.

4. Supreme Court cleared New Delhi's Central Vista Project

Why in News?

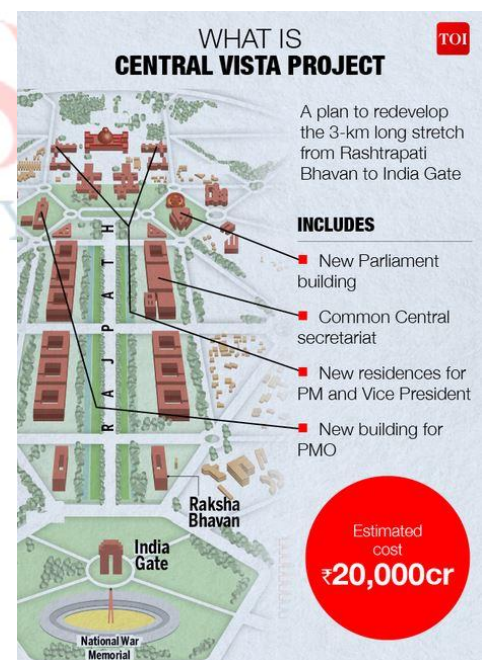
- The Hon'ble Supreme Court has allowed the central vista project to go ahead.

The Central Vista Project:

- The project aims to renovate and redevelop 86 acres of land in Lutyens's Delhi.
- In this, the landmark structures of the government, including Parliament House, Rashtrapati Bhavan, India Gate, North Block and South Block, etc. stand.
- This dream project of redeveloping the nation's administrative heart was announced by the Ministry of Housing and Urban Affairs on September 13, 2019.

Litigation Over the Project:

- A petition was filed in the Supreme Court in April 2020, challenging the Centre's change-of-land-use notification of March 2020 with regard to the 86 acres of land.
- The petitioner submitted that the order violated the citizen's Right to Life guaranteed under Article 21 by depriving people of open and green spaces.
- The petition also argued that the notification violated the Master Plan of Delhi 2021.



- Subsequently, the court heard the challenge on three main grounds: change of land use; violations of municipal law; and violations of environmental law.

What has the court held?

- In a 2:1 majority verdict, the court has held that there are no infirmities in the Approvals Granted.
- The verdict held that the central government's change of land use for the project in the Master Plan of Delhi 2021 is also a lawful exercise of its powers.

History of Lutyens's Delhi:

- At his coronation as Emperor of India on December 12, 1911, Britain's King George V had announced the transfer of the seat of the Government of India from Calcutta to the ancient Capital of Delhi.
- Thereafter, a 20-year-long project to build modern New Delhi was spearheaded by architects Edwin Lutyens and Herbert Baker.
- They built Parliament House, Rashtrapati Bhavan, North and South Blocks, Rajpath, India Gate, National Archives and the princes' houses around India Gate.
- New Delhi was unveiled in 1931.

5. Progression to Electric Vehicles: Challenges and Opportunities for India

Why in News?

- India's Preparedness for the faster adoption of Electric Vehicles and steps taken by the Government in this Direction.

Why Electric Mobility Matters for India:

- It is important for India because such vehicles are sustainable and profitable in the long term.
- Reducing dependence on crude oil will save the government money, reduce carbon emissions, and build domestic energy independence.
- India's transition to electric vehicles will allow us to fine-tune our infrastructure.
- This will also influence India's foreign policy as our energy security dependence will shift from West Asia to Latin America.
- India imported 228.6 MT of crude oil worth \$120 billion in 2018–19, which made it the third-largest oil importer in the world in terms of value.

Government Policies:

- Under the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles and its updated (Fame 2) version, the government has allocated \$1.3 billion in incentives.
- A proposal for a \$4.6 billion subsidy for battery makers has also been proposed by the NITI Aayog.
- These policies are embedded with the vision to have 30% electric vehicles plying the roads by 2030.

Developing Domestic Battery Manufacturing Capacity:

- At present, India's lithium-ion battery demand is fulfilled by imports from China, Vietnam, and Hong Kong.
- In the last two years, India's lithium imports have tripled from \$384 mn to \$1.2 bn.
- With its policy intervention to support battery manufacturers by supplying lithium and cobalt, this industry is more likely to grow domestically to support India's goal to switch to electric mobility.
- In 2019, NALCO, Hindustan Copper Limited (HCL) and Mineral Exploration Corporation Ltd (MECL) formally signed a joint venture agreement to form Khanij Bidesh India Limited (KABIL) to scout for strategic mineral assets like lithium and cobalt abroad for commercial use and for supplying to meet the domestic requirement for battery manufacturers.
- Developing domestic battery manufacturing capacity may fundamentally change India's relationship with resource-rich Latin America as the government plans to buy overseas lithium reserves.
- In Latin America, most of the production comes from Argentina, Chile, and Bolivia which holds about 80% of the explored lithium of the world.
- Currently, India's biggest trading partners in Latin America are Brazil, Mexico, and Venezuela, and majority of trade is concentrated on crude oil which includes 14%-20% of India's total crude oil imports.
- This may soon shift to lithium and cobalt.

6. Modified Scheme to Enhance Ethanol Distillation Capacity

Why in News?

- The Department of Food & Public Distribution has notified the modified scheme for extending financial assistance for enhancement of Ethanol Distillation Capacity.

Modified Scheme to Enhance Ethanol Distillation:

- The scheme will provide financial assistance to develop distilleries for producing 1st Generation (1G) ethanol from feed stocks such as cereals (rice, wheat, barley, corn & sorghum), sugarcane, sugar beet etc. or converting molasses-based distilleries to dual Feedstock.

Biofuel Categories:

- First generation biofuels: Made from sugar, starch, vegetable oil, or animal fats using conventional technology.
- E.g. Bio alcohols, Biodiesel, Vegetable oil, Bio ethers, Biogas.
- Second generation biofuels: Produced from non-food crops, such as cellulosic biofuels and waste biomass (stalks of wheat and corn, and wood).
- E.g. biohydrogen, bio methanol.
- Third generation biofuels: Produced from micro-organisms like algae.
- Government would bear interest subvention for five years including one-year moratorium against the loan availed by project proponents from banks @ 6% per annum or 50% of the rate of interest charged by banks whichever is lower.

Benefits:

- Create Employment Opportunities.
- Facilitate diversion of excess sugar to ethanol production.
- Encourage farmers to diversify their crops to cultivate particularly maize/corn.
- It would facilitate in achieving blending targets of ethanol with petrol and would reduce import dependency on crude oil.
- Enhance Income of Farmers.

Targets:

- 10% blending of fuel grade ethanol with petrol by 2022 & 20% blending by 2030.
- Now, it has been proposed to achieve 20% Blending of ethanol with petrol by 2025.

Ethanol Blended Petrol (EBP) Programme:

- EBP programme was started in 2003.

- Nodal ministry: Ministry of Petroleum and Natural Gas.
- Oil Marketing Companies will procure ethanol from domestic sources.
- Objective: Sale of 5% ethanol blended Petrol.
- **Aim:**
 - ✓ Reducing import dependency
 - ✓ Conserving foreign exchange
 - ✓ Reducing carbon emissions
 - ✓ Provide boost to agriculture sector

7. MeitY Quantum Computing Applications Lab

Why in News?

- The Ministry of Electronics and Information Technology (MeitY) will establish a Quantum Computing Applications Lab in the country, in collaboration with AWS.
- To accelerate quantum computing-led research and development and enable new scientific Discoveries.

Significance:

- The MeitY Quantum Computing Applications Lab will provide quantum computing as a service to government ministries and departments, researchers, scientists, academia, and developers, to enable advances in areas such as manufacturing, healthcare, agriculture, and aerospace engineering.
- AWS will provide hosting with technical and programmatic support for the Lab.
- This MeitY initiative will provide scientific, academic, and developer communities access to a quantum computing development environment aligned with the government's science and technology priorities.

Background:

- Quantum computing is an emerging field that harnesses the laws of quantum mechanics to build powerful tools to process information.
- It has the potential to solve computational problems that are beyond the reach of classical computers, and lead to new breakthroughs that can transform chemical engineering, material science, drug discovery, financial portfolio optimization, machine learning, and more.
- The initiative is expected to boost India's ongoing efforts in developing Quantum Computing Applications.

- This is in line with one of the core missions of MeitY which is to identify and deploy technologies to promote innovation and discovery to help India advance and achieve a More Sustainable Future.

8. Regulatory Compliance Portal by DPIIT

Why in News?

- DPIIT has launched the Regulatory Compliance Portal in January 2021.

Highlights:

- In order to translate the Atmanirbhar Bharat Abhiyan into a reality, the next generation of reforms relating to minimizing regulatory burden on businesses and citizens are being taken up by Central Ministries and States/UTs on a mission mode.
- The government has declared as its priority making Government to Business and Government to Citizen interfaces online, transparent and time-bound.
- The DPIIT, Commerce & Industry Ministry is the nodal department for coordinating the exercise of minimizing regulatory compliance burden for citizens and businesses.
- The launch of the Regulatory Compliance Portal is a major initiative in this regard.

Regulatory Compliance Portal:

- The objective of this portal is to act as a bridge between citizens, industries and the Government in order to minimize burdensome compliances.
- It will also act as a first-of-its-kind central online repository of all Central and State-level compliances.
- All Central Ministries/Departments and States/UTs would examine laws/regulations/rules under their purview and implement an Action Plan to rationalize and simplify all the processes and remove burdensome compliances, decriminalize laws and repeal redundant Acts.
- These details would be captured and tracked on the Regulatory Compliance Portal.
- Industry stakeholders from trade bodies such as CII, FICCI and ASSOCHAM would also be able to submit compliances and proposed recommendations.
- This will be assessed by the Government authorities concerned and suitable action would be undertaken to minimize the regulatory compliance burden.

9. Herd Immunity - Sero-Survey

Why in News?

- The initial findings of the fifth round of serological survey conducted in Delhi suggest that over 50 per cent of the people have developed antibodies against Covid-19 implying achievement of herd immunity.

Herd Immunity:

- Herd immunity is when a large number of people are vaccinated against a disease, lowering the chances of others being infected by it.
- When a sufficient percentage of a population is vaccinated, it slows the spread of disease.
- It is also referred to as community immunity or herd protection.
- The decline of disease incidence is greater than the proportion of individuals immunized because vaccination reduces the spread of an infectious agent by reducing the amount and/or duration of pathogen shedding by vaccines, retarding transmission.
- The approach requires those exposed to the virus to build natural immunity and stop the human-to-human transmission. This will subsequently halt its spread.

Sero-Surveys in Delhi:

- The results of the latest serosurvey in Delhi have led researchers and experts to surmise that a large section of the city's population has already developed antibodies against Covid-19.
- The presence of antibodies among a large percentage of the population could be a reason for the decline in the daily number of Covid-19 cases.
- As more people are able to resist infection, it will help to break the chain of transmission of the virus.
- Five serological surveys have been carried out in Delhi so far, including the present one, which was conducted in January.
- The survey conducted by NCDC in July last year suggested the presence of antibodies in 23 per cent of those surveyed.
- In August, the survey conducted by the Delhi government showed 29.1 per cent had antibodies.

Relevance of Such Surveys:

- Carrying out repeated serological surveillance on the same population gives an idea of how the disease is Behaving.

- It is always good to have surveillance regularly to understand the trends.
- Having robust surveillance is always beneficial, it may not be too close, but it may help us in giving an idea, even of the natural history of the disease.

What do the Data Suggest about Herd Immunity?

- Many researchers believe that if 60 per cent or more of the population has developed antibodies against Covid-19, there is a possibility of acquiring herd immunity.
- In Delhi, it is quite indicative, as the number of cases is also going down. This shows that we are moving closer towards acquiring herd immunity.

10. Non-Price Competition

Why in News?

- Data privacy can take the form of non-price competition and abuse of dominance can lower privacy protection, a study by the Competition Commission of India (CCI) has said.

Non-Price Competition:

- Non-price competition is a marketing strategy “in which one firm tries to distinguish its product or service from competing products on the basis of attributes like design and workmanship”.
- It often occurs in imperfectly competitive markets as it exists between two or more producers that sell goods and services at the same prices but compete through non-price measures.
- Such measures include marketing schemes and greater quality or any sustainable competitive advantage other than Price.

What is CCI's observation?

- The CCI study made observations about non-price factors such as quality of service (QoS), data speeds etc. which are likely to be the new drivers of competitive rivalry between service providers in the telecom sector.
- CCI noted that an aspect of data in the context of competition in digital communications market is the conflict between allowing access and protecting consumer privacy.

Privacy at Stake:

- Abuse of dominance can take the form of lowering the privacy protection and therefore fall within the ambit of antitrust as low privacy standard implies lack of consumer welfare.
- Privacy can take the form of non-price competition, said the CCI.

- On other non-price factors of competition, CCI found that consumers ranked network coverage at the top followed by customer service despite their Privacy.

11. Exposure to PM 2.5 raises anemia risk in kids under 5: IIT-Delhi study

Why in News?

- This is the first study to have been carried out in India, where an association between exposure to PM 2.5 and anemia in children under the age of 5 years in India has been examined and established.

Highlights:

- For every 10 micrograms per meter cube increase in PM2.5 levels exposure, there is a decrease of 0.07 grams per dL in average hemoglobin levels.
- The extended periods of exposure to PM 2.5 can lead to anemia among children under the age of 5 years.
- Children with anemia-
- On average are slightly younger (due to developmental delays) compared with children without anemia.
- Tend to be from lower wealth index levels.
- Had higher percentages of maternal anemia.

Anemia:

- Anemia is a most common blood disorder in which low number of Red Blood Cells (RBCs) circulate in the body.
- The lack of enough healthy RBCs to carry adequate oxygen to your body's tissues results in fatigue, pale skin, shortness of breath, irregular heartbeats, etc.
- **Causes:**
 - ✓ Blood Loss
 - ✓ Decreased or impaired RBCs due to-
 - ✓ Bone marrow and stem cell problems
 - ✓ Iron-deficiency anemia
 - ✓ Sickle cell anemia
 - ✓ Vitamin-deficiency anemia, specifically Vitamin B12 or Folate
 - ✓ Destruction of RBCs due to infections, toxins etc.

-
- In 2011, the government introduced the National Iron Plus Initiative to expand the
 - beneficiaries of the National Nutritional Anemia Prophylaxis Program to children with 6–59 months of age.
 - According to the India National Family and Health Survey 2015–2016 (NFHS-4), 53.1 per cent of women in India with 15–49 years of age and 58.5 per cent of children under five were anemic..



3. SCIENCE & TECHNOLOGY

1. 'Recoiling' Black Holes

Why in News?

- A supermassive black hole, which is estimated to weigh up to 100 billion times the mass of the Sun, is seemingly missing, leaving astronomers perplexed.

The 'Missing' Black Hole:

- The black hole is supposed to be located in Abell 2261, an enormous galaxy cluster that is about 2.7 billion light-years away from our planet.
- So, when we look at a celestial object, we are looking at how it appeared that long ago in the past.
- At 2.7 billion light-years away, the Abell galaxy is at an overwhelmingly large distance away from us.

What Could have Happened?

- Every large Galaxy in the universe has a supermassive black hole at its centre, whose mass is millions or billions of times that of the Sun, says NASA.
- The black hole at the centre of our galaxy– the Milky Way– is called Sagittarius A*, and is 26,000 light-years away from Earth.
- Scientists have been using data gathered in 1999 and 2004 to look for the centre of the Abell galaxy, but have so far been unable to find its black hole.
- A reason for this could be that Abell's black hole has been ejected from the centre of the galaxy.

Recoil of Black Holes

- When two black holes merge, they release what is known as gravitational waves– invisible ripples travelling at the speed of light, which squeeze and stretch anything in their path.
- As per the theory of gravitational waves, during such a merger, when the amount of waves generated in one direction is stronger than another, the new big black hole can be sent away from the centre of the galaxy into the opposite direction.
- This is known as a “recoiling” black hole.
- So far, though, scientists are yet to find definitive evidence for recoiling black holes and are still to discover whether supermassive black holes can merge and release gravitational waves.
- As of now, only mergers of significantly smaller black holes have been verified.

Why it is significant?

- ◆ The researchers assert that this may have happened because of the merging of two smaller galaxies to form Abell- a process in which both of their black holes merged to form an even bigger black hole.
- ◆ If this hypothesis turns out to be true, it would mean a major breakthrough in astronomy.

2. National Mission on Quantum Technology and Applications (NM-QTA)

Why in News?

- The detailed project report for a National Mission on Quantum Technology and Applications (NM-QTA) has been drawn out and finalised.

Highlights:

- The mission will function under the Department of Science & Technology (DST).
- It will be able to address the ever-increasing technological requirements of society and take into account the international technology trends.
- The mission will help prepare next-generation skilled manpower, boost translational research and also encourage entrepreneurship and start-up ecosystem development.



केन्द्रीय बजट
UNION BUDGET 2020

Budget 2020 announced Rs 8,000 crore over the next 5-yrs in the National Mission on Quantum technology and its applications



- The areas of focus for the NM-QTA Mission will be in fundamental science, translation, technology development and towards addressing issues concerning national priorities
- The mission can help prepare next generation skilled manpower, boost translational research and also encourage entrepreneurship and start-up ecosystem development.
- Quantum principles will be used for engineering solutions to extremely complex problems in computing, communications, sensing, chemistry, cryptography, imaging and mechanics

- Their applications which will be boosted include those in aero-space engineering, numerical weather predictions, simulations, securing the communications & financial transactions, cyber security, advanced manufacturing, health, agriculture, education
- It can bring India in the list of few countries with an edge in this emerging field will have a greater advantage in garnering multifold economic growth and dominant leadership role

Why need such a mission?

- Quantum technologies are rapidly developing globally with hugely disruptive potential.

- The range of quantum technologies is expected to be one of the major technology disruptions that will change the entire paradigm of computation, communication and encryption.
- It is perceived that the countries who achieve an edge in this emerging field will have a greater advantage in garnering multifold economic growth and dominant leadership role.
- It has become imperative both for government and industries to be prepared to develop these emerging and disruptive changes.
- It will establish standards to be applied to all research and help stimulate a pipeline to support research and applications well into the future.

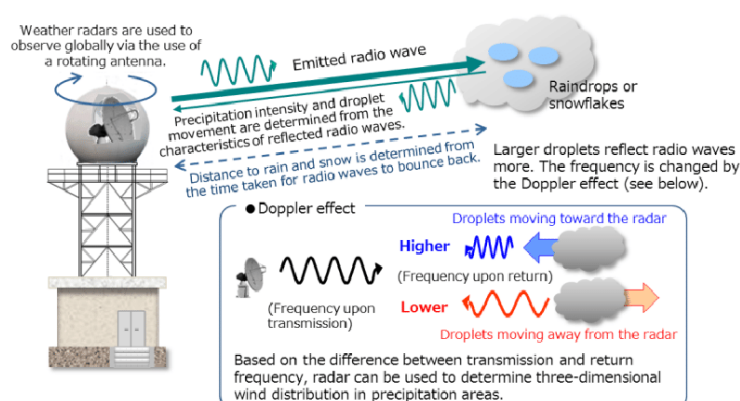
Recent Applications:

- Recently, DRDO has successfully demonstrated communication between its two labs using Quantum Key Distribution (QKD) technology.
- In June 2020, China demonstrated quantum communication technology using the satellite Micius, by conducting a secret conference between two ground stations about 1,120 km apart.
- They used the satellite not to transmit the entire communication, but to simultaneously send a pair of secret keys to the two ground stations.
- Other potential applications include secure communication, fast computers that established quantum supremacy, sensors and Quantum-Inspired Devices.

3. Doppler Weather Radars installed in Uttarakhand and Himachal Pradesh

Why in News?

- Services of X-band Doppler radars at Mukteshwar in Uttarakhand and Kufri in Himachal Pradesh were virtually inaugurated on the 146th foundation day of the India Meteorological Department.



Highlights:

- Covering the Central and Western Himalayas, dual polarized radars will gather atmospheric variations and pick signals of extreme weather events.
- Both Uttarakhand and Himachal Pradesh are highly prone to cloud bursts, landslides, heavy rain and snowfall.
- Timely weather forecasts and warnings would ensure the governments make advance plans and initiate rescue measures.
- The radar system is indigenously developed by the Indian Space Research Organization (ISRO).

Doppler Weather Radar:

- It is a type of radar used to locate precipitation, calculate its motion, and estimate its type (rain, snow, hail etc.).
- By their design, Doppler radar systems can provide information regarding the movement of targets as well as their position.
- Most modern weather radars use the pulse-Doppler technique to examine the motion of precipitation.
- A pulse-Doppler radar is a radar system that determines the range to a target using pulse-timing techniques, and uses the Doppler effect of the returned signal to determine the target object's velocity.

What is Doppler effect?

- Doppler Effect refers to the change in wave frequency during the relative motion between a wave source and its observer.
- It was discovered by Christian Johann Doppler who described it as the process of increase or decrease of starlight that depends on the relative movement of the star.
- Edwin Hubble made the discovery that the universe expands as a consequence of the Doppler Effect.

How Doppler Effect Works?

- It works on both light and sound objects.
- When a sound object moves towards a person, the frequency of the sound waves increases, leading to a higher pitch.
- Conversely, if it moves away from the person, the frequency of the sound waves decreases and the pitch comes down.

- Examples: Drop in pitch of ambulance sirens as they pass by; shift in red light.

Application of Doppler Radar:

- Aviation
- Sounding satellites
- Meteorology
- Radar guns
- Radiology and healthcare
- Nursing or clinic purpose
- Bistatic radar (surface-to-air missile)

4. Defence Geo-Informatics Research Establishment (DGRE)

Why in News?

- DRDO inks framework MoU with the Ministry of Road Transport and Highways (MoRTH) for Geo-hazard Management.

MoU Details:

- The MoU aims to strengthen collaboration in the field of technical exchange and cooperation on sustainable geohazard management.
- As per the MoU, DRDO and MoRTH will cooperate in various mutually beneficial areas related to geohazard management. The initiative will ensure safety against the adverse effects of landslides and other natural calamities on national highways in the country.
- It has been agreed that the expertise of DRDO (through the DGRE) will be utilized in providing sustainable mitigation measures to damages caused by landslides, avalanche and other natural factors on various National Highways in the Country.

DGRE:

- The Defence Geo Informatics Research Establishment (DGRE), a DRDO laboratory, is a leading entity in the development of critical technologies for enhancing combat effectiveness with a focus on terrains and avalanches.
- Its role and charter include mapping, forecasting, monitoring, controlling and mitigating landslides and avalanches in the Himalayan terrain.
- Its expertise will be utilized for designing national highways including tunnels.
- Terrain and modelling simulation is an important asset with DGRE, which will play an important role in planning and building robust road infrastructure in difficult terrains.

5. Angiogenesis

Why in News?

- An INSPIRE faculty from Chennai and his team are working to develop transgenic zebrafish (which have exogenous genes added to their genome) model by the use of the CRISPR/Cas9 gene-editing tool to further study the compensatory angiogenesis mechanism in the Tumour Microenvironment.

Highlights:

- The transgenic or CRISPR/Cas9 edited Zebrafish platform (TZP) can be used for studying the efficacy of a drug as anti or pro-angiogenesis in the next phase of the project.
- The researcher has already found that nitric oxide (NO) plays a key role in switching off angiogenesis under tumour microenvironment and that the melatonin hormone suppresses tumour angiogenesis.
- Angiogenesis is the physiological process through which new blood vessels form from pre-existing vessels, formed in the earlier stage of vasculogenesis.
- Angiogenesis is a normal and vital process in growth and development, as well as in wound healing and in the formation of granulation tissue.
- However, it is also a fundamental step in the transition of tumours from a benign state to a malignant one.
- This has led to the use of angiogenesis inhibitors in the treatment of cancer.

In cancer Treatment:

- The essential role of angiogenesis in tumour growth was first proposed in 1971 by Judah Folkman.
- Angiogenesis is critical in the growth of cancer because tumours need blood supply to grow. Tumours trigger the growth of blood cells by giving off chemical signals that stimulate angiogenesis.
- Deregulation of angiogenesis is the main reason for tumour growth and progression.
- Inhibition of tumour angiogenesis has become a popular anti-cancer strategy after chemotherapy.
- However, the clinically approved anti-angiogenic drugs are ineffective due to parallel activation of various compensatory mechanisms involving a cascade of molecules, which aids tumour angiogenesis.
- Investigation of these mechanisms is essential for developing anti-angiogenic Therapies.

4. ECONOMY

1. Digital Payments Index

Why in News?

- The RBI has constructed a composite Digital Payments Index (DPI) with March 2018 as the base period to capture the extent of digitization of payments across the country.

Digital Payments Index:

- RBI-DPI will be published on the central bank's website on a semi-annual basis from March 2021 onwards with a lag of four months. It comprises of five broad parameters that enable measurement of deepening and penetration of digital payments in the country over different time periods.
- The parameters are:
 - ✓ Payment enablers (weight 25 per cent)
 - ✓ Payment infrastructure–demand-side factors (10 per cent)
 - ✓ Payment infrastructure – supply-side factors (15 per cent)
 - ✓ Payment performance (45 per cent) and
 - ✓ Consumer centricity (5 per cent)
 - ✓ Each of these parameters has sub-parameters which, in turn, consist of various measurable indicators, RBI said.

Significance:

- Digital payments in India have been growing rapidly.
- The DPI reflects accurately the penetration and deepening of various digital payment modes.

2. Interconnection Usage Charge (IUC)

Why in News?

- The termination charge for wireless to wireless domestic calls has been zeroed from January 1 onwards. Until now operators paid Interconnection Usage Charges (IUC) of 6 paise per minute on mobile calls.

Interconnection Usage Charge (IUC):

- IUC is the cost that a mobile operator pays to another operator for carrying through/terminating a call.
- If a customer of Mobile Operator A calls a customer of Mobile Operator B and the call is completed, then A pays an IUC charge to B for carrying/facilitating the call.

- Essentially, it is the originating network compensating the receiving network for the cost of carrying the call. In India, IUC is set by the TRAI.

When was it Introduced?

- IUC was introduced at a time when some operators had a larger network footprint compared to new players.
- In such a scenario, the larger operators had to be compensated for the investments it had to enable call completion. However, over the years this gap between operators has reduced.
- All the remaining operators have identical network footprint when it comes to voice calls.
- TRAI's original deadline to phase out IUC was January 1, 2020.

What does it Mean to Consumers?

- For mobile users, this means that all voice calls will be free from now on.
- While almost all operators had already started offering unlimited calls as part of their bundled pack, some were charging the 6 paise from consumers for paying IUC charges.
- From January 1, operators will stop collecting the charges.
- But other than that there will not be any significant gain for users. Tariff packs available in the market already offer data with unlimited voice calls.

What does the End of IUC Regime Imply?

- For the operators, the end of the IUC regime will lead to easier operations.
- Many legal battles have been fought in the past over disputes related to IUC charges.
- Now, the operators can keep whatever money they collect from consumers without having to keep a tab on where the call is terminating.
- The change in the billing system will not have any significant impact on operators' revenue.

3. Agricultural policy monitoring and evaluation by OECD

Why in News?

- The OECD (Organisation for Economic Co-operation and Development) has provided five sets of data on the issue of agriculture support and India trails on most counts:

Highlights:

- The ongoing debate about farmers protest has brought to light some of the key support mechanisms for agriculture in India. And it is being argued that the government has preferred the welfare of Indian consumers over the Indian farmers.

Various OECD's Parameters:

- **Producer Support Estimates (PSE):**
 - ✓ These are transfers to agricultural producers and are measured at the farm gate level.
 - ✓ They comprise market price support, budgetary payments and the cost of revenue foregone.
- **Consumer Support Estimates (CSE):**
 - ✓ These refer to transfers from consumers of agricultural commodities. They are measured at the farm gate level.
 - ✓ If negative, the CSE measures the burden (implicit tax) on consumers through market price support (higher prices), that more than offsets consumer subsidies that lower prices to consumers.
- **General Services Support Estimates (GSSE):**
 - ✓ GSSE transfers are linked to measures creating enabling conditions for the primary agricultural sector through the development of private or public services, institutions and infrastructure.
 - ✓ GSSE includes policies where primary agriculture is the main beneficiary but does not include any payments to individual producers.
 - ✓ GSSE transfers do not directly alter producer receipts or costs or consumption expenditure.
- **Total Support Estimate (TSE):**
 - ✓ The TSE transfers represent the total support granted to the agricultural sector, and consist of producer support (PSE), consumer support (CSE) and general services support (GSSE).
- **Producer protection:**
 - ✓ Lastly, the OECD also provides data on “producer protection”.
 - ✓ The PP is the ratio between the average price received by producers (measured at the farm gate), including net payments per unit of current output, and the border price (measured at the farm gate).
 - ✓ For instance, a coefficient of 1.10, which China has, suggests that farmers, overall, received prices that were 10% above international market levels.

4. Digital Services Taxes

Why in News?

- Digital services taxes adopted by India, Italy and Turkey discriminate against U.S. companies and are inconsistent with international tax principles, the U.S. Trade Representative's office has said.

Equalization Levy:

- India has earlier expanded the scope of the Equalization Levy, or digital tax, to the sale of goods and services in the country by overseas e-commerce firms.
- The Equalization Levy was introduced for the first time in 2016 as 6 per cent tax on revenues earned by non-residents from online advertising and related services.
- The Burden of this tax eventually fell on local firms advertising on these platforms.

Contention for E-Commerce:

- In March 2020, the government expanded the scope of this levy to include the sale of goods and services in the country by overseas e-commerce operators.
- The transactions were to be taxed at 2 per cent if businesses earned more than Rs 2 crore.
- Globally, the rate of digital tax varies from 1.5 per cent (in Poland and Kenya) to 15 per cent (Paraguay). In Europe, the tax rate varies from 3 per cent (France, UK, Spain) to 7.5 per cent (Hungary).

Digital Services Taxes:

- The “digital services tax” (DST) is a levy on the overall revenues earned by the supplier of specific digital services. The DST should not be confused with the so-called “Netflix tax,” which one may find in some western countries.
- The Netflix tax is essentially a “value-added tax” on digital services where the consumer bears the entire tax burden on the value of the final product.

The US Question:

- The need to tax digital companies – the likes of Amazon, Google and Netflix – arises because these companies collect digital revenues from countries where they do not have a significant business presence.
- These are new-age companies, which can use virtual infrastructure to operate in another country.
- Countries across the globe have felt the need to tax revenues generated by such companies in a particular jurisdiction.

- Talks began in 2018 under the aegis of the OECD to formalize a framework on what and how to tax revenues earned by such companies in a country in which they have no physical or significant presence.
- But an abrupt US decision to pull out of the negotiations, involving 137 countries and threats of retaliatory action against those levying digital taxes have hit the 2020 deadline.

India's Response:

- USTR has concluded the digital taxes imposed by France, India, Italy and Turkey discriminate against big U.S. tech firms, such as Google, Facebook, Apple and Amazon.com
- For India, it created enormous uncertainty, since the country has always been at the forefront of adopting the concept of taxing foreign digital companies.
- It is now subject to a probe initiated by the US called the 'Section 301' investigations into the digital taxes.

A populist fuss by the US

- The US is a bit confused and so is the exiting President. They are not able to decide what they want to do.
- It is being argued that it could lead to tariffs before Donald leaves office or early in the administration of President-elect Biden.
- This arguably another populist measure that Trump administration wants to leave behind.

5. Payments Infrastructure Development Fund (PIDF) Scheme

Why in News?

- The RBI has announced operational guidelines to create digital payments acceptance Infrastructure across Tier III to Tier VI regions in India.

PIDF Scheme:

- The scheme was first announced in June last year to encourage fintech companies and banks to deploy point of sale (PoS) infrastructure across the country to improve the penetration of card-based and other digital payments.
- The primary beneficiaries will be merchants providing essential services, such as transport and hospitality, government payments, fuel pumps, healthcare facilities, and groceries.
- Amid the rapid rise in the volume of payments through the UPI network, the RBI is taking steps to further widen the use of digital payments in the country.

- The fund will be operational for three years from January 1, 2021, and would help subsidise banks and non-banks for the deployment of payments, subject to them achieving specific targets.

Why need PIDF?

- Over the years, the payments ecosystem in the country has evolved with a wide range of options such as bank accounts, mobile phones, cards, etc.
- To provide further fillip to the digitization of payment systems, it is necessary to give impetus to acceptance infrastructure across the country, more so in under-served areas.

6. Khadi Prakritik Paint – India’s first cow dung paint

Why in News?

- Union Minister for MSMEs has launched an innovative new paint called Khadi Prakritik Paint – India’s first Cow Dung Paint.

Khadi Prakritik Paint:

- It is developed by Khadi and Village Industries Commission at his residence.
- The eco-friendly, non-toxic paint, called “Khadi Prakritik Paint” is a first-of-its-kind product, with anti-fungal, anti-bacterial properties.
- Khadi Prakritik Paint is available in two forms – distemper paint and plastic emulsion paint.
- The project was Conceptualized by Chairman KVIC in March 2020 and later developed by Kumarappa National Handmade Paper Institute, Jaipur (a KVIC unit).
- The paint is priced at only Rs. 120 per litre for the distemper, and Rs.225 per litre for the emulsion, almost half the price charged by big paint companies.

A no lesser brand:

- Khadi Prakritik Emulsion paint meets BIS 15489:2013 standards; whereas Khadi Prakritik Distemper paint meets BIS 428:2013 standards.
- The paint has successfully passed various test parameters such as application of paint, thinning properties, drying time and finish, among others.
- It dries in less than 4 hours and has a smooth and uniform finish.

Why Makes it Competent?

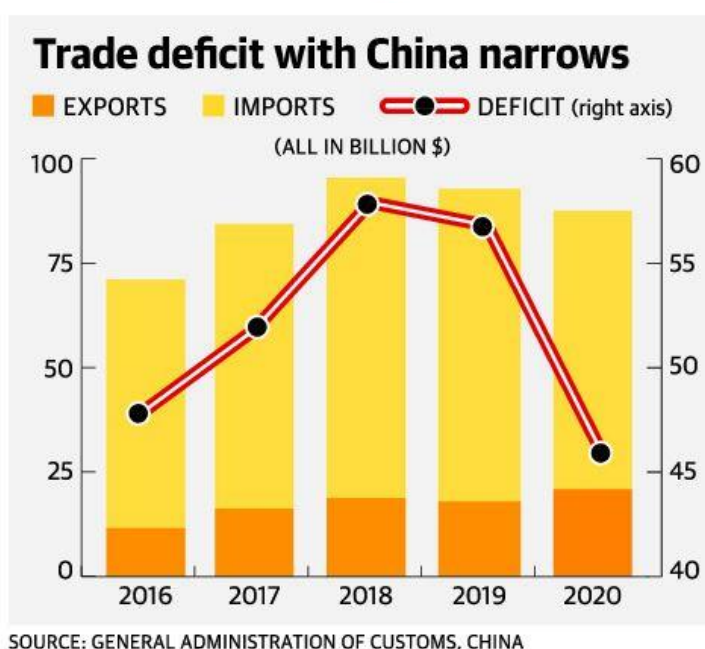
- Based on cow dung as its main ingredient, the paint is cost-effective and odourless and has been certified by the Bureau of Indian Standards.

- The paint is free from heavy metals like lead, mercury, chromium, arsenic, cadmium and others.
- It will be a boost to local manufacturing and will create sustainable local employment through technology transfer.
- This technology will increase the consumption of cow dung as a raw material for eco-friendly products and will generate additional revenue to farmers and gaushalas.
- Utilization of cow dung will also clean the environment and prevent clogging of drains.

7. India's trade with China falls at five-year low

Why in News?

- India's trade with China last year fell to the lowest since 2017, with the trade imbalance declining to a five-year low on the back of a slump in India's imports from China.



India-China Trade:

- Two-way trade in 2020 reached \$87.6 billion, down by 5.6%, according to new figures from China's General Administration of Customs (GAC).
- India's imports from China accounted for \$66.7 billion, declining by 10.8% year-on-year and the lowest figure since 2016.
- It, however, rose to the highest figure on record, for the first time crossing the \$20 billion-mark and growing 16% last year to \$20.86 billion.

What Constitutes India's Import from China?

- While there was no immediate break-up of the data in 2020, India's biggest import in 2019 was electrical machinery and equipment, worth \$20.17 billion.
- Other major imports in 2019 were organic chemicals (\$8.39 billion) and fertilizers (\$1.67 billion), while India's top exports were iron ore, organic chemicals, cotton and unfinished Diamonds.

India's Exports to China:

- The past 12 months saw a surge in demand for iron ore in China with a slew of new infrastructure projects aimed at reviving growth after the COVID-19 slump.
- China's total iron ore Imports were up 9.5 per cent in 2020.

A Friction-induced low:

- The trade deficit, a source of friction between India and China, declined to a five year-low of \$45.8 billion, the lowest since 2015.
- Whether 2020 is an exception or marks a turn away from the recent pattern of India's trade with China remains to be seen. While India's imports from China declined, so did India's imports overall with a slump in domestic demand last year.
- There is, as yet, no evidence to suggest India has replaced its import dependence on China by either sourcing those goods elsewhere or manufacturing them at home.

8. GST Compensation Shortfall

Why in News?

- 12th instalment of Rs. 6,000 crore released to the states as back to back loan to meet the GST compensation shortfall.

Highlights:

- The Ministry of Finance, Department of Expenditure has released the 12th weekly instalment of Rs. 6,000 crore to the states to meet the GST compensation shortfall.
- The amount has been given to 23 states and 3 UTs who are members of the GST Council.
- The remaining 5 states, Arunachal Pradesh, Manipur, Mizoram, Nagaland and Sikkim do not have a gap in revenue on account of GST implementation.

Background:

- The Government of India had set up a special borrowing window in October 2020 to meet the estimated shortfall of Rs.1.10 Lakh crore in revenue arising on account of implementation of GST.

- The borrowings are being done through this window by the Government of India on behalf of the States and UTs.
- 12 rounds of borrowings have been completed so far starting from October 2020.
- In addition to providing funds through the special borrowing window to meet the shortfall in revenue on account of GST implementation, the Government of India has also granted additional borrowing permission equivalent to 0.50 % of Gross States Domestic Product (GSDP) to the states choosing Option-I to meet GST compensation shortfall to help them in mobilising additional financial resources.
- All the States have given their preference for Option-I.

9. What is Section 32A of IBC?

Why in News?

- The Supreme Court has held that the bidders for a corporate debtor under the Insolvency and Bankruptcy Code (IBC) would be immune from any investigations being conducted either by any investigating agencies.

IBC:

- IBC was enacted on May 28, 2016, to effectively deal with insolvency and bankruptcy of corporate persons, partnership firms and individuals, in a time-bound manner.
- It has brought about a paradigm shift in laws aimed to maximize the value of assets, providing a robust insolvency resolution framework and differentiating between impropriety and business debacle.
- The predominant object of the Code is the resolution of the Corporate Debtor.
- It has been amended four times to resolve problems hindering objectives of the Code.

What is Section 32A?

- In cases involving property of a corporate debtor, Section 32A covers any action involving attachment, seizure, retention, or confiscation of the property of the corporate debtor as a result of such Proceedings.
- It provides immunity to the corporate debtor and its property when there is the approval of the resolution plan resulting in the change of management of control of the corporate debtor.
- This is subject to the successful resolution applicant being not involved in the commission of the offence.

What were the Challenges?

- Since the IBC came into being in 2016, the implementation of the resolution plan of several big cases has been delayed because of various challenges mounted by its own agencies and regulators.
- For example, a debt-laden company, admitted into insolvency in 2017, owes more than Rs 47,000 crore to banks and other financial institutions.
- After a prolonged bidding battle, another won the rights to take over it with a bid of Rs 19,700 crore.
- However, before it could move to take over, the ED/SEBI swooped in, and attached assets worth Rs 4,000 crore citing alleged fraud in a bank loan under the Prevention of Money Laundering Act (PMLA).

Observations made by the SC:

- In its judgment, the apex court upheld the validity of Section 32.
- It said it was important for the IBC to attract bidders who would offer reasonable and fair value for the corporate debtor to ensure the timely completion of the corporate insolvency resolution process (CIRP).
- Such bidders, however, must also be granted protection from any misdeeds of the past since they had nothing to do with it.
- Such protection, the court said, must also extend to the assets of a corporate debtor which will help banks clean up their books of bad loans.
- The apex court has, however, also said that such immunity would be applicable only if there are an approved resolution plan and a change in the management control of the Corporate Debtor.

Significance of SC's Intervention:

- With the Supreme Court upholding the validity of Section 32 A will give confidence to other bidders to proceed with confidence while bidding on such disputed companies and their assets.

10. India's shipping sector is at sea

Why in News?

- The Major Economies of the world have always realised the Potential of Shipping as a contributor to Economic Growth.

- The article deals with the problems faced by India's shipping sector and suggests the measures to improve the shipping sector.

Importance of Shipping for Economic Growth:

- For instance, Control of the seas is a key component of China's Belt and Road Initiative (BRI).
- However, Geographically, China is not as blessed as India, yet, seven of the top 10 container ports in the world are in China, according to the World Shipping Council.
- What aided China's growth are strong merchant marine and infrastructure to carry and handle merchandise all over the world.

Lack of Carrying Capacity:

- All the shipping infrastructure in peninsular India only helps foreign shipping liners.
- India has concentrated only on short-term solutions.
- Foreign ship owners carry our inbound and outbound cargo. This is the case in container shipping too.
- As a country, we have still not optimised our Carrying Capacity.
- Much of foreign currency is drained as transshipment and handling cost every day.
- Due to this, members of our maritime business community have also preferred to be agents for foreign ship owners or container liners rather than becoming ship owners or container liners themselves.
- As a result, there is a wide gap between carrying capacity and multi-folded cargo growth in the country.

Way Forward:

1. Regional cargo-specific ports
 - ✓ Instead of creating regional cargo-specific ports in peninsular India, we allowed similar infrastructural developments in multiple cargo-handling ports.
 - ✓ As a result, Indian ports compete for the same cargo.
 - ✓ We need to make our major ports cargo-specific, develop infrastructure on a par with global standards, and connect them with the hinterlands as well as international sea routes, they will automatically become transshipment hubs.
 - ✓ We need to only concentrate on developing the contributing ports to serve the regional transshipment hubs for which improving small ship coastal operations is mandatory.

2. Sagarmala

- ✓ Sagarmala aims are port-led industrialisation, development of world-class logistics institutions, and coastal community development.
- ✓ Sagarmala will help in increasing domestic carrying capacity.
- ✓ Shipbuilding, repair and ownership are not preferred businesses in India and the small ship-owning community in India also prefers foreign registry instead of domestic registration.
- ✓ If this has to change, there needs to be a change in the mindset of the authorities and the maritime business community.
- ✓ 'Make in India' will result in multi-folded cargo growth in the country, we need ships to cater to domestic and international trade.
- ✓ Short sea and river voyages should be encouraged.
- ✓ Shipbuilding and owning should be encouraged by the Ministry.
- ✓ The National Shipping Board is an independent advisory body for the Ministry of Shipping, where the Directorate General of Shipping (DGS) is a member.
- ✓ The NSB should be able to question the functioning of the DGS, which is responsible for promoting carrying capacity in the country.
- ✓ Coastal communities should be made ship owners.
- ✓ This will initiate carriage of cargo by shallow drafted small ships through coast and inland waterways.
- ✓ Sagarmala should concentrate on consolidating the strength of the coastal youth and make them contribute to the nation's economy with pride.
- ✓ Consider the question "How shipping contributes to the economic prosperity of a country? Suggest the steps need to be taken to develop its shipping sector.

11. Green Tax for personal vehicles older than 15 years

Why in News?

- The Union Minister for Road Transport and Highways has approved a proposal to levy a 'green tax' on old vehicles.

Green Tax:

- Personal vehicles will be charged a tax at the time of renewal of Registration Certification after 15 years.
- The policy will come into effect from April 1, 2022.

- The levy may differ depending on fuel (petrol/diesel) and type of vehicle.
- The proposal will now go to the States for consultation before it is formally notified.
- It includes 10-25% of road tax on transport vehicles older than eight years at the time of renewal of fitness certificate. The proposal on green tax also includes a steeper penalty of up to 50% of road tax for older vehicles registered in some of the highly polluted cities in the country. Revenue collected from this tax will be kept in a separate account and will be used for tackling pollution, and for States to set up state-of-art facilities for emission monitoring.

Why Such a Move?

- To dissuade people from using vehicles which damage the Environment
- To motivate people to switch to newer, less Polluting Vehicles
- Green tax will reduce the pollution level, and make the polluter pay for Pollution

Exemptions to this tax:

- Vehicles like strong Hybrids, Electric vehicles and alternate fuels like CNG, ethanol, LPG etc to be Exempted; Vehicles used in farming, such as tractor, Harvester, Tiller etc to be exempted;

Other Proposals:

- The Ministry also approved a watered-down policy of deregistration and scrapping of vehicles, bringing only those vehicles owned by government departments and PSUs and are older than 15 years under its ambit.
- In 2016, the Centre had floated a draft Voluntary Vehicle Fleet Modernization Programme that aimed to take 28 million decade-old vehicles off the road.

12. The Advancing CSR Expenditure Rules for Indian Companies

Why in News?

- The Corporate Affairs Ministry has amended the rules for Corporate Social Responsibility (CSR) expenditure by India Inc to allow companies to undertake multi-year projects.
- It also requires that all CSR Implementing Agencies be Registered with the Government.

What Is Corporate Social Responsibility (CSR)?

- Corporate social responsibility (CSR) is a self-regulating business model that helps a company be socially accountable—to itself, its stakeholders, and the public.

- By practicing corporate social responsibility, also called corporate citizenship, companies can be conscious of the kind of impact they are having on all aspects of society, including economic, social, and environmental.
- To engage in CSR means that, in the ordinary course of business, a company is operating in ways that enhance society and the environment, instead of contributing negatively to them.

CSR in India:

- India became the first country to legislate the need to undertake CSR activities and mandatorily report CSR initiatives under the new Companies Act 2013.
- The Companies Act 2013 replaced the Companies Act of 1956, incorporating an additional section i.e., Section 135 – clause on Corporate Social Responsibility obligations (CSR) for companies listed in India.
- The clause covers the essential prerequisites pertaining to the execution, fund allotment and reporting for successful project implementation.

How do the New Rules Enable Corporations to Undertake multi-year CSR projects?

- The following corporate companies are required to constitute a committee specifically for CSR in order to enforce the policy:
 - ✓ Companies that have a net worth of INR 500 Crores or more
 - ✓ Companies having an annual turnover of INR 1,000 Crores or more
 - ✓ Companies having a net profit of INR 5 Crores or more

Key Amendments:

- Provisions appearing in Rule 6 of Companies (CSR Policy) Rules, 2014 which states that CSR activities do not include activities undertaken in pursuance of normal course of business of a company, has been deleted.
- In August, 2020, MCA issued Companies (CSR Policy) Amendment Rules, 2020 (CSR Rules) and amended Schedule VII of the Companies Act, 2013 (Act).
- Prior to the issue of CSR Rules, activities undertaken by a company in pursuance of its normal course of business were excluded from the ambit of definition of 'CSR Policy'.
- Restricts companies from authorising either a Section 8 company or a registered public charitable trust to conduct CSR projects on their behalf.
- Earlier, companies can conduct CSR expenditure through implementing agencies such as Private trusts (i.e., Reliance Foundation, Bharti Foundation etc.)

-
- Allow companies to set off CSR expenditure above the required 2 per cent expenditure in any fiscal year against required expenditure for up to three financial years.

What are the changes Required for implementing Agencies?

- A large number of companies conduct CSR expenditure through implementing agencies, but the new amendment restricts companies from authorising either a Section 8 company or a registered public charitable trust to conduct CSR projects on their behalf.
- A Section 8 company is a company registered with the purpose of promoting charitable causes, applies profits to promoting its objectives and is prohibited from distributing dividends to shareholders.
- Further, all such entities will have to be registered with the government by April 1.
- Experts note that the change would impact CSR programmes of a number of large Indian companies that conduct projects through private trusts.



5. GEOGRAPHY & ENVIRONMENT

1. Tide–Rainfall Flood Quotient

Why in News?

- To understand if a coastal city is more prone to floods caused by tidal events or extreme rainfall, a team from the IIT Bombay devised a new metric or measure called the Tide–Rainfall Flood Quotient.

Tide–Rainfall Flood Quotient:

- Using the past rainfall data, tidal data, and topography of the region one can apply this framework to pinpoint the major factor at play.
- This quotient helps understand the main driver of the flooding events for effective disaster management.
- It considers three geographically diverse flood-prone coastal regions – Mithi Catchment in Mumbai, Jagatsinghpur District in Odisha, and Greater Chennai to test their new metric.
- The new method helped classify these regions into ‘storm-tide dominated’ or ‘pluvial (rainfall) dominated’ regions.
- In Mithi, they found a devastating impact of storm-tide reaching even up to a distance of 7 km from the coastal boundary.
- It concluded that Mithi catchment was ‘storm-tide dominated’, while Jagatsinghpur and Chennai were ‘Pluvial Dominated’

A tool for flood management:

- This metric can help disaster management experts in framing better flood risk management systems directed towards long term planning.
- For storm-tide dominated regions, severe flood hazard can be alleviated by building coastal defence structures such as closure dams, tide breakers, and storm-surge barriers at appropriate locations.
- The tide and surge forecasting systems in these regions should be equipped with state-of-the-art ocean circulation models.
- On the other hand, for pluvial dominated regions, structural measures such as rainwater storage structures, lakes, and detention basins should be prioritized in the flood Management Plans.

2. Antarctic Ozone Hole

Why in News?

- The Antarctic ozone hole — one of the deepest, largest gap in the ozone layer in the last 40 years — has closed, according to the World Meteorological Organization (WMO).

Antarctic Ozone Hole:

- The Antarctic “ozone hole” was discovered by British Antarctic Survey scientists Farman, Gardiner and Shanklin in 1985.
- It came as a shock to the scientific community because the observed decline in polar ozone was far larger than anyone had anticipated.
- It was caused by the chemical reactions on polar stratospheric clouds (PSCs) in the cold Antarctic stratosphere caused a massive.
- Though localized and seasonal, an increase in the amount of chlorine present in active, ozone-destroying forms.

Role of PSCs:

- The polar stratospheric clouds in Antarctica are only formed when there are very low temperatures, as low as -80°C , and early spring conditions.
- In such conditions, the ice crystals of the cloud provide a suitable surface for the conversion of unreactive chlorine compounds into reactive chlorine compounds, which can Deplete Ozone Easily.

An Annual Process:

- An ozone hole is the thinning of the ozone layer boosted in size by colder temperatures.
- The formation of the ozone hole in the Antarctic has been an annual occurrence and has been recorded for the last 40 years.
- Human-made chemicals migrate into the stratosphere and accumulate inside the polar vortex. It begins to shrink in size as warmer temperatures dominate.
- As the temperatures high up in the stratosphere start to rise, ozone depletion slows, the polar vortex weakens and breaks down.
- By the end of December, ozone levels return to normal.

The Hole Closes after Achieving Peak:

- The annually occurring ozone hole over the Antarctic had rapidly grown from mid-August and peaked at around 24 million square kilometres — one of the largest so far — in early October 2020.

- The expansion of the hole was driven by a strong, stable and cold polar vortex and very cold temperatures in the stratosphere.
- The same meteorological factors also contributed to the record 2020 Arctic ozone hole, which has also closed.
- Note: A polar vortex is a wide expanse of swirling cold air, a low-pressure area, in Polar Regions. During winters, the polar vortex at the North Pole expands, sending cold air southward.

3. Lithium deposits in Karnataka

Why in News?

- Alongside a move to tap into the global lithium value chain, India has initiated a concerted domestic exploration in Karnataka's Mandya district.

Lithium Reserves in Karnataka:

- Preliminary surveys by the Atomic Minerals Directorate for Exploration and Research (AMD), an arm of the Department of Atomic Energy has carried out the exploration.
- AMD is carrying out surface and sub-surface exploration for lithium in potential geological domains of the country.
- Their research has shown the presence of 1,600 tonnes of lithium resources in the igneous rocks of the Marlagalla-Allapatna region of Karnataka's Mandya district.

Why is the Exploration Significant?

- India currently imports all its lithium needs.
- The find in Mandya is extremely small in quantitative terms, but it marks some initial success in the attempt to domestically mine the silver-white metal by way of hard-rock extraction of the ore.
- The domestic exploration push comes at a time when India has stepped up its economic offensive against China, a major source of lithium-ion energy storage products being imported into the country.
- The Marlagalla-Allapatna area is seen as among the most promising geological domains for potential exploration for lithium and other rare metals.

What lies Ahead?

- India is seen as a late mover in attempts to enter the lithium value chain, coming at a time when EVs are predicted to be a sector ripe for Disruption.

- 2021 is likely to be an inflexion point for battery technology – with several potential improvements to the li-ion technology, and alternatives to this tried-and-tested formulation in advanced stages of commercialization. Li-Ion battery:
- Whittingham developed the first functional lithium-ion battery in 1976, Goodenough brought in a major improvement in 1980, while Yoshino made the first practical-use lithium-ion battery in 1985.
- Commercially manufactured lithium-ion batteries, based on what Yoshino had developed, made their first appearance in 1991.

Its' Working:

- Batteries convert chemical energy into electricity.
- A battery comprises two electrodes, a positive cathode and a negative anode, which is separated by a liquid chemical, called an electrolyte, which is capable of carrying charged particles.
- The two electrodes are connected through an electrical circuit.
- When the circuit is on, electrons travel from the negative anode towards the positive cathode, thus generating an electric current, while positively charged ions move through the Electrolyte.

4. Forest fires in Himachal Pradesh

Why in News?

- Recently, some parts of Himachal Pradesh including Kullu and Shimla often witnessed forest fires during dry weather conditions.
- Forest officials say that almost all forest fires can be attributed to human factors.

Causes of Forest fires:

- Lightening
- Rubbing of bamboos with each other
- Man-made fires
- A spark due to shedding of dry pine needles or leaves falling on an electric pole.
- Fuels of fires
- Dry leaf litter on the forest ground
- Dry grass
- Weeds

- Low Brushwood
- Deadwood, logs, and Stumps, etc.

How fire Prone is Himachal Pradesh?

- Himachal Pradesh has around 28% effective forest cover of the total area which contains trees such as Chir, Pine, Deodar, Oak, Kail, Fir and Spruce.
- During dry Summer Season, the Shedding of highly-combustible Chir and Pine tree needles catch fire and spread it over the entire forest due to action of wind.

Impact of Forest Fire:

- Damage to the regeneration in the forests and their productivity.
- Way to other invasive and exotic weeds and species.
- Affect the local communities depending upon firewood, fodder and non- timber produce.
- Destroy organic matter in the soil
- Expose the top layer of the soil to erosion.
- Impact wildlife by burning their eggs and habitats or by killing them.
- Out of control fire can pose a threat to nearby human settlement.

Measures to Prevent and Control Forest Fires:

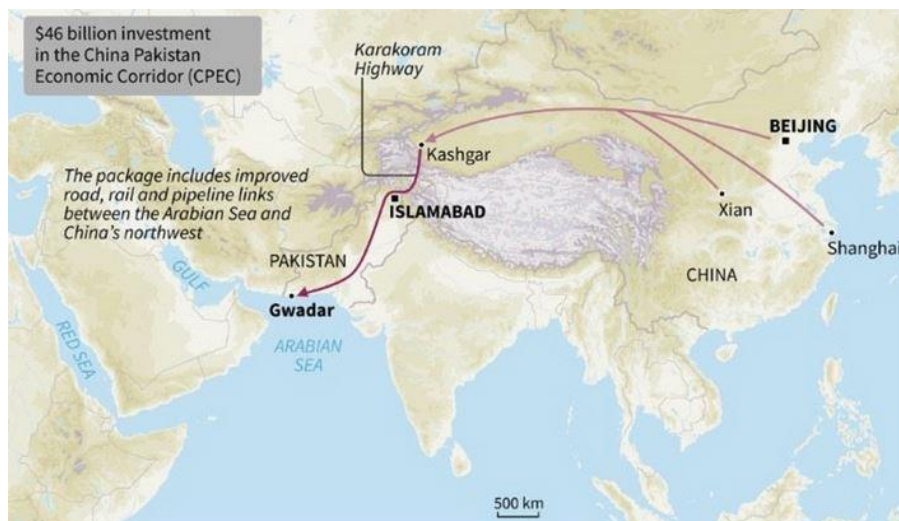
- Forecasting fire-prone days using meteorological data
- Clearing camping sites of dried biomass
- Early burning of dry litter on the forest floor
- Growing strips of fire-hardy plant species within the forest
- Creating fire lines in the Forests

6. INTERNATIONAL RELATIONS

1. CPEC- The corridor of uncertainty

Why in News?

- The China-Pakistan Economic Corridor (CPEC) has turned five.



CPEC:

- China–Pakistan Economic Corridor (CPEC) is a collection of infrastructure projects that are under construction throughout Pakistan since 2013.
- It is an extension of the Belt and Road Initiative of China.
- It intended to upgrade Pakistan’s required infrastructure and strengthen its economy by the construction of modern transportation networks, numerous energy projects, and special economic zones.
- On 13 November 2016, CPEC became partly operational when Chinese cargo was transported overland to Gwadar Port for onward maritime shipment to Africa and West Asia.

2. New horizon of India-U.S. ties

Why in News?

- The article explores the area of cooperation for India and the U.S. under a new administration in U.S. amid changing geopolitical realities.

China: Shared Cause of Concern:

- The Biden administration’s approach to India will be shaped by its position towards China.
- There is a bipartisan change in the US’s attitude to China.

- The Biden administration will continue Trump administrations trade policy- reducing the trade deficit, ensuring a level-playing field, keeping a keen eye on technology rivalry etc.
- There are parallels in the concerns of India and the U.S. — invigorating the domestic economy and dealing with a rising rival.
- These concerns can translate into opportunities for both countries.

How India and U.S can Convert Concerns into Opportunities

1. Cooperation in healthcare:

- ✓ Healthcare is clearly an area that India can play up in bilateral relations.
- ✓ The two countries can also work with multilateral agencies across the spectrum of vaccine (including Covid vaccine) development, logistics and distribution.
- ✓ India produces around 20 per cent of the global requirement for generic drugs by volume and every third tablet of generics consumed in the US.
- ✓ The President-elect has indicated his commitment to providing better and affordable healthcare
- ✓ This could be an opportunity for the Indian pharma sector to play a role in reducing health costs of the American consumer.
- ✓ India can benefit from advancements in medical technologies, devices, new medicines and R&D capabilities, presenting opportunities for American companies.

2. Job creation through trade and exports:

- ✓ Biden has set an ambitious target for US-India trade.
- ✓ Businesses in both countries are also looking for diversifying their manufacturing supply chains.
- ✓ This portends well for the creation of employment in manufacturing.
- ✓ An area where strategic considerations and imperatives of job creation converge is defence, especially since India has been designated a Major Defence Partner of the US.

3. Focus on infrastructure in both countries:

- ✓ For the US, this can mean opportunities in India in transportation, power and other urban amenities. The US's renewed focus on climate change should lead to greater cooperation with India in energy-related areas.
- ✓ Cooperation in energy-related areas includes more efficient energy dissemination and management (such as smart grids) to renewable energy technologies.

4. Enhance opportunities in 5G tech:

- ✓ There is potential to enhance mutual opportunities in the 5G tech sector.

- ✓ Increased partnership between the two nations can accelerate the development of technology solutions, promote vendors in the 5G open ecosystem and drive economic growth.
- ✓ The two countries should engage in shaping the rules of a new order in this space.
- ✓ This also has an important strategic element when seen in the light of developments in the Indo-Pacific as well as China's Belt and Road Initiative.

5. Multilateralism for cooperation in wider areas:

- ✓ Once the Biden administration assumes office, we should expect the U.S.'s return to multilateralism.
- ✓ The Trans-Pacific Partnership aimed to create a rules-based order that all parties could subscribe to.
- ✓ With the ascendancy of the Indo-Pacific paradigm and the Quad and Quad Plus, a successor to the TPP could include a wider canvas.
- ✓ For India, this could mean cooperation beyond defence and security, including economics, technology and developments pertaining to the Regional Order.

3. Grand Ethiopian Renaissance Dam

Why in News?

- Ethiopia, Sudan and Egypt have agreed on to resume negotiations to resolve their decade-long complex dispute over the Grand Renaissance Dam hydropower project in the Horn of Africa.

Grand Ethiopian Renaissance Dam:

- Spearheaded by Ethiopia, the 145-meter-tall (475-foot-tall) Grand Renaissance Dam hydropower project, when completed, will be Africa's largest.
- Its construction was initiated in 2011 on the Blue Nile tributary of the river that runs across one part of Ethiopia.
- The Nile is a necessary water source in the region and Egypt has consistently objected to the dam's construction, saying it will impact water flow.
- The long-standing dispute has been a cause of concern for international observers who fear that it may increase conflict between the two nations and spill out into other countries in the Horn of Africa.

What is the Dispute About?

- The Nile, Africa's longest river, has been at the centre of a decade-long complex dispute involving several countries that are dependent on the river's waters.
- At the forefront of this dispute are Ethiopia and Egypt, with Sudan having found itself dragged into the Issue.
- The Main Waterways of the Nile run through Uganda, South Sudan, Sudan and Egypt, and its drainage basin runs through several countries in East Africa, including Ethiopia.

Concerns Over the Dam:

- Given the dam's location on the Blue Nile tributary, it would potentially allow Ethiopia to gain control of the flow of the river's waters.
- Egypt lies further downstream and is concerned that Ethiopia's control over the water could result in lower water levels within its own borders.
- In addition, Egypt proposed a longer timeline for the project over concerns that the water level of the Nile could dramatically drop as the reservoir fills with water in the initial stages.
- Sudan's location between Egypt up north and Ethiopia down south has caused it to become an inadvertent party to this dispute.
- But that isn't all; Sudan is concerned that if Ethiopia were to gain control over the river, it would affect the water levels Sudan receives.

Why does Ethiopia want this Dam?

- Ethiopia's goal is to secure electricity for its population and to sustain and develop its growing manufacturing industry.
- Addis Ababa anticipates that this dam will generate approximately 6,000 megawatts of electricity when it is completed, that can be distributed for the needs of its population and industries. In addition to its domestic requirements, Ethiopia may sell surplus electricity to neighbouring nations like Kenya, Sudan, Eritrea and South Sudan, that also suffer from electricity shortages, to generate Some Revenue.

What lies Ahead?

- Despite previous talks, the point of contention hasn't changed: Egypt and Sudan are concerned about the filling and the operation of the dam.
- Ethiopia continues to insist that the dam is required to meet the needs of its population and has said that downstream water supplies will not be adversely affected.

- Cairo insists that the dam would cut its water supplies — concerning for a country that depends on the Nile for approximately 97% of its drinking water and irrigation supplies.
- Sudan believes that the dam will reduce flooding, but is concerned about the path forward if the negotiations end at a stalemate.

4. Russia Withdraws from Open Skies Treaty

Why in News?

- Russia has announced that it was pulling out of the Open Skies Treaty, saying that the pact had been seriously compromised by the withdrawal of the United States.

Open Skies Treaty (OST):

- OST is an agreement that allows countries to monitor signatories' arms development by conducting surveillance flights over each other's territories.
- The idea behind the OST was first proposed in the early years of the Cold War by former U.S. President Dwight Eisenhower. It came to existence decades later and was signed in 1992, during the George H.W. Bush presidency and after the Soviet Union had collapsed.
- The OST came into effect in 2002 under the George W. Bush administration and it allows its 34 signatories to conduct unarmed reconnaissance flights over the territory of treaty countries.

Issues with the OST:

- The U.S. has used the treaty more intensively than Russia.
- Between 2002 and 2016, the U.S. flew 196 flights over Russia (in addition to having imagery from other countries) compared to the 71 flights flown by Russia.

5. Kalapani Boundary Issue:

- Mapped within Uttarakhand is a 372-sq km area called Kalapani, bordering far-west Nepal and Tibet. A treaty signed between Nepal and British India in 1816 determined the Makhali river, that runs through Kalapani, as the boundary between the two neighbours.
- The Treaty of Sugauli concluded between British India and the Kingdom of Nepal in the year 1816, maps the Makhali River as the western boundary with India.
- But different British maps showed the source of the tributary at different places which were mainly due to underdeveloped and less-defined surveying techniques used at that time.

- However, the river has many tributaries that meet at Kalapani. For this reason, India claims that the river begins at Kalapani but Nepal says that it begins from Lipu Lekh pass, which is the source of most of its tributaries.
- While the Nepal government and political parties have protested, India has said the new map does not revise the existing boundary with Nepal.
- India claims that the river begins at Kalapani but Nepal says that it begins from Lipu Lekh pass, which is the source of most of its tributaries.

Legal Dimension of Issue:

- According to International Laws, the principles of avulsion and accretion are applicable in determining the borders when a boundary river changes course.
- Avulsion: It is the pushing back of the shoreline by sudden, violent action of the elements, perceptible while in progress. Also, it can be defined as the sudden and perceptible change in the land brought about by water, which may result in the addition or removal of land from a bank or shoreline.
- Accretion: It is the process of growth or enlargement by a gradual buildup. It is the natural, slow and gradual deposit of soil by the water.
- If the change of the river course is rapid – by avulsion – the boundary does not change. But if the river changes course gradually – that is, by accretion – the boundary changes accordingly.
- Since, the Gandak change, of course, has been gradual, India claimed Susta as part of their territory as per international laws.
- On several occasions, India has tried to resolve the issue through friendly and peaceful negotiations, but the Nepali leadership has always shown hesitation in resolving the issue.
- In Nepal, the issue has become a tool for arousing strong public sentiment against India. Therefore, resolving the issue may not be in the best interest of Nepal's domestic politics.

Significance for India:

- The Lipu Lekh pass serves strategic importance for India as a key point to monitor Chinese troop movement.
- The link road via Lipulekh Himalayan Pass is also considered one of the shortest and most feasible trade routes between India and China.
- The Nepalese reaction would probably have triggered in response to Chinese assertion.
- An undefined boundary claimed by Nepal:

- Nepal's western boundary with India was marked out in the Treaty of Sugauli between the East India Company and Nepal in 1816.
- Nepali authorities claim that people living in the low-density area were included in the Census of Nepal until 58 years ago. Five years ago, Nepali Foreign Minister had claimed that the late King Mahendra "handed over the territory to India". By some accounts in Nepal, this allegedly took place in the wake of India-China War of 1962.

6. Intergovernmental Negotiations (IGN) at UNSC

Why in News?

- Seeking urgent reform of the United Nations Security Council (UNSC), India has highlighted the failure of the Intergovernmental Negotiations (IGN) since 13 years of its establishment.

Highlights:

- India, along with Brazil, Japan and Germany are pressing for urgent reform of the UNSC and for a permanent seat in the reformed 15-member top organ of the world body.
- India has said that the UNSC is finding itself unable to act effectively to address increasingly complex issues of international peace and security.
- The UNSC lacks inclusivity of those who need to be members of the powerful organ of the world body.

What is IGN?

- The Intergovernmental Negotiations framework or IGN is a group of nation-states working within the United Nations to further reform of the UNSC.
- The IGN is composed of several different international organizations, namely:
 - ✓ African Union (55 member states)
 - ✓ G4 nations (Brazil, Germany, India and Japan)
 - ✓ Uniting for Consensus Group (UfC), also known as the "Coffee Club" (it aims to counter the bids for permanent seats proposed by G4 nations, includes Pakistan, Turkey, Canada, Spain and Italy)
 - ✓ L69 Group of Developing Countries (it includes developing countries from Africa, Latin America and the Caribbean, Asia and the Pacific)
 - ✓ Arab League (six members: Egypt, Iraq, Jordan, Lebanon, Saudi Arabia, and Syria) and
 - ✓ Caribbean Community (a group of 15 member countries called CARICOM)

7. INTERNAL SECURITY & DISASTER MANAGEMENT

1. Exercise Desert Knight-21

Why in News?

- Indian Air Force and French Air and Space Force will conduct a bilateral Air exercise, Ex Desert Knight-21 at Air Force Station Jodhpur.

Ex. Desert Knight-21:

- The French side will participate with Rafale, Airbus A-330 Multi-Role Tanker Transport (MRTT), A-400M Tactical Transport aircraft and approximately 175 personnel.
- The IAF aircraft participating in the exercise will include Mirage 2000, Su-30 MKI, Rafale, IL-78 Flight Refuelling Aircraft, AWACS and AEW&C aircraft.
- The exercise marks an important milestone in the series of engagements between the two Air forces.
- As part of Indo-French defence cooperation, Indian Air Force and French Air and Space Force have held six editions of Air Exercises named 'Garuda', the latest being in 2019.
- Presently, the French detachment for Ex Desert Knight-21 is deployed in Asia as part of their 'Skyros Deployment' and will ferry in forces to Air Force Station Jodhpur.

Why it is special?

- The exercise is unique as it includes fielding of Rafale aircraft by both sides and is indicative of the growing interaction between the two premier Air Forces.
- It will put into practice operational experience gained across terrains and spectrums and endeavour to exchange ideas and best practices to enhance interoperability.