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VOLUME - 15, MARCH 2021



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Tianwen-1 (China's first Mars Exploration Mission)



'KALA NAMAK' RICE EXPORT TO SINGAPORE



One Rank One Pension Scheme (OROP):
Made easy to learn



MONPA HANDMADE PAPER of
Tawang



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Director's message

Dear Aspirants,

The Election Commission of India announced the schedule for the upcoming Assembly elections in Assam, Kerala, West Bengal, Tamil Nadu and Puducherry on 26th February 2021 in a phased manner starting from March 27 and counting of votes will be undertaken on 2nd May. While elections in Tamil Nadu, Kerala and Puducherry will be held in a single phase on April 6th, Assam will see a three phase polling starting from 27th March and West Bengal will go through eight phased election process. While most of the Political Parties welcomed the decision of the ECI to conduct elections in a phased manner, West Bengal questioned the rationale of holding elections in eight phases casting aspersions on transparency, free and fairness of the electoral process. With the election campaigning gaining full steam, all political parties are resorting to various tactics beginning with distribution of freebies to promising various financial benefits, using money power and muscle power as well as violence as a means to achieve electoral gains which once again underscores the need for much needed electoral reforms.

Elections lie at the very heart of democracy. It is through elections that people in a democracy participate in public affairs and express their will. The loss of faith in democratic process due to increasing role of money, exploitation of the electorate on the basis of caste and religion, horse trading, defections, criminalization of politics, corruption, politico-bureaucratic-police-criminal nexus and other such malpractices have afflicted our democratic structure. As per ADR & National Election Watch reports, out of 543 Lok Sabha Members, 30% (162 Members) have criminal cases against them and 14% have serious criminal cases against them whereas in State Assemblies out of total 4,032 MLAs, 31% (1,258 Members) have criminal cases against them and 14% have serious criminal cases against them.

A number of Committees viz. the Tarkunde Committee (1974), the Dinesh Goswami Committee (1990), V.K. Krishna Iyer Committee (1994) and the Indrajit Gupta Committee (1998) have been constituted to examine issues relating to electoral reforms. Starting from 1970, the Election Commission has submitted its recommendations on electoral reforms in 1977, 1982, 1990, 1992 and 2004. The Law Commission (i.e. the 15th Law Commission) was also constituted in November, 1977 for an exhaustive study of the Representation of the People Act, 1951 with a view to finding out and identifying the measures necessary in the direction of electoral reforms.

Justice Shri A. P. Shah, Chairman of the Law Commission of India presented a voluminous report after due consideration and deliberations with the stakeholders including registered National and State Political Parties and extensive and in-depth analysis of various issues by the Commission. Some of the important recommendations pertain to State funding of Elections to curb disproportionate expenditure by the contesting candidates leading to introduction of Electoral Bond Scheme in 2018 which is aimed at ensuring enhanced accountability to defeat the growing menace of black money and promote transparency in funding and donations received by the Political Parties. Similarly, recommendations also suggest regulation of Political Parties and inner Party democracy by laying down code of conduct for internal democratic

functioning of parties and how Parties should function and regulate themselves. The Commission on the issue of Proportional Representation felt that though it is more representative theoretically, the FPTP (first-past-the-post) system is more stable and that the hybrid pattern of combining elements of both direct and indirect elections are more suitable to India.

. While dealing with Anti Defection Law, the Commission recommended a suitable amendment to the Tenth Schedule of the Constitution, which shall have the effect of vesting the power to decide on questions of disqualification on the ground of defection with the President or the Governor, as the case may be, (instead of the Speaker or the Chairman), who shall act on the advice of the ECI. This would help preserve the integrity of the Speaker's office. The Supreme Court delivered a verdict recently that could have far-reaching consequences for Legislative Assemblies. The Court made two important declarations. First, the Speakers of both the State Assemblies and the Parliament have to decide on disqualification petitions for members within three months except for the existence of an extraordinary circumstance. It also held that Courts have the powers to intervene if the proceedings are delayed. Second, the Court recommended to Parliament that it strongly considers removing the Speakers' disqualification powers and forming an independent Tribunal to take up these petitions. The rationale for this suggestion is that Speakers invariably come from the ruling parties and act in a partisan manner.

The Commission also recommended that the ECI should be strengthened by first, giving equal constitutional protection to all members of the Commission in matters of removability; second, making the appointment process of the Election Commissioners and the CEC consultative; and third, creating a permanent, independent Secretariat for the ECI. It further suggested amendment in the RP Act 1951, to provide therein that publishing and abetting the publishing of 'paid news' for furthering the prospect of election of any candidate or for prejudicially affecting the prospect of election of any candidate be made an electoral offence under chapter-III of part-VII of RP Act, 1951 with punishment of a minimum of two years imprisonment. In order to curb the practice of disguised political advertisement, disclosure provisions should be made mandatory for all forms of media. Further, Section 126 of Representation of the People Act, 1951, prohibits, apart from holding, convening or attending any public meeting or procession, "display to the public any election matter by means of cinematography, television or other similar apparatus", during the period of forty-eight hours ending with the hour fixed for the conclusion of the poll. The issue of compulsory voting has been held to be highly undesirable for a variety of reasons described above such as being undemocratic, illegitimate, expensive, unable to improve quality political participation and awareness, and difficult to implement.

The Law Commission also rejected the extension of the NOTA principle to introduce a right to reject the candidate and invalidate the election in cases where a majority of the votes have been polled in favour of the NOTA option. The Law Commission dismissed the idea of introducing the right to recall in any form because it can lead to an excess of democracy, undermines the independence of the elected candidates, ignores minority interests, increases instability and chaos, increases chances of misuse and abuse, is difficult and expensive to implement in practice, especially given that India follows the first past

the post system (FPTP). The Commission also endorsed the ECI's suggestion for introducing a totaliser for the counting of votes recorded in electronic voting machines to prevent the harassment of voters in areas where voting trends in each polling station can be determined. Using a totaliser would increase the secrecy of votes during counting, thus preventing the disclosure of voting patterns and countering fears of intimidation and victimisation.

The Commission recommended regulating and restricting government sponsored advertisements six months prior to the date of expiry of the House/Assembly to maintain the purity of elections; prevent the use of public money for partisan interests of, inter alia, highlighting the government's achievements; and ensure that the ruling party or candidate does not get an undue advantage over another in the spirit of free and fair elections. The Commission also recommended an amendment of section 33(7) of the RPA, which permits a candidate to contest any election (Parliamentary, Assembly, Biennial Council, or bye-elections) from up to two Constituencies. In view of the expenditure of time and effort; election fatigue; and the harassment caused to the voters, section 33(7) should be amended to permit candidates to stand from only one Constituency but has not been implemented.

The Law Commission suggested that independent candidates be debarred from contesting elections because the current regime allows a proliferation of independents, who are mostly dummy/non-serious candidates or those who stand (with the same name) only to increase the voters' confusion. Thus, sections 4 and 5 of the RPA should be amended to provide for only Political Parties registered with the ECI under section 11(4) to contest Lok Sabha or Vidhan Sabha elections which too has not been implemented so far. The Law Commission also endorsed the ECI's suggestions regarding the introduction of common electoral rolls for Parliamentary, Assembly and local body elections.

It is an accepted fact that the electoral process in the country has developed certain shortcomings over the years which need to be corrected. But this should be done through extensive debate and discussion and in a gradual and continuous manner. Successive Governments at the Centre have realized the importance of the issues relating to electoral reforms. Suggestions made either by the Election Commission or by various Committees on Electoral Reforms from time to time, have been regularly considered and also implemented. While considering the proposals and suggestions of reforms of the electoral process, it has also been underlined that consensus of Political Parties in the Country is necessary. Government recognized that electoral reforms is a continuous process and it shall be the endeavor of all the stakeholders including Government, Election Commission of India, Law commission, etc. to implement such proposals on electoral reforms on which consensus emerges, from time to time.

Best wishes.



K. Rajendra Kumar IPS (Retd.)

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1. NATIONAL

1.1 STARS PROJECT

Agreement for the financial support of the implementation of Strengthening Teaching-Learning and Results for States (STARS) project was signed between Department of Economic Affairs (DEA) and World Bank along with Ministry of Education.

Important value additions

- The proposal of STARS project was approved in October 2020.
- The Program envisions improving the overall monitoring and measurement activities in the Indian school education system through interventions in 6 States viz. Himachal Pradesh, Rajasthan, Maharashtra, Madhya Pradesh, Kerala and Odisha.
- STARS project would be implemented as a new Centrally Sponsored Scheme.
- Implementing Ministry/agency: Department of School Education and Literacy (DoSEL), Ministry of Education
- At the State level, the project will be implemented through the integrated State Implementation Society (SIS) for Samagra Shiksha.
- The total project cost of STARS project is Rs 5718 crore with the financial support of World Bank amounting to US \$ 500 million.
- The proposed World Bank support under STARS is primarily in the form of a results-based financing instrument called Program for Results (PforR).
- A State Incentive Grant (SIG) will be used to encourage States to meet desired project outcomes.

1.2 THREE-LANGUAGE POLICY IS NOT APPLICABLE TO OFFICES OF CENTRAL GOVERNMENT

- In response to a question filed under RTI, Ministry of Home Affairs has said that the policy of three languages is not applicable to the offices of the central government.
- On 14th September, 2021 Amit Shah, Union Home Minister raised the controversy by reigniting the issue that Hindi could be the language of India that can unite the country in one thread.
- The issue at Shimoga District in Karnataka came up when the foundation stone was laid for the 97th battalion of the Rapid Action Force in Bhadravati on January 16. The content on the plaques were only in Hindi and English. Kannada was completely ignored as the banner for the occasion was also printed in Hindi. RTI was filed by questioning the reason for this to which the ministry replied stating that, 'as per the provision of the Official Language Act, 1963, and the Official Language Rules, 1976, the provision of bilingual policy is applicable in the offices of the Central government.'

- Seeing this bias an amendment has been demanded to articles 343 to 351 that declare Hindi as an official language.
- The enforcement of the Hindi language is a subject matter that has great historical baggage in India. Anti-Hindi agitations had taken over South India from the 1930s to early 1960s. They went on to become one of the most important political tools for Dravidian parties at that time.
- The Constituent Assembly that framed the Indian Constitution to a great extent debated over whether Hindi could become a national language. However, it eventually settled for what is known as the “Munshi-Ayyanagar formula” that included Hindi as one of the many official languages of India.
- The two members of the Assembly, K.M. Munshi and Gopalaswami Ayyangar, observed that the Hindi language not only has a limited appeal in large parts of India but also is comparatively inefficient to capture the technicalities of law and legislations being framed then for an independent India.
- However, the debate that was thought of as an issue that had been resolved came back with the release of the draft NEP with a controversial clause that called for compulsory teaching of Hindi.

1.3 NATIONAL RAIL PLAN (NRP)

- The Government has issued the Draft Final Report of the National Rail Plan.
- The Plan aims at providing a long term perspective planning for augmenting the Railway Network.

Objectives of the plan:

- To create capacity ahead of demand by 2030, which in turn would cater to growth in demand right up to 2050.
- To increase the modal share of Railways from 27% currently to 45% in freight by 2030 as part of a national commitment to reduce Carbon emission and to continue to sustain it.
- To assess the actual demand in freight and passenger sectors, a year long survey was conducted over hundred representative locations by survey teams spread all over the country.
- Forecast growth of traffic in both freight and passenger year on year up to 2030 and on a decadal basis up to 2050.
- Formulate strategies based on both operational capacities and commercial policy initiatives to increase modal share of the Railways in freight to 45% by 2030.
- Reduce transit time of freight substantially by increasing average speed of freight trains from present 22 Kmph to 50 Kmph.
- Reduce overall cost of Rail transportation by nearly 30% and pass on the benefits to the customers.
- As part of the National Rail Plan, Vision 2024 has been launched for accelerated implementation of certain critical projects by 2024 such as:

- 1.100% electrification.
- 2.Multitracking of congested routes
- 3.Upgradation of speed to 160 kmph on Delhi-Howrah and Delhi-Mumbai routes.
- 4.Upgradation of speed to 130 kmph on all other Golden Quadrilateral-Golden Diagonal (GQ/GD) routes.
- 5.Elimination of all Level Crossings on all GQ/GD route.

1.4 ATAL BEEMIT VYAKTI KALYAN YOJANA

Employee's State Insurance Corporation (ESIC) has decided that in cases where the employer has shown "Zero" contribution in respect of an employee for some months before exiting him from the system, the relief under ABVKY for such period of "Zero" contribution, shall also be allowed.

What's the issue?

- It was brought to the notice of ESIC that in some cases employers have struck off their employees from the rolls few months after actually terminating them from service.
- During this period, ESI contribution was also not filed by the employers for these employees in the system.
- As the relief under Atal Beemit Vyakti Kalyan Yojana is available only in case of unemployment of the Insured Persons, such employees though terminated from service became ineligible for relief under this scheme.

About the scheme:

- It is a welfare measure being implemented by the Employee's State Insurance (ESI) Corporation.
- It offers cash compensation to insured persons when they are rendered unemployed.
- The Scheme was introduced in 2018.
- In 2020, eligibility criteria for availing the relief were relaxed, as under:
 - 1.The payment of relief has been enhanced to 50% of average of wages from earlier 25% of average wages payable upto maximum 90 days of unemployment.
 - 2.Instead of the relief becoming payable 90 days after unemployment, it shall become due for payment after 30 days.
 - 3.The Insured Person can submit the claim directly to ESIC Branch Office instead of the claim being forwarded by the last employer and the payment shall be made directly in the bank account of IP.
 - 4.The Insured Person should have been insurable employment for a minimum period of 2 years before his/her unemployment and should have contributed for not less than 78 days in the contribution period immediately preceding to unemployment and minimum 78 days in one of the remaining 3 contribution periods in 02 years prior to unemployment.

1.5 LITHIUM DEPOSITS IN KARNATAKA

- Preliminary survey shows deposits of Lithium in Mandya District of Karnataka.
- Preliminary surveys on surface and limited subsurface by Atomic Minerals Directorate for Exploration and Research (AMD) have shown presence of Lithium resources of 1,600 tonnes (inferred category) in the pegmatites of Marlagalla – Allapatna area, Mandya district, Karnataka.
- The significance of these deposits may be established only after the completion of exploration in the entire area.
- Subsequently, plan for commercial exploitation of the lithium deposits can commence after the technical, social and economic feasibility studies in the area.

Importance of Lithium Deposits:

- Lithium is a key element for new technologies and finds its use in ceramics, glass, telecommunication and aerospace industries.
- The well-known uses of Lithium are in Lithium ion batteries, lubricating grease, high energy additive to rocket propellants, optical modulators for mobile phones and as convertor to tritium used as a raw material for thermonuclear reactions i.e. fusion.
- The thermonuclear application makes Lithium as “Prescribed substance” under the Atomic Energy Act, 1962 which permits AMD for exploration of Lithium in various geological domains of the country.
- Due to the continuously increasing demand of Lithium ion batteries, the requirement of Lithium has increased over the last few years.

What is “Prescribed substance” under the Atomic Energy Act, 1962?

According to the Act, “Prescribed Substance” means any substance including any mineral which the Central Government may, by notification, prescribe, being a substance which in its opinion is or may be used for the production or use of atomic energy or research into matters connected therewith and includes Uranium, Plutonium, Thorium, Beryllium, Deuterium or any of their respective derivatives or compounds or any other materials containing any of the aforesaid substances.

Atomic Minerals Directorate for Exploration and Research (AMD):

- The chief mandate of the AMD is to identify and evaluate uranium resources required for the successful implementation of the Atomic Energy programme of the country.
- It is headquartered in Hyderabad and has regional offices in a few other cities.
- It is under the Department of Atomic Energy (DAE), GOI.
- AMD carries out geological exploration and discovery of mineral deposits required for the nuclear power programme.
- It was established in 1948 and is the oldest unit of the DAE.

- It was originally called Rare Minerals Survey Unit and then renamed twice before being named its current one in 1998.
- Previously, it was also called 'Raw Materials Division' and 'Atomic Minerals Division'.
- AMD has been instrumental in locating Uranium resources in Singhbhum Shear Zone, Jharkhand; KPM (Domiasiat), Wahkut, Wahkyn, Meghalaya; Lambapur – Chitral, Peddagattu, Telangana; Tummalapalle, Andhra Pradesh; Gogi, Karnataka and Rohil, Rajasthan.
- AMD also has established vast resources of thorium in the coastal tracts of Kerala, Tamil Nadu, Andhra Pradesh and Odisha.
- It has also extended its contribution towards the recovery of Rare Metals and Rare Earths elements.

1.6 ETHANOL AS AN ALTERNATE FUEL

- Government has been promoting use of ethanol as a blend stock with main automotive fuel like petrol in line with the National Policy on Biofuels (NBP) -2018 under the Ethanol Blended Petrol (EBP) Programme. This policy envisages an indicative target of blending 20% ethanol in petrol by 2030.
- Government has since allowed production of ethanol from sugarcane and food grain based raw-materials.
- The cost of production of ethanol varies from distillery to distillery and depends upon various factors viz. cost of raw material, conversion cost, efficiency of distillery plants etc.
- Further, keeping in view the above factors, the Government has fixed the ex-mill price of ethanol from sugarcane based raw-materials, and Oil Marketing Companies (OMCs) have fixed the price of ethanol from damaged and surplus rice with FCI for Ethanol Supply Year (ESY) (period from Dec. to Nov.) 2020-21.

1.7 TELECOM COMMERCIAL COMMUNICATIONS CUSTOMER PREFERENCES REGULATIONS (TCCCPR)

- Recently, the Delhi High Court (HC) ordered the Telecom Regulatory Authority of India (TRAI) to ensure "complete and strict" implementation of the regulation issued by it in 2018 for curbing Unsolicited Commercial Communications (UCC).
- UCC means any Commercial Communication which a subscriber opts not to receive, but does not include- any transactional message or any message transmitted on the directions of the Central Government or State Government or agencies authorized by it.

Background:

- A plea was filed by a company in the HC claiming that millions of its customers have been defrauded by the phishing activities over the mobile networks and the failure of the telecom companies to prevent the same has caused financial and reputational loss.

- It claimed that under the regulations, the telecom companies are required to verify purported telemarketers seeking registration (called registered telemarketers or RTMs) with them before granting access to their customer data and also take action immediately against all fraudulent RTMs.
- Phishing is a cybercrime in which a target or targets are contacted by email, telephone or text message by someone posing as a legitimate institution to lure individuals into providing sensitive data such as personally identifiable information, banking and credit card details, and passwords.
- It contended that the telecom companies are violating their obligations under the Telecom Commercial Communications Customer Preferences Regulations (TCCCPR) 2018, to curb the problem of unsolicited commercial communications.

Telecom Commercial Communications Customer Preferences Regulations (TCCCPR) 2018

- It replaced the Telecom Commercial Communications Customer Preference Regulations, 2010 (2010 Regulations).
- It was issued by the TRAI to provide a revised regulatory framework aimed at regulating 'unsolicited commercial communication' (UCC) in India.
- The new regulatory framework has devolved control and regulatory powers to access providers, who are now required to establish their own codes of practice (CoPs) to deal with UCC.
- It provides for a wide range of customer preferences which are to be implemented in near real time using Distributed Ledger Technology (DLT) to make communications traceable and capable of being controlled effectively.
- It also provides for the use of cloud-based solutions for handling complaints, the registration of headers and preferences, and use of smart contracts for automated allocation of roles between entities in the commercial communication ecosystem.
- The technology-based solutions are required to be tested in regulatory sandboxes under the oversight of the TRAI.

1.8 NATIONAL AGRICULTURE MARKET (e-NAM)

- So far, more than 1.69 crore Farmers & 1.55 Lakh traders are registered on e-NAM platform.
- What is e-NAM?
- E-NAM (National Agriculture Market) is an online trading platform for agriculture produce aiming to help farmers, traders, and buyers with online trading and getting a better price by smooth marketing.
- Small Farmers Agribusiness Consortium (SFAC) is the lead agency for implementing eNAM under the aegis of Ministry of Agriculture and Farmers' Welfare, Government of India.

NAM has the following advantages:

- For the farmers, NAM promises more options for sale. It would increase his access to markets through warehouse-based sales and thus obviate the need to transport his produce to the mandi.
- For the local trader in the mandi / market, NAM offers the opportunity to access a larger national market for secondary trading.
- Bulk buyers, processors, exporters etc. benefit from being able to participate directly in trading at the local mandi / market level through the NAM platform, thereby reducing their intermediation costs.

1.9 REGISTRATION OF POLITICAL PARTIES

- As per Association For Democratic Reforms (ADR)'s latest report:
- The contribution reports of only 78 (3.39%) of the total 2,301 registered unrecognised political parties are available in the public domain for 2018-19.
- The reports of only 82 such parties (3.56%) for 2017-18 are uploaded on the respective State Chief Electoral Officers' websites.
- The number of these parties increased two-fold in the last 10 years, from 1,112 in 2010 to 2,301 in 2019.

What are unrecognized political parties?

- Either newly registered parties or those which have not secured enough percentage of votes in Assembly or General Elections to become a State party or those which have never contested in elections since being registered are considered unrecognised parties. Such parties don't enjoy all the benefits extended to the recognised parties.

Unrecognized political parties in India:

- There are 2,360 political parties registered with the Election Commission of India and 2,301 or 97.50% of them are unrecognised.

Registration of political parties:

- Registration of Political parties is governed by the provisions of Section 29A of the Representation of the People Act, 1951.
- A party seeking registration under the said Section with the Election Commission has to submit an application to the Commission within a period of 30 days following the date of its formation as per guidelines prescribed by the Election Commission of India in exercise of the powers conferred by
- Article 324 of the Commission of India and Section 29A of the Representation of the People Act, 1951.

To be eligible for a 'National Political Party of India:

- It secures at least six percent of the valid votes polled in any four or more states, at a general election to the House of the People or, to the State Legislative Assembly.

- In addition, it wins at least four seats in the House of the People from any State or States.
- It wins at least two percent seats in the House of the People (i.e., 11 seats in the existing House having 543 members), and these members are elected from at least three different States.

To be eligible for a 'State Political Party':

- It secures at least six percent of the valid votes polled in the State at a general election, either to the House of the People or to the Legislative Assembly of the State concerned
- In addition, it wins at least two seats in the Legislative Assembly of the State concerned.
- It wins at least three percent (3%) of the total number of seats in the Legislative Assembly of the State, or at least three seats in the Assembly, whichever is more.

Benefits:

- If a party is recognised as a 'State Party', it is entitled for exclusive allotment of its reserved symbol to the candidates set up by it in the State in which it is so recognised, and if a party is recognised as a 'National Party' it is entitled for exclusive allotment of its reserved symbol to the candidates set up by it throughout India.
- Recognised 'State' and 'National' parties need only one proposer for filing the nomination and are also entitled for two sets of electoral rolls free of cost at the time of revision of rolls and their candidates get one copy of electoral roll free of cost during General Elections.
- They also get broadcast/telecast facilities over Akashvani/Doordarshan during general elections.
- The travel expenses of star campaigners are not to be accounted for in the election expense accounts of candidates of their party.

1.10 PARIVAR PEHCHAN PATRA (PPP) SCHEME

- It is Haryana's unique identity card scheme.
- Any family with a Haryana residential address can enrol for the scheme.
- The family ID or PPP, an eight-digit alpha numeric ID, is provided to those who are residents of Haryana.
- A registration ID is provided to those who live in Haryana but have not completed residency requirements.
- As of now, over 110 services and schemes being delivered to citizens via the Saral platform have been linked to the PPP scheme.

1.11 CHAIRMAN OF NATIONAL SAFETY COUNCIL APPOINTED

- The Ministry of Labour & Employment has appointed Shri S.N. Subrahmanyam, CEO and Managing Director, L&T Ltd, as the Chairman of the National Safety Council for three years.

National Safety Council

- National Safety Council is a non-profit, self-financing apex body at the national level in India.

- Objective: To generate, develop and sustain a voluntary movement on Safety, Health, and Environment (SHE) at the national level.
- It is an autonomous body.
- Set up by Ministry of Labour and Employment in 1965.
- It was registered as a Society under the Societies Registration Act, 1860 and subsequently, as a Public Trust under the Bombay Public Trust Act, 1950.

1.12 KAPILA

- The government has launched a campaign namely Kalam Program for Intellectual Property Literacy and Awareness Campaign (KAPILA) for Intellectual Property Literacy and creating patent awareness.

About KAPILA:

- KAPILA was launched in October 2020.

Objectives:

- Creating awareness regarding Intellectual Property Rights (IPR) in Higher Education Institutions (HEIs).
- Enabling of IP protection of inventions originating from faculty and students of HEIs.
- Development of Credit Course on IPR.
- Training program on IPR for faculty and students of HEIs.
- Sensitization and development of vibrant IP filing system.

1.13 MINISTRY OF HOUSING AND URBAN AFFAIRS (MOHUA)

Initiatives taken by the MoHUA:

- MoHUA entered into MoU with Zomato to onboard street food vendors on its food-tech platform. This will give street food vendors online access to thousands of consumers and help these vendors grow their businesses.
- In October 2020, MoHUA had entered into a similar agreement with another online platform for food ordering and delivery, Swiggy.
- MoHUA launched the Mobile Application for PM SVANidhi se Samridhi.
- This mobile application will assist city officials to conduct door to door data collection for socio-economic profiling of PM SVANidhi beneficiaries and their families.
- This will be done in 125 select cities as an additional component of PM SVANidhi.
- The application will enable ULB field functionaries to conduct the socio-economic profiling activity even without any internet connection.
- Quality Council of India, the implementing partner for this program, partnered with MoHUA to develop this mobile application.

- The program aims to map the socio-economic profile of the PM SVANidhi beneficiaries and their families, assess their potential eligibility for various central welfare schemes and facilitate the linkages to these schemes, for their holistic development and socio-economic upliftment.

1.14 MOTION OF THANKS TO PRESIDENT'S ADDRESS

- As many as 50 speakers from 25 political parties participated in the debate in Rajya Sabha on the Motion of Thanks lasting over three days.

What is “Motion of Thanks” and what it contains?

- The President makes an address to a joint sitting of Parliament at the start of the Budget session, which is prepared by the government and lists its achievements.
- The address is followed by a motion of thanks moved in each House by ruling party MPs. During the session, political parties discuss the motion of thanks also suggesting amendments.

Amendments to the “Motion of Thanks”

- Notices of amendments to Motion of Thanks on the President's Address can be tabled after the President has delivered his Address.
- Amendments may refer to matters contained in the Address as well as to matters, in the opinion of the member, the Address has failed to mention.
- Amendments can be moved to the Motion of Thanks in such form as may be considered appropriate by the Speaker.

Limitations:

- The only limitations are that members cannot refer to matters which are not the direct responsibility of the Central Government and that the name of the President cannot be brought in during the debate since the Government and not the President is responsible for the contents of the Address.

Provisions governing them:

- President's Address and Motion of Thanks are governed by Articles 86 (1) and 87 (1) of the Constitution and Rules 16 to 24 of the Rules of Procedure and Conduct of Business in Lok Sabha.

Its passage:

- Members of Parliament vote on this motion of thanks. This motion must be passed in both of the houses.
- A failure to get motion of thanks passed amounts to defeat of government and leads to collapse of government. This is why the Motion of Thanks is deemed to be a no-confidence motion.

1.15 PRADHAN MANTRI URJA GANGA PROJECT

- GAIL (India) Ltd has put West Bengal on the gas map of India after it completed laying a Rs 2,433-crore pipeline that will bring to the state cooking fuel that is cheaper than LPG and CNG that costs less than petrol and diesel, and fuel to produce urea for all its requirement.

- The 348-kilometer pipeline from Dobhi in Bihar to Durgapur in West Bengal is part of the Pradhan Mantri Urja Ganga project.

About the Project:

- Inaugurated by Prime Minister Narendra Modi in his constituency Varanasi, Uttar Pradesh.
- A pipeline of length 2540 km is under construction from the states of Uttar Pradesh to Odisha.

Objectives:

- To provide piped cooking gas to the households of Varanasi within next two years and to millions others in neighbour states after one more year.
- To create 25 industrial clusters in these states which can utilise the gas as fuel and generate employment in these areas.

Length wise distribution:

- The state of UP gets the gas line of length 338 km. Bihar state will get about 441 km long line.
- Jharkhand gets 500 KM long.
- West Bengal will have the pipe line of length 542 km and Odisha gets benefited by 718 km pipeline.

1.16 CHAH BAGICHA DHAN PURASKAR MELA

- The third phase of Chah Bagicha Dhan Puraskar mela is set to be held in Guwahati ,Assam was held recently.

About the Scheme:

- Started by the Assam government in the year 2017- 18.
- Launched to encourage people to open bank accounts in tea garden areas.
- Under this scheme, the workers of the tea community will receive Rs. 2500 in their bank accounts.

Eligibility:

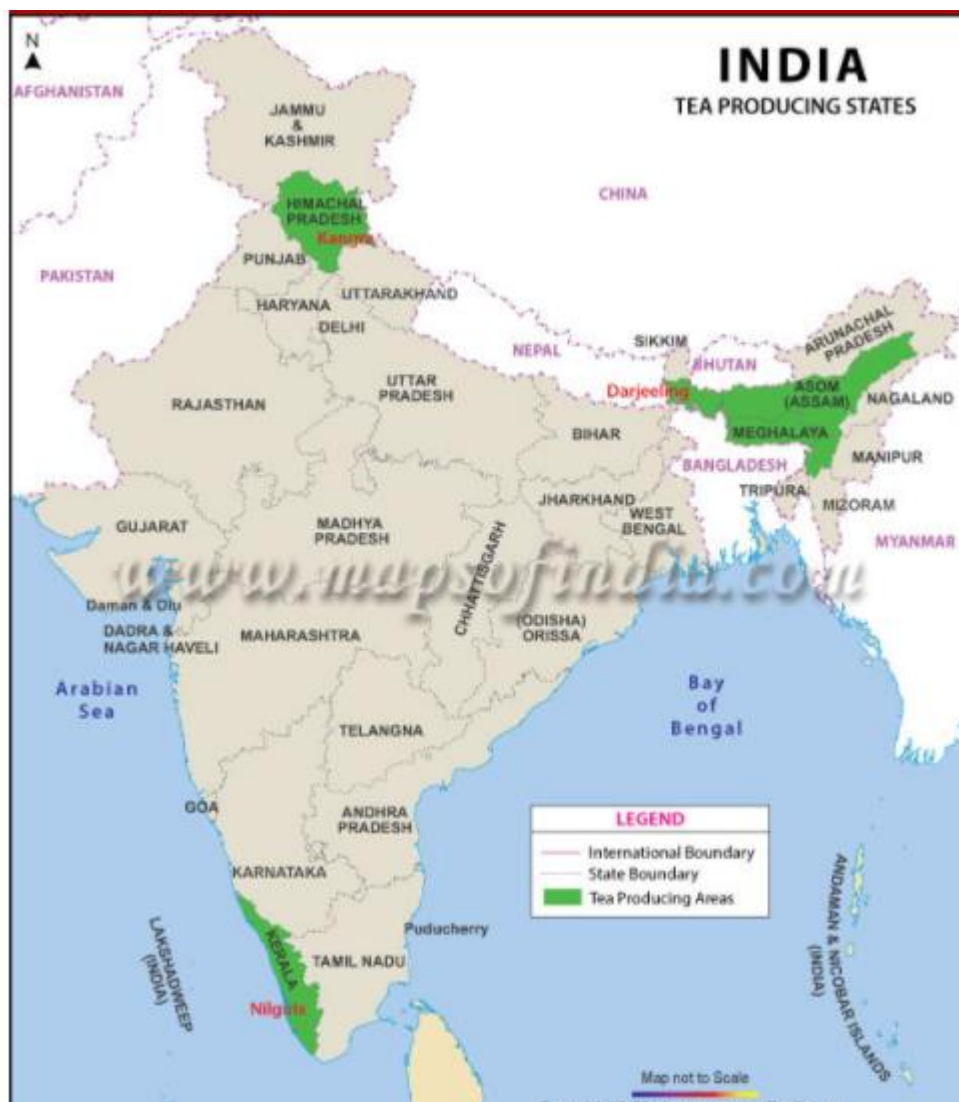
- Residents of Assam and who work on tea gardens.
- Women belonging to BPL category.

Tea production in India:

- India accounts for 14% of global tea exports and nearly 20% of the tea produced in the country is exported, according to Tea Board India.
- The largest consumer of tea in the world.
- The second largest producer of tea in the world.
- The fourth largest exporter of tea in the world.

Places where tea is grown in India:

- Tea cultivation and plantation is practiced in Assam, Darjeeling, Nilgiri Hills of South India and Tarai along the foothills of the Himalayas.



Conditions of Growth:

- **Climate:** Tea is a tropical and sub-tropical plant and grows well in hot and humid climate.
- **Temperature:** 20°-30°C.
- **Rainfall:** 150-300 cm annual rainfall.
- **Soil:** Slightly acidic soil with porous sub-soil which permits a free percolation of water.

1.17. VIJAYANAGARA: THE 31ST DISTRICT OF KARNATAKA

- The Karnataka Government recently notified that, the Vijayanagara has become the 31st district of Karnataka officially. The district has its headquarter at Hosapete.
- Vijayanagara is located in the Hyderabad-Karnataka region.
- The district also is home to UNESCO World Heritage sites namely the Hampi and Virupaksha Temple.
- Vijayanagara District has been named after the capital of the Vijayanagar Empire.
- The District was established out of the ore-rich Ballari District in accordance with the Karnataka Land Revenue Act, 1964.

- The District will comprise of six Taluks namely the Hosapete, Kotturu, Kudligi, Hagaribommanahalli, Harapanahalli, and Hoovina Hadagali.

Background:

- The Karnataka Chief Minister BS Yediyurappa had announced his plan of creating a new Vijayanagara District in the month of September 2019.
- The Chief Minister had cited it is required to create a new District for administrative reasons.
- He was of the view that the creation of the new District will help in promoting tourism to the places like Hampi temple.
- He also said the move will help in the development of six Talukas that are part of the District.
- Thus, the Karnataka Cabinet formally approved the creation of a new Vijayanagara district on November 18, 2020.

1.18 BREACH OF PRIVILEGE

- An MP has issued a breach of privilege notice against an MP from Bengal in the Lok Sabha.
- The accused MP has cast some aspersions with respect to the conduct of a judge.
- The question is whether the conduct of a judge can be discussed on the floor of the House or not.
- Article 121 of the Constitution does not allow allegations to be levelled against a sitting or a former judge.

Breach of Privilege

- The powers, privileges and immunities of either House of the Indian Parliament and of its Members and committees are laid down in Article 105 of the Constitution.
- Article 194 deals with the powers, privileges and immunities of the State Legislatures, their Members and their committees.
- Parliamentary privilege refers to the right and immunity enjoyed by legislatures, in which legislators are granted protection against civil or criminal liability for actions done or statements made in the course of their legislative duties.

What constitutes a breach of this privilege?

- While the Constitution has accorded special privileges and powers to parliamentarians and legislators to maintain the dignity and authority of the Houses, these powers and privileges are not codified.
- Thus, there are no clear, notified rules to decide what constitutes a breach of privilege, and the punishment it attracts.
- Any act that obstructs or impedes either House of the state legislature in performing its functions, or which obstructs or impedes any Member or Officer of such House in the discharge of his duty, or has a tendency, directly or indirectly, to produce such results is treated as a breach of privilege.

- It is a breach of privilege and contempt to print or publish libel reflecting on the character or proceedings of the House or its Committees or on any member of the House for or relating to his character or conduct as a legislator.

1.19 MERI SAHELI INITIATIVE

What is the Meri Saheli Initiative?

- Indian Railways has launched 'Meri Saheli' initiative for focused action on security of women with an objective to provide safety and security to lady passengers travelling by trains.
- Under the initiative, a team of lady officer and staff have been formed. The team will visit all of the passenger coaches including ladies coaches to identify women passengers.
- Details of their journey including coach number & seat number will be noted down by the team, especially if a lady is travelling alone in the train.
- The passengers will be briefed about RPF Security Helpline No. 182, GRP Security Helpline No. 1512 and other precautions, for example, not to take food from strangers, buying food from IRCTC authorized stalls only & taking care of luggage.
- The team will also advise them to feel free to contact the train escort party and dial 182 in case of any emergency.
- The details of the passengers will be conveyed to en-route Divisions & Zones to meet the passengers at their convenience till they reach their final destination.
- At the end of the journey, a feedback will be collected from the lady passengers regarding their journey experience and safety measures taken.
- The 'Meri Saheli' initiative was started by the Railway Protection Force (RPF) as a pilot project in the South Eastern Railway in September 2020 and after getting positive response from women passengers, it was extended to all zones.
- Dedicated teams of lady RPF personnel have been formed across all zonal railways for its implementation.

1.20. RAJASTHAN BECOMES THE 5TH STATE TO COMPLETE ULB REFORMS

- Rajasthan has become the 5th State in the country to successfully undertake Urban Local Bodies (ULB) reforms stipulated by the Department of Expenditure, Ministry of Finance and has thus become eligible for additional reform linked to borrowing.
- What are the ULB reforms?
- The four citizen-centric areas identified for reforms are:
 1. Implementation of One Nation One Ration Card System
 2. Ease of doing business reform
 3. Urban Local body/ utility reforms

4. Power Sector reforms.

The set of reforms stipulated by the Department of Expenditure are:

(a) The State will notify:

- Floor rates of property tax in ULBs which are in consonance with the prevailing circle rates (i.e. guideline rates for property transactions) and;
- Floor rates of user charges in respect of the provision of water supply, drainage, and sewerage which reflect current costs/past inflation.

(b) The State will put in place a system of periodic increases in floor rates of property tax/ user charges in line with price increases.

Why need such reforms?

- Reforms in ULBs and the urban utility reforms are aimed at the financial strengthening of ULBs to enable them to provide better public health and sanitation services to citizens.
- Economically rejuvenated ULBs will also be able to create good civic infrastructure.

1.21 LEADER OF THE OPPOSITION

- Senior Congress leader Mallikarjun Kharge is all set to become the Leader of the Opposition in the Rajya Sabha, as incumbent Ghulam Nabi Azad's term ends on February 15.

Who is the Leader of Opposition?

- The LOP is leader of the largest party that has not less than one-tenth of the total strength of the house.
- It is a statutory post defined in the Salaries and Allowances of Leaders of Opposition in Parliament Act, 1977.

Significance of the office:

- LoP is referred to as the 'shadow Prime Minister'.
- She/he is expected to be ready to take over if the government falls.
- The LoP also plays an important role in bringing cohesiveness and effectiveness to the opposition's functioning in policy and legislative work.
- LoP plays a crucial role in bringing bipartisanship and neutrality to the appointments in institutions of accountability and transparency – CVC, CBI, CIC, Lokpal etc.

1.22 SOIL HEALTH CARD SCHEME

- The scheme is being implemented in 32 States and UTs.

About the Scheme:

- Launched by the Ministry of Agriculture and Farmers' Welfare on December 5, 2015.
- Under the scheme, village level Soil Testing Labs will be set up by youth having education in agriculture, Women Self Help Groups, FPOs etc.

- The scheme also focuses on enabling employment generation after appropriate skill development.

What is the Soil Health Card (SHC)?

- SHC is a printed report that a farmer will be handed over for each of his holdings.
- Soil Health Card provides two sets of fertilizer recommendations for six crops including recommendations of organic manures.
- It will contain the status of his soil with respect to 12 parameters, namely: pH, Electrical Conductivity (EC), Organic Carbon (OC), Nitrogen (N), Phosphorus (P), Potassium (K), Sulphur (S), Zinc (Zn), Boron (B), Iron (Fe), Manganese (Mn), Copper (Cu) of farm holdings.

1.23 GEO-SPATIAL SECTOR – LIBERALISED

- **Context:** The Ministry of Science and Technology released new guidelines for the Geo-spatial sector in India, which deregulates existing protocol and liberalises the sector to a more competitive field.
- What is geo-spatial data?
- Geospatial data is data about objects, events, or phenomena that have a location on the surface of the earth.
- The location may be static in the short-term, like the location of a road, an earthquake event, or dynamic like a moving vehicle or pedestrian, the spread of an infectious disease.
- Geospatial data combines location information, attribute information (the characteristics of the object, event, or phenomena concerned), and often also temporal information or the time at which the location and attributes exist.
- Geo-spatial data has now become imperative for the government in planning for infrastructure, development, social development, natural calamities as well as the economy with more and more sectors relying heavily on this data.
- The past decade has seen an increase in the use of geo-spatial data in daily life with various apps such as food delivery apps like Swiggy or Zomato, e-commerce like Amazon or even weather apps.

What is the present policy on geo-spatial data?

- There are strict restrictions on the collection, storage, use, sale, dissemination of geo-spatial data and mapping under the current regime driven by internal as well as external security concerns.
- Private companies need to navigate a system of permissions from different departments of the government (Home, defence, etc.) to be able to collect, create or disseminate geo-spatial data.

Why has the government deregulated geo-spatial data?

- This system of acquiring licenses or permission has delayed projects for both private companies and government agencies.

- The deregulation eliminates the requirement of permissions as well as scrutiny, even for security concerns.
- Indian companies now can self-attest, conforming to government guidelines without actually having to be monitored by a government agency.
- There is also a huge lack of data in the country which impedes planning for infrastructure, development and businesses which are data-based.
- The mapping of the entire country, that too with high accuracy, by the Indian government alone could take decades. Therefore, opening up the sector and incentivising the private sector will speed up the process of mapping.
- Large amounts of geo-spatial data are also available on global platforms, which makes the regulation of data that is freely available in other countries, untenable.

Deregulation

- Geospatial data that used to be restricted will now be freely available in India for Indian companies.
- They will no longer be subject to restrictions nor do they require prior approvals before they collect, generate, prepare, disseminate, store, publish, update digital geospatial data and maps within the territory of India.

Benefits of deregulation:

- Increase Competitiveness in sector: By liberalising the system, the government will ensure more players in the field, competitiveness of Indian companies in the global market
- Evidence-based Policy making: This will ensure that more accurate data is available to both the government to formulate plans and administer its programmes. Maps and accurate geospatial data are crucial for national infrastructure projects such as linkages of rivers, creation of industrial corridors and deploying smart power systems.
- Boost to Start-ups: Liberalisation of the mapping industry and democratization of existing datasets will spur domestic innovation and enable Indian companies to compete in the global mapping ecosystem by leveraging modern geospatial technologies.
- Atmanirbhar Bharat: Indian companies will be able to develop indigenous apps, for example an Indian version of google maps.
- Employment generation: The move will unlock tremendous opportunities for the country's private sector, public sector, and research institutions, to drive innovations and build scalable solutions which will in turn generate employment
- Increased Investment and boost to Economy: The government also expects an increase in investment in the geo-spatial sector by companies, and also an increase in export of data to foreign companies and countries, which in turn will boost the economy.

1.24 AMENDMENTS TO JUVENILE JUSTICE ACT

- Union Cabinet ushered in some major amendments to the Juvenile Justice (Care and Protection of Children) Act 2015 in a bid to bring in clarity and also entrust more responsibilities on bureaucrats when it comes to implementing provisions of the law.
- What is the Juvenile Justice (Care and Protection of Children Act) 2015?
- It was introduced and passed in Parliament in 2015 to replace the Juvenile Delinquency Law and the Juvenile Justice (Care and Protection of Children Act) 2000.
- The Act changes the nomenclature from Juvenile to child or ‘child in conflict with law’. Also, it removes the negative connotation associated with the word “juvenile”.
- Special Provisions for Age 16-18 years: One of the main provisions of the new Act was that juveniles charged with heinous crimes and who are between the ages of 16-18 years would be tried as adults and processed through the adult justice system. This provision received an impetus after the 2012 Delhi gangrape in which one of the accused was just short of 18 years, and was therefore tried as a juvenile.
- Juvenile Justice Board: The nature of the crime, and whether the juvenile should be tried as a minor or a child, was to be determined by a Juvenile Justice Board (set up in every district). Also Child Welfare Committees must be set up in every district. Both must have at least one woman member each.
- Adoption Related Clauses: Another major provision was that the Act streamlined adoption procedures for orphans, abandoned and surrendered children and the existing Central Adoption Resource Authority (CARA) has been given the status of a statutory body to enable it to perform its function more effectively
- Inclusion of New Offences: The Act included several new offences committed against children (like, illegal adoptions, use of child by militant groups, offences against disabled children, etc) which are not adequately covered under any other law.

What are the amendments passed by the Union Cabinet?

- The inclusion of serious crimes apart from heinous crimes.
- It has included for the first time the category of “serious crimes” differentiating it from heinous crimes, while retaining heinous crimes. Both heinous and serious crimes have also been clarified for the first time, removing any ambiguity.
- What this means is that for a juvenile to be tried for a heinous crime as an adult, the punishment of the crime should not only have a maximum sentence of seven years or more, but also a minimum sentence of seven years.

- This provision has been made to ensure that children, as much as possible, are protected and kept out of the adult justice system.
- Heinous crimes with a minimum imprisonment of seven years pertain mostly to sexual offences and violent sexual crimes. Crime like the possession and sale of an illegal substance, such as drugs or alcohol, will now fall under the ambit of a “serious crime”.
- Expanding the purview of district and additional district magistrates
- The NCPCR report of 2019-20 had found that not a single Child Care Institution in the country was found to be 100 per cent compliant to the provisions of the JJ Act.
- DM and ADMs will monitor the functioning of various agencies under the JJ Act in every district. This includes the Child Welfare Committees, the Juvenile Justice Boards, the District Child Protection Units and the Special juvenile Protection Units.
- Amendment says that no new children’s home can be opened without the sanction of the DM. They are also responsible now for ensuring that CCIs falling in their district are following all norms and procedures (earlier the process was relaxed and lacked effective oversight)
- The DM will also carry out background checks of Child Welfare Committee members, who are usually social welfare activists, including educational qualifications, as there is no such provision currently to check if a person has a case of girl child abuse against him.
- To hasten the process of adoption and ensure the swift rehabilitation of children into homes and foster homes, the amendment further provides that the DM will also now be in charge of sanctioning adoptions, removing the lengthy court process.

1.25 PARDONING POWERS OF PRESIDENT

- The 12-year-old son of Shabnam, a death row convict from Uttar Pradesh’s Amroha, appealed to President Ram Nath Kovind to “forgive” his mother.
- Shabnam has exhausted most of her legal remedies, and if executed, will be the first woman in independent India to be hanged for a crime.

Clemency powers of the President under article 72:

- It says that the President shall have the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence.
- Pardon– A pardon completely absolves the offender from all sentences and punishment and disqualifications and places him in the same position as if he had never committed the offence.
- Commutation– Commutation means exchange of one thing for another. In simple words to replace the punishment with less severe punishment. For example for Rigorous imprisonment-simple imprisonment.

- Reprieve– Reprieve means temporary suspension of death sentence. For example- pending a proceeding for pardon or commutation.
- Respite– Respite means awarding a lesser punishment on some special grounds. For example- the Pregnancy of women offender.
- Remissions– Remission means the reduction of the amount of sentence without changing its character, for example, a sentence of 1 year may be remitted to 6 months.
- The pardoning power of President is wider than the governor and it differs in the following two ways:
 - The power of the President to grant pardon extends in cases where the punishment or sentence is by a Court Martial but Article 161 does not provide any such power to the Governor.
 - The President can grant pardon in all cases where the sentence given is sentence of death but pardoning power of Governor does not extend to death sentence cases.
- Exercise of these powers:
 - This power of pardon shall be exercised by the President on the advice of Council of Ministers.
 - The constitution does not provide for any mechanism to question the legality of decisions of President or governors exercising mercy jurisdiction.
 - But the SC in Epuru Sudhakar case has given a small window for judicial review of the pardon powers of President and governors for the purpose of ruling out any arbitrariness.

Note: Only one jail in India , the one in Mathura , has the provisions for hanging a woman convict.

1.26 J&K DELIMITATION COMMISSION

- J&K Delimitation Commission holds first meeting, Farooq Abdullah and other NC leaders not present.

Background:

- The Delimitation Commission for Jammu and Kashmir was constituted by the Centre on March 6, 2020 to redraw Lok Sabha and Assembly Constituencies of the Union Territory in accordance with the provisions of the Jammu and Kashmir Reorganisation Act, 2019, which bifurcated the state into union territories of J&K and Ladakh.

What is Delimitation?

- Delimitation literally means the process of fixing limits or boundaries of territorial constituencies in a state that has a legislative body.

Who carries out the exercise?

- Delimitation is undertaken by a highly powerful Commission. They are formally known as Delimitation Commission or Boundary Commission.

- These bodies are so powerful that its orders have the force of law and they cannot be challenged before any Court.

Composition of the Commission:

- According to the Delimitation Commission Act, 2002, the Delimitation Commission will have three members: a serving or retired judge of the Supreme Court as the chairperson, and the Chief Election Commissioner or Election Commissioner nominated by the CEC and the State Election Commissioner as ex-officio members.

Constitutional Provisions:

- Under Article 82, the Parliament enacts a Delimitation Act after every Census.
- Under Article 170, States also get divided into territorial constituencies as per Delimitation Act after every Census.

1.27 NATIONAL HYDROGEN MISSION

- One of the major initiatives for the clean energy sector that the government announced in the Union Budget 2021, was the plan to launch a National Hydrogen Mission.
- Though the plan was lined up, the Budget did not specify the details of the scheme and what India's ambitions were towards it.
- The proposal in the Budget will be followed up with a mission draft over the next couple of months.

Efforts in India so far on transportation:

- In October, Delhi became the first Indian city to operate buses running on hydrogen spiked compressed natural gas (H-CNG) in a six-month pilot project.
- The buses will run on a new technology patented by Indian Oil Corp for producing H-CNG — 18 per cent hydrogen in CNG — directly from natural gas, without resorting to conventional blending.
- Power major NTPC Ltd is operating a pilot Project to run 10 hydrogen fuel cell-based electric buses and fuel cell electric cars in Leh and Delhi, and
- NTPC is also considering setting up a green hydrogen production facility in Andhra Pradesh.
- Indian Oil Corporation (IOC) is also planning to set up a dedicated unit to produce hydrogen to run buses at its R&D centre in Faridabad.
- As a supporting regulatory framework, the Ministry of Road Transport and Highways late last year issued a notification proposing amendments to the Central Motor Vehicles Rules, 1989, to include safety evaluation standards for hydrogen fuel cell-based vehicles.

Hydrogen:

- Hydrogen's potential as a clean fuel source has a history spanning nearly 150 years.
- The most common element in nature is not found freely.

- Hydrogen exists only combined with other elements, and has to be extracted from naturally occurring compounds like water (which is a combination of two hydrogen atoms and one oxygen atom).
- Although hydrogen is a clean molecule, the process of extracting it is energy-intensive.

Background of government's Hydrogen Energy Mission:

- India's electricity grid is predominantly coal-based and will continue to be so.
- Thus, it is negating collateral benefits from a large-scale EV push, because coal will have to be burnt to generate the electricity that will power these vehicles.
- Experts believe hydrogen vehicles can be especially effective in long-haul trucking and other hard-to-electrify sectors such as shipping and long-haul air travel.
- Using heavy batteries in these applications would be counterproductive, especially for countries such as India, where the electricity grid is predominantly coal-fired.

How will the mission work?

- For the current financial year, MNRE has been allotted Rs 25 crore for research and development (R&D) in hydrogen.
- Once the draft of the mission is in place, it will be floated for public consultation.
- There will be five key areas the government will focus on; These include:
 1. R&D,
 2. Demand creation,
 3. How it can be used in industry,
 4. How to create an eco-system including policies for this and
 5. How to bring industry on board along with international partnerships.

Agenda for next five years:

- In these five areas, demand creation will focus on what kind of niche products can be taken up and how effectively the fuel can be used in trucks and buses.
- In the industrial sector, the government is looking at hydrogen as a replacement for coke in the steel industry and also making use of the fuel in the fertiliser sector.
- MNRE has indicated that by 2025-26, the industrial sector will be one of the major recipients of hydrogen.

Way forward:


- Scaling up the technology and achieving critical mass remains the big challenge. More vehicles on the road and more supporting infrastructure can lower costs. India's proposed mission is seen as a step in that direction.

1.28 ONE RANK ONE PENSION (OROP) SCHEME

- The review of One Rank One Pension (OROP) has been pending since June 2020. The issue was discussed during the recent parliamentary panel meet.

Background:

- There are certain 'loopholes' which need to be fixed in the scheme. A committee has been constituted to look into the issue by the Defence Ministry to work out the modalities of the revision but no announcement has been made on when the revision would be undertaken.

NEWSICLE		THE ABC OF OROP		ONE RANK, ONE PENSION SCHEME	
WHAT IS OROP ➤ Payment of uniform pension to military personnel retiring in same rank with same length of service, irrespective of date of retirement ➤ Any hike in pension rates to be automatically passed on to past pensioners				WHY IT IS BEING DEMANDED ➤ Civilian employees retire at 60. Military personnel retire much earlier (based on rank) when family liability is maximum and 2nd career is difficult ➤ Sepoys retire at 35-38; NCOs & JCOs at 40-45 (Only 10% of sepoys become JCOs) ➤ Most officers retire in early-50s (just a few become Lt-Generals/Air Marshals/Vice-Admirals to serve till 60) ➤ Terms and conditions of military service much tougher than civilian government employees ➤ Soldiers undergo hardship postings, with risk to life and restriction of fundamental rights ➤ Successive pay commissions have widened gap between veterans who have retired earlier and those who retire later	
THE NUMBERS INVOLVED 24.25 lakh Registered ex-servicemen Over 13 lakh serving military personnel Rs 8,300cr Estimated cost of OROP					
PROBLEMS Financial: Grant of full OROP will further bloat the govt's pension bill		Administrative: Huge task to pass all the benefits, with no cut-off date, to all living ex-servicemen		Legal: Will lead to similar demands by other govt employees, especially paramilitary forces	

What is OROP?

- OROP implies uniform pension to personal based on rank and length of service, irrespective of the date of retirement.
- The Government had implemented the long pending demand of veterans in November 2015 and as per the notification, it is to be revised every five years.
- Armed Forces Personnel who had retired till 30th June 2014 are covered under it.
- The implementation of the scheme was based on recommendation of the Koshiyari committee.

1.29 PRABUDDHA BHARATA

- 125th anniversary celebrations of 'Prabuddha Bharata'.

About Prabuddha Bharata:

- Prabuddha Bharata is a monthly journal of the Ramakrishna Order, started by Swami Vivekananda in 1896.
- The journal 'Prabuddha Bharata' has been an important medium for spreading the message of India's ancient spiritual wisdom.
- Its publication was started from Chennai (erstwhile Madras), where it continued to be published for two years, after which it was published from Almora.
- Later, in April 1899, the place of publication of the Journal was shifted to Advaita Ashrama (Mayavati, Uttarakhand) and it has been continuously published from there since then.
- Luminaries like Netaji Subhas Chandra Bose, Bal Gangadhar Tilak, Sister Nivedita, Sri Aurobindo, former President Sarvepalli Radhakrishnan, Carl Jung, among others, have contributed to the Journal over the years.

1.30 NATIONAL COAL INDEX

- The Ministry of Coal has started the commercial auction of coal mines on a revenue share basis using the National Coal Index (NCI).

Key Points

- It is a price index that reflects the change of price level of coal in a particular month relative to the fixed base year.
- The base year for the NCI is Financial Year 2017-18.
- Prices of coal from all the sales channels of coal, including import, as existing today are taken into account for compiling the NCI.
- The amount of revenue share per tonne of coal produced from auctioned blocks would be arrived at using the NCI by means of a defined formula.

NCI is composed of a set of five sub-indices:

- Three for Non-Coking Coal and two for Coking Coal.
- The three sub-indices for Non-Coking Coal are combined to arrive at the Index for Non-Coking Coal and the two sub-indices for Coking Coal are combined to arrive at the Index for Coking Coal.
- Thus, indices are separate for Non-Coking and Coking Coal.
- As per the grade of coal pertaining to a mine, the appropriate sub-index is used to arrive at the revenue share.

1.31 THE DOCTRINE OF SEPARATION OF POWERS

- Law Minister Ravi Shankar Prasad recently told the Lok Sabha that just as independence of the judiciary is a part of the basic structure of the Constitution, the principle of separation of powers is also a part of that basic structure. He asserted that governance and lawmaking should be left to the elected members of the legislature.

- He also urged the judiciary to exercise its discretion in accepting public interest litigations.

What's the issue?

- There has been a “rush to file PILs on almost every issue” nowadays.

What is the doctrine of Separation of Power?

- It refers to the model of governance where the executive, legislative and judicial powers are not concentrated in one body but instead divided into different branches.
- It is not explicitly mentioned in the constitution.
- Articles in the Constitution facilitating Separation of Powers are as follows:
- **Article 50:** State shall take steps to separate the judiciary from the executive. This is for the purpose of ensuring the independence of the judiciary.
- Article 122 and 212: Validity of proceedings in Parliament and the Legislatures cannot be called into question in any Court. Also, Legislators enjoy certain privileges with regard to speech and anything said in the Parliament cannot be used against them.
- Judicial conduct of a Judge of the Supreme Court and the High Court cannot be discussed in the Parliament and the State Legislature, according to Article 121 and 211 of the Constitution.
- Articles 53 and 154 respectively, provide that the executive power of the Union and the State shall be vested with the President and the Governor and they enjoy immunity from civil and criminal liability.
- **Article 361:** The President or the Governor shall not be answerable to any court for the exercise and performance of the powers and duties of his office.

1.32 KALARIPPAYATTU

- Kalaripayattu is a Martial art which originated as a style in Kerala during 3rd century BC to the 2nd century AD.
- The word kalari first appears in Sangam literature to describe both a battlefield and combat arena.
- It is also considered to be one of the oldest fighting system in existence.
- It is now practiced in Kerala, in contiguous parts of Tamil Nadu.
- Kalaripayattu techniques include a combination of steps (Chuvatu) and postures (Vadivu). Chuvatu literally means ‘steps’, the basic steps of the martial arts. Vadivu literally means ‘postures’ or stances are the basic characteristics of Kalaripayattu training. Named after animals, they are usually eight in number.

1.33 THOLPAVAKKOOTU

- It is also called as shadow puppetry, Nizhalkkoothu and Olakkoothu.
- It is a traditional temple art in Kerala having its roots in Palakkad and neighbouring regions.
- It used to be performed in the Bhadrakali temples of Palakkad, telling tales from the Ramayana.

- Accompanying instruments include Ezhupara, Chenda and Maddalam.
- The artists have to undergo several years of rigorous training to master this art form.
- The puppetry is staged on a special structure in temple premises called Koothumadam.

1.34 VIGYAN JYOTI PROGRAMME

- Vigyan Jyoti programme, a new initiative to encourage girls to take interest in science and build career, was launched by the Department of Science & Technology (DST) to create a level-playing field for the meritorious girls to pursue STEM.
- The programme addresses the under representation of women in certain areas of STEM.
- Vigyan Jyoti activities include student-parent counselling, visit to labs and knowledge centres, partners role model interactions, science camps, academic support classes, resource material distribution and tinkering activities.

1.35 NATIONAL E-VIDHAN (NEVA) PROJECT

- Meghalaya State Assembly Speaker visited Arunachal Pradesh Legislative Assembly Secretariat in Itanagar to get first-hand information about the National e-Vidhan project implemented in the Assembly.
- e-Vidhan is a Mission Mode Project (MMP) included in Digital India Programme and Ministry of Parliamentary Affairs (MoPA) is the 'Nodal Ministry' for its implementation in all the States/ UTs with Legislatures.
- Funding of NeVA is on the pattern of Central Sponsored Scheme i.e. 60:40; and 90:10 for North East & hilly States and 100% for UTs.
- The funding for e-Vidhan is provided by the MoPA and technical support by Ministry of Electronics and Information Technology (MeitY).

Objectives:

- Paperless Assembly or e-Assembly is a concept involving of electronic means to facilitate the work of Assembly.
- It enables automation of the entire law-making process, tracking of decisions and documents, sharing of information.
- NeVA aims to bring all the legislatures of the country together, in one platform thereby creating a massive data depository without having the complexity of multiple applications.
- Further, live webcasting of Lok Sabha TV and Rajya Sabha TVs is also available on this application.
- Doordarshan has already been enabled with provision to incorporate similar facilities in respect of State Legislatures.

1.36. PARLIAMENTARY COMMITTEE ON 5G

- A standing committee of Lok Sabha on Information Technology has submitted its report on 5G and said that India will miss the 5G bus.
- What are the findings of the parliamentary standing committee on IT?
- Little Progress on ground: Despite the Department of Telecommunications (DoT) having submitted a report on the steps to make India 5G ready as early as August 2018, there was very little progress on the ground.
- High Spectrum Prices: the reserve price for auction of 5G was one of the highest in the world. It needed to be rationalised, taking into account the per capita income of the country and also by comparing it with reserve price mandated by other countries.
- Inadequate and poor development of test cases: Globally, as many as 118 telecom service providers across 59 countries have started deploying 5G networks. India is yet to give formal approvals for 5G testing despite all the three major private telecom players having submitted their applications as early as January 2020.
- Delayed rollout of 5G: Comparing it to the deployment of other older technologies such as 2G, on which it was late by four years, 3G on which India was as much as a decade late, and 4G on which India missed by the bus by 7 years, the committee concluded that “sufficient preparatory work had not been undertaken for launching of 5G services in India.”
- Low reach of optical fibre across India, and deficient back-haul capacity are other factors which is delaying the deployment of 5G in India.

Conclusion

- Not all hope is lost as far as the roll out of 5G in India is concerned
- Even before the findings of the parliamentary committee were made public, the DoT had, in a bid to facilitate faster roll out of new services, reduced the notice period for telcos to six months from one year.
- A reduced time would mean that telcos could as soon as September this year start testing the 5G network for commercial purposes in all three bands, namely low, mid and high frequency spectrum
- Apart from this, the parliamentary committee also hoped that the DoT would reach an understanding with the Department of Space and Ministry of Defence at the earliest to earmark the allocation of spectrum waves.

1.37 FASTag DECLARED MANDATORY

- Ministry of Road Transport & Highways has decided that all lanes in the fee plazas on National Highways shall be declared as “FASTag lane of the fee plaza”.
- What is ‘FASTag’?

- FASTags are stickers that are affixed to the windscreen of vehicles and use Radio Frequency Identification (RFID) technology to enable digital, contactless payment of tolls without having to stop at toll gates.
- The tags are linked to bank accounts and other payment methods.
- As a car crosses a toll plaza, the amount is automatically deducted, and a notification is sent to the registered mobile phone number.

How does it work?

- The device employs Radio Frequency Identification (RFID) technology for payments directly from the prepaid or savings account linked to it.
- It is affixed on the windscreen, so the vehicle can drive through plazas without stopping.
- RFID technology is similar to that used in transport access-control systems, like Metro smart card.
- If the tag is linked to a prepaid account like a wallet or a debit/credit card, then owners need to recharge/top up the tag.
- If it is linked to a savings account, then money will get deducted automatically after the balance goes below a pre-defined threshold.
- Once a vehicle crosses the toll, the owner will get an SMS alert on the deduction. In that, it is like a prepaid e-wallet.

1.38 DELHI COURT'S RULING ON DISHA RAVI TOOLKIT CASE

- Delhi court grants bail to Disha Ravi in its ruling in the tool kit case. It termed evidence produced by Delhi police as inappropriate.

Introduction

- Delhi Court granted bail to climate activist Disha Ravi, arrested in the Greta Thunberg 'toolkit' case.
- Delhi Police arrested her on charges of sedition and criminal conspiracy in the Greta toolkit case.

Key takeaways from Court's ruling-

- The Delhi court dismissed the claims as Delhi police failed to show any evidence
- On criminal conspiracy, the Court noted that mere assumption is not sufficient. It should be backed by evidence.
- The judge stated that only interaction with people of doubtful credentials is not an offence.
- On sedition, the court cited Kedar Nath case (1962) that actual violence or incitement to violence should be associated with words.
- Moreover, the Court negated the state's "global conspiracy" claims and stated that the fundamental right to freedom of speech and expression "includes the right to seek a global audience". Also,

“there are no geographical barriers on communication” as long as it’s “under the four corners of the law.”

What is Toolkit ?

- Toolkit- A document created to explain any issue which provides information on what one needs to do to address the issue.
- The toolkit includes information about petitions, details about protests, and mass movements.
- Also provide a roadmap of how to take forward the protest and what can be done, when and how.

Disha Ravi Toolkit case-

- Delhi police reported that Ravi was the editor of a Google doc (called a toolkit) related to farmer’s protest.
- Police alleged that she started a WhatsApp Group to make the Toolkit doc in collaboration with a pro-Khalistani organization to spread disaffection against the Indian state.
- She was charged with Section 120B [Criminal conspiracy], along with Sections 124A (sedition) and Section 153A (Promoting enmity between different groups on grounds of religion, race, place of birth, residence, language, etc., and doing acts prejudicial to maintenance of harmony) of IPC.

1.39 PEY JAL SURVEKSHAN

- Pilot Pey Jal Survekshan under Jal Jeevan Mission- Urban, JJM-U was launched recently.
- Ministry: Ministry of Housing and Urban Affairs.

Key takeaways

- It will be conducted in cities to ascertain equitable distribution of water, reuse of wastewater and mapping of water bodies with respect to quantity and quality of water through a challenge process.
- It will be first launched in 10 cities- Agra, Badlapur, Bhubaneswar, Churu, Kochi, Madurai, Patiala, Rohtak, Surat and Tumkur.
- JJM-U is designed to provide universal coverage of water supply to all households through functional taps in all 4,378 statutory towns in accordance with SDG – 6.

1.40 E-CHHAWANI PORTAL

- E-Chhawani portal and mobile app was launched recently by the Ministry of Defence.

Key takeaways

- Objective: To provide online civic services to over 20 lakh residents of 62 Cantonment Boards across India.
- Through the portal, the residents of cantonment areas will be able to avail basic services like renewal of leases, application for birth & death certificates, water & sewerage connections, etc.
- Developed by: eGov Foundation, Bharat Electronics Limited (BEL), Directorate General Defence Estates (DGDE) and National Informatics Centre (NIC).

1.41. MONEY BILLS

- In a pre-emptive move, the Congress has written to Lok Sabha Speaker Om Birla, urging him not to bypass the Rajya Sabha by declaring seven key Bills, including one on the privatisation of two public sector banks, as money Bills.

Background:

- The Rajya Sabha has limited powers to legislate on a money Bill.
- The Lok Sabha is free to accept or reject amendments made by the Rajya Sabha on a money Bill.
- What is a Money bill?
- A money bill is defined by Article 110 of the Constitution, as a draft law that contains only provisions that deal with all or any of the matters listed therein.
- These comprise a set of seven features, broadly including items such as the imposition or regulation of a tax; the regulation of the borrowing of money by the Government of India; the withdrawal of money from the Consolidated Fund of India; and so forth.
- In the event a proposed legislation contains other features, ones that are not merely incidental to the items specifically outlined, such a draft law cannot be classified as a money bill.
- Article 110 further clarifies that in cases where a dispute arises over whether a bill is a money bill or not, the Lok Sabha Speaker's decision on the issue shall be considered final.

1.42. THE INDIAN SIGN LANGUAGE (ISL) DICTIONARY

- Union Minister for Social Justice and Empowerment will virtually release the 3rd edition of the Indian Sign Language (ISL) Dictionary with 10,000 terms (including 6,000 earlier terms) on 17th February 2021.
- The Dictionary has been brought out by the Indian Sign Language Research and Training Centre (ISLRTC), an autonomous Institute under the Department of Empowerment of Persons with Disabilities (Divyangjan), Ministry of Social Justice & Empowerment.
- The 3rd edition of the ISL Dictionary contains a total of 10,000 terms of everyday use, academic terms, legal & administrative terms, medical terms, technical terms, and agricultural terms.
- The Dictionary also contains regional signs used in different parts of the country.
- The 1st edition of the ISL Dictionary was launched on 23rd March 2018 with 3000 terms and the 2nd edition with 6000 terms (including earlier 3000 terms) was launched on 27th February 2019.

1.43 EXTINCTION REBELLION

- Delhi Police have named environmental activists Disha Ravi, Nikita Jacob, and Shantanu Mukherjee, who are volunteers of this global environment movement.

What is Extinction Rebellion, also referred to as 'XR'?

- Initially, launched in the United Kingdom on October 31, 2018, as a response to a report by the United Nations Intergovernmental Panel on Climate Change (IPCC).
- Now, it is a global movement which seeks to “rebel”, and asks groups to “self-organise”, without the need for anyone’s permission, to come up with collective action plans as long as they adhere to the group’s core principles and values.
- It is a decentralised, international and politically non-partisan movement using non-violent direct action and civil disobedience to persuade governments to act justly on the Climate and Ecological Emergency.
- The group has “three core demands” of governments around the world.
- It wants governments to “Tell the Truth”, to “Act Now”, and to “Go Beyond Politics” in order to confront the climate and ecological emergency that the world is faced with.

1.44. ‘CHAURI CHAURA’ CENTENARY CELEBRATIONS


- February 4th 2021 marks hundred years of the Chauri Chaura incident that had led to Mahatma Gandhi calling off the Non-cooperation Movement.

NON CO-OPERATION MOVEMENT

“ NCM opened a new chapter in the history of the Freedom Movement in India. It was the beginning of the Gandhian Movement against the British ”

About the Movement

- * The movement led by Mahatma Gandhi and INC, was the first nationwide mass protest in the history of Indian Independence.
- * It stretched from September 1920 to February 1922.
- * It was aimed to resist British rule in India through “Ahimsa”.
- * Gandhi assured that Swaraj was achieved in one year if his Non-Cooperation programme was fully implemented.



Background

ROWLETT ACT

- During World War I, British imposed censorship on the press and permitted detention without trial.
- Rowlett recommended that British to continue these rules even after the war ended.

JALLIANWALA BAGH MASSACRE

- The Movement took a hike after the Jallianwala Bagh Massacre in 1919, when the British officer General Dyer, led a troop and killed 400 innocent Indians including women, children & elderly.


KHALIFAT ISSUE

- The World War I had ended with the defeat of Ottoman Turkey. And there were rumours that a harsh peace treaty was going to be imposed on Ottoman emperor (Khalifa). To defend the Khalifa’s temporal powers, a Khilafat Committee was formed in Bombay in March 1919.

“ After a series of these events, Gandhiji realised that there was no prospect of getting any fair treatment at the hands of British, so he planned to withdraw the nation’s co-operation from the British..”


Phases of Movement

- The movement was to be nonviolent and to begin with surrender of titles and boycott of civil services, courts, army, police and legislative councils, schools & foreign goods and eventually, refusing to pay taxes.
- Non-cooperation was agreed to by the INC at Calcutta in September 1920 and launched that December.
- In 1921 the British, confronted with a united Indian front for the first time, was visibly shaken, but a revolt by the Muslim Moplahs of Kerala in August 1921 and a number of violent outbreaks alarmed moderate opinion.
- After an angry mob murdered police officers in the village of Chauri-chaura in February 1922, Gandhi himself called-off the movement.



Consequences

- The movement marked the transition of Indian nationalism from a middle-class to a mass basis.
- The status of Self-government was not achieved in one year as promised by Mahatma Gandhi.
- The NCM was no doubt suspended but it has served a unique purpose in the process of the reorganisation of the Congress from top to bottom.
- With the movement, nationalist sentiments reached every nook & corner of the country and politicised everyone.
- It was this politicisation and activation of millions of men and women which imparted a revolutionary character to the national movement.



- What is Chauri Chaura incident?
- The incident occurred at Chauri Chaura in the Gorakhpur District of the United Province, (modern Uttar Pradesh) in British India.
- During this incident, a large group of protesters, participating in the Non-cooperation movement, clashed with police, who opened fire.
- The demonstrators attacked and set fire to a police station in retaliation, killing all of its occupants.
- In response to this, Mahatma Gandhi, who was strictly against violence, halted the Non-cooperation Movement on the national level on 12 February 1922, as a direct result of this incident.

1.45 MATUA COMMUNITY

- The Matua community of West Bengal was recently in news.

Important value additions

- The Matua community has members on either side of the Bengal border.
- It is associated with a religious movement begun in the 1870s by Harichand Thakur of a Namasudra (SC) family, who hailed from Safaldanga in East Bengal.
- In the early 20th century, his son Guruchand organized the movement socially and politically.
- In 1915, the Matua Federation was established.
- Today, Matuas constitute the second-largest SC population of West Bengal.
- For years, the Matuas were demanding an amendment to the Citizenship Act of 2003, whose provisions made it difficult for refugees to get citizenship.

1.46 PATTACHITRA

- ‘Pattachitra’ painting was recently in news when Prime Minister cited the example of Bhagyashree Sahu, a young student from Rourkela in Odisha for her keen interest in ‘Pattachitra’ painting, during his Mann ki Baat program.
- Patta means cloth, and Chitra means picture.
- Pattachitra is a picture painted on a piece of cloth.
- It is based in the states of West Bengal and Odisha.
- Bengal tradition: It is centered around Kalighat (in Kolkata). The theme is Not much devotional.
- Odisha tradition: It is centered around Puri. Almost all of the Chitrakar community hails from a small village in Puri district called Raghurajpur.
- Odisha paintings are based on Hindu mythology and are especially inspired by Jagannath and the Vaishnava sect.
- All colors used in the Paintings are natural.

1.47 METRONEO

- By making a sizeable budgetary allocation for MetroNeo in the Union Budget, the way has been paved for the innovative system of mass transport, which could soon be replicated across the country.

Key Highlights:

- To be adopted for the first time in the country in Maharashtra's Nashik, MetroNeo is a comfortable, rapid, energy-efficient, and less noisy transport medium.
- The central government recently urged all state governments to consider using MetroNeo technology in their tier-2 and tier-3 cities.
- The MetroNeo service consists of electric bus coaches – their lengths varying from 18 to 25 meters – with a carrying capacity of 200 to 300 passengers at a time.
- The buses will have rubber tyres and draw power from an overhead electric wire with 600-750 V DC supply, similar to railways or trams.
- The buses will be air-conditioned, with an automatic door closing system, level boarding, comfortable seats, passenger announcement system, and an information system with an electronic display.
- The stations will be similar to other Metro rail stations.

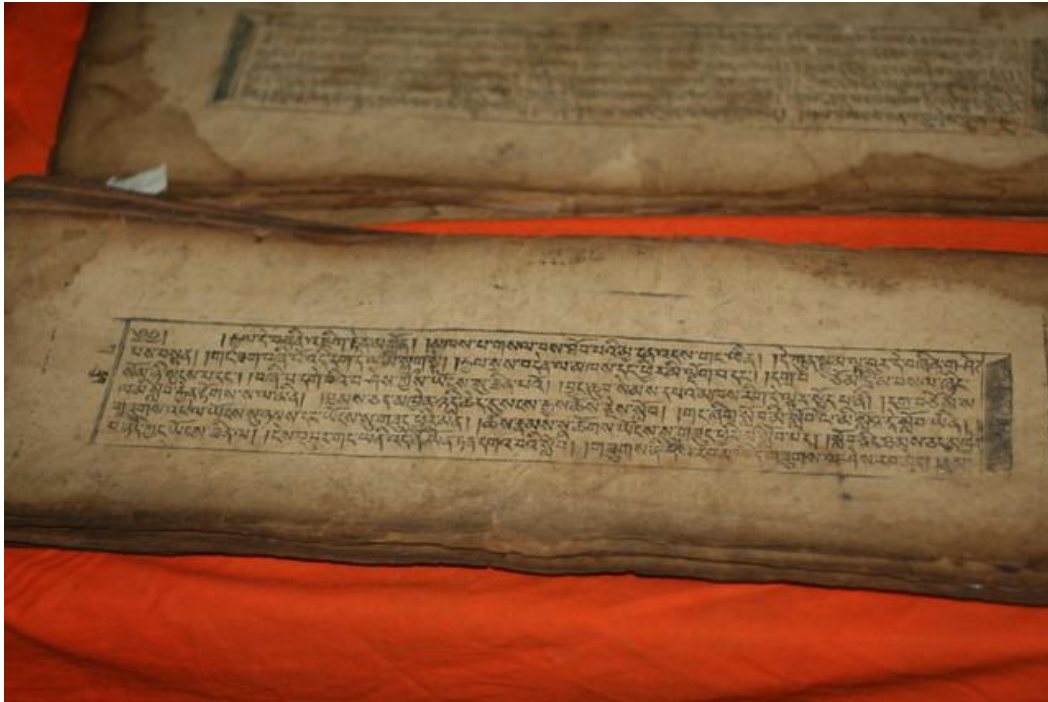
1.48 SMARTCODE PLATFORM

- Housing and Urban Affairs Minister Hardeep Singh Puri launched the SmartCode Platform.
- SmartCode is a platform that enables all ecosystem stakeholders to contribute to a repository of open-source code for various solutions and applications for urban governance.
- It is designed to address the challenges that urban local bodies (ULBs) face in the development and deployment of digital applications to address urban challenges, by enabling cities to take advantage of existing codes and customizing them to suit local needs, rather than having to develop new solutions from scratch.
- As a repository of open-source software, the source code available on the platform will be free to use without any licensing or subscription fees, thus limiting costs to those involved with customizing the code and developing a locally-relevant solution.

1.49. MONPA HANDMADE PAPER

- People patronize Monpa Handmade Paper of Tawang after PM's push in Mann ki Baat.
- These are handcrafted by artisans from Tawang, Arunachal Pradesh.
- Monpa Handmade paper is made from the bark of tree Shugu Sheng grown locally in Tawang and is identified by its distinctive translucent fibrous texture.
- The paper is weightless but its natural fibres add great tensile strength to this paper making it apt for various art works.

- Monpa handmade paper has been used for writing Buddhist scriptures, manuscripts and for making prayer flags.
- Writing on this paper is also known to be tamper-proof.
- The paper was once produced in every household in Tawang and was exported to many countries like Tibet, Bhutan, Myanmar and Japan among others.
- However, with the new technologies coming in, the handmade paper industry almost disappeared in the last 100 years.



2. INTERNATIONAL RELATIONS

2.1 CHABAHAR PORT

- The first Trilateral Working Group Meeting between India, Iran and Uzbekistan on joint use of Chabahar Port was held virtually recently.
- India welcomes the interest of Uzbekistan to use the Chabahar port as a transit port. This will open up economic opportunities for the traders and business community of the region.
- Besides Uzbekistan, other Central Asian countries have also shown interest in using this port. India wants to cooperate closely with regional countries on this issue.
- During the meeting, the participants discussed joint use of Chabahar Port for trade and transit purposes and enhanced regional connectivity.
- All sides also welcomed India's proposal to hold "Chabahar Day" on the side-lines of the International Maritime Summit scheduled to be hosted by India in January 2021.
- The meeting was held as a follow up of decisions taken during the virtual summit held between Indian Prime Minister and President of Uzbekistan recently.

Chabahar Port

- The port is being developed by India, Iran and Afghanistan to boost trade ties among the three countries in the wake of Pakistan denying transit access to New Delhi.
- Chabahar Port is a seaport in Chabahar located in south-eastern Iran, on the Gulf of Oman.
- It serves as Iran's only oceanic port, and consists of two separate ports named Shahid Kalantari and Shahid Beheshti.
- Located in the Sistan-Balochistan province on the energy-rich Iran's southern coast, the port can be easily accessed from India's western coast, bypassing Pakistan.
- It is considered to be a major transit point to connect with several Central Asian countries.
- The port of Chabahar is located on the Makran coast of Sistan and Baluchistan Province, next to the Gulf of Oman and at the mouth of Strait of Hormuz. It is the only Iranian port with direct access to the Indian Ocean. Being close to Afghanistan and the Central Asian countries of Turkmenistan, Uzbekistan etc., it has been termed the "Golden Gate" to these land-locked countries.

India and Chabahar Port

- In May 2016, India and Iran signed a bilateral agreement in which India would refurbish one of the berths at Shahid Beheshti port, and reconstruct a 600 meter long container handling facility at the port. The port is intended to provide an alternative for trade between India and Afghanistan. This port is 800 kilometers closer to Afghanistan than Pakistan's Karachi port. In October 2017, India's first shipment of wheat to Afghanistan was sent through the Chabahar Port.

Significance of Chabahar Port

- It gives a boost to India's bilateral ties with Iran which is a major oil supplier for India.
- It will give India access to Afghanistan, Russia and Europe, thus circumventing Pakistan
- The port and the rail project (Chabahar to Zahedan to Zaranj near Afghanistan border) will enhance connectivity, energy supplies and trade
- The port is also a key link in the International North South Transport Corridor (INSTC), a multi-modal network of ships, rail and road routes to move freight between India to Russia via Iran.
- It will facilitate India's role in Afghanistan's development through infrastructure and education projects.
- It is the nearest port to India on the Iranian coast, which provides access to the resources and markets of Afghanistan and Central Asia.
- It is located 76 nautical miles (less than 150km) west of the Pakistani port of Gwadar, being developed by China; this makes it ideal for keeping track of Chinese or Pakistani military activity based out of Gwadar.

2.2 MYANMAR'S MILITARY COUP

- Myanmar's military staged a coup detaining de facto leader Aung San Suu Kyi and declaring it had taken control of the country for one year under a state of emergency.
- The intervention came with rising tensions between the military, which ruled the country for nearly five decades, and the civilian government over allegations of fraud in November's elections.
- The military had signaled its intentions to seize power to settle its claims of irregularities in the polls, which Suu Kyi's party won easily.

How was the coup carried out?

- The military detained the leaders of the governing NLD party and Myanmar's civilian leadership, including Suu Kyi and President Win Myint, along with various ministers and even the opposition.
- The military quickly seized control of the country's infrastructure, suspending most television broadcasts and canceling all domestic and international flights, according to reports.
- Telephone and internet access was suspended in major cities.
- The stock market and commercial banks were closed, and long lines were seen outside ATMs in some places.
- In Yangon, the country's largest city and former capital, residents ran to markets to stock up on food and other supplies.

India's response

- India is "deeply concerned" with the return to military rule, which is a repeat of events thirty years ago.

- It sees only option to engage, building on its outreach in recent years via the security and defence establishment.
- India seeks a more pragmatic approach, engaging the military while pushing for more freedoms and democracy in Myanmar.

2.3 INDIA HOSTS INDIAN OCEAN REGION DEFENCE MINISTERS CONCLAVE

- India hosted the defence ministers of the countries of the Indian Ocean Region at a conclave during the “Aero India” in Bengaluru.
- The conclave is organised in the backdrop of growing Chinese military assertiveness in the Indian Ocean Region (IOR).
- Theme: ‘Enhanced Peace, Security and Cooperation in the Indian Ocean’.
- It seeks to promote dialogue in an institutional and cooperative environment that can foster peace, stability and prosperity in the Indian Ocean region.

2.4 INTERNATIONAL CRIMINAL COURT

- The International Criminal Court convicted a former commander (Dominic Ongwen) in the notorious Ugandan rebel group the Lord’s Resistance Army of dozens of war crimes and crimes against humanity ranging from multiple murders to forced marriages.

About ICC:

- The International Criminal Court (ICC), located in The Hague, is the court of last resort for prosecution of genocide, war crimes, and crimes against humanity.
- It is the first permanent, treaty based, international court established to help end impunity for the perpetrators of the most serious crimes of concern to the international community.
- Its founding treaty, the Rome Statute, entered into force on July 1, 2002.
- Funding: Although the Court’s expenses are funded primarily by States Parties, it also receives voluntary contributions from governments, international organisations, individuals, corporations and other entities.

Composition and voting power:

- The Court’s management oversight and legislative body, the Assembly of States Parties, consists of one representative from each state party.
- Each state party has one vote and “every effort” has to be made to reach decisions by consensus. If consensus cannot be reached, decisions are made by vote.
- The Assembly is presided over by a president and two vice-presidents, who are elected by the members to three-year terms.

Criticism

- It does not have the capacity to arrest suspects and depends on member states for their cooperation.

- Critics of the Court argue that there are insufficient checks and balances on the authority of the ICC prosecutor and judges and insufficient protection against politicized prosecutions or other abuses.
- The ICC has been accused of bias and as being a tool of Western imperialism, only punishing leaders from small, weak states while ignoring crimes committed by richer and more powerful states.
- ICC cannot mount successful cases without state cooperation is problematic for several reasons. It means that the ICC acts inconsistently in its selection of cases, is prevented from taking on hard cases and loses legitimacy.

2.5 WORLD'S FIRST ENERGY ISLAND

- Denmark's government has approved a plan to build an artificial island in the North Sea. It is a part of its effort to switch to green energy.
- An energy island is based on a platform that serves as a hub for electricity generation from surrounding offshore wind farms.

About the Artificial Island Project:

- Its primary purpose is to provide large-scale offshore wind power. It also aims to connect and distribute power between Denmark and neighbouring countries.
- The artificial island will be located about 80 km into the North Sea. The majority of it will be owned by the Denmark government.
- The project is being called the largest construction project to be undertaken in Denmark's history. It is estimated to be as big as 18 football pitches.

2.6 UN HUMAN RIGHTS COUNCIL

- India had presented an eight-point action plan to deal with the scourge of terrorism in which India asked the world to crack down on countries sheltering and harbouring proscribed terrorists. The action plan also includes cracking the whip on terror financing.
- In his address to the United Nations Human Rights Council, External Affairs Minister S Jaishankar said:
- Terrorism continues to be one of the gravest threats to humankind and a crime against humanity, which violates the most fundamental human rights namely the right to life.
- Human rights violations and gaps in the implementation of human rights should be addressed in a "fair and just manner" with objectivity, non-selectivity and transparency and with due respect with the principle of non-interference in internal affairs and national sovereignty.

About UNHRC:

- UNHRC was reconstituted from its predecessor organisation, the UN Commission on Human Rights to help overcome the "credibility deficit" of the previous organisation.

- Headquartered in Geneva, Switzerland.

Composition:

- The UNHRC has 47 members serving at any time with elections held to fill up seats every year, based on allocations to regions across the world to ensure geographical representation.
- Each elected member serves for a term of three years.
- Countries are disallowed from occupying a seat for more than two consecutive terms.

Functions:

- The UNHRC passes non-binding resolutions on human rights issues through a periodic review of all 193 UN member states called the Universal Periodic Review (UPR).
- It oversees expert investigation of violations in specific countries (Special Procedures).

Challenges and Need for reforms:

- The human rights record of the member-states such as Saudi Arabia, China and Russia in the council has also not been in line with the aims and mission of the UNHRC, which has led to critics questioning its relevance.
- Despite the continued participation of several western countries in the UNHRC, they continue to harbour misgivings on the understanding of Human rights.
- Non-compliance has been a serious issue with respect to the UNHRC's functioning.
- Non-participation of powerful nations such as the US.

2.7 EAST CONTAINER TERMINAL

- Sri Lanka's decision to renege on a 2019 agreement with India and Japan that aimed to jointly develop the strategic East Container Terminal (ECT) at the Colombo port comes as a rude shock to India.

Bilateral Investment Treaty (BIT):

- A BIT is an agreement between two countries that sets up "rules of the road" for foreign investment in each other's countries.
- BITs typically serve to protect investments made by investors on a reciprocal basis, specifying conditions on regulatory oversight of the host state and limiting interference with the rights of foreign investors.
- In 1997, India and Sri Lanka signed a BIT to promote and protect foreign investment in each other's territories.
- The defining characteristic of this BIT, as is the case with all BITs, is that it empowers individual foreign investors to directly sue the host state before an international tribunal if the investor believes that the host state has breached its treaty obligations. This is known as investor-state dispute settlement (ISDS).

- An important protection provided for foreign investment in the India-Sri Lanka BIT is the fair and equitable treatment (FET) provision given in Article 3(2).
- This Article provides that investments and returns of investors of each country shall, at all times, be accorded FET in the other country's territory.
- Sri Lanka, by signing the agreement to jointly develop the ECT at the Colombo port, created such expectations on the part of Indian investors.
- Defaulting on this agreement, without specific and reasonable justification, potentially violates the Indian investor's legitimate expectations, and thus, the FET provision of the BIT.

2.8 SHAHTOOT DAM

- Recently, India and Afghanistan have signed a Memorandum of Understanding (MoU) for the construction of the Lalandar (Shahtoot) Dam in Afghanistan.
- The project is a part of the New Development Partnership between India and Afghanistan.
- It is a proposed dam in the Kabul river basin. It is one of the five river basins in Afghanistan.

Purpose:

- The dam will provide drinking, irrigation, and Environmental water for Kabul province.
- It will also provide water for irrigation to nearby areas, rehabilitate the existing irrigation and drainage network. Moreover, it will help in flood protection and management efforts.
- Significance: This is the second major dam being built by India in Afghanistan, after the India – Afghanistan Friendship Dam [Salma Dam] which was inaugurated in 2016.

2.9 WORLD SUSTAINABLE DEVELOPMENT SUMMIT

- The 20th edition of the event was inaugurated recently.
- Theme: Redefining our common future: Safe and secure environment for all.

About the World Sustainable Development Summit:

- It is the annual flagship event of The Energy and Resources Institute (TERI).
- It is the sole Summit on global issues taking place in the developing world.
- It provides a platform for global leaders and practitioners to discuss and deliberate over climatic issues of universal importance.
- It strives to provide long-term solutions for the benefit of the global community by assembling the world's most enlightened leaders and thinkers on a single platform.
- It is continuing the legacy of Delhi Sustainable Development Summit (DSDS) which was initiated in 2001 with the aim of making 'sustainable development' a globally shared goal.

The Energy and Resources Institute – TERI:

- It is a leading think tank dedicated to conducting research for sustainable development of India and the Global South.

- TERI was established in 1974 as an information centre on energy issues. However, over the following decades, it made a mark as a research institute, whose policy and technology solutions transformed people's lives and the environment.

2.10 PANGONG TSO LAKE

- Recently, a military disengagement agreement signed between India and China.
- This is the first major breakthrough to resolve the nine-month-long military stand-off along the Line of Actual Control (LAC) in Ladakh.
- Both the Chinese and Indian troops present on the south and north of Pangong Tso lake already started a "synchronized and organized disengagement".

Background:

- Line of Actual Control is the disputed boundary between India and China. LAC is divided into three sectors: western, middle, and eastern.
- Both countries disagree on the actual location of the LAC. India claims that the LAC is 3,488 km long. But the Chinese believe it is around 2,000 km only.
- LAC mostly passes on the land, but in Pangong Tso lake, LAC passes through the water as well.
- The contested area of the lake is divided into 8 Fingers.
- Chinese contested that the LAC is at finger 4. But, India's perceived LAC (Line of Actual Control) is at finger 8. This led to frequent disputes in the area.
- Previously India patrolled on foot up to Finger 8. But there is no motorable road access from India's side to the areas east of Finger 4.
- China on the other hand already built a road on their side and dominated up to Finger 4.
- The recent (in May 2020) standoff on North and South bank of the lake is one such dispute.
- During the stand-off, Chinese troops marched to the ridgeline of finger 3 and 4. Indian forces were forced to stay within finger 3.
- But, in August 2020, India obtained some strategic advantages in the region by occupying certain peaks in the Kailash ranges. After that, Indian troops started positioning in Magar Hill, Mukhpari, Gurung Hill, etc. This pressurized China to enter into a negotiation.
- Later, India and China finally reached to an agreement on disengagement at Pangong Lake.
- The agreement was reached in the 9th corps commander meeting held on 24th January 2021.

Important points of agreement

- The agreement calls for disengagement along the Pangong Tso region. It includes the pulling of tanks and troops from both sides.
- The troops will return to pre standoff position in a gradual manner on the north and south banks of the lake.

- In the north bank, China will pull back to finger 8 and India will get back to its Dhan Singh Thapa post near finger 3.
- The area between finger 3 and 8 will become a no patrolling zone for a temporary period.
- All the construction done after April 2020 will be removed by both sides
- Negotiation of the agreement through military and diplomatic discussions will take place to decide the patrolling on the area between finger 3 and 8.

2.11 INTERNATIONAL ENERGY AGENCY (IEA)

- In a significant development that boosts energy security, India is going to enter into a strategic partnership framework with the International Energy Agency (IEA)

Concept:

- Established in 1974 as per framework of the OECD, IEA is an autonomous intergovernmental organisation.
- Mission – To ensure reliable, affordable and clean energy for its member countries and beyond. Its mission is guided by four main areas of focus: energy security, economic development, environmental awareness and engagement worldwide Headquarters (Secretariat): Paris, France.

Roles and functions:

- Established in the wake of the 1973-1974 oil crisis, to help its members respond to major oil supply disruptions, a role it continues to fulfil today.
- IEA's mandate has expanded over time to include tracking and analyzing global key energy trends, promoting sound energy policy, and fostering multinational energy technology cooperation.

Composition and eligibility:

- It has 30 members at present. IEA family also includes eight association countries. A candidate country must be a member country of the OECD. But all OECD members are not IEA members.

Reports released by IEA:

- Global Energy & CO2 Status Report.
- World Energy Outlook.
- World Energy Statistics.
- World Energy Balances.
- Energy Technology Perspectives.

2.12 COMMITTEE ON WORLD FOOD SECURITY

- The first-ever voluntary guidelines on food systems and nutrition meant to end hunger and malnutrition were endorsed by members of the Committee on World Food Security (CFS).
- The guidelines have been developed to support countries in their efforts to eradicate all forms of hunger and malnutrition by utilising a comprehensive food systems approach.

They are structured around seven focus areas:

- Transparent, democratic and accountable governance.
- Sustainable food supply chains to achieve healthy diets in the context of economic, social and environmental sustainability and climate change.
- Equal and equitable access to healthy diets through sustainable food systems.
- Food safety across sustainable food systems.
- People-centred nutrition knowledge, education and information.
- Gender equality and women's empowerment across food systems.
- Resilient food systems in humanitarian contexts.

Objectives and focus:

- The guidelines are intended to build upon and complement the work and mandate of other international bodies, for example the UN Decade of Action on Nutrition (2016-2025).
- They call for realisation of the right to adequate food in the context of national food security for all, particularly for the most vulnerable and affected groups.
- They focus on policy planning and governance so that food systems can be made more resilient and responsive and are in accordance with needs of consumers and producers too, especially small and marginal farmers.

About the Committee on World Food Security (CFS):

- Established in 1974 as an intergovernmental body to serve as a forum in the United Nations System for review and follow-up of policies concerning world food security including production and physical and economic access to food.

2.13 ROHINGYA CRISIS

- Bangladesh authorities sent a fourth group of Rohingya refugees from Myanmar to Bhasan Char island in the Bay of Bengal despite calls by human rights groups for a halt to the process.

Background:

- Bhasan Char is an island specifically developed to accommodate 1,00,000 of the 1 million Rohingya who have fled from neighbouring Myanmar.
- While human rights groups have criticised the move and some are being forced to go against their will, the government has insisted that refugees moving to the island have done so voluntarily.

Who are Rohingyas?

- They are an Ethnic group, mostly Muslims. They were not granted full citizenship by Myanmar.
- They were classified as "resident foreigners or associate citizens".
- Ethnically they are much closer to Indo-Aryan people of India and Bangladesh than to the Sino-Tibetans of the Country.

- Described by UN Secretary-General Antonio Guterres as “one of, if not the, most discriminated people in the world”.

2.14WTO

- Ngozi Okonjo-Iweala has been appointed the new chief of the World Trade Organization, becoming the first woman to ever lead the institution and the first African citizen to take on the role.

Roles and functions of Director General of WTO:

- The director-general of the World Trade Organization is the officer of the World Trade Organization responsible for supervising and directing the organization’s administrative operations.
- The Director-General has little power over matters of policy – the role is primarily advisory and managerial.
- The Director-General supervises the WTO secretariat of about 700 staff and is appointed by WTO members for a term of four years.

WTO- facts:

- World Trade Organization, as an institution, was established in 1995. It replaced General Agreement on Trade and Tariffs (GATT) which was in place since 1946.
- The WTO officially commenced on 1 January 1995 under the Marrakesh Agreement, signed by 123 nations on 15 April 1994.
- India has been a member of GATT since 1948; hence it was party to Uruguay Round and a founding member of WTO.
- While WTO came in to existence in 1995, GATT didn’t cease to exist. It continues as WTO’s umbrella treaty for trade in goods.

Structure of WTO:

- The WTO is headed by the Ministerial Conference, while the daily operations are carried out by three administrative bodies:
- The General Council comprises the representatives of all member countries and acts as the representative of the Ministerial Conference when it comes to daily operations. Its job is to carry out the implementation and monitoring function of the WTO.
- The Dispute Settlement Body is a part of the General Council and is responsible for settling trade disputes between member states. There is also an Appellate Body, where member states can appeal any decisions made against them during a dispute settlement.
- The Trade Policy Review Body is also a part of the General Council and is responsible for ensuring the trade policies of member states are in line with the goals of the WTO. Member countries are required to inform the WTO about changes in their laws and trade policies.

2.15 'ICC RULING' OVER PALESTINIAN TERRITORIES

- The recent ICC (International Criminal Court) ruling allows it to prosecute war crimes in Palestinian Territories. The ruling is welcomed by Palestine but criticized by the U.S. and Israel.

Background:

- Israel had been accused of committing atrocities in Palestinian Territories of West Bank and Gaza Strip since 1967.
- Palestine joined the ICC in 2015 but remained silent towards the atrocities during the Trump administration. It was because it didn't want to end U.S. aid towards Palestinian Territories.
- It is notable that the US Congress was allowed to freeze US Aid in Palestinian territory if Palestine pursues its own legal matters.
- The change of administration in the U.S. allowed it to be more focal in the ICC. The recent February 2021 ruling of ICC is a result of this changed stance.

About the Ruling:

- It allows the ICC to investigate persons committing war crimes in the Palestinian Territories of West Bank and Gaza Strip.
- However, there is no possibility of immediate investigations, even on the cases already filed in front of ICC.

Significance of Judgement:

- It will ensure accountability and justice delivery in the region.
- It will ensure that individuals and militant groups like Hamas are subjected to international law. Furthermore, it will impose adequate criminal responsibility on them.

The response of various countries:

- Palestine: It welcomed the judgement as a step towards correcting past injustices suffered by the country since the 1967 occupation of Israel.
- Israel: It criticised the judgement of being Anti-Semitic and accused the court of ignoring atrocities done by Iran and Syria in the region.
- US: It objected against the judgement and reminded that Israel was not a member of the ICC.
- India: It has refrained from commenting on the judgement based on its geopolitical interest as both Palestine and Israel share a good bond with it.

2.16 UN PEACEKEEPERS

- India to gift 2 lakh vaccine doses to UN peacekeepers.
- The announcement was made by External Affairs Minister S. Jaishankar during his remarks at a UN Security Council open debate on the implementation of resolution 2532 (2020), passed last year.

What is UNSC resolution 2532?

- Demands a general and immediate cessation of hostilities in all situations on its agenda” (i.e., those already identified by the United Nations Security Council (UNSC)).
- Calls for all parties engaged in armed conflicts (i.e., including those not specifically on the UNSC agenda) to “engage immediately in a durable humanitarian pause for at least 90 consecutive days”.
- Specifically excludes UNSC designated terrorist groups, e.g., the Islamic State in Iraq and the Levant.

What is peacekeeping? It’s significance?

- United Nations Peacekeeping is a joint effort between the Department of Peace Operations and the Department of Operational Support.
- Every peacekeeping mission is authorized by the Security Council.
- The financial resources of UN Peacekeeping operations are the collective responsibility of UN Member States.
- According to the UN Charter, every Member State is legally obligated to pay their respective share for peacekeeping.

Composition:

- UN peacekeepers (often referred to as Blue Berets or Blue Helmets because of their light blue berets or helmets) can include soldiers, police officers, and civilian personnel.
- Peacekeeping forces are contributed by member states on a voluntary basis.
- Civilian staff of peace operations are international civil servants, recruited and deployed by the UN Secretariat.
- UN Peacekeeping is guided by three basic principles:
 - 1.Consent of the parties.
 - 2.Impartiality.
 - 3.Non-use of force except in self-defence and defence of the mandate.

2.17QUAD MEET

- Quad members recently came together for a ministerial meeting.
- Members discussed about the urgent need to restore the democratically elected government in Myanmar, and the priority of strengthening democratic resilience in the broader region.

What is Quad grouping?

- The quadrilateral security dialogue includes Japan, India, United States and Australia.
- All four nations find a common ground of being the democratic nations and common interests of unhindered maritime trade and security.

Genesis:

- The grouping traces its genesis to 2004 when the four countries came together to coordinate relief operations in the aftermath of the tsunami.
- It then met for the first time in 2007 on the sidelines of the Association of South East Asian Nations (ASEAN) summit.
- The intention was to enhance maritime cooperation between the four nations.

Significance of the grouping:

- Quad is an opportunity for like-minded countries to share notes and collaborate on projects of mutual interest.
- Members share a vision of an open and free Indo-Pacific. Each is involved in development and economic projects as well as in promoting maritime domain awareness and maritime security.
- It is one of the many avenues for interaction among India, Australia, Japan and the US and should not be seen in an exclusive context.

What are China's views on the Quad?

- There is a general understanding that the Quad would not take on a military dimension against any country. The strategic community in China, nevertheless, had branded it an emerging “Asian NATO”.
- Notably, Japanese PM Shinzo Abe's “Confluence of Two Seas” address to the Indian Parliament gave a fresh impetus to the Quad concept. This recognised the economic rise of India.
- Despite renewed efforts, the QUAD has faced criticism over its lack of formal structure. There have been calls for institutionalisation, a formal agreement to transform the group into a formidable anti-China bloc.
- A lot has changed over the years. Each member state has faced the heat of China's increased aggression.
- China has grown in might and influence and is keen on picking up fights.
- After attempting to influence Australia's domestic policies, it slapped punitive tariffs on the country.
- It is engaged in what has become a routine border confrontation with India.
- China has flared up territorial disputes with Japan with regards to the Senkaku Islands and is battling a fully-fledged trade war with the United States.

2.18 INTERNATIONAL COMMISSION ON LARGE DAMS (ICOLD)

- The International Commission on Large Dams (ICOLD) Symposium on Sustainable Development of Dams & River Basins was inaugurated by the Ministry of Jal Shakti.
- The Symposium on Sustainable Development of Dams & River Basins is being organised by the International Commission on Large Dams (INCOLD) in association with the Dam Rehabilitation

Improvement Project (DRIP), Central Water Commission (CWC) and National Hydrology Project (NHP).

- The symposium is being organised with the objective of providing an opportunity to Indian Dam Engineering Professionals and Agencies to share their experiences, ideas and latest developments.
- With the help of this platform, they will be sharing new materials and construction technologies, best engineering practices, advancement in investigation techniques, dam safety issues etc.
- The event will also provide opportunity to network with the world-renowned dam experts from across the world who are involved in Dam Construction, management, operation and maintenance.

World Register of Dams

- For the purpose of inclusion in the World Register of Dams, a large dam is defined as any dam above 15 metres in height OR any dam between 10 and 15 metres in height that meets at least one of the following conditions:
 1. The crest length is not less than 500 metres
 2. The capacity of the reservoir formed by the dam is not less than one million cubic metres
 3. The maximum flood discharge dealt with by the dam is not less than 2 000 cubic metres per second
 4. The dam had especially difficult foundation problems
 5. The dam is of unusual design

2.19 UTHURU THILA FALHU(UTF)

- India has signed an agreement with Maldives for developing a Maldives National Defence Force Coast Guard Harbour at Sifvaru –Uthuru Thilafalhu(UTF).
- The pact aims to “develop, support and maintain” the harbour and is part of the request made by the Maldivian government in April 2013 to the Indian government to enhance the capability of the Maldivian Defence forces.

2.20 NORD STREAM 2

- In a development that could increase tensions between Russia and the US, Russian energy major Gazprom has said that it has resumed building the Nord Stream 2 pipeline.
- It is a 1,200km-long offshore natural gas pipeline being constructed from Russia to Germany across the Baltic Sea.
- The pipeline will run along with the already-completed Nord Stream 1 system, and the two together will supply an aggregate of 110 billion cubic metres of gas to Germany per year.

Benefits of the Pipeline:

- The pipeline is intended to provide Europe with a sustainable gas supply while providing Russia with more direct access to the European gas market.

- The proposed route for the pipeline uses the territorial waters and Exclusive Economic Zone (EEZ) of Finland, Sweden and Denmark which would benefit their national governments and local authorities through investments and employment generated due to it.

2.21 INDIA-AUSTRALIA CIRCULAR ECONOMY (I-ACE) HACKATHON, 2021

- NITI Aayog's Atal Innovation Mission & Commonwealth Scientific and Industrial Research Organisation kick-start the India-Australia Circular Economy (I-ACE) Hackathon, 2021.

About the I-ACE Hackathon:

- Goal of the hackathon: to enable talented innovative students and start-ups from Australia and India to address common national issues through innovative technology solutions.
- Conducted by: Atal Innovation Mission (AIM) and Australia's national science agency (CSIRO).
- The priority themes for the hackathon are Innovation in packaging – reducing packaging waste, Innovation in food supply chains avoiding waste, Creating opportunities for plastics waste reduction, and Recycling critical energy metals and e-waste.
- I-ACE is supported by the Australian Department of Industry, Science, Energy and Resources (DISER), AIM Atal Incubation Centre network, and various domain experts.

3. INDIAN ECONOMY

3.1 UNION BUDGET

- FM Nirmala Sitharaman presents Union Budget 2021-22:
- This is the first paperless budget and first one to be presented after the COVID-19 pandemic.

Highlights

Atmanirbhar Bharat Package

- The Finance Minister during the beginning of her budget speech recalled the launch of Atmanirbhar Bharat package to provide stimulus to the Indian economy. Prime Minister Narendra Modi had announced the launch of Atmanirbhar Bharat Abhiyan on May 12, 2020. The special economic package worth Rs 20 lakh crore was launched with an objective to make India self-reliant. During his address to the nation, the Prime Minister had urged people to be vocal about local.
- The Budget 2021-12 rests on six pillars —health & well-being, physical & financial capital & infrastructure, inclusive development for aspirational India, reinvigorating human capital, innovation & R&D, Minimum Govt & Maximum Governance.

1. Health and Well Being

- PM Atmanirbhar Swasth Bharat Yojana: PM Atmanirbhar Swasth Bharat Yojana to be launched to strengthen existing health systems and support future health interventions with an outlay of about 64,180 crores over 6 years.
 - Establishing 7000 rural and 11000 urban wellness centres
 - Setting up of health labs
 - establishing critical care hospital
 - strengthening of national disease control
 - expansion of integrated health portal
 - establishing 17 new public health units
 - to connect all public health labs
 - strengthening of existing of public health units
- Mission Poshan 3.0
- Jal Jivan Urban Mission
- Urban Swachh Bharat Mission
- Clean Air Programme
- Voluntary Vehicle Scrapping Policy to reduce vehicular pollution-vehicles will undergo fitness tests after 20 years in private vehicles, 15 years in case of commercial vehicles.

- New vaccine roll out

2. Physical and Financial Capital & Infrastructure

- Mega Investment Textile Parks- 7 textile parks will be created
- Propose sharp increase in Capital expenditure: The Finance Minister has proposed a sharp increase in Capital Expenditure & thus have provided Rs 5.54 lakh crores which is 34.5% more than the BE 2020-21.
- Roads & Highways -3500 km of national highway work in Tamil Nadu. The construction will start next year. -1500 km of national highway work in Kerala including 600 km stretch of Mumbai-Kanyakumari corridor. – national highway work in West Bengal at a cost of Rs 25000 crore-national highway work of more than 34000 crore covering 300 kms
- Railway Infrastructure – National Railway Plan- Western & Eastern dedicated freight corridors to be commissioned soon.-High Density network to be provided with train protection to prevent train collision incidents.
- Urban Infrastructure– New scheme to be launched to support augmentation of public bus service. it will boost automobile sector and create employment opportunities for the youth and enable smooth mobility to citizens-Metro lite to be deployed- central funding will be provided to Kochi Metro Phase II.

3. Inclusive Development for Aspirational India

Agriculture

SWAMITVA Scheme:

- So far about 1.8 lakh property owners from 1241 villages have been issued with property cards.
- Has been extended to cover all states/UTs.
- Farm loans allocation has been increased to Rs. 16.5 tn from Rs. 15 tn in the last fiscal.
- Cotton:
- It has imposed a 10% import tax on the import of this fibre to help farmers.
- Govt has also raised the levy on raw silk and silk yarn from 10% to 15%.
- India is the biggest cotton grower. India's cotton output is expected to climb to 37.12 mn bales of 170 kgs each in 2020-21 from 35.49 mn bales a year earlier.
- The imports are expected to fall to 1.4 mn this year from 1.55 mn bales in 2019-20.
- There was no import duty on cotton imports till now.
- Operation Green Scheme has been expanded to cover 22 perishable products:
- This has been done to boost value addition and exports.
- 1000 more mandis will be integrated under e-NAM.
- The Agriculture Infrastructure Development cess:

- Govt has proposed cess on 25 products and basic customs duty has been reduced on these items so that the consumers do not end up paying a higher price. This has been done to improve farm infrastructure.
- This may not change the prices of these products but makes a difference in terms of who will receive this amount.
- Revenue collected from BCD goes to the Consolidated Fund of India, which is then divided between centre and states.
- In the case of cess, the revenue goes to the central govt.
- Govt has imposed this cess on petrol, diesel, gold. AIDC of Rs. 2.5 per litre has been imposed on petrol and Rs. 4 on diesel.

One Nation One Ration Card:

- Is under implementation in 32 states and UTs.
- It has reached 69 Cr beneficiaries i.e. 86% of the beneficiaries covered.
- Remaining 4 states/UTs will be covered in the next few months.
- Launch of a new portal that will collect relevant information on gig, building and construction workers among others. This is expected to help in formulating schemes for the migrant workers.
- The 4 labour codes will be implemented. With this, for the first time in the world, gig and platform workers will be provided with social security benefits. All categories of workers will be provided with minimum wages.
- Financial Inclusion
- To facilitate the credit flow under Stand Up India, the margin requirements have been reduced from 25% to 15%.

4. Reinvigorating Human Capital

- 100 new Sainik Schools will be opened in partnership with NGOs/private schools/states.
- An umbrella body called the Higher Education Commission of India to be set up.
- It will have 4 separate vehicles – Standard Setting, Accreditation, Regulation and Funding.
- Govt has set up a target of setting up 750 Ekalavya model residential schools.

5. Innovation and R&D

- National Research Foundation with an outlay of Rs. 50000 Cr over 5 years has been proposed. It will ensure that the research ecosystem is strengthened.
- Rs. 1500 Cr allocated for a scheme to promote digital transactions.
- Deep Ocean Mission with an outlay of Rs. 4000 Cr over 5 years has been proposed.

6. Minimum Government, Maximum Governance

- To promote ease of doing business, the govt has proposed to set up a Conciliation Mechanism and mandate its usage for quick resolution of contractual disputes.

3.2 15TH FINANCE COMMISSION'S FINAL REPORT

- The Fifteenth Finance Commission of India have submitted its final report fir a five-year duration. The report has been submitted with the objective of transforming the financial governance of India's municipalities.

Key Highlights of the report

- The 15th FC has significantly raised its bar on financial governance of the India's municipalities in the interim report.
- The final report also maintains these four specific agendas. The four agendas include:
- The 15th FC has tried to increase the overall outlay for municipalities. It has set 29,000 crores for FY 2020-21. It has also indicated the intent to raise the share of municipalities in the total grants of local bodies from 30 per cent to 40 per cent.
- Two entry conditions have been set for any municipality in India to receive FC grants namely, the publication of audited annual accounts that would help in boosting the financial accountability and notification of floor rates for property tax that would help in raising the revenue enhancement.
- The 15th finance commission has adopted the approach of distinguishing between million-plus urban agglomerations and other cities.
- It also recommends a common digital platform for municipal accounts, a consolidated view of municipal finances and the sectoral outlays at the state level apart from digital footprint of individual transactions at source.

3.3 UDYOG MANTHAN

- It is organised by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, Udyog Manthan is a series of focused webinars on promoting quality and productivity in Indian industry.
- The webinars are supported by the National Productivity Council, Bureau of Indian Standards as well as industry chambers like CII, FICCI & ASSOCHAM.
- The webinars aim to draw in best practices and experiences of sector and industry experts to identify challenges related to quality and productivity faced by the Indian industry, with a view of solving them to promote Vocal for Local and ultimately Aatmanirbhar Bharat.
- Udyog Manthan will cover various sectors including pharma, medical devices, closed circuit camera, electronics system design and manufacturing, new and renewable energy, robotics, aerospace and defence, toys, furniture, etc.

3.4 MEGA INVESTMENT TEXTILES PARKS (MITRA) SCHEME

- Govt. announces launch of Mega Investment Textiles Parks (MITRA) scheme in the Union Budget 2021-22 to make Indian textile industry globally competitive.

About MITRA Scheme:

- The objectives behind the scheme are to enable the textile industry to become globally competitive, attract large investments, boost employment generation and exports.
- This scheme will be in addition to the PLI scheme.
- The FM announced that seven textile parks will be established over three years.

Significance:

- Such parks have already been present in nations like China and Vietnam which help give a thrust to the textile sector.
- India has been losing its competitive edge to Bangladesh and Vietnam owing to their low labour costs, wider scale of operations and the Free Trade Agreement (FTA) advantage enjoyed by them.
- With the textile sector being the second largest employment generator in the country after agriculture, the Budget announcements mean a significant step forward for the industry.
- This comes after a tumultuous year for the textile and clothing industry in 2020 which saw a spate of job losses, cancelled orders and an acute crunch of financial resources.
- Exports in the textiles and apparel industry are expected to reach \$300 billion by 2024-25 resulting in a tripling of Indian market share from 5% to 15%, as per national investment promotion and facilitation agency Invest India.
- The industry size is expected to double to \$300 bn by 2025-26, for which the 7 mega textile parks have been planned.

3.5 NATIONAL HORTICULTURE FAIR 2021

- It is a five-day event that will be organised at the Indian Institute of Horticultural Research (IIHR) campus. People from all across India will also participate the event virtually.

About National Horticulture Fair

- The theme of the National Horticulture Fair 2021 will be: 'Horticulture for Start-Up and Stand-Up India'.
- The theme seeks to encourage the farmers to become entrepreneurs.
- The fair will be organised by the Indian Council for Agricultural Research (ICAR) and Indian Institute of Horticultural Research (IIHR).
- It will be held virtually as well as offline.
- Amid the COVID-19 pandemic, the physical entry of participants is restricted to 30,000.

- Farmers will also participate in the event with the help of 721 Krishi Vijnana Kendras and 11 Agricultural Technology Application Research Institutes.
- In order for people to participate in the events, arrangements have also been made at the agricultural training centres of state governments.
- During the event, around 211 live demonstrations will be showcased.
- Through the event, the farmers can also interact with the scientists.

Indian Institute of Horticultural Research (IIHR)

- It is an autonomous organization. It is engaged in doing the basic, strategic, anticipatory and applied research on various aspects of horticulture. It is headquartered in Bengaluru, Karnataka. The institute is a subsidiary of Indian Council of Agricultural Research (ICAR). It works under the nodal head of the Ministry of Agriculture.

Horticulture

- It is a branch of agriculture that involves the intensively cultured plants which are directly used by man for food, medicinal purposes and aesthetic gratification. It involves the cultivation, production and sale of fruits, vegetables, herbs, flowers, ornamental or exotic plants. L.H. Bailey is called as the Father of American Horticulture. On the other hand, M.H. Marigowda is called as the Father of Indian Horticulture.

3.6 NCAER'S BUSINESS CONFIDENCE INDEX

- The Business Confidence Index (BCI) was recently published by the National Council of Applied Economic Research (NCAER).

Highlights

- The index has rose 29.6 per cent between second and third quarter of the financial year 2020-2021.
- It has rose in the backdrop of the COVID-19 vaccination drive in several countries including India.
- The respondents also expects that the 'overall economic conditions will improve in the next six months.
- They expect that it will be increased by 4.8 percentage points in the quarter three of the financial year 2020-2021. That is, from 29.8 per cent in the year quarter two of 2020-2021 34.6 per cent in Q3.
- They also expect that the 'financial position of firms will improve in the next six months'. There is an expectation that it will be increased by 3.1 percentage points in the quarter 3 of 2020-2021.

National Council of Applied Economic Research (NCAER)

- NCAER is a New Delhi based non-profit economic Think Tank. The NCAER do research in the field of economics. It was established in the year 1956.

3.7 INDIA'S FIRST CNG TRACTOR

- India's first-ever diesel Tractor, converted to CNG launched formally.
- Ministry: Ministry for Road Transport and Highways

Key takeaways

- The conversion will help farmers increase their income, by lowering costs, and help to create job opportunities in rural India.
- It is also reported that the retrofitted tractor produces more power/equal in comparison to Diesel-run engine.
- Overall emissions are reduced by 70% as compared to Diesel.
- It will help farmers to save up to 50% on the fuel cost.

3.8 ONE NATION ONE OMBUDSMAN

- The Reserve Bank on Friday announced it will be integrating consumer grievances redressal under a single ombudsman as against three schemes working at present.

Concept:

- There are dedicated ombudsman schemes devoted to consumer grievance redressal in banking, non-bank finance companies and digital transactions, respectively, at present.
- The RBI is targeting to roll out the e-Integrated Ombudsman Scheme in June 2021

About the Initiative

- To make the alternate dispute redress mechanism simpler and more responsive to the customers of regulated entities, it has been decided to implement, inter alia, integration of the three Ombudsman schemes and adoption of the 'One Nation One Ombudsman' approach for grievance redressal.
- The move is intended to make the process of redress of grievances easier by enabling the customers of the banks, NBFCs and non-bank issuers of prepaid payment instruments to register their complaints under the integrated scheme, with one centralised reference point.
- The RBI is targeting to roll out the e-Integrated Ombudsman Scheme in June 2021.
- Financial consumer protection has gained significant policy priority across jurisdictions and the RBI has been taking a slew of initiatives on the same.
- In line with the global initiatives on consumer protection, RBI has taken various initiatives to strengthen Grievance Redress Mechanism of regulated entities.

- The RBI had operationalised complaint management system (CMS) portal as one stop solution for alternate dispute resolution of customer complaints not resolved satisfactorily by the regulated entities.

3.9 NATIONAL E-GOVERNANCE PLAN IN AGRICULTURE (NEGPA)

- The National e-Governance Plan in Agriculture has been extended to the end of March 2021.

About the National e-Governance Plan in Agriculture:

- It is a central sponsored scheme.
- Launched in 2010 – 11 in 7 pilot states. In 2014 – 15, it was extended to the remaining states and 2 UTs.
- Scheme objective: To achieve rapid development in India through use of Information & Communication Technology (ICT) for timely access to agriculture related information to the farmers.
- Farmers can avail different services under this project through multiple channels including government offices, kiosks, Krishi Vigyan Kendras, Kisan Call Centers, Agri Clinics, Common Service Centers and web/mobile applications among others.
- Components of the programme includes the Unified Farmer Service Platform (UFSP) and the Farmers' Database.
- The UFSP will act as a central agency in the agriculture ecosystem and enable registration of service providers among others.
- The Farmers' Database is being created for better planning, monitoring, policy making, strategy formulation and smooth implementation of schemes for farmers. It will be a nationwide database with a unique ID for every farmer.

3.10 SAKSHAM PORTAL

- SAKSHAM is an acronym for Shramik Shakti Manch.
- The portal with the demand and supply data uses an algorithm and AI tools, for geospatial information on demand and availability of Shramiks, and also provides analysis on skill training programmes of Shramiks.
- It would directly connect Shramiks with MSMEs and facilitate placement of blue-collar jobs.
- The pilot portal originally initiated with two districts is now being launched as an all India portal.

Key features

- A dynamic job portal – an opportunity for Shramiks and MSMEs.
- Facilitate the creation of 10 lakh blue-collar jobs.
- Direct connect between Shramiks and MSMEs, no middleman in between.
- Minimise migration of Shramiks – job opportunity in proximate MSMEs.

3.11 MAHABAHU-BRAHMAPUTRA INITIATIVE

- The launch of Mahabahu-Brahmaputra will be marked by the inauguration of the Ro-Pax vessel operations between Neamati-Majuli Island, North Guwahati-South Guwahati and Dhubri-Hatsingimari; Shilanyas of Inland Water Transport (IWT) Terminal at Jogighopa and various tourist jetties on River Brahmaputra and launch of digital solutions for Ease-of-Doing-Business.
- The program is aimed at providing seamless connectivity to the Eastern parts of India and includes various development activities for the people living around River Brahmaputra and River Barak.
- The Ro-Pax services will help in reducing the travel time by providing connectivity between banks and thus reducing the distance to be travelled by road.
- The Ro-Pax operation between Neamati and Majuli will reduce the total distance of 420 Km currently being travelled by vehicles to only 12 Km, resulting in a substantial impact on the logistics of small-scale industries of the region.
- Two indigenously procured Ro-Pax vessels, namely, M.V. Rani Gaidinliu and M.V. Sachin Dev Burman, shall become operational. Introduction of Ro-Pax vessel M.V. J.F.R. Jacob between North and South Guwahati will reduce travelling distance of around 40 Km to a mere 3 Km.
- Introduction of M.V. Bob Khathing between Dhubri and Hatsingimari will reduce travelling distance of 220 Km to 28 Km, thus resulting in a huge saving of travel distance and time.
- The programme also includes shilanyas for construction of tourist jetties at four locations, namely, Neamati, Biswanath Ghat, Pandu and Jogighopa with the financial assistance of Rs. 9.41 crores from the Ministry of Tourism. These jetties will promote river cruise tourism, generate local employment and also generate growth for local business.
- A permanent Inland Water Transport Terminal will also be built at Jogighopa under the program, which will connect with the Multi-Modal Logistics Park also coming up at Jogighopa.
- This Terminal will help in reducing the traffic on the Siliguri Corridor towards Kolkata and Haldia.
- It will also facilitate the uninterrupted movement of cargo even during flood season to various North-Eastern States like Meghalaya and Tripura and to Bhutan and Bangladesh as well.
- Prime Minister will also launch two e-portals to further Ease of Doing Business. The Car-D (Cargo Data) portal will collate cargo and cruise data on a real time basis.
- PANI (Portal for Asset and Navigation Information) will act as a one-stop solution for providing information about river navigation and infrastructure.
- Dhubri Phulbari Bridge:
- The four lane bridge over the Brahmaputra between Dhubri (on North Bank) and Phulbari (on South Bank).

- The proposed Bridge will be located on NH-127B, originating from Srirampur on NH-27 (East-West Corridor), and terminating at Nongstoin on NH-106 in the State of Meghalaya. It will connect Dhubri in Assam to Phulbari, Tura, Rongram and Rongjeng in Meghalaya.
- The bridge, to be built with a total cost of approx 4997 Cr, will meet the long-standing demand of the people from Assam and Meghalaya who were depending on ferry services to travel between the two banks of the river.
- It will reduce the distance of 205 Km to be travelled by Road to 19 Km, which is the total length of the bridge.
- Majuli Bridge:
 - The two-lane Bridge on the Brahmaputra between Majuli (North Bank) and Jorhat (South Bank).
 - The bridge will be located on NH-715K and will connect Neematighat (on Jorhat side) and Kamalabari (on Majuli side).
 - The Construction of the bridge has been a long demand of the people of Majuli who for generations have been dependent on the ferry services to connect with the mainland of Assam.

3.12CECPA BETWEEN INDIA AND MAURITIUS

- Cabinet approved the Comprehensive Economic Cooperation and Partnership Agreement (CECPA) between India and Mauritius which is aimed at liberalising trade between the two countries.

About the agreement

- Kind of a free trade agreement: CECPA, similar to FTA, will cover 310 export items for India, including foodstuff and beverages, agricultural products, textile, base metals, Electricals and electronic items, plastics and chemicals, etc.
- Includes Trade and Services: In such agreements, the two trading partners cut or eliminate duties on a host of products besides liberalising norms to promote services trade.
- Covers all aspects: It will cover trade in goods, rules of origin, trade in services, Technical Barriers to Trade like Sanitary and Phytosanitary (SPS) measures, dispute settlement, movement of natural persons, telecom, financial services, customs procedures and cooperation in other areas.
- Mauritius will benefit from preferential market access into India for 615 products, including frozen fish, speciality sugar, biscuits, fresh fruits, juices, mineral water, beer, alcoholic drinks, soaps, bags, medical and surgical equipment, and apparel.
- This instance will be India's first such trade pact with an African nation.

Economic Relationship between India and Mauritius

- Bilateral trade between the countries had dipped to \$690 million in 2019-20 from \$1.2 billion in 2018-19.

- While India's exports in 2019-20 aggregated to \$662 million, imports stood at just \$27.89 million.
- Mauritius imports petroleum products, pharmaceuticals, cereals, cotton, electrical machinery, apparel and clothing accessories, while India's imports include iron and steel, pearls, precious/semi-precious stones, etc.
- Mauritius was also the second largest source of foreign direct investment into India in 2019-20, accounting for around \$8.24 billion (about Rs 57,785 crore) for the year.

3.13 'GO ELECTRIC' CAMPAIGN

- "Go Electric" Campaign was launched recently.
- Ministry: Union Ministry for Road Transport & Highways
- Objective: To spread awareness on the benefits of e-mobility and EV Charging Infrastructure and electric cooking in India.

Key takeaways

- The campaign would help in reducing the import dependence.
- It would be an important step towards a cleaner and greener future.
- It will also boost the confidence of Electric Vehicle manufacturers.
- Electric fuel is a major alternative for fossil fuels.
- These fuels have an import bill of Rs. 8 lakh Crore.
- The electric fuel has low cost, reduced emissions.
- It is also indigenous.

3.14 'KALA NAMAK' RICE EXPORT TO SINGAPORE

- Uttar Pradesh is set to send a consignment of 20 tonnes of Buddha Rice, popularly known as "Kala Namak" Rice, one of the finest varieties of aromatic rice in India, to Singapore soon. The consignment will be sent to Singapore from Siddharth Nagar by the end of March this year. The rice is being packaged in attractive glass jars with all its qualities clearly mentioned on it.



About

- Also known as 'Buddha ka Mahaprasad' (an offering to Lord Buddha), the Kala Namak Rice has been rebranded as 'Buddha Rice', presenting it as an offering made to the Buddhist monks, in order to promote it in Buddhist countries.
- The packaging of the rice carries a popular quote of Mahatma Buddha saying 'The unique aroma of the rice will remind people about me'.
- The export of the rice is being seen as a morale booster for farmers cultivating Buddha Rice in Gorakhpur, Deoria, Kushinagar, Maharajganj, Siddharth Nagar, Sant Kabeer Nagar, Bahraich, Balrampur, Gonda, Shravasti, which according to the Geographical Indications (GI) share a similar climate.
- In order to promote the production, processing, packaging, and branding of Kala Namak Rice, the UP Government has declared it as the One District One Product (ODOP) of Siddharth Nagar whereas the Central Government has announced it as the ODOP of Basti, Gorakhpur, Maharajganj and Sant Kabir Nagar as well.
- The historically Kala Namak Rice was grown at Bajaha Village in Siddharth Nagar district during the period of Mahatma Buddha.
- Meanwhile, a Kala Namak Rice festival on the pattern of Strawberry Festival will be held in the state in near future.
- There is also a plan to set up a Kala Namak Rice Research Centre at Siddharth Nagar in cooperation with the International Rice Research Centre, Varanasi.

3.15 INDIA INTERNATIONAL SILK FAIR

- Union Textiles Minister inaugurates 8th India International Silk Fair on a virtual portal.

About the India International Silk Fair:

- Considered to be India's biggest silk fair, the India International Silk Fair is the Sourcing Fair for silk and silk blend products organised by the Indian Silk Export Promotion Council under the aegis of the Ministry of Textiles and sponsored by the Department of Commerce.

Indian Silk Export Promotion Council:

- The Indian Silk Export Promotion Council (ISEPC) was set up in 1983 as a company not for profit under the Companies Act duly sponsored by the Government of India in the Ministry of Textiles.
- ISEPC works closely with the Government of India on policy formulation concerning the silk sector and provides specialized services to the entrepreneurs enlarging global business opportunities for the silk industry in India.

Main activities:

- Explore markets and identify items offering export potential by conducting market surveys.

- Establish contacts with prospective buyers to generate their interest in Indian Silk products.
- Sponsor trade delegation, study teams and sales teams to various markets abroad.
- Organize Buyer Seller Meets for its member exporters.
- Organize Silk fairs and exhibitions in India.
- Participate in trade fairs and exhibitions abroad.
- Resolve trade disputes.
- Launch generic promotion of silk products from India.
- Organize Workshops/Seminars on various trade and policy-related issues.
- ISEPC is based in New Delhi.

Background:

- India has a long history of silk production and is the 2nd-largest producer of Silk.
- India is the only country in the world which produces all the four major varieties of silk i.e. Mulberry, Eri, Tassar, and Muga.
- It also has large varieties of products to offer i.e. garments, fabrics and sarees, made-ups, carpets, hi-fashion silk apparels, gift items, scarves, stoles, home furnishing, curtains, etc.
- India has around 11 Geographical Indications (GI) such as Pochampally Ikat, Chanderpaul Silk, Mysore Silk, Kanchipuram Silk, Muga Silk, Salem Silk, Arni Silk, Champa Silk, Bhagalpur Silk, Banaras Brocade and Sarees, etc.

3.16 KRITAGYA

- It is a national level hackathon being organised by the Indian Council of Agricultural Research (ICAR).
- It aims to promote innovation in agriculture and allied sectors in the country.
- It also provides an opportunity to the students along with faculties, innovators for showcasing their innovative approaches & technologies in agriculture and allied sectors.
- KRI-TA-GYA explains, KRI for Krishi (Agriculture), TA for Taknik (Technology) and GYA for Gyan (Knowledge).

3.17 MFIS: DIGITAL AND PHYSICAL MICRO-LENDING

- Micro-lending is in the news again for two reasons – first is related to Assam and the second is related to Digital Micro Lending.
- What is microfinance?
- Microfinance is a basis of financial services for entrepreneurs and small businesses deficient in contact with banking and associated services.
- The two key systems for the release of financial services to such customers include ‘relationship-based banking’ for individual entrepreneurs and small businesses along with ‘group-based

models' where several entrepreneurs come together to apply for loans and other services as a group.

- The interest rates charged by microfinance institutes (MFIs) are lower than those charged by normal banks.
- Usually, their area of operations of extending small loans are rural areas and among low-income people in urban areas.
- The model had its genesis as a poverty alleviation tool, focused on economic and social upliftment of the marginalised sections through lending of small amounts of money without any collateral to women for income-generating activities
- Lack of security and high operating costs are some of the major limitations faced by the banks while providing loans to poor people. These limitations led to the development of microfinance in India as an alternative to provide loans to the poor with an aim to create financial inclusion and equality.
- MFIs act as supplements to Banks as they not only offer micro credit but they also provide other financial services like savings, insurance, remittance and non-financial services like individual counseling, training and support to start own business etc.

Salient Features of Microfinance

- Borrowers are from the low income group
- Loans are of small amount – micro loans
- Short duration loans
- Loans are offered without collaterals
- High frequency of repayment
- Loans are generally taken for income generation purpose

Microfinance in India

- SEWA Cooperative Bank was initiated in 1974 in Ahmedabad, Gujarat, by Ela Bhatt which is now one of the first modern-day microfinance institutions of the country.
- MFIs in India exist as NGOs (registered as societies or trusts), Section 25 companies and Non-Banking Financial Companies (NBFCs).
- The National Bank for Agriculture and Rural Development (NABARD) offered financial services to the unbanked people, especially women and later decided to experiment with a very different model, which is now popularly known as Self-help Groups (SHGs).
- Commercial Banks, Regional Rural Banks (RRBs), cooperative societies and other large lenders have played an important role in providing refinance facility to MFIs.

- Banks have also leveraged the Self-Help Group (SHGs) channel to provide direct credit to group borrowers.

What is the issue of MFI in Assam?

- Assam government passed a bill which barred micro-finance institutions (MFIs) from lending to vulnerable sections of society. It was a response to a backlash against MFIs.
- A large number of borrowers working in tea plantations had taken loans from MFIs. RBI noted that the economic slowdown in tea plantations and anti-Citizenship (Amendment) Act disruptions led to rise in the delinquencies.
- MFIs started sending collectors for recoveries to the borrowers, leading first to the backlash and then the political response in terms of the bill.
- In 2010, the Andhra Pradesh government also passed similar legislation like the one in Assam against MFIs leading to a crisis in the industry.
- Though the scale of lending is lesser in Assam and is unlikely to drive MFIs to a crisis, finance is not about scale alone but interconnectedness of the players.

What is the issue with Digital Micro-lending?

- Digital lending platforms have mushroomed and there are criticisms of high interest rates, hidden charges, unacceptable recovery methods and misuse of data of borrowers.
- RBI expressed caution against digital lending platforms and constituted a working group to study both regulated and unregulated digital lending so that an appropriate regulatory approach can be put in place.
- Fintechs will soon be criticised for being Shylocks and loan sharks. Pre-2008 crisis, financiers were the cynosure of all eyes and post-crisis they were branded as devils of the game.

3.18 POWER SECTOR REFORMS

- Andhra Pradesh has become the second state to undertake the power sector reforms stipulated by the Department of Expenditure, Ministry of Finance.
- As part of the reforms, the state has started Direct Benefit Transfer (DBT) of electricity subsidy to farmers with effect from September 2020.
- Thus, the state has successfully implemented one out of the three stipulated reforms in the power sector.
- Due to the successful implementation of the reform, the Dept. of Expenditure has given permission to the state to raise additional borrowing of Rs. 1,515 crore.
- Andhra Pradesh is the second state to undertake power sector reforms after Madhya Pradesh.

Significance:

- Power Sector reforms stipulated by the Ministry of Finance aim at creating a transparent and hassle free provision of power subsidy to farmers and prevent leakages.
- They also aim at improving the health of power distribution companies by alleviating their liquidity stress in a sustainable manner.
- As per the guidelines, the states undertaking reforms in power sector are granted permission to raise additional financial resources of up to 0.25 percent of the GSDP.
- This is linked to a set of 3 reforms in the sector:
- 05 % of GSDP for reduction in Aggregate Technical & Commercial losses in the state as per prescribed targets.
- Another 0.05 % of GSDP is allowed for reduction in the gap between Average Cost of Supply and Average Revenue Realisation (ACS-ARR gap) in the state as per prescribed targets.
- Finally, 0.15 % of GSDP of the state on introduction of Direct Benefit Transfer (DBT) to all farmers in the state in lieu of free/subsidised electricity. For this, the state government has to frame a scheme for transfer of cash and implement the scheme in at least one district by 31st December 2020.
- Andhra Pradesh has implemented the scheme from Sep 2020 in Srikakulam District and plans to roll out in the entire state from April 2021.

Background:

- To meet the challenges posed by the pandemic, GOI had enhanced the borrowing limit of the states by 2 percent of their GSDP.
- Half of this special dispensation was linked to undertaking citizen centric reforms by the states.
- The four citizen centric areas for reforms identified were:
- Implementation of One Nation One Ration Card System (done by 12 states)
- Ease of doing business reform (done by 11 states)
- Urban Local body/utility reforms (done by 5 states)
- Power sector reforms (done by 2 states)

3.19PER DROP MORE CROP

- The Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) is implementing a Centrally Sponsored Scheme of 'Per Drop More Crop' component of 'Pradhan Mantri Krishi Sinchayee Yojana (PMKSY-PDMC)' from 2015-16 in all the States of the country.

Highlights

- It focuses on enhancing water use efficiency at farm level through Micro Irrigation viz. Drip and Sprinkler irrigation systems.

- Besides promoting Micro Irrigation, this component also supports micro level water storage or water conservation/management activities to supplement source creation for Micro Irrigation.
- Efforts are being made to converge 'Per Drop More Crop' Scheme with Atal Bhujal Yojana (ABHY), Namami Gange Districts, Pradhan Mantri Kisan Urja Surakshaevem Utthan Mahabhiyan (PM-KUSUM), Water Harvesting Structures through Watershed Development component of PMKSY to propagate micro irrigation intensively
- With a view to provide impetus to the Micro Irrigation in the country, the Micro Irrigation Fund (MIF) with a corpus of Rs. 5000 Crore was created with NABARD during 2018-19.
- The Government provides 3% interest subvention on loans extended to State Govt. under MIF.

Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)

- PMKSY is a centrally sponsored scheme launched in 2015.
- Motto: Har Khet Ko Paani
- Objectives:

(1) To expand cultivated areas with assured irrigation, reduce wastage of water and improve water use efficiency

(2) To create protective irrigation by harnessing rainwater at micro level

(3) To enhance recharge of aquifers.

3.20 ONE-PERSON COMPANIES

- In the Budget speech, Union Finance announced measures to ease norms on setting up one-person companies (OPCs).

What is an one-person company?

- As the name suggests, an one-person company is a company that can be formed by just one person as a shareholder.
- These companies can be contrasted with private companies, which require a minimum of two members to get going.
- However, for all practical purposes, these are like private companies.
- However, the regulatory procedures for single-person company is much more simplified in comparison to a normal company
- It is not as if there was no scope for an individual with aspirations in business prior to the introduction of OPC as a concept.
- As an individual, a person could get into business through a sole proprietorship mode, and this is a path that is still available.

What is the difference between single-person and sole proprietorship company?

- A single-person company and sole proprietorship differ significantly in how they are perceived in the eyes of law.
- For single-person company, the person and the company are considered separate legal entities.
- In sole proprietorship, the owner and the business are considered the same.
- This has an important implication when it comes to the liability of the individual member or owner. In a one-person company, the sole owner's liability is limited to that person's investment.
- In a sole proprietorship set-up, however, the owner has unlimited liability as they are not considered different legal entities.

What has changed for these companies with the new measures in this year's Budget?

- One of the measures that the Finance Minister has announced in the Budget pertains to the removal of restrictions on paid-up capital and turnover.
- The 2014 rule, which stated that a one-person company would cease to have that status once its paid-up share capital exceeds Rs. 50 lakh or its average turnover for the preceding three years exceeds Rs. 2 crore, has been lifted.
- The proposals also include, "reducing the residency limit for an Indian citizen to set up an OPC from 182 days to 120 days and also allow non-resident Indians (NRIs) to incorporate OPCs in India." Earlier, only an Indian citizen and an Indian resident could start a single-person company.
- These changes come alongside a proposal to increase the capital base and turnover threshold for companies that can be classified as 'small', which means they can enjoy easy compliance requirements a bit longer.
- The capital base limit has been increased from Rs.50 lakh to Rs. 2 crore, and the turnover limit has been increased from Rs. 2 Crore to Rs. 20 Crore.

3.21 NAI ROSHNI

- "Nai Roshni", a scheme for Leadership Development of Minority Women is being implemented across India the Ministry of Minority affairs .

Key takeaways

- Aim: To empower and instill confidence in women by providing knowledge, tools, and techniques for interacting with Government systems, banks, and other institutions at all levels.
- This includes empowerment of the trainee women so that they become independent and confident members of society.
- The scheme provides for six days training programme followed by handholding for one year.
- The training covers issues relating to women viz. The leadership of Women through participation in decision making, Educational Programmes for women, Health and Hygiene, Legal rights of

women, Financial Literacy, Digital Literacy, Swachh Bharat, Life Skills, and Advocacy for Social and Behavioural change.

- The Scheme is being implemented through NGOs enrolled under the Nai Roshni Scheme.
- In Seekho Aur Kamao (Learn & Earn) Scheme, 33% of the total beneficiaries are women.
- Similarly in the Nai Manzil scheme, 30% of the total beneficiaries are women.
- These schemes help in the economic empowerment of the Minority women.

3.22 NATIONAL AYUSH MISSION (NAM)

- Central Government is implementing Centrally Sponsored Scheme of National AYUSH Mission (NAM) through States/UTs for development and promotion of AYUSH systems of medicine including Ayurvedic system.

Key takeaways

- The Mission inter-alia makes the following provisions for the promotion of AYUSH systems including the Ayurvedic system:
- Co-location of AYUSH facilities at Primary Health Centers (PHCs), Community Health Centers (CHCs), and District Hospitals (DHs).
- Up-gradation of exclusive State Government AYUSH Hospitals and Dispensaries.
- Setting up of up to 50 bedded integrated AYUSH Hospital.
- Upgradation of State Government Under-Graduate and Post-Graduate Educational Institutions.
- Setting up of new State Government AYUSH Educational Institutions in the States where it is not available in Government Sector.
- Strengthening of State Government/State Government Co-operatives/PSUs for manufacturing of quality medicines in AYUSH Systems.
- Strengthening of State Drug Testing Laboratories
- Support for the cultivation of Medicinal Plant including processing and post-harvest management to ensure supply of quality raw material for AYUSH medicine and other products.

3.23 NATIONAL RESEARCH CENTRE FOR MAKHANA



- ICAR-National Research Centre (NRC) for Makhana, Darbhanga (Bihar) was sanctioned by the Department of Agricultural Research & Education, Govt. of India, as a new scheme during the 9th Five Year Plan period (1997–2002) for Conservation, Research & Development of the Makhana crop.
- However, during the 10th plan period (2002-2007), the NRC for Makhana was merged and brought under the administrative control of ICAR-Research Complex for Eastern Region (RCER), Patna, without changing the mandate.
- Darbhanga in particular and Mithila, in general, is the major Makhana producing region in the country.
- In India, makhana cultivation takes place mainly in West Bengal, Bihar, Manipur, Tripura, Assam, Madhya Pradesh, Rajasthan, and UP.
- But, Bihar alone is the largest producer of Makhana with 90 percent of overall production across the world.
- It belongs to the Nymphaeaceae family.
- It is a perennial plant.
- It grows in stagnant water like ponds, swamps, and wetlands in the tropical climatic areas very much similar to the lotus.

3.24 MIGRATION COMMISSION

- NITI Aayog has constituted a sub-group to prepare a National Action Plan for Migrant Workers.
- The sub-group comprises members from various ministries of the Govt. of India, subject experts, NGOs and civil society organisations, to prepare a tangible action plan to address issues related to migrant workers.

Background:

- In order to safeguard the interest of the migrant workers, the Central Government had enacted the Inter-state Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.
- This Act has now been subsumed in the Occupational Safety, Health and Working Conditions Code, 2020 and the Code has been notified on 29.09.2020.
- The above mentioned code, commonly known as OSH Code, provides for decent working conditions, minimum wages, grievances redressal mechanisms, protection from abuse and exploitation, enhancement of the skills and social security to all category of organised and unorganised workers including Migrant workers.
- The Code is applicable to every establishment in which 10 or more inter-state migrant workers are employed or were employed on any day of the preceding 12 months.

3.25 14 NEW MINOR FOREST PRODUCE ITEMS INCLUDED UNDER MSP SCHEME

- The government has decided to include 14 new minor forest produce items under the mechanism for marketing of minor forest produce through a minimum support price scheme.

- Newly included items are Tasar Cocoon, elephant apple dry, bamboo shoot, malkangani seed and wild dry mushroom among others.

About the Scheme:

- The Central government had introduced a minimum support price for a selected list of minor produce items through mechanism for marketing of Minor Forest Produce through Minimum Support price and development of Value Chain of MFP Scheme in 2011.
- It aims to provide a social safety net to these underprivileged forest dwellers, and to aid in their empowerment.

Implementation:

- The responsibility of purchasing MFP on MSP will be with State designated agencies.
- To ascertain market price, services of market correspondents would be availed by the designated agencies particularly for major markets trading in MFP.
- The scheme supports primary value addition as well as provides for supply chain infrastructure like cold storage, warehouses etc.
- The Ministry of Tribal Affairs will be the nodal Ministry for implementation and monitoring of the scheme. The Minimum Support Price would be determined by the Ministry with technical help of TRIFED.

What is MFP?

- Section 2(i) of the Forest Rights Act defines a Minor Forest Produce (MFP) as all non-timber forest produce of plant origin and includes bamboo, brushwood, stumps, canes, cocoon, honey, waxes, Lac, tendu/kendu leaves, medicinal plants etc.

3.26 ARBITRATION AND CONCILIATION (AMENDMENT) BILL 2021

- Arbitration and Conciliation (Amendment) Bill 2021 was passed recently in the Lok Sabha.

Key highlights

- It seeks to amend the Arbitration and Conciliation Act, 1996.
- It contains provisions to deal with domestic and international arbitration.
- It defines the law for conducting conciliation proceedings.
- It specifies that a stay on the arbitral award can be provided if the court is satisfied that the relevant arbitration agreement was induced by fraud or corruption.
- This change will be effective from October 23, 2015
- It removes the Schedule for arbitrators.
- The qualifications, experience, and norms for accreditation of arbitrations will be specified under the regulations.

4. ENVIRONMENT

4.1 CENTRE FOR WETLAND CONSERVATION AND MANAGEMENT

- On the occasion of the World Wetland Day and as a part of its commitment towards conservation, restoration and management of India's wetlands, the Minister of State for Environment, Forest and Climate Change, Sh. Babul Supriyo announced the establishment of a Centre for Wetland Conservation and Management (CWCM), as a part of the National Centre for Sustainable Coastal Management (NCSCM), Chennai, an institution under the Ministry.
- This Centre for Wetland Conservation and Management will be set in a bid to address the knowledge gaps and specific research needs for the conservation and management of wetlands.
- This conservation centre would be a part of the National Centre for Sustainable Coastal Management. This national centre is an institution under the Ministry of Environment, Forests and Climate Change.
- The CWCM will play a significant role to design and implement the regulatory frameworks and policies. It will also help in monitoring, management planning and targeted research in a bid to conserve the wetlands.
- The conservation centre will also act as a knowledge hub.
- It will enable the exchange between the wetland authorities in States or Union Territories, managers, wetland researchers, practitioners, policy-makers and users.
- The centre will further help in building the networks and partnerships with the relevant international and national agencies.

What are wetlands?

- Wetlands are a distinct ecosystem that are flooded by water. They are flooded either permanently or seasonally. In such ecosystems, oxygen-free processes prevail. Wetlands help in water purification, water storage, processing of carbon and the stabilization of shorelines. It also provides support to the plants and animals. They are the most biologically diverse of all ecosystems. They occur naturally on every continent and the water in them can be either freshwater, brackish, or saltwater.

Wetlands in India

- India has 42 Ramsar sites that have been designated as Wetlands of International Importance. They cover around 4.6% of Indian landmass.

World Wetlands Day

- In a bid to conserve the wetlands, February 2 is observed as World Wetlands Day. In the year 2021, the day marked the 50th anniversary of the signing of the Ramsar Convention on Wetlands. This convention was signed at Ramsar in Iran in the year 1971.

4.2 **THUNDERSTORM RESEARCH TESTBED**

- The Thunderstorm Research Testbed is being established with the objective to minimize the human fatalities and loss of property because of the lightning strikes.
 - The Thunderstorm testbed will be established in a collaboration among the Defence Research and Development Organisation (DRDO), Ministry of Earth Sciences, Indian Space Research Organisation (ISRO) and India Meteorological Department (IMD).
 - All of these organisations have established their units in Balasore.
 - The observatories will be set up to cater to the adjoining areas.
 - The testbed would be conducting the studies on thunderstorms.
 - The testbed will comprise of several observational networks, radar, auto-station, a full-fledged observatory, a wind profiler and a microwave radiometer.

India Meteorological Department (IMD)

- IMD was established in the year 1875. It is an agency which is responsible for weather forecasting, meteorological observations, and seismology. The agency works under the Ministry of Earth Sciences. The headquarter of IMD is in Delhi.

4.3 **CHAMOLI DISASTER**

- A massive glacier burst at Chamoli in Uttarakhand has yet again brought back our focus to the dangers of climate change. At least 58 people are confirmed to have been killed and more than 150 are missing.

Background

- The flash flood began on 7 February 2021 in the environs of the Nanda Devi National Park in the outer Garhwal Himalayas in Uttarakhand.
- It is believed to have been caused by a landslide, an avalanche or a glacial lake outburst flood.
- It has caused flooding in the Chamoli district, most notably in the Rishiganga River, the Dhauliganga River, and in turn the Alaknanda the major headstream of the Ganges.

What is Glacial Lake Outburst Flood (GLOF)?

- A GLOF is a type of outburst flood that occurs when the dam containing a glacial lake fails.
- An event similar to a GLOF, where a body of water contained by a glacier melts or overflows the glacier, is called a jökulhlaup.
- The dam can consist of glacier ice or a terminal moraine.
- Failure can happen due to various factors such as:
 - Erosion, a buildup of water pressure
 - Avalanche of rock or heavy snow
 - Earthquake or volcanic eruptions under the ice or

- Displacement of water in a glacial lake when a large portion of an adjacent glacier collapses into it.

Possible causes**(A) Avalanche**

- An avalanche is falling masses of snow and ice which gathers pace as it comes down the slope.
- It is often caused by erosion or small tremors of earthquakes.
- But an avalanche is unlikely to result in the rise of water of that magnitude what Chamoli witnessed.

(B) Cloudburst

- What happened in Uttarakhand in 2013 was a multi-day cloudburst.
- It is a sudden, very heavy rainfall accompanied by a thunderstorm. But it generally happens in monsoon.
- In fact, the season in which such a disaster was witnessed has surprised experts as there is no immediate trigger that can be pointed to as the reason why water level rose to that level washing away two hydro projects.

(C) Water pockets

- Satellite images do not show a glacial lake near the region, but there's a possibility there may be a water pocket in the region.
- Water pockets are lakes inside the glaciers, which may have erupted leading to this event.

4.4 INDIA'S FIRST GEOTHERMAL PROJECT

- A step towards achieving the goal of carbon neutral-Ladakh, a historic tripartite agreement was signed on 6th February, between Union Territory Administration Ladakh, Ladakh Autonomous Hill Development Council-Leh and Oil and Natural Gas Corporation (ONGC) Energy Centre.

What is Geothermal Energy?

- Thermal Energy is the energy that determines the temperature of the matter.
- Geothermal energy is present in the rocks and fluids beneath the earth.
- It is also found in the shallow ground to several miles below the surface of the Earth reaching upto Magma.

How is geothermal energy produced?

- To produce the geothermally generated electricity, wells, 1.6 kilometres deep or more holes are drilled into underground reservoirs.
- These wells tap steam and hot water to drive the turbines. The turbines are in turn linked to electricity generators.
- The geothermal electricity production was done in Larderello Italy in 1904.

Benefits of the project:

- It would be providing round the clock power supply in the territory
- Hot water from the spring would come handy for space heating
- Establishing hot swimming pools would be good as a tourist attraction
- Ladakh would be self-sustaining economy and it would emphasize the Government's Vocal for Local calls.
- Establishment of this kind of plant would open new work avenues for locals.
- The renewed focus is on the perpetual form of energy as it is considered to be extremely environment friendly and would lead to a carbon-neutral Ladakh.

4.5 OLIVE RIDLEY TURTLES

- The mass nesting of the Olive Ridley turtles has finally began in Puducherry coastline. Though, the traditional migration season of the turtles has delayed possibly due to climate change or change in the climatic conditions because of the influence of Cyclones Nivar and Burevi. Now, the female Olive Ridley turtles are leaving hundreds of eggs at nesting spots. Puducherry coastline is among the migratory route to Odisha which are used by these turtles.
 - The Olive Ridley sea turtle is the most abundant of all sea turtles found in the world.
 - It is found in warm and tropical waters, primarily in the Pacific and Indian Oceans.
 - It is best known for their unique mass nesting called arribada, where thousands of females come together on the same beach to lay eggs.
 - IUCN status: Vulnerable

Five species of sea turtles are known to inhabit Indian coastal waters and islands.

- 1.Olive Ridley turtle
- 2.Green turtle
- 3.Hawksbill turtle
- 4.Loggerhead turtle
- 5.Leatherback turtle

Except the Loggerhead, the remaining four species nest along the Indian coast.

4.6 MASS MIGRATION OF BLUE EARTHWORMS IN MEGHALAYA

- For the first time a report has been prepared on the two –way mass migration of blue earthworms in the Mawlyngot area of Meghalaya. The report has been prepared by Zoological Survey of India.

Highlights:

- The blue earthworms, measuring up to 1.6 feet in length, migrate up and down to 300 metres in the East Khasi Hills of the state.

- The blue earthworms migrate twice annually — uphill in spring and downhill in autumn on inclines of up to 80-85 degrees to evade environmental factors that affect them.
- Uphill migration of the earthworms starts in April-May. With the onset of monsoon, they emerge from the rivers and streams.
- Downhill migration occurs during September-October when the vegetation starts to dry and temperature & humidity drop.
- The locals in the state beat them when they observe these earthworms.
- Earthworms play a major role in enhancing the fertility of soil.
- Further, it helps in shifting the locals to ecologically sustainable organic farming.
- The population has been dwindling in areas where human interference in the form of stone quarrying and earth-cutting has increased.
- Factors like developmental activities, predation, erratic weather patterns and climate change pose risks to successful migrations of earthworms.

About Blue Earthworm:

- The scientific name of the blue earthworm is *Perionyx excavates*.
- It is also called as composting worms, blues, or Indian blues.
- The species is known for its ability to create the fine worm castings so quick.
- The species have become popular in North America recently where it is used for composting purposes.
- Scientists believe that its origins are in the Himalayan mountains.
- It is also suited for vermicomposting in tropical and subtropical regions.

4.7 THE US OFFICIALLY REJOINS THE PARIS CLIMATE AGREEMENT

- The United States of America officially re-joined the Paris Agreement. President Donald Trump famously left the accord in July 2017. After Joe Biden won the US 2020 presidential election, with tackling climate change a big part of his presidential campaign, he vowed to re-join.

Paris Agreement

- Paris Agreement is an international agreement to combat climate change.
- From 30 November to 11 December 2015, the governments of 195 nations gathered in Paris, France, and discussed a possible new global agreement on climate change, aimed at reducing global greenhouse gas emissions and thus reduce the threat of dangerous climate change.

Aims of Paris Agreement

- As countries around the world recognized that climate change is a reality, they came together to sign a historic deal to combat climate change – Paris Agreement.

The aims of Paris Agreement is as below:

- Keep the global temperature rise this century well below 2 degrees Celsius above the pre-industrial level.
- Pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.
- Strengthen the ability of countries to deal with the impacts of climate change.

Nationally Determined Contributions (NDC)

- The national pledges by countries to cut emissions are voluntary.
- The Paris Agreement requires all Parties to put forward their best efforts through “nationally determined contributions” (NDCs) and to strengthen these efforts in the years ahead.
- This includes requirements that all Parties report regularly on their emissions and on their implementation efforts.
- In 2018, Parties will take stock of the collective efforts in relation to progress towards the goal set in the Paris Agreement.
- There will also be a global stock take every 5 years to assess the collective progress towards achieving the purpose of the Agreement and to inform further individual actions by Parties.

India’s Intended Nationally Determined Contribution (INDC)

- 1. India’s INDC include a reduction in the emissions intensity of its GDP by 33 to 35 per cent by 2030 from 2005 level.
- 2. India has also pledged to create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.
- 3. India will anchor a global solar alliance, INSPA (International Agency for Solar Policy & Application), of all countries located in between Tropic of Cancer and Tropic of Capricorn.

4.8 ELEPHANT DEATHS IN ODISHA

- A Central team set up by the Ministry of Environment, Forests and Climate Change to look in to the death of six elephants in the Karlapat Wildlife Sanctuary in Kalahandi in January and February has in its preliminary report pointed to a disease, Haemorrhagic Septicemia, caused by a bacteria called *Pasteurella multocida*.
- Two cattle were also found dead in the sanctuary. The Central team found another elephant’s body during its visit to the site — all the deaths were reported near water bodies and all the pachyderms were females part of a herd of nine elephants.

How bacteria caused disease?

- *Pasteurella multocida* are bacteria found commonly in the respiratory tract of herbivores, especially in cattle. The bacteria rapidly multiply and move from the respiratory tract to the bloodstream only when the animal’s body faces stress, has low immunity or is unhealthy — as was the case with the

cattle in Tentulipada village in Kalahandi district. This causes diarrhoea and often haemorrhagic septicemia, which can be fatal.

4.9 NEW ALPINE PLANT SPECIES DISCOVERED IN ARUNACHAL PRADESH

- A new species of alpine plant in Arunachal Pradesh's Tawang district has been discovered by a group of scientists of three institutes of the country, according to a paper published in Biodiversitas: Journal of Biological Diversity.
- "It is named as *Cremanthodium indicum*, and the plant species which generally flowers from July to August, is endemic to Penga-Teng Tso Lake of Tawang District.
- The alpine plant species is assessed as critically endangered, according to the IUCN guidelines.
- "It is a perennial herb and stands 16–24 cm tall. *Cremanthodium indica* grows in boggy soil among mosses along the banks of alpine lake," adds the paper.

4.10 BANGLADESH BANS ALL KNOWN VULTURE-TOXIC DRUGS

- Bangladesh has become the first country that has banned the painkiller ketoprofen. This painkiller is used widely to treat the cattle. But this painkiller is toxic to vultures.
- Earlier, veterinary diclofenac was also banned some 10 years ago.
- This is a landmark move to save the remaining population of globally threatened vultures.
- Experts says, similar steps need to be taken by India, Pakistan, Nepal and Cambodia in order to save the population of vultures.

Why this ban?

- The Saving Asia's Vultures from Extinction (SAVE) report states that ketoprofen is now widely used as a main anti-inflammatory drug by vets in Bangladesh. But, Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) such as diclofenac and ketoprofen are a major threat to vultures of South Asia. These drugs led to the catastrophic 99.9 per cent declines of white-rumped vultures in this region.
- Indian government had banned the use of diclofenac for veterinary purpose in the year 2006. However, this step is not that effective since there are other toxic drugs are in use.

About Indian Vultures

- The scientific name of the vulture is *Gyps indicus*. This vulture is native to India, Pakistan and Nepal. It breeds in the hilly regions of central and peninsular India. Population of three out of nine Indian species of vultures namely – white-rumped vulture, long-billed vulture and the slender-billed vulture, have declined by 90 percent during the mid-1990s. This vulture had been listed since 2002 as Critically Endangered on the IUCN Red List.

4.11 CENTRAL RESEARCH INSTITUTE FOR SOYABEAN

- The Union Minister of Agriculture informed Rajya Sabha about the setting up a Central Research Institute in Kalahandi for Soyabean.

Key takeaways

- The Kalahandi district of Odisha produces Soybean on a very limited scale.
- The ICAR has established a national-level research Institute on Soybean in 1987 namely, ICAR-Indian Institute of Soybean Research, Indore (Madhya Pradesh) to conduct basic and strategic research on the crop.
- Besides this, ICAR is also implementing an All India Coordinated Research Project (AICRP) on Soybean since 1967 in association with the State Agricultural Universities (SAUs) to develop location-specific high yielding varieties and production technologies required to increase Soybean production in the country.
- The ICAR-AICRP on Soybean has one voluntary center at Regional Research & Technology Transfer Station, Bhawanipatna (Kalahandi) under the Odisha University of Agriculture & Technology, Bhubaneswar.
- This station is undertaking need-based and location-specific research on Soybean for hot & moist sub-humid climate of Odisha comprising of Kalahandi, Bolangir, and Koraput.

Important value additions

- The soybean or soya bean (*Glycine max*) is a species of legume native to East Asia, widely grown for its edible bean.
- Traditional unfermented food uses of soybeans include soy milk, from which tofu and tofu skin are made.
- Soybeans contain significant amounts of phytic acid, dietary minerals, and B vitamins.
- Soy vegetable oil, used in the food and industrial applications, is another product of processing the soybean crop.
- Soybean is the most important protein source for feed farm animals, which in turn, yields animal protein for human consumption.
- Cultivation conditions: Climates with hot summers, with optimum growing conditions in mean temperatures of 20 to 30 °C; temperatures of below 20 °C and over 40 °C stunt growth significantly.
- They can grow in a wide range of soils, with optimum growth in moist alluvial soils with good organic content.
- Soybeans, like most legumes, perform nitrogen fixation by establishing a symbiotic relationship with the bacterium *Bradyrhizobium japonicum*.

4.12 WORLD'S SMALLEST REPTILE

- A chameleon discovered in Madagascar by scientists from Germany and Madagascar may be the world's smallest adult reptile.
- The discovery has been reported in the journal Scientific Reports.

Key takeaways

- The team found one male and one female of the species, named *Brookesia nana*, during an expedition in 2012.
- The male has a length (snout to vent) of 13.5 mm and a total length of 21.6 mm when the tail is included.
- Previously, the chameleon species *Brookesia Micra* was thought to be the smallest.
- The longest, the reticulated python, at 6.25 m is almost as long as 289 *Brookesia nanas*.
- Madagascar is home to tiny lizards and also the smallest species of snakes.
- One possible reason for such small species is the so-called "island effect" that causes species on small islands to get smaller.

4.13 NATIONAL MONSOON MISSION

- Under the National Monsoon Mission (NMM), Ministry of Earth Sciences has developed the state-of-the-art weather and climate prediction models, which are now in operational use.
- These models include models for short-range to medium range (1-10 days), extended-range (10 days to 30 days), and seasonal (up to one season).
- Ministry of Earth Sciences (MoES) had launched NMM in 2012 with a vision to develop a state-of-the-art dynamical prediction system for monsoon rainfall on different time scales.
- The responsibility of execution and coordination of this mission is vested to the Indian Institute of Tropical Meteorology (IITM), Pune.
- Climate Forecast System (CFS) of USA has been identified as the basic modelling system for the above purpose, as it is one of the best among the currently available coupled models.

Targets of NMM

- Development of a seamless prediction system using monsoon mission model, on different time scales, like Seasonal (for whole Monsoon season), extended-range (upto 4 weeks), short-range prediction (up-to 5 days).
- Initiate and coordinate the working partnership between Indian and foreign institutes to develop a system for prediction of extremes and climate applications
- Develop and implement the system for climate applications having social impacts (such as agriculture, flood forecast, extreme events forecast, wind energy, etc).
- Advanced data assimilation system for preparing high-quality data for model predictions.

Major achievements of NMM during the last three years:

- Setting up of an advanced prediction system for Seasonal prediction; Extended range prediction and Very high-resolution Short-range prediction.
- Commissioning of a Global Ensemble Forecast System (GEFS) for short and medium-range prediction at 12km.

4.14 VEMBANAD LAKE

- Preliminary steps have been initiated to demolish the illegally constructed villas on Nedyathuruthu island in Vembanad Lake.
- Vembanad is the longest lake in India and the largest lake in the state of Kerala.
- Vallam Kali (a.k.a Nehru Trophy Boat Race) is a Snake Boat Race held every year in the month of August in Vembanad Lake.
- It is the second-largest Ramsar site in India only after the Sundarbans in West Bengal.
- Kochi Port is built around Willingdon and Vallarpadam Islands on this lake.
- The Government of India has identified the Vembanad wetland under the National Wetlands Conservation Programme.

4.15 MANDARIN DUCK

- Mandarin duck was recently spotted in the Maguri-Motapung beel (wetland) in Assam.
- Considered the most beautiful duck in the world, the Mandarin duck, or the (*Aix galericulata*) was first identified in 1758.
- The eBird website describes it as a “small-exotic looking bird” native to East Asia.
- The migratory duck breeds in Russia, Korea, Japan and northeastern parts of China.
- It now has established populations in Western Europe and America too.
- The duck, however, rarely visits India as it does not fall in its usual migratory route. There are only a handful of recorded sightings here.
- “It was recorded in 1902 in Dibru river in the Rongagora area in Tinsukia”, “More recently, it was sighted in Manipur’s Loktak Lake in 2013, and in Saatvoini Beel in Manas National Park and Tiger Reserve in Assam’s Baksa district 2014.”
- While the duck is not a globally threatened species, spotting one is always considered significant because they only make “rare appearances.

MAGURI BEEL

- The Maguri Motapung wetland — an important Bird Area as declared by the Bombay Natural History Society — is located close to the Dibru Saikhowa National Park in Upper Assam.
- The wetland has a grassland adjacent to it. “The entire ecosystem (grassland and wetland) is very important as it is home to at least 304 bird species, including a number of endemic ones like Black-breasted parrotbill and Marsh babbler.”

4.16 LEATHERBACK SEA TURTLE

- Some conservationists are worried about the fate of the Giant Leatherback turtles.
- NITI Aayog has laid down proposals for tourism and port development in the Andaman and Nicobar Islands.
- NITI Aayog's tourism vision includes a proposal for a mega-shipment port at Galathea Bay on Great Nicobar Island.
- Also, the Little Andaman plan proposes phased growth of tourism on this untouched island, which may lead to the de-reservation of over 200 sq km of rainforests and also of about 140 sq km of the Onge Tribal Reserve.

Leatherback sea turtle (*Dermochelys coriacea*)

- It is the largest of the seven species of sea turtles.
- **Other species are:** Olive Ridley turtle, Green turtle, Hawksbill turtle, Loggerhead turtle, Leatherback turtle
- Except the Loggerhead, the remaining four species nest along the Indian coast.
- It is found in all oceans except the Arctic and the Antarctic.
- Within the Indian Ocean, they nest only in Indonesia, Sri Lanka, and the Andaman and Nicobar Islands.
- It is the only living species in the genus *Dermochelys* and family *Dermochelyidae*.
- It can easily be differentiated from other modern sea turtles by its lack of a bony shell.
- They are listed in Schedule I of India's Wildlife Protection Act, 1972.
- The Ministry of Environment has released National Marine Turtle Action Plan in which A&N Islands are given prominent importance.
- According to the plan, India has identified all its important sea turtle nesting habitats as 'Important Coastal and Marine Biodiversity Areas'.
- These areas have been included in the Coastal Regulation Zone (CRZ) – 1.
- South Bay and West Bay on Little Andaman and Galathea on Great Nicobar, are mentioned as "Important Marine Turtle Habitats in India".

4.17 WCCB RECEIVES "ASIA ENVIRONMENTAL ENFORCEMENT AWARD-2020"

- Wildlife Crime Control Bureau (WCCB) has received the Asia Environmental Enforcement Award-2020.

About Asia Environmental Enforcement Award:

- It is given by the United Nations Environment Programme (UNEP) in partnership with UNDP, United Nations Office on Drugs and Crime (UNODC), CITES, INTERPOL, and World Customs Organisation (WCO).

- Purpose: The award publicly recognises excellence in controlling transboundary environmental crime. Government officials and institutions or teams can be awarded for the enforcement.
- The award covers any transboundary environmental crime such as illegal trade in wildlife and illegal trade in chemical or waste including plastic.

Why was WCCB awarded?

- WCCB was awarded under the category 'Innovation'. It was awarded for "Operation WILDNET-II" or 'Innovation' for planning and conducting a multispecies enforcement operation.
- Operation WILDNET: The purpose of the Operation was to control the ever-growing illegal wildlife trade on the Internet, through social media platforms such as Facebook, Twitter and WhatsApp.
- Significance: This is the second time WCCB is receiving this award. Earlier, it received this award in 2018.

4.18 TREE CITIES OF THE WORLD

- Hyderabad has won a green contest among cities in India, and emerged one of the 'Tree Cities of the World'. That title has been bestowed by the Arbor Day Foundation and the Food and Agriculture Organization (FAO).
- With the recognition, the city joins 120 others from 23 countries, including the U.S., the U.K., Canada, and Australia.
- The Municipal Administration and Urban Development Department applied for consideration with an online submission on January 31 this year, citing the State government's Haritha Haram programme and its Urban Forest Parks plan,.
- The city was evaluated on five metrics: 'Establish Responsibility', 'Set the Rules', 'Know What You Have', 'Allocate the Resources', and 'Celebrate the Achievements'.
- City leaders must delegate responsibility for the care of trees to a staff member, a city department, or a group of citizens called a Tree Board.
- "Hyderabad city is demonstrating leadership in management of its urban trees and is serving as part of the solution to many of the global issues we face today,".

Food and Agriculture Organization(FAO):

- The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations that leads international efforts to defeat hunger.
- Goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.
- With over 194 member states, FAO works in over 130 countries worldwide. It believes that everyone can play a part in ending hunger.

4.19 CARBON WATCH

- It is a mobile application to assess the carbon footprint of an individual.
- Chandigarh became the first state or Union Territory in India to launch Carbon Watch.
- Carbon footprint is the amount of greenhouse gases-especially carbon dioxide-released into the atmosphere by a particular human activity.

How does the app Carbon Watch work?

- As a person downloads the application, they will need to fill details in four parts- Water, Energy, Waste Generation and Transport (Vehicular movement). In each category, they will be required to inform about their respective consumptions and waste generations.
- With the mentioned information, the mobile application will automatically calculate the carbon footprint of the individual.
- The application will also provide information such as the national and world average of the emission, and the individual's level of emission generation.
- The mobile application will suggest methods to reduce the carbon footprints. The application will suggest ways as per the information furnished by the individuals.
- Making the people Climate-Smart Citizens while making them capable of accessing their carbon footprint, along with providing them with steps to reduce it, is the motive behind the application.

4.20 CARACAL

- The National Board for Wildlife (NBWL) and MoEFCC last month included the caracal, a medium-sized wildcat found in parts of Rajasthan and Gujarat, in the list of critically endangered species under the Species Recovery Programme.
- Some experts believe that the animal is on the verge of extinction in India.
- The recovery programme for critically endangered species in India now includes 22 wildlife species.
- Besides India, the caracal is found across Africa, the Middle East, Central and South Asia.
- While it flourishes in parts of Africa, its numbers in Asia are declining.
- The wildcat has long legs, a short face, long canine teeth, and distinctive ears — long and pointy, with tufts of black hair at their tips.
- The iconic ears are what give the animal its name — caracal comes from the Turkish karakulak, meaning 'black ears'.
- In India, it is called siya gosh, a Persian name that translates as 'black Ear'.
- IUCN status: Least Concerned

5. SCIENCE & TECHNOLOGY

5.1 STARDUST 1.0

- Stardust 1.0 is a launch vehicle suited for student and budget payloads.
- The rocket is 20 feet tall and has a mass of roughly 250 kg.
- **Payloads:** The rocket can carry a maximum payload mass of 8 kg and during its first launch carried three payloads. The payloads included:
 - a cubesat prototype built by high school students
 - a metal alloy designed to lessen vibrations, which is developed by Kellogg's Research Labs
 - a cubesat from software company Rocket Insights
- **Manufactured by:** The rocket is manufactured by bluShift, an aerospace company based in Maine that is developing rockets that are powered by bio-derived fuels. Other rockets being developed by the company include.
- Stardust 1.0 became the first commercial space launch powered by biofuel, which is non-toxic for the environment as opposed to traditionally used rocket fuels.
- Though the biofuel used for the launch is not yet clear, but as per the reports it can be sourced from farms around the world.

Significance of the rocket

- **Cheaper and environment friendly:** These rockets will help to launch small satellites called cubesats into space in a way that is relatively cheaper than using traditional rocket fuel and is less toxic for the environment.

5.2 OROBANCHE

- It is a hidden parasitic weed in mustard causing severe yield loss to the extent of up to 50%.
- Also called broomrapes, they are aggressive root parasitic weeds which attack strategic food crops, such as legumes and vegetables, and threaten the livelihood of many nations.
- There are no absolute control measures developed for it.
- Severe Orobanche infestation not only leads to complete crop failure, but also causes long-term decay of the field soil, making it impossible to rationally produce legumes and vegetables in the affected fields for many years.

5.3 SQUARE KILOMETRE ARRAY

- The Square Kilometre Array Observatory (SKAO) Council held its maiden meeting and approved the establishment of the world's largest radio telescope.

About SKAO:

- SKAO is a new intergovernmental organisation dedicated to radio astronomy and is headquartered in the UK.

- At the moment, organisations from ten countries are a part of the SKAO.
- These include Australia, Canada, China, India, Italy, New Zealand, South Africa, Sweden, the Netherlands and the UK.

What are radio telescopes?

- Unlike optical telescopes, radio telescopes can detect invisible gas and, therefore, they can reveal areas of space that may be obscured by cosmic dust.
- The first radio signals were detected by physicist Karl Jansky in the 1930s.
- The Arecibo telescope in Puerto Rico, which was the second-largest single-dish radio telescope in the world, collapsed in December 2020. The telescope was built in 1963.

About SKA Telescope:

- The telescope is proposed to be the largest radio telescope in the world.
- It will be located in Africa and Australia whose operation, maintenance and construction will be overseen by SKAO.
- The completion is expected to take nearly a decade at a cost of over £1.8 billion.

5.4 HOPE

- The UAE's first mission to Mars entered its orbit, seven months after the UAE's 'Hope Probe' was launched from Tanegashima in Japan.
- With this, the UAE has become the fifth country after the US, Russia, China, the EU, and India, to reach the Martian orbit.
- The unmanned spacecraft is called 'Al-Amal' — the Arabic word for hope.
- The historic event was timed to coincide with the 50th anniversary of the unification of the UAE's seven emirates.
- Carrying three instruments, including a high-resolution camera and a spectrometer, the spacecraft is on an orbital mission to collect data on Martian climate dynamics and help scientists understand why Mars's atmosphere is decaying into space.
- Hope is the UAE's fourth space mission and first interplanetary one.
- The previous three were all Earth-observation satellites.
- Its overall mission life is one Martian year, which is about 687 days on Earth.

5.5 EINSTEINIUM

- With a new study published in the journal Nature last week, for the first time, researchers have been able to characterise some of the properties of Einsteinium.

What is Einsteinium?

- Named after Einstein, it was discovered in 1952 in the debris of the first hydrogen bomb (the detonation of a thermonuclear device called "Ivy Mike" in the Pacific Ocean).

- Ivy Mike was detonated on November 1, 1952 as part of a test at a remote island location called Elugelab on the Eniwetok Atoll in the South Pacific.

Properties:

- It is difficult to create and is highly radioactive.
- The most common isotope of the element, einsteinium 253 has a half-life of 20 days.
- Einsteinium-254 is one of the more stable isotopes of the element that has a half-life of 276 days.
- The element is also not visible to the naked eye and after it was discovered, it took over nine years to manufacture enough of it so that it could be seen with the naked eye.
- Because of its high radioactivity and short half-life of all einsteinium isotopes, even if the element was present on Earth during its formation, it has most certainly decayed.

5.6 NEW VARIETY OF MARIGOLD

- A new variety of marigold has been developed by the scientists of the Indian Institute of Horticultural Research (IIHR).
- The new variety of marigold will fetch money even if they get spoilt as it can be used for extraction of crude carotene.
- All marigolds have a carotene content of up to 1.4%.
- However, the Arka Shubha variety of marigold has a carotene content of 2.8%, (highest content from a plant source).

Carotene:

- Carotene is an orange or red plant pigment found in carrots and many other plant structures.
- Carotene is necessary for the production of vitamin A in man.
- Crude carotene is mainly used in the pharmaceutical sector.
- There is always a high demand for carotene in the pharma sector.
- Presently, India imports most of its carotene from China and other countries.

5.7 INS VIRAAAT

- The Supreme Court have put a stay on the dismantling of the INS Viraat that was decommissioned recently. This decision was taken in the backdrop to restore the everlasting glory of this legendary warship of the Indian Navy.
- The SC's stay on the dismantling while hearing a petition filed by a firm. The firm filed the petition seeking a permission to convert INS Viraat into a maritime museum and a multi-functional adventure centre. The centre had informed the Parliament in July 2019 about their decision to dismantle the INS Viraat after holding due consultation with the Indian Navy.

SC's Take

- The petition was heard by a bench headed by Chief Justice of India (CJI) S A Bobde.

- The bench issued the notice to the Centre and others and asked for their responses on the plea.
- This order came from SC after a portion of the legendary vessel has already been scrapped following the government's decision in December 2020.

INS Viraat

- It was a Centaur-class aircraft carrier in the Indian Navy. The aircraft carrier was the flagship of Indian Navy till 2013 before INS Vikramaditya was commissioned into services. INS Viraat was completed and commissioned in the year 1959 as the Royal Navy's HMS Hermes. In the year 1984 it was decommissioned. The aircraft carrier was sold to India in the year 1987. Following that, it was commissioned into the Indian Navy on May 12, 1987. The carrier has served the Indian Navy for 29 years and decommissioned in 2017. This was the last British-built ship that was serving the Indian Navy.

5.8 FURNACE OIL FROM TITANIUM FACTORY SPILLS INTO SEA

- A glass furnace pipe of Travancore Titanium Products Ltd (TTP), a public sector unit making titanium dioxide, broke leading to a major oil spill into the sea and parts of coastal area in Thiruvananthapuram.

Oil Spill:

- The contamination of seawater due to an oil pour, as a result of an accident, human error, or natural calamity, is termed as an oil spill.
- Roughly 5,000 litres of oil is spilt in the sea and coastal area.
- It has contaminated the beach and coastal waters.
- The thick oil has mixed with the sea sand and sedimented at the coast.

Threats:

- An oil leak could have a prolonged impact on marine resources, and consequently, on the livelihood of the fishing community.
- Tourism could also be affected.

Measures:

- The leak has been promptly plugged.
- An emergency clean-up was launched along the coast to mitigate the fallout of furnace oil leak.
- Fishing activities along these regions are banned.
- Sand sediments are being removed from the coast. The top soil along the affected stretch of coast would also be removed.
- The Coast Guard is closely monitoring the situation using a ship and a Dornier aircraft.

How is oil spill controlled in general?

- **Skimmers:** Once the oil is bounded by oil booms, it can be extracted or skimmed easily with the help of skimmers or oil scoops. These skimmers are fitted onto boats to remove the floating oil or greasy contaminants.
- Booms are temporary floating barriers used to contain marine spills, protect the environment, and assist in recovery.
- **Sorbents:** Materials that can absorb liquids are termed as sorbents. The use of sorbents is a natural process of oil clean-up. The most common types of sorbents are peat moss, vermiculite (straw), and hay.
- **In situ burning:** is the process of burning spilled oil where it is on the ocean. Any burn operation includes careful air monitoring to ensure smoke or residue resulting from the burn do not adversely impact people or wildlife.
- **Dispersion:** Chemical dispersion is achieved by applying chemicals designed to remove oil from the water surface by breaking the oil into small droplets.

5.9 TIANWEN-1

- China's first ever mission to another planet has been successful this year. The Tianwen-1 spacecraft has made a close approach to Mars and sent back pictures from the red planet. It would be soon landing in the Red Planet and studying its surface and climate.



About Tianwen-1:

- It arrived in Mars orbit after completing a 202-day, 475 million kilometre journey through deep space
- The spacecraft is carrying 13 payloads that is seven orbiters and six rovers
- It consists of an orbiter, a lander and a rover.
- The orbiter would land in intended landing site in a region known as Utopia Planitia

- Tianwen-1 is roughly 240 kilograms. Its solar-powered rover is carrying science payloads to investigate surface soil characteristics and search for potential water-ice distribution with a ground penetrating radar.
- The rover also carries a panoramic camera similar to one aboard China's Yutu 2 rover
- The Tianwen-1 orbiter would be studying the Red Planet's surface with medium- and high-resolution cameras. It would also use a sounding radar, and make other detections with a magnetometer and particle detectors.

5.10 ISRO

- The Department of Space (DoS), under which ISRO comes, has signed an MoU with geospatial technology company CE Info Systems Pvt Ltd.
- The collaboration will enable them to jointly identify and build a holistic geospatial portal utilising earth observation datasets, 'NavIC', Web Services and APIs (application programming interface) available in MapmyIndia.
- The geospatial portals will be called 'Bhuvan', 'VEDAS' and 'MOSDAC'.

Key facts:

- Bhuvan is the national geo-portal developed and hosted by ISRO comprising geospatial data, services, and tools for analysis.
- VEDAS (Visualisation of Earth observation Data and Archival System) is an online geoprocessing platform that uses optical, microwave, thermal, and hyperspectral EO data covering applications particularly meant for academia, research and problem solving.
- MOSDAC (Meteorological and Oceanographic Satellite Data Archival Centre) is a data repository for all the meteorological missions of ISRO and deals with weather-related information, oceanography, and tropical water cycles.
- What is NAVIC?
- Navigation with Indian Constellation (NavIC) is an independent regional navigation satellite system designed to provide position information in the Indian region and 1500 km around the Indian mainland.

NavIC will provide two types of services:

- Standard Positioning Service (SPS) which is provided to all the users.
- Restricted Service (RS), which is an encrypted service provided only to the authorised users.

Its applications include:

1. Terrestrial, Aerial and Marine Navigation.
2. Disaster Management.
3. Vehicle tracking and fleet management.

4. Integration with mobile phones.
5. Precise Timing.
6. Mapping and Geodetic data capture.
7. Terrestrial navigation aid for hikers and travellers.
8. Visual and voice navigation for drivers.

How many satellites does NAVIC consist of?

- It is powered by eight IRNSS satellites, of which one provides messaging services.
- Three of these will be geostationary over the Indian Ocean, i.e., they will appear to be stationary in the sky over the region, and four will be geosynchronous – appearing at the same point in the sky at the same time every day.
- This configuration ensures each satellite is being tracked by at least one of fourteen ground stations at any given point of time, with a high chance of most of them being visible from any point in India.
- Why it is necessary to have indigenous global navigation system?
- Having a global navigation system bolsters the ability of a nation to serve as a net security provider, especially through the guarantee of such assurance policies. It can also play a significant role in relief efforts post disasters such as the tsunami in the Indian Ocean region in 2004 and the Pakistan-India earthquake in 2005

5.11 ARJUN MAIN BATTLE TANK



ON THE ROAD TO TOTAL INDIGENISATION

- 1 Currently, the engine and automatic transmission, together called a power pack, is imported
- 2 59 per cent of Arjun Mk-1A components are imported. It was 63 per cent for Mk-1
- 3 Gradually under Make in India initiative, efforts are on to indigenise a majority of imported systems
- 4 Several public & private industries are being roped-in to produce indigenous systems of Arjun Mk 1A
- 5 Commander's Panoramic Sight, Advanced Gunners Main Sight, All Electric Gun Control System, Track System, Compact Diesel Engine and Automatic Transmission are all under development in CVRDE and sister DRDO establishments.
- 6 Officials said it may take another 3-4 years to indigenise these technologies and put them to use

ARJUN MK-1A SPECIFICATIONS

Max. speed on road 58 kmph	Max. speed on cross country 40 kmph	Combat weight (fully loaded) 68 tonnes	Gun 120 mm rifled	Rate of fire 6-8 rounds per minute
■ Ammunition: 39 rounds (FSAPDS/HESH/TB/PCB)	■ Anti-aircraft machine gun: 12.7 mm	■ Fire control system: Day & night stabilised sight	■ Night vision: Thermal imager and driver's night sight	■ Crew: 4 (commander, gunner, loader and driver)

Key feature: A key feature of most of the upgrades carried out in Arjun Mk-1A is they are compatible, which means that when Arjun Mk-1 vehicles come for overhauling the new features of Mk-1A can be retrofitted depending on the army's need — CVRDE director V Balamurugan

- Prime Minister Narendra Modi handed over the indigenous main battle tank Arjun Mk-1A to the Army in a function at the Jawaharlal Nehru Indoor Stadium in Chennai.
- “A tank made in Tamil Nadu will be used in our northern borders to keep the nation safe. This showcases India’s united spirit — Bharat’s Ekta Darshan,”.
- The focus on making India *aatmanirbhar* (self-reliant) in the defence sector moves with full speed.
- The Arjun Main Battle Tank project was initiated by DRDO in 1972 with the Combat Vehicles Research and Development Establishment (CVRDE) as its lead laboratory. The objective was to create a “state-of-the-art tank with superior fire power, high mobility, and excellent protection”.
- During the development, the CVRDE achieved breakthroughs in the engine, transmission, hydropneumatic suspension, hull and turret as well as the gun control system.
- Mass production began in 1996 at the Indian Ordnance Factory’s production facility in Avadi, Tamil Nadu.

5.12 SANDES

- The National Informatics Centre has launched an instant messaging platform called Sandes on the lines of WhatsApp.
- The new NIC platform can be used for all kinds of communications by anyone with a mobile number or email id.

Why has NIC launched this instant messaging platform?

- Following the nationwide lockdown imposed in March 2020 to contain the spread of Covid-19, the government felt the need to build a platform to ensure secure communication between its employees as they worked from home.
- After security scares, the Ministry of Home Affairs had in April 2020 issued an advisory to all government employees to avoid using platforms like Zoom for official communication.
- This was after the Computer Emergency Response Team (Cert-In) had also posted an advisory against Zoom over safety and privacy concerns.
- In August 2020, the NIC released the first version of the app, which said that the app could be used by both central and state government officials “for intra and inter-organisation communication.”
- The app was initially launched for Android users and then the service was extended to iOS users.
- The launch of the app is also a part of the government strategy to push for use of India-made software so as to build an ecosystem of indigenously developed products.
- It has now been released for the common public as well.

What is different in the new app?

- Sandes has an interface similar to many other apps currently available in the market.

- Although there is no option to transfer the chat history between two platforms, the chats on government instant messaging systems or GIMS can be backed up to a users' email.
- GIMS, like other instant messaging apps in the market, uses a valid mobile number or email id to register the user for the first time.
- Offers features such as group making, broadcast message, message forwarding and emojis.
- As an additional safety feature, it allows a user to mark a message as confidential, which, the app's description says, will allow the recipient to be made aware the message should not be shared with others.
- The confidential tag, however, does not change the way the message is sent from one user to another.

Limitations

- App does not allow the user to change their email id or registered phone number.
- The user will have to re-register as a new user in case they wish to change their registered email id or phone number on the app.

5.13 HELINA AND DHRUVA STRA



- The government recently conducted successful user trials for Helina and Dhruv Astra Missile Systems. The tests were carried out from the Advanced Light Helicopter(ALH) platform in desert ranges.

About Helina and Dhruv Astra Missile Systems:

- These are third generation fire and forget Anti-Tank Guided Missiles (ATGM). Defence Research and Development Organization (DRDO) indigenously designed and developed these missiles.
- Helina (Helicopter-launched Nag) is the army version of the missile, whereas Dhruva Astra is the air force version.

Key Features of the Missiles:

- The Missiles operate on lock-on-before launch mode which helps extend their strike range.
- Top Attack Mode: The missile is required to climb sharply after launch. Further, it travels at a certain altitude, then plunge on top of the target.
- Direct Attack Mode: The missile travels at a lower altitude, directly striking the target.
- The missiles have all-weather day and night capability. They can defeat battle tanks with conventional armour as well as with explosive reactive armour.

5.14 VERTICAL LAUNCH SHORT RANGE SURFACE TO AIR MISSILE (VL-SRSAM)

- Defence Research & Development Organisation (DRDO) conducted two successful launches of Vertical Launch Short Range Surface to Air Missile (VL-SRSAM).
- It is developed for Indian Navy.
- It is indigenously designed and developed by DRDO
- It is meant for neutralizing various aerial threats at close ranges including sea-skimming targets.
- These launches were carried out for demonstration of vertical launch capability.

5.15 INS UTKROSH

- INS Utkrosh is an Indian naval air station under the joint-services Andaman and Nicobar Command of the Indian Armed Forces.
- It is located near naval base INS Jarawa, on Port Blair in the Andaman & Nicobar Islands.
- It is the first naval air station in the Andaman and Nicobar Islands.
- It was transferred from the Directorate General of Civil Aviation to the Indian Navy in 1984.
- It was initially commissioned as INS Jarawa II and in 1985, it was formally commissioned as INS Utkrosh.
- This station operates the Do-228 maritime patrol aircraft and a SAR (Search & Rescue) flight of HAL Chetak helicopters. The station also handles courier flights from the mainland, and civil flights to and from Port Blair.
- Its location makes it an important strategic station for protecting India's maritime interests in the Bay of Bengal. It also serves as an important facility for undertaking humanitarian operations, such as disaster relief and evacuation of medical emergencies from the remote islands.

5.16 DEVASTHAL TELESCOPE

- The optical telescope set up at Devasthal has assumed global importance for observing important cosmic explosive events such as Gamma-Ray Bursts and Supernovae.
- Devasthal is a mountain peak in Uttarakhand.
- It is a world-class 3.6 m optical telescope.
- It is Asia's largest fully steerable optical telescope.

- Set up by: Aryabhatta Research Institute of Observational Sciences (ARIES), an autonomous research institute of DST, with support from the Belgian government in 2016.
- It will also be helpful for future optical facilities such as the Thirty Meter Telescope.

5.17NON-ALCOHOLIC FATTY LIVER DISEASE

- The Ministry of Health & Family Welfare has launched operational guidelines for integration of NAFLD(Non-Alcoholic Fatty Liver Disease) under NPCDCS (National Programme for Prevention & Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke).

About Non-Alcoholic Fatty Liver Disease(NAFLD):

- It is a term for abnormal accumulation of fat in the liver despite the absence of harmful alcohol use, viral hepatitis or medications.
- Prevalence of NAFLD in India: As per studies, the prevalence of NAFLD is around 9% to 32% of the general population in India. There is a higher prevalence among overweight or obesity and those with diabetes or prediabetes.

The main stages of NAFLD are:

- Simple Fatty Liver Disease – It is a largely harmless build-up of fat in the liver cells. It may only be diagnosed during tests carried out for another reason.
- Non-Alcoholic steatohepatitis(NASH) – Mere deposition of fat in the liver is termed steatosis. It is characterized by inflammation of the liver.
- Fibrosis – It is where persistent inflammation causes scar tissue around the liver and nearby blood vessels. But the liver still able to function normally.
- Cirrhosis – It is the most severe stage after years of inflammation. At this stage, the liver shrinks and becomes scarred and lumpy. This damage is permanent and can lead to liver failure (where your liver stops working properly) and liver cancer.

Is NAFLD Curable?

- Once the disease develops, there is no specific cure available, and health promotion and prevention aspects targeting weight reduction, healthy lifestyle can prevent the mortality and morbidity due to NAFLD.

5.18NEW LEAD-FREE MATERIAL

- Scientists have found a new Lead (Pb) free material which can efficiently convert waste heat to power our small home equipment and automobiles.
- Most efficient thermoelectric materials developed by scientists so far use Lead (Pb) as a major constituent element, restricting their use for mass-market applications.
- Scientists from Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru, an autonomous institution of the Department of Science & Technology (DST), Government of

having now identified a lead-free material called Cadmium (Cd) doped Silver Antimony Telluride (AgSbTe₂).

- This material can efficiently allow recovery of electricity from waste heat' marking a paradigm shift in the thermoelectric puzzle.
- This work is supported by the Swarna-Jayanti fellowship and project fund from the Science and Engineering Research Board (SERB) and Department of Science & Technology (DST), India.

5.19 **TROPEX 21**

- TROPEX 21 is currently underway in Indian Ocean Region (IOR). It is the Indian Navy's largest biennial Theatre Level Operational Readiness Exercise.



Exercise TROPEX:

- It is an inter-service military exercise. It involves the participation of the Indian Army, Air Force, Navy, and Coast Guard.
- **Aim:**
- To test the combat readiness of the Navy in a multi-dimensional scenario of the current geo-strategic environment.
- To validate the Navy's capabilities like offensive-defense capabilities, safeguarding the maritime domain, and promote stability and peace in the Indian Ocean Region.
- **Conducted by:** The exercise is being overseen by Naval Headquarters. Other participants include Eastern, Western and Southern Naval Command of the Indian Navy and Andaman and Nicobar Command (the only Tri-Service theatre command of the Indian Armed Forces located at Port Blair).
- **Location:** The exercise is being conducted in the Indian Ocean Region(IOR) and its adjunct waters.

- Theme of the exercise: ‘Combat Ready, Credible and Cohesive force.
- Phases under the exercise: Exercise TROPEX is being progressed over distinct phases that will also test the Navy’s transition from peacetime to hostilities.
- In the first phase, the Indian Navy had conducted coastal defense Exercise ‘Sea Vigil’.
- It was followed by a large-scale Tri-Service joint amphibious ,Exercise AMPHEX-21.

5.20INS PRALAYA

- Indian Naval Ship Pralaya arrived at Abu Dhabi, UAE.
- It shall participate in the NAVDEX 21 (Naval Defence Exhibition) and IDEX 21 (International Defence Exhibition), scheduled from 20 to 25 February 2021.
- INS Pralaya is the second ship of the indigenously built Prabal Class Missile Vessels.
- The ship was built indigenously Important Info :
- Inaugural edition of Indian Navy – UAE Navy bilateral exercise GULF STAR – 1 was conducted in March 2018.

5.21NETWIRE

- NetWire, which first surfaced in 2012, is a well-known malware.
- It is also one of the most active ones around.
- It is a remote access Trojan, or RAT, which gives control of the infected system to an attacker. Such malware can log keystrokes and compromise passwords.

Threats

- This malware essentially does two things:
- One is data exfiltration, which means stealing data. Most anti-virus software is equipped to prevent this.
- The other involves infiltrating a system, and this has proven to be far more challenging for anti-virus software.
- NetWire is described as an off-the-shelf malware, while something like Pegasus, which used a bug in WhatsApp to infiltrate users’ phones in 2019, is custom-made and sold to nations.

5.22 SAGARIKA

- Sagarika, the International Cruise Terminal in Kochi was inaugurated.
- It is India’s first full-fledged international cruise terminal.
- Inauguration of the Marine Engineering Training Institute of Cochin Shipyard Ltd. will help those wanting to study marine engineering.
- South Coal Berth would bring down logistics costs and improve cargo capacities.
- Propylene Derivative Petrochemical Project (PDPP) will help strengthen India’s journey towards being Aatmanirbhar as it will save foreign exchange.

- With Ro-Ro Vessels, a distance of almost 30 km on road will become 3.5 km through waterways leading to less congestion and more convenience, commerce and capacity-building.

5.23 ADVANCED LIGHT HELICOPTERS (ALH) MK III

- HAL hands over five ALHs Mk III to Indian Navy and Indian Coast Guard.

About ALH Mk III:

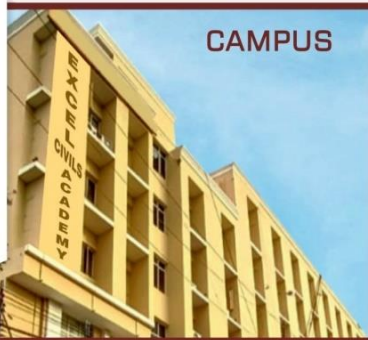
- The ALH Mk III or the Mark III Advanced Light Helicopter is meant for coastal security.
- The helicopter features a full glass cockpit with HAL's Integrated Architecture Display System (IADS), more powerful "Shakti" (Safran Ardiden 1H1) engines, and a host of new systems.
- It is fully loaded, multi-mission and fitted with an array of advanced sensors.
- These helicopters have come up with latest-generation avionics and role equipment.
- It is primarily meant for use in a shore-based role.
- The Mk-III ALH are also equipped with an indigenous low frequency dunking sonar (LFDS) developed by Kochi-based Naval Physical and Oceanographic Laboratory.
- The aircraft has also a nose-mounted surveillance radar with 270-degree coverage that can detect, classify and track multiple marine targets.
- It also has synthetic-aperture radar, inverse synthetic-aperture radar, and moving target indication classification functions.

5.24 HAL LUH

- HAL LUH (Army Variant) receives Initial Operational Clearance.

About HAL LUH:

- The Light Utility Helicopter (LUH) received the Initial Operational Clearance (IOC) for the Indian Army from the Centre for Military Airworthiness and Certification (CEMILAC).
- The LUH is a three-ton class new generation single engine helicopter indigenously designed and developed by Rotary Wing Research and Design Centre of HAL with features suitable for operations in the diverse operating conditions unique to India.
- The LUH will replace the ageing fleet of Cheetah/Chetak helicopters operated by the Services.
- The LUH is powered by a single turbo shaft engine Ardiden 1U (from France) with adequate power margins to accomplish high altitude missions in Himalayas with ease.
- The LUH is equipped with Smart Cockpit Display System (Glass Cockpit), state-of-the-art HUMS (Health & Usage Monitoring System) and is designed for various utility and armed roles.



LECTURE HALL - 1



LIBRARY



LECTURE HALL- 2

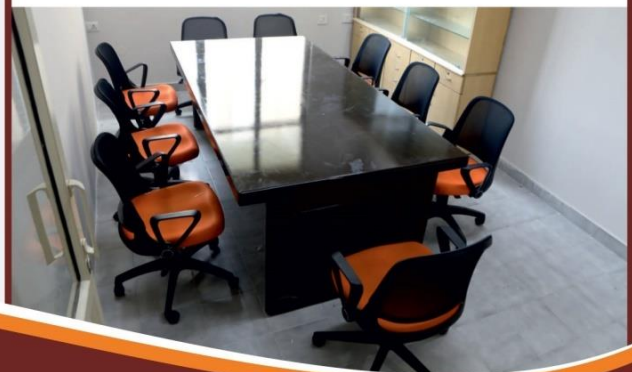


CANTEEN



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