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1.INDIAN SOCIETY & POLITY

1. National Pharmaceuticals Pricing Authority (NPPA)

Why in News?

• The Union Minister of Chemicals and Fertilizers congratulated National Pharmaceuticals Pricing Authority (NPPA) for working tirelessly to ensure availability of life-saving drugs at reasonable prices, on the foundation day of NPPA.

Highlights:

- It prevented any shortage of medicines during COVID19 and resolved Public Grievances efficiently through an active Control room.
- It also catered to the needs of over 120 countries by supplying critical medicines by india during COVID.

NPPA:

- NPPA was set-up as an independent Regulator on 29th August, 1997 for pricing of drugs and to ensure availability and accessibility of medicines at affordable prices.
- The regulator, an attached office of the Department of Pharmaceuticals (DoP), Ministry of Chemicals & Fertilizers was created vide Government of India Resolution.
- The functions of NPPA include:
 - ✓ Fixation and revision of prices: Of Scheduled drugs under Drug (Price Control) Orders issued from time to time.
 - ✓ Monitoring and enforcement of prices: And ensuring availability and accessibility of all medicines and medical devices, including non-scheduled drugs.

Role of NPPA:

- Striking a balance: between the interests of the consumers and the Pharmaceutical industry as per the ambit of the Drug Price Control Orders (DPCOs).
- Working towards the larger goal of a Healthy Nation: It facilitates affordable health care through pricing of National List of Essential Medicines (NLEM) drugs, knee implants, stents, and more recently through the Trade Margin Rationalisation (TMR) of anti-cancer drugs that resulted in substantial annual saving to the consumers across the country.

Some Initiatives by NPPA:

- NPPA is using digital technology to discharge its functions and is propelling Digital India mission by
- Pharma Sahi Daam-app to check Prices of Medicines



- Pharma Jan Samadhan-public grievance system to help people resolve their problems.
- Pharma Data Bank-online information collection from Pharma manufacturers.
- Price Monitoring and Research Units (PMRUs): Set up by NPPA for strengthening monitoring and public awareness in 13 States/UTs.

2. Webinar on Hampi under Dekho Apna Desh Series

Why in News?

- The Ministry of Tourism webinar on Hampi on 29th August 2020 under Dekho Apna Desh Webinar series.
- The webinar addressed the needs of Hampi as both heritage site and tourist destination, and Addresses Social, Economic and Ecological Concerns.

Hampi:

- Hampi is located on the banks of the Tungabhadra River in central Karnataka.
- Its name is derived from Pampa (old name of the Tungabhadra River) on whose banks the city is built.
- It was the last capital of the last great Hindu Kingdom of Vijayanagar from 1343 to 1565 AD.
- Hampi was amongst the largest and most prosperous cities of the world during its period of power and vigour.
- It reached its prime during rule of Krishna Deva Raya, ruled between 1509 and 1529 AD.
- Hampi was an important center of trade and Vijayanagara Empire flourished as it controlled cotton and spice trade routes of Southern India.

Group of Monuments at Hampi:

- The group of Monuments at Hampi were built between 1336-1570 A.D., from the times of Harihara-I to Sadasiva Raya. It is recognised as a UNESCO World Heritage Site (Group of Monuments at Hampi). Colin Mackenzie, in 1800 discovered the remains of Hampi and Archaeological Survey of India (ASI) has been conducting excavation works in the site.
- The site used to be multi-religious and multi-ethnic; it included Hindu and Jain monuments next to each other.
- With the death of Krishnadevaraya, the combined armies of the five Muslim kingdoms— Bidar, Golconda, Ahmednagar and Berar destroyed this mighty empire and Hampi city in 1565.



Architecture:

- Primarily Dravidian style and architecture dating to Aihole-Pattadakal styles.
- Combinations of Cholas, Pandya's & Chalukya Style.
- Built mainly from local granite along with lime, mortar etc.
- Noted for their large dimensions, ornamentation, high towers, pillars and magnificent pavilions.
- There are more than 500 monuments and the notable Structures at Hampi are Vittala temple, Virupaksha temple, Hampi Bazaar, Achyuta Raya's Temple, Hazara Rama Temple etc.

Virupaksha Temple:

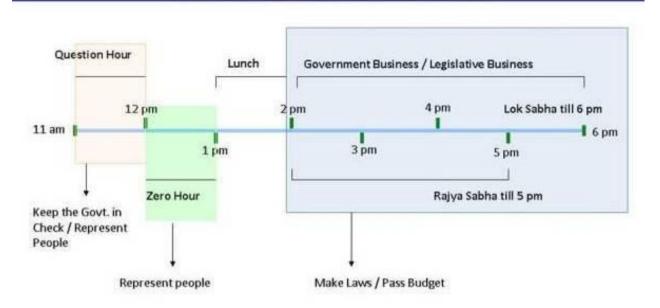
- Aka 'Pampavathi Temple' located in Hampi Bazaar.
- Virupaksha Temple is one of the earliest monuments and principal temple of Hampi,
 preceding the foundation of the Vijayanagara Empire.
- It is dedicated to patron deity of Vijayanagara rulers, Lord Virupaksha (Shiva).

3. No Question Hour during the Monsoon Session

Why in News?

• In view of the pandemic and a truncated Monsoon Session, Parliament has said no to Question Hour and curtailed Zero Hour. The Opposition has strongly criticised this.

What happens in Parliament





Highlights:

- The Lok Sabha and Rajya Sabha secretariats notified that there will be no Question Hour during the Monsoon Session of Parliament, which has been truncated to September 14-October 1 in view of the Covid-19 pandemic.
- The Zero Hour, too, will be restricted in both Houses.

What is Question Hour, and what is its significance?

- Question Hour is the liveliest hour in Parliament. It is of one hour.
- The Members of Parliament ask questions of ministers and hold them accountable for the functioning of their ministries in this zero hour.
- Questions have to be limited to 150 words. Questions should not seek information about matters that are secret or are under adjudication before courts.
- They have to be precise and not too general. The question should also be related to an area of responsibility of the Government of India.
- The questions that MPs ask are designed to elicit information and trigger suitable action by ministries.
- With the broadcasting of Question Hour since 1991, Question Hour has become one the most visible aspects of parliamentary functioning.
- Over the last 70 years, MPs have successfully used this parliamentary device to shine a light on government functioning.
- Their questions have exposed financial irregularities and brought data and information regarding government functioning to the Public Domain.
- The presiding officers of the two houses are the final authority with respect to the conduct of Question Hour.
- It is the presiding officers of the two Houses who finally decide whether a question raised by an MP will be admitted for Answering by the Government.

What is Zero Hour?

- Zero Hour is an Indian parliamentary innovation.
- It does not find mention in the rules of procedure.
- The concept of Zero Hour started organically in the first decade of Indian Parliament, when MPs felt the need for raising important constituency and national issues.
- During the initial days, Parliament used to break for lunch at 1 pm. Therefore, the opportunity for MPs to raise national issues without an advance notice became available at 12 pm and could last for an hour until the House adjourned for lunch.



- This led to the hour being popularly referred to as Zero Hour and the issues being raised during this time as Zero Hour submissions.
- Over the years, presiding officers of both Houses have given directions to streamline the working of Zero Hour to make it even more effective.
- Its importance can be gauged from the support it receives from citizens, media, MPs and presiding officers despite not being part of the rulebook.

How frequently is Question Hour held?

- The process of asking and answering questions starts with identifying the days on which Question Hour will be held.
- At the beginning of Parliament in 1952, Lok Sabha rules provided for Question Hour to be held every day. Rajya Sabha, on the other hand, had a provision for Question Hour for two days a week. A few months later, this was changed to four days a week. Then from 1964, Question Hour was taking place in Rajya Sabha on every day of the session.
- Now, Question Hour in both Houses is held on all days of the session. But there are two days when an exception is made. There is no Question Hour on the day the President addresses MPs from both Houses in the Central Hall. The President's speech takes place at the beginning of a new Lok Sabha and on the first day of a new Parliament year. Question Hour is not scheduled either on the day the Finance Minister presents the Budget.

What kind of Questions are asked?

- Parliamentary rules provide guidelines on the kind of questions that can be asked by MPs. Questions have to be limited to 150 words. They have to be precise and not too general.
- The question should also be related to an area of responsibility of the Government of India.
- Questions should not seek information about matters that are secret or are under adjudication before courts.
- It is the presiding officers of the two Houses who finally decide whether a question raised by an MP will be admitted for Answering by the Government.

4. Mission Karmayogi - National Programme for Civil Services Capacity Building

Why in News?

• The Union Cabinet has approved a National Programme for Civil Services Capacity Building (NPCSCB).





Highlights:

• To prepare Indian civil servants for the future by making them more creative, Constructive, imaginative, Innovative, Proactive, Professional, Progressive, Energetic, Enabling, Transparent and Technology-enabled.

Objective:

- To set up a Capacity Building Commission to ensure a uniform approach in managing and regulating the capacity building ecosystem on collaborative and co-sharing basis.
- To lay the foundations for capacity building for Civil Servants.
- To keep them connected with their roots and learn from the best institutions and practices
 Across the World.

Salient Features:

• The Programme will be delivered by setting up an Integrated Government Online Training-iGOT Karmayogi Platform.

GATEWAY

- A sum of Rs. 510.86 crore will be spent over a period of 5 years from 2020-21 to 2024-25.
- NPCSCB will be governed by the Prime Minister's Human Resource Council, which will also include state Chief Ministers, Union Cabinet ministers and experts.
- This council will approve and review civil service Capacity Building Programmes.

Guiding principles of the Programme:

- Functions of Capacity Building Commission:
 - ✓ To assist PM Public Human Resources Council in approving the Annual Capacity Building Plans.
 - ✓ To exercise functional supervision over all Central Training Institutions dealing with civil services capacity building.



- ✓ To create shared learning resources, including internal and external faculty and resource centers.
- ✓ To coordinate and supervise the implementation of Capacity Building Plans with the stakeholder Departments.
- ✓ To make recommendations on standardization of training and capacity building, pedagogy and methodology
- ✓ To set norms for common mid-career training programs across all civil services.
- ✓ To suggest policy interventions required in the areas of HR Management and Capacity
 Building to the Government.

iGOT-Karmayogi Platform:

- Mission Karmayogi programme will be delivered by setting up a digital platform called iGOTKarmayogi.
- The platform will act as a launchpad for the National Programme for Civil Services Capacity Building (NPCSCB), which will enable a comprehensive reform of the capacity building apparatus at the individual, institutional and process levels.
- iGOT-Karmayogi platform brings the scale and state-of-the-art infrastructure to augment the capacities of over two crore officials in India.

5. OBC Sub-Categorisation

Why in News?

• A Constitution Bench of the Supreme Court reopened the legal debate on subcategorisation of Scheduled Castes and Scheduled Tribes for reservations, referring the issue to a larger Bench to Decide.

GATEWA

Sub-categorisation of OBCs:

- OBCs are granted 27% reservation in jobs and education under the central government.
- The question of sub-categorisation arises out of the perception that only a few affluent communities among the over 2,600 included in the Central List of OBCs have secured a major part of this 27% reservation.
- The argument for sub-categorisation or creating categories within OBCs for reservation
 is that it would ensure "equitable distribution" of representation among all OBC communities.
- The Commission to Examine Sub-categorisation of Other Backward Classes took charge on October 11, 2017.



- It is headed by retired Delhi High Court Chief Justice G Rohini, includes Centre for Policy Studies director Dr J K Bajaj as member, and has two other ex-officio members.
- Initially constituted with a tenure of 12 weeks ending January 3, 2018, it was granted an extension recently.
- Until November 2019, the government has spent over Rs 1.70 crore on the Commission including salary and other expenses.

What are its Terms of References?

- It was originally set up with three terms of reference:
- To examine the extent of inequitable distribution of benefits of reservation among the castes or communities included in the broad category of OBCs with reference to such classes included in the Central List.
- To work out the mechanism, criteria, norms and parameters in a scientific approach for sub-categorisation within such OBCs.
- To take up the exercise of identifying the respective castes or communities or sub-castes or synonyms in the Central List of OBCs and classifying them into their respective subcategories. A fourth was added on January 22, 2020, when the Cabinet granted it an extension.
- The fourth term of reference was added following a letter to the government from the Commission on July 30, 2019.
- To study the various entries in the Central List of OBCs and recommend correction of any repetitions, ambiguities, inconsistencies and errors of spelling or Transcription.

6. National Capital Territory of Delhi (Amendment) Bill, 2020

Why in News?

• The Ministry of Home Affairs is likely to introduce a legislation in Parliament to amend a 1991 Act pertaining to the powers and function of the Delhi government and the Lieutenant Governor.

National Capital Territory of Delhi (Amendment) Bill, 2020:

- The Bill proposes to clearly spell out the functions of the Council of Ministers and the Lieutenant-Governor by giving more discretionary powers to the L-G.
- L-G could act in his discretion in any matter that is beyond the purview of the powers of the Legislative Assembly of Delhi in matters related to the All India (Civil) Services and the Anti-Corruption Branch.



• It will give the validity of any decision taken as per such discretion shall not be questioned to the L-G.

What is the 1991 Act?

- The Union Territory of Delhi with a Legislative Assembly came into being in 1991 under Article 239AA of the Constitution inserted by 69th Amendment Act.
- It said that the UT of Delhi shall be called the National Capital Territory of Delhi, and the administrator thereof appointed under Article 239 shall be designated as the Lieutenant-Governor.
- According to Act, the Legislative Assembly of Delhi has the power to make laws in all matters except Public order, Police, and Land.

Article 239- Administration of Union Territories:

- Save as otherwise provided by Parliament by law, every Union territory shall be administered by the President acting, to such extent as he thinks fit, through an administrator to be appointed by him with such designation as he may specify.
- Notwithstanding anything contained in Part VI of the constitution, the President may appoint the Governor of a State as the administrator of an adjoining Union territory, and where a Governor is so appointed, he shall exercise his functions as such administrator independently of his Council of Ministers.
- In 2018, the Supreme Court had unanimously held that the L-G was bound by the "aid and advice" of the Delhi government and both had to work harmoniously with each other.



2. GOVERNANCE

1. NCRB Annual Report

Why in News?

• National Crime Records Bureau has released its annual report recently.

Highlights:

- The National Crime Statistics report published by NCRB consists of Crime in India, Accidental Deaths & Suicides and also Prison Statistics.
- The number of suicide cases and accidental deaths registered an increase across the country last year from the 2018 figures
- The state of Indian prisons has only marginally improved over the last five years, and if demographic break up of inmates is any indicator, Muslims, Dalits and the tribal population is disproportionately subjected to the criminal justice system when compared to upper class Hindu population.

Report:

- Suicides in the country went up slightly from 1,34,516 to 1,39,123 whereas
- Of the 97,613 male suicides, the most were of daily wage earners followed by self-employed persons and the unemployed whereas in females, over half were housewives.
- The suicide rate in cities (13.9%) was higher compared to the all-India average.
- In the Central Armed Police Forces, a total of 36 personnel died by suicide, 38.9% were due to "family problems". Five such suicides were reported in Rajasthan, followed by four in Tamil Nadu. Accidental deaths in the country increased by 2.3%.
- The most casualties of 30.9% were reported in the 30-45 age group, followed by 26% in the 18-30 age group.
- The major causes were 'traffic accidents' (43.9%), 'sudden deaths' (11.5%), 'drowning' (7.9%), 'poisoning' (5.1%), 'falls' (5.1%) and 'accidental fire' (2.6%). A majority (57.2%) of deaths was in the age groups of 18-45 years.
- A total of 8,145 deaths was due to the causes attributable to forces of nature, including 35.3% due to lightning, 15.6% by heat/sun stroke and 11.6% deaths in floods.
- Uttar Pradesh, the most populous State, accounted for 9.6% cases, followed by Madhya Pradesh (10.1%).

Prison Statistics:

• Prison statistics shows that the number of Muslims, Dalits, and tribal population incarcerated in jail is disproportionately higher than their numbers outside.



- The data also shows that Indian jails are largely overcrowded and understaffed. The sanctioned strength of jail-staff was 87,599 while the actual strength was 60,787 as on 31st December, 2019. Almost all prisons across states were filled beyond their capacity
- Uttar Pradesh has reported the most number of convicts (19.2 percent, 27,612) in the country followed by Madhya Pradesh (14.1 percent, 20,253) and Maharashtra (6.3 percent, 9,096) at the end of 2019.

2. NIDHI-EIR Brochure featuring Entrepreneurs in Residence launched

Why in News?

 A brochure featuring Entrepreneurs in Residence (EIR) under the National Initiative for Developing and Harnessing Innovations (NIDHI) programme was launched by Department of Science and Technology.

NIDHI Programme:

- National Initiative for Developing and Harnessing Innovations (NIDHI) is an umbrella programme conceived and developed by the Innovation & Entrepreneurship division, Department of Science & Technology.
- It would work in line with the national priorities and goals.
- Its focus would be to build an innovation driven entrepreneurial ecosystem with an objective of socio-economic development through wealth and job creation.

GATEWAY

Aim:

• To nurture ideas and innovations into successful startups through scouting, supporting and scaling of innovations.

Key components of NIDHI:

- NIDHI-GCC Grand Challenges and Competitions for scouting innovations
- (NIDHI-PRAYAS) -PRomotion and Acceleration of Young and Aspiring technology entrepreneurs – Support from Idea to Prototype
- NIDHI-Entrepreneur In Residence (NIDHI-EIR) Support system to reduce risk
- Startup-NIDHI through Innovation and Entrepreneurship Development Centres (IEDCs) in academic institutions; encouraging Students to promote start-ups
- Start-up Centre in collaboration with MHRD; Inculcating a spirit of entrepreneurship in National Institutions of Higher Learning
- NIDHI-Technology Business Incubator (TBI) Converting Innovations to start-ups



- NIDHI-Accelerator Fast tracking a start-up through focused intervention
- NIDHI-Seed Support System (NIDHI-SSS)- Providing early stage investment
- NIDHI Centres of Excellence (NIDHI-CoE) A World class facility to help startups go global

NIDHI-EIR Programme:

- The NIDHI-EIR programme provides tremendous opportunities for innovative entrepreneurs to expand their networks and get critical feedback on their ventures in order to promote their entrepreneurial career goals and aspirations.
- Two editions of the EIR program has shown overwhelming impacts and has resulted in 65% conversion into startups.

• Objectives:

- ✓ To encourage graduating student to take to entrepreneurship by providing support as a fellowship.
- ✓ To provide a prestigious forum for deserving and budding entrepreneurs to pursue their ventures without any additional risks involved in technology based businesses.
- ✓ To create, nurture and strengthen a pipeline of entrepreneurs for incubators.
- ✓ To make pursuing entrepreneurship related to a technology business idea more attractive among options available career options.
- ✓ To enable creation of new start-ups by entrepreneurs and significant progress towards raising funding or investment.

Expected Outcome of the NIDHI-EIR:

- ✓ Conversion of at least 30 % of the support recipient's ideas into start-up companies.
- ✓ At least 10% support recipient raising funds or investment for his or her company within 18 months of NIDHI-EIR support.

3. National Training Academy for Rural Self-Employment Training Institutes

Why in News?

 Ministry of Rural Development laid e-Foundation stone laying ceremony of new training Institute of National Academy of RUDSETI (NAR) at Bengaluru.

Highlights:

• The NAR undertakes monitoring, mentoring and capacity building of the Rural Self-Employment Training Institutes staff, State/UT Rural Livelihood Mission staff and the concerned Bank officials on behalf of the Ministry of Rural Development.



• At present, these trainings are conducted in rented premises in Bengaluru or different premises in States/UTs.

Rural Development & Self-Employment Training Institute (RUDSETI):

- It is society established jointly by three agencies i.e. Syndicate Bank, Canara Bank and SDME Trust (Sri Dharmasthala Manjunatheshwara Education Trust) based at Ujire in Karnataka.
- The initiative was taken way back in 1982.
- Government of India, Ministry of Rural Development (MORD) has recognized RUDSETI approach of promoting micro enterprises as an effective model for addressing unemployment problem & creation of sustainable livelihood.
- Rural Self-Employment Training Institutes (RSETIs):
- RSETIs are unique initiative where State Governments, the Union Govt. and the commercial Banks are working together to address the issue of rural poverty.
- The institutions designed as to ensure necessary skill training and skill up gradation of the rural BPL youth to mitigate the unemployment problem.
- RSETI concept is based on RUDSETI (Rural Development and Self-Employment Training Institute).
- One RSETI is established in every district in the country. Concerned bank is the lead bank in the district takes responsibility for creating and managing it.
- Government of India will provide one time grant assistance, up to a maximum of Rs. 1 crore for meeting the expenditure on construction of building and other infrastructure.

Objectives:

- Rural BPL youth will be identified and trained for self-employment.
- The trainings offered will be demand driven.
- Area in which training will be provided to the trainee will be decided after assessment the candidate's aptitude.
- Hand holding support will be provided for assured credit linkage with banks.
- Escort services will be provided for at least for two years soon to ensure sustainability of micro enterprise trainees.
- The trainees will be provided intensive short-term residential self-employment training programmes with free food and accommodation.
- Programme Structure under RSETIs
 - ✓ Agricultural Programmes



- ✓ Product Programmes
- ✓ Process Programmes
- ✓ General Programmes Skill development programmes for women etc.
- ✓ Other Programmes related to sectors like leather, construction, hospitality and other

4. Kerala tops in care for children

Why in News?

 Young child outcomes report recently brought out by non-governmental organisation Mobile Creches.

Report:

- The index is part of the 'State of the Young Child' in India report released the 50-year-old NGO, which works in the field of early childhood care and development by ensuring creche services at construction sites and slum settlements across several cities.
- The index has been constructed for two time periods (2005–2006 and 2015–2016) to enable inter-State comparisons as well as provide an idea of change over time.
- Another index called the young child environment index by State of the Young Child' in India to understand the policy and environment enablers that influence a child's wellbeing.
- According to the environment index; Kerala, Goa, Sikkim, Punjab and Himachal Pradesh secured the top five positions.
- It uses five policy enablers that influence child well-being outcomes, including poverty alleviation, strengthening primary healthcare, improving education levels, safe water supply and Promotion of Gender Equity.

Highlights of the Report:

- The index measures health, nutrition and cognitive growth with the help of indicators such as infant mortality rate, stunting and net attendance at the primary school level.
- Kerala, Goa, Tripura, Tamil Nadu and Mizoram are among the top five States for well-being of children.
- It identifies eight States that have scores below the country's average: Assam, Meghalaya, Rajasthan, Chhattisgarh, Madhya Pradesh, Jharkhand, Uttar Pradesh and Bihar.
- Towards child nutrition, healthcare, education and other necessary protection services, India spent ₹1723 per child in 2018–2019.



• The budgetary allocation for the Ministry of Women and Child Development has seen a year-on-year increase, all the additional funds have been allocated towards nutrition delivery under the Integrated Child Development Scheme (ICDS).

5. Global Multidimensional Poverty Index (Global MPI)

Why in News?

 NITI Aayog, as the nodal agency, has been assigned the responsibility of leveraging the Monitoring Mechanism of the Global Multidimensional Poverty Index (MPI) to drive reforms.

Highlights:

- The NITI Aayog will leverage the monitoring mechanism of the Global Multidimensional Poverty Index (MPI) to push forward reforms in the country and for this, it has also set up a coordination committee, called the Multidimensional Poverty Index Coordination Committee (MPICC).
- The NITI Aayog is the Nodal Agency for Global MPI.
- The MPICC has members from relevant line Ministries and Departments, namely Ministry/Department of Power, WCD, Telecommunication, Statistics and Programme Implementation, Rural Development, Petroleum & Natural Gas, Food & Public Distribution, Drinking Water & Sanitation, Education, Housing & Urban Affairs, Health & Family Welfare, and Financial Services.
- These Ministries/ Departments have been mapped to the ten parameters of the index (mentioned below).
- Preparation of an MPI Parameter Dashboard to rank States and UTs, and a State Reform Action Plan (SRAP) are at an advanced stage of development.
- The MPI is one of the 29 global indices that the government has selected to monitor India's performance in.
- This exercise called the Global Indices to Drive Reforms and Growth (GIRG), has the
 objective of enabling the utilisation of these indices as tools for self-improvement, bring
 about reforms in policies, while also improving last-mile implementation of government
 schemes.



6. Aatmanirbhar Bharat ARISE-Atal New India Challenges

Why in News?

 Atal Innovation Mission (AIM), NITI Aayog launched one of its most awaited programme, the Aatmanirbhar Bharat ARISE-Atal New India Challenges, to spur applied research and innovation in Indian MSMEs and startups.



Highlights:

- The programme will be driven by Indian Space Research Organization (ISRO), four ministries—Ministry of Defence; Ministry of Food Processing Industries; Ministry of Health and Family Welfare; and Ministry of Housing and Urban Affairs.
- And also by the associated industries to facilitate innovative solutions to sectoral problems.

Challenges for startup and MSME:

- The government think tank NITI Aayog announced 15 new challenges for India's startup and MSME ecosystem to address.
- Each challenge will have two winners, each eligible for a grant of up to ₹50 lakhs, which will be given in three tranches.
- Only projects which are in advanced stages of research and development or have an initial prototype will be selected.

List of Challenges:

- ISRO:
 - ✓ Propulsion: Green propellants, electric propulsion and advanced air-breathing.



- ✓ Geo spatial information: Using ML/AI useful in crop monitoring, weather forecasting, and program evaluations.
- ✓ Robotics/AR/VR: To support space exploration and outer space monitoring.

• Ministry of Defence:

- ✓ AI-based predictive models: AI-based predictive maintenance of plant machinery.
- ✓ Auto stabiliser system: Design and development of latest technology auto stabiliser system as form, fit & function (FFF) replacement of existing auto stabilizer system.
- ✓ Communication modems: Wide band HD data communication modem with 4G automatic link establishment data throughputs of the order of 120 kbps.

• Ministry of Food Processing Industries:

- ✓ Waste to wealth: Effective utilisation of commercial food processing industry waste streams. Alternative food packaging materials: Against the use of single use plastic materials from food waste to bio-sources.
- ✓ Machines for indigenous food products: Optimised processing conditions and machinery for bulk production of native Indian products.

• Ministry of Health and Family Welfare:

- ✓ Health data analytics: Use of data analytics to identify early breakout of epidemics based on the historic curve and data.
- ✓ AI solutions: AI-based solutions for antimicrobials resistance (AMR) surveillance.
- ✓ Health care monitoring: Monitoring the logistics of cold chains in immunisation program.

Ministry of Housing and Urban affairs:

- ✓ Project water: Water pressure sensing systems to monitor leakage, illegal activity and help manage planned pressure in water supply lines.
- ✓ Project clean air: Development of smart technology to reduce pollution through construction dust by at least 25%.
- ✓ Project move: Development of usable smart technology to create a real-time mobility decision support system for Indian cities.

• Key Facts:

- ✓ ISRO to adopt 100 Atal Tinkering Labs from Atal Innovation Mission.
- ✓ Officials stressed on attracting innovators using the Mahatma Gandhi Challenge method.
- ✓ Minister of Road Transport and Highways laid emphasis on developing the MSME sector with the help of the ARISE-ANIC initiative under Atal Innovation Mission.



7. NSO Report on Education

Why in News?

• In the 75th round of the National Sample Survey, conducted between June 2017 and July 2018, households were surveyed on consumption related to education.

Highlights:

- One in five students in India supplements school education with private coaching, including almost one in three at the secondary school level or Classes 9 and 10.
- Private coaching fees make up almost 20% of the total cost of education for those in secondary and higher secondary school.
- The report shows that 19.8% of students at all levels from pre-primary to graduate students- take some form of private coaching.
- Among Class 9 and 10 students, starting to prepare for the crucial board exams and admission tests, more than 30% do private coaching.
- Among secondary school students, those from the cities and upper castes are able to access private coaching at far higher levels.
- More than 52% of urban upper caste boys take coaching, in comparison to just 13.7% of rural boys and girls from scheduled tribe communities.
- The average annual expenditure on education for secondary school students is ₹9,013, of which ₹4,078 goes towards regular school fees.
- About ₹1,632, or just over 18%, goes towards private coaching. In higher secondary school, students spend more than ₹2,500, also about 18% of the total expenditure, on private coaching.
- Some States in eastern India seem to spend more on private coaching than the rest of the country. In West Bengal, students actually spend more on private coaching than on their Regular School.

NSSO Survey:

- The first all-India survey on social consumption was conducted by National Statistical Office (NSO) in its 35th round (1981).
- Objective of the survey: to make an assessment of the benefits derived by various sections
 of the society from public expenditure such as health services, educational services, public
 Distribution System, Etc.



8. SHG being geared up to prepare VPRP for integration with GPDP

Why in News?

• Self Help Groups across the country being geared up to prepare the Village Poverty Reduction Plan for integration with the Gram Panchayat Development Plans.

Gram Panchayat Development Plan (GPDP):

- In 2015, the Fourteenth Finance Commission grants were devolved to Gram Panchayats that provided them with an enormous opportunity to plan for their development themselves. GPDP is an annual plan of each panchayat where the villagers would decide where the money should be spent. Since then, local bodies, across the country are expected to prepare Gram Panchayat Development Plans. GPDP planning process has to be based on full convergence with Schemes of all related Central Ministries / Line Departments related to 29 subjects enlisted in the Eleventh Schedule of the Constitution.
- GPDP campaign will be an intensive and structured exercise for planning at Gram Sabha level through convergence between Panchayati Raj Institutions (PRIs) and concerned Line Departments of the State. GPDP is conducted from 2nd October to 31st December, every year across the country, under the People's Plan Campaign (PPC).
- Ministry of Panchayati Raj and Ministry of Rural Development, has mandated Self Help Groups under Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM) to participate in the annual GPDP planning process and prepare the Village Poverty Reduction Plan (VPRP).

Village Poverty Reduction Plan (VPRP):

- VPRP is a comprehensive demand plan prepared by the Self Help Group (SHG) network
 and their federations for projecting their demands and local area development which
 needs to be integrated with the Gram Panchayat Development Plan (GPDP).
- The VPRP is presented in the Gram Sabha meetings from Oct. to Dec. every year.
- It is an integral component of the convergence effort between the DAY-NRLM and Panchayati Raj Institutions.

Objectives of VPRP:

- Prepare a comprehensive and an inclusive demand plan of the community for local development Facilitate an interface between the SHG federation and Panchayati Raj institutions for development of demand plan
- Strengthen the community based organisations and their leadership for active participation in poverty reduction activities



Components of VPRP:

- Social inclusion plan for inclusion of vulnerable people/household into SHGs under NRLM
- Entitlement demand for various schemes such as MGNREGS, SBM, NSAP, PMAY, Ujjwala, Ration card etc.
- Livelihoods specific demand for enhancing livelihood through developing agriculture, animal husbandry, production and service enterprises and skilled training for placement etc. Public Goods and Services – demand for necessary basic infrastructure, for renovation of the existing infrastructure and for better service delivery
- Resource Development demand for protection and development of natural resources like land, water, forest and other locally available resources
- Social Development plans prepared for addressing specific social development issues of a village under the low cost no cost component of GPDP.

9. Censorship Before a Show

Why in News?

- Different courts recently gave conflicting rulings involving the broadcast of two shows- a programme on Sudarshan TV and the Netflix documentary Bad Boy Billionaires.
- Supreme Court refused to stay the broadcast, while the Delhi High Court Bench granted an interim injunction restraining the telecast.

Cable Television Network (Regulation) Act, 1995:

• Section 5 of the act prescribes that "no person shall transmit or re-transmit through a cable service any programme unless such programme is in conformity with the prescribed programme code. Section 19 gives the power to prohibit a broadcast in the public interest if the programme is "likely to promote, on grounds of religion, race, language, caste or community or any other ground whatsoever, disharmony or feelings of enmity, hatred or ill-will between different religious, racial, linguistic or regional groups or castes or communities or which is likely to disturb the Public Tranquillity".

What is Prior Restraint?

- Prior restraint is prohibiting the exercise of free speech before it can take place.
- Imposition of pre-censorship or prior restraint on speech is a violation of the fundamental right to freedom of speech and expression enshrined in Article 19 (1) (a) of the Constitution.



- Any restrictions imposed on this right have to be found under Article 19(2) of the Constitution, which lists out "reasonable restrictions" that include interests of the sovereignty and integrity of India, security of the state, public order, and incitement to an offence.
- Any legislation that imposes a prior restraint on speech usually has the burden to show
 that the reason for such restraint can be found under Article 19(2). It is generally allowed
 only in exceptional circumstances.
- The idea is that speech can be restricted only when judged on its actual content and not pre-emptively based on perceptions of what it could be.
- The court has adopted the "proximity" test to determine if public order would be affected to allow prior restraint- the state is required to demonstrate a proximate link between public order and the speech.

10. Proposed Pesticides Management Bill, 2020

Why in News?

- The Pesticides Management Bill (PMB), 2020 introduced in the Rajya Sabha on March 23, 2020 to replace The Insecticides Act, 1968.
- The Insecticides Act, 1968 currently governs the registration, manufacturing, export, sale and use of pesticides in India.

Pesticides Management Bill (PMB), 2020:

- The bill will come up for discussion in the upcoming Monsoon Session of Parliament that starts on September 14.
- The PMB defines pesticides as substances that destroy or control the spread of pests in agricultural commodities and animal feeds.
- The Bill includes a provision to compensate farmers in case of losses due to the use of spurious or low-quality pesticides. The punishment for cheating farmers has also been drastically enhanced so that it will act as a deterrent to wrong-doers.
- The Centre may also form a fund to handle compensation in cases of losses due to the application of pesticides.
- Any person who wants to import, manufacture or export pesticides will have to register
 under the new Bill and provide all details regarding any claims, expected performance,
 efficacy, safety, usage instructions etc. The information will also include details on the
 pesticide's potential effects on the environment.



- PMB, 2020 would not allow the manufacture and export of pesticides not registered for use in India even if these are approved in other countries.
- PMB 2020 also has strict penalties for wrongdoers, ranging from fines of Rs. 50 lacs to 5
 years imprisonment. Experts call for wider consultations on the bill and for it to be placed
 before a select committee.

Are Experts Satisfied with the Bill?

- Experts said PMB should allow Indian entities to manufacture and export of non registered (in India) pesticides, which would help generate employment opportunities and earn foreign exchange.
- PMB, 2020 does not reflect the government's repeated emphasis on the need for doubling farmer's income by 2022.
- The demands presented by the Ashok Dalwai Committee, constituted in 2018 to promote
 domestic and indigenous industries and agricultural exports from India, are missing from
 PMB, 2020. The present PMB, however, will increase the import of formulations and will
 damage the export of agro-chemicals
- Another body, Bharat Krishak Samaj, has also said that the provisions in the bill may increase import of formulations, and will discourage export of agro chemicals, hurting the local agriculture ecosystem.
- The Bill has been drafted without considering views of all stakeholders, including farmers, industries, NGOs and government organisations.
- The Bill needs to be placed before an advisory committee of Parliament.

Key Facts:

- India is the fourth-largest producer of pesticides in the world, with the market segmentation tilted mainly towards insecticides, with herbicides on the increase in the recent past.
- It is reported that eight states consume more than 70% of the pesticides used in India.
- Amongst the crops, paddy accounts for the maximum share of consumption (26-28%), followed by cotton (18-20%), notwithstanding all the hype around Bt technology.
- There are 292 pesticides registered in the country, and it is estimated that there are around 104 pesticides that are continued to be produced/ used in India that have been banned in two or more countries in the world.
- The industry has grown to be an INR 20,000 crores business in India, with the top 3 companies having a market share of 57%.



11. Mahanadi Water Disputes Tribunal

Why in News?

• The Mahanadi Tribunal was formed in 2018 to settle the inter-state water dispute between Odisha and Chhattisgarh with respect to sharing of the waters of the Mahanadi River.

Dispute:

- The dispute between the two states over the Mahanadi originated when Odisha claimed that Chhattisgarh had "illegally" constructed several barrages across the river and its tributaries, which had seriously affected inflow into the Hirakud reservoir in Odisha, particularly in the non-monsoon seasons. What triggered the dispute was Odisha's allegation of reduced flow of water into the Hirakud.
- The location of the dam is problematic since although it is situated in Odisha, most of its catchment area (about 90%) lies in Chhattisgarh.
- The reservoir's main role is to moderate floods in the Mahanadi and hence, it has to remain empty for most of the monsoon season to be ready to accommodate excess water in times of need. Apart from that, it also has an objective of ensuring flow in the Mahanadi to meet drinking water, ecological and other needs.
- The dam has a large direct irrigation command in the western parts of Odisha and a big indirect irrigation command in the deltaic areas in eastern parts of the state. It is one of the important generators of hydro-power in Odisha and a large supplier of water to industrial and urban demands.

Mahanadi River:

- It is a major river in East-Central India.
- It flows through the states of Madhya Pradesh, Chhattisgarh and Odisha.
- It forms a delta before flowing into the Bay of Bengal.
- The chief tributaries of Mahanadi are Seonath, Jonk, Hasdo, Mand, Ib, Ong, Tel, etc.

Hirakud Dam:

- Built across the Mahanadi, it is one of the first major multipurpose river valley projects started after India's independence.
- It was opened in 1957 and is one of the longest earthen dams in the world.
- It is located about 15 km from Sambalpur in Odisha.
- Debrigarh Wildlife Sanctuary is situated near the Hirakud Dam. It is notified as an Eco-Sensitive Zone by the Environment Ministry.



12. Bills for Transformation of Agriculture in Lok Sabha

Why in News?

• Three bills aimed at transformation of agriculture and raising farmers' income were introduced in Lok Sabha recently.

Highlights:

- 1. The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Bill, 2020:
 - ✓ The Bill seeks to provide for creation of an ecosystem where farmers and traders enjoy the freedom of choice relating to sale and purchase of farmers' produce.
 - ✓ It facilitates remunerative prices through competitive alternative trading channels to promote efficient, transparent and barrier-free inter-State and intra-State trade and commerce.
 - ✓ It aims to provide a facilitative framework for electronic trading and for matters connected therewith or incidental thereto.
- 2. Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Bill, 2020:
 - ✓ The Bill seeks to provide for a national framework on farming agreements that protects and empowers farmers.
 - ✓ It aims to engage with agri-business firms, processors, wholesalers, exporters or large retailers for farm services and sale of future farming produce at a mutually agreed remunerative price framework in a fair and transparent manner.
- 3. The Essential Commodities (Amendment) Bill, 2020:
 - ✓ The Bill seeks to remove commodities like cereals, pulses, oilseeds, edible oils, onion and potatoes from the list of essential commodities.
 - ✓ This will remove fears of private investors of excessive regulatory interference in their business operations.
 - ✓ The freedom to produce, hold, move, distribute and supply will lead to harnessing of economies of scale and attract private sector/foreign direct investment into agriculture sector.

Need for Bills:

- Farmers in India suffered from restrictions in selling agri-produce outside the notified APMC market yards.
- Barriers existed in free flow of agriculture produce between various States owing to the prevalence of various APMC legislations enacted by the State Governments.



- Indian agriculture is characterized by fragmentation due to small holding sizes and has
 certain weaknesses such as weather dependence, production uncertainties and market
 unpredictability. This makes agriculture risky and inefficient in respect of both input &
 output management. While India has become surplus in most agri-commodities, farmers
 have been unable to get better prices due to lack of investment in cold storage, warehouses,
 processing and export as the entrepreneurial spirit gets dampened due to Essential
 Commodities Act.
- Farmers suffer huge losses when there are bumper harvests, especially of perishable commodities.

Significance:

- It will reduce cost of marketing and improve income of farmers.
- Farmers will engage in direct marketing thereby eliminating intermediaries resulting in full realization of price. Farmers have been provided adequate protection.
- Effective dispute resolution mechanism has been provided for with clear time lines for redressal. The legislation will transfer the risk of market unpredictability from the farmer to the sponsor and also enable the farmer to access modern technology and better inputs.
- The legislation will help drive up investment in cold storages and modernization of food supply chain.

13. Telangana opposes amendments to Electricity Act

Why in News?

• The Telangana State Legislative Assembly unanimously adopted a resolution opposing the Electricity (Amendment) Bill, 2020 stating it is detrimental to State and farmers' interests.

Electricity (Amendment) Bill, 2020:

- The Central government has introduced the Electricity (Amendment) Bill 2020 to amend various provisions in the Electricity Act 2003.
- The amendment aims to address critical issues weakening the commercial and investment activities in the electricity sector of the country.

Key Objectives of the Bill:

- ✓ Ensure consumer centricity
- ✓ Promote Ease of Doing Business
- ✓ Enhance sustainability of the power sector
- ✓ Promote Green Power



✓ Provide Central government more power to determine tariff and regulations.

Key Amendments in the Bill:

• National Selection Committee:

✓ Instead of separate Selection Committee (for the appointment of Chairperson and members of State Electricity Regulatory Commissions-SERCs), the bill proposed to set up a National Selection Committee.

• Direct Benefit Transfer:

✓ The bill proposed Direct Benefit Transfer (DBT) which will be beneficial for both the State Governments and as well as Distribution Companies.

• National Renewable Energy Policy:

- ✓ India is a signatory to Paris Climate Agreement.
- ✓ It is therefore proposed to have a separate policy for development and promotion of generation of electricity from renewable sources of energy.
- ✓ The policy in the Bill prescribes a minimum percentage of purchase of electricity from renewable sources of production.
- ✓ It also seeks to give special attention to hydro power.

Sustainability:

- ✓ In the past, there have been issues of lazy attempts from the commissions in adopting the tariffs determined, causing cost escalation problem.
- ✓ To address this problem, the Amendment prescribes a period of 60 days to adopt the determined tariffs.
- ✓ Failing to do so would result in the tariff being deemed to be accepted.

Payment Security:

- ✓ The Bill also proposes to empower Load Dispatch Centres to oversee the establishment of adequate payment security mechanisms before dispatch of electricity, as per contracts.
- ✓ This has been proposed keeping in view the case of late payment of dues of generating and transmission companies which have reached unsustainable levels as they not only impair the finances of the Gencos and Transcos but also increase the Non-Performing Assets of the Banks.

• Ease of Doing Business:

✓ The Bill also proposed the establishment of Electricity Contract Enforcement Authority (ECEA), an Authority headed by a retired Judge of the High Court with powers to execute their orders as decree of a civil court.



✓ The Authority will enforce performance of contracts related to purchase or sale or transmission of power between a generating company, distribution licensee or transmission licensee.

• Subsidy:

- ✓ The Bill proposes for the SERCs to reduce cross subsidies as per the provisions of the Tariff Policy.
- ✓ It also proposed strengthening of the Appellate Tribunal by increasing the strength to at least seven to facilitate quick disposal of cases.

Objections:

- The cost-reflective tariff has been a concern for states like Telangana which provide free electricity to the farming sector.
- Formation of Electricity Contract Enforcement Authority (ECEA) has also been criticized as a move towards centralization of power.
- It is feared that recognition of franchisees and sub-licensees might open the sector to Private Players.

14. Criminal Law Reform Committee

Why in News?

• The Ministry of Home Affairs has constituted a Committee for Reforms in Criminal Laws.

GATEWAYY

Highlights:

- The mandate of the committee is to recommend reforms in the criminal laws of the country in a principled, effective, and efficient manner which ensures the safety and security of the individual, the community and the nation; and which prioritises the constitutional values of justice, dignity and the inherent worth of the individual.
- The Committee is being headed by Chairperson Ranbir Singh (vice-chancellor, National Law University Delhi).
- The guiding principles of this committee are:
 - ✓ Primacy of Constitution
 - ✓ Primacy of human rights
 - ✓ Simplified, unambiguous and consistent procedure
 - ✓ Fair and time-bound investigation as well as trial
 - ✓ Transparency and accountability
 - ✓ Victim justice



- ✓ Principled sentencing
- ✓ Infusing techno-centricity
- ✓ Revisiting the relationship between the state and the individual
- ✓ Balancing the rights of the victims vis-à-vis the accused
- The Committee is required to look at substantive criminal law, procedural law and law of evidence.
 - ✓ Under substantive criminal law, it is looking at revising definitions of offences, punishments, reviewing amounts of fine, identifying offences requiring addition to the IPC, identifying redundant offences and so on.
 - ✓ Under procedural law, the committee will largely look at restructuring the Criminal Procedure Code (CrPC) in line with the preferred model of criminal process and specifically looking at streamlining the trial process, strengthening the plea bargaining process, reforming punishments, developing a coherent sentencing policy, aligning the code with judicial decisions and so on.
- Under the law of evidence, it will look into exclusionary rules for admissibility of evidence, updating admissibility of electronic evidence and so on.

Concerns with the Committee:

- A few concerns have been expressed by experts regarding the Criminal Law Reform Committee. There are criticisms that the members are all men, from two metro cities, no women, no Dalits, no Adivasis, no transgender or queer persons, no nomadic and denotified tribes, no persons with disabilities and no religious minorities.
- There are also criticisms that the whole process is being carried out only in English, thus making it exclusive of people who can communicate only in regional languages.

15. Banking Regulation (Amendment) Bill, 2020

Why in News?

 The Lok Sabha has passed an amendment to the Banking Regulation Act, 1949, which will bring cooperative banks under the direct supervision of the RBI and bring them under some of the same governance norms as commercial banks.

Highlights:

• Banking Regulation (Amendment) Bill was passed by the Lok Sabha and will replace an ordinance that was promulgated in June amid the coronavirus pandemic.



- It is applicable to those cooperative banks which deal with "bank, banker and banking".
- The opposition has stated that the bill is an encroachment on federalism.

Why have the Amendments been Proposed?

- The Banking Regulation Act, 1949 is being amended due to the stress under which the cooperative banks are functioning
- As many as 430 cooperative banks have been delicensed and liquidated over the last two
 decades, while not a single commercial bank has gone into liquidation under the oversight
 of the RBI. The decision has also come against the backdrop of scams at cooperative banks,
 including at the Punjab and Maharashtra Cooperative (PMC) Bank that came to light last
 year in 2019.

Key Features of the Bill:

- The Bill allows the central bank to initiate a scheme for reconstruction or amalgamation of a bank without placing it under moratorium.
- If the central bank imposes moratorium on a bank, the lender can not grant any loans or make investments in any credit instruments during the moratorium tenure, according to the Bill.
- The co-operative banks will be allowed to issue equity, preference, or special shares on face value or at a premium to its members, or to any other person residing within their area of operations. The banks may also issue unsecured debentures or bonds or similar securities with maturity of ten or more years to such persons. However, a prior approval from RBI is mandatory for such issuance.
- No person will be entitled to demand payment towards surrender of shares issued to him by a co-operative bank, the Bill states.
- The Bill mentions that RBI may exempt a cooperative bank or a class of cooperative banks
 from certain provisions of the Act through notification. These provisions are related to
 employment, the qualification of the board of directors and, the appointment of a
 chairman.
- RBI may supersede the board of directors of a multi-state co-operative bank for up to five
 years under certain conditions. These conditions include cases where it is in the public
 interest for RBI to supersede the Board, and to protect depositors.
- The Bill discards the provision of Banking Regulation Act, 1949 that cooperative banks cannot open a new place of business or change the location of the banks outside of the village, town, or city in which it is currently located without permission from RBI.



• The changes will not affect the existing powers of the state registrars of co-operative societies under state laws. "This Bill does not regulate cooperative banks.

The Amendments will not apply to which of the Following?

- The amendments will not affect existing powers of the State Registrars of Co-operative Societies under state co-operative laws.
- The amendments also do not apply to Primary Agricultural Credit Societies (PACS) or cooperative societies whose primary object and principal business is long-term finance for agricultural development, and which do not use the words "bank", "banker" or "banking" and do not act as drawees of cheques, as per the statement.

Benefits of the Bill:

• The amendment will help in protecting the interests of depositors and also strengthen cooperative banks by improving governance and oversight by extending powers already available with the RBI in respect of other banks to co-operative banks as well for sound banking regulation.

16. Learning Artificial Intelligence

Why in News?

• Artificial Intelligence (AI) has been introduced as a subject in class IX from the session 2019-20 in Central Board of Secondary Education affiliated Schools.

GATEWAY

Highlights:

- CBSE has collaborated with several organizations such as Intel, IBM, Microsoft, Private Schools, etc for designing the curriculum and textbook material of the Subject.
- Similarly, All India Council for Technical Education which is a regulatory body for technical education under Ministry of Education, under its scheme, National Educational Alliance for Technology selected Ed-Tech companies who are providing AI-based personalized adaptive learning solutions in various disciplines.

National Educational Alliance for Technology (NEAT) Scheme:

- The scheme was launched by the Ministry of Education (MoE).
- Public-private partnership (PPP) with EdTech companies will be adopted.
- It aims to provide wider access to adaptive learning technologies using artificial intelligence (AI). As well as make learning more personalised and customised as per the learner's Requirements.



- The technology will be used for better learning outcomes in Higher Education.
- NEAT will be administered by an apex committee constituted by the Ministry, with independent expert panels being set up to evaluate and select the best EdTech solutions. All India Council for Technical Education (AICTE) would be the implementing agency.

Implementation:

- MoE would act as a facilitator to ensure that the solutions are freely available to a large number of economically backward students.
- A NEAT Portal will be created and maintained by MoE.
- EdTech companies would be responsible for developing solutions and manage the registration of learners through the NEAT Portal.

17. HIV/AIDS Patients in India

Why in News?

• As per the latest HIV estimates report (2019) of the Government, India is estimated to have around 23.49 lakh people living with HIV/AIDS (PLHIV) in 2019. The HIV epidemic has an overall decreasing trend in the country with the estimated annual new HIV infections declining by 37% between 2010 and 2019.

Causes of HIV infection in India:

- Engagement in high-risk behaviours:
 - ✓ Unprotected Sexual Behaviours
 - ✓ Unsafe injecting drug use behaviour

National AIDS Control Organisation (NACO):

- NACO is a division of the Ministry of Health and Family Welfare that provides leadership to HIV/AIDS control programme in India through 35 HIV/AIDS Prevention and Control Societies.
- In 1986, following the detection of the first AIDS case in the country, the National AIDS Committee was constituted in the Ministry of Health and Family Welfare.
- As the epidemic spread, the need was felt for a nationwide programme and an organization to steer the programme. In 1992 India's first National AIDS Control Programme (1992-1999) was launched, and National AIDS Control Organization (NACO) was constituted to implement the programme.
- NACO envisions an India where every person living with HIV has access to quality care and is treated with dignity.



- Effective prevention, care and support for HIV/AIDS is possible in an environment where
 human rights are respected and where those infected or affected by HIV/AIDS live a life
 without stigma and discrimination.
- NACO works to contain the spread of HIV in India by building an all-encompassing response reaching out to diverse populations.

18. Association of World Election Bodies

Why in News?

- ECI to host an international webinar on 'Issues, Challenges and Protocols for Conducting Elections during COVID-19: Sharing Country Experiences'.
- The webinar is on the occasion of the Election Commission completing one year of chairmanship of the Association of World Election Bodies (A-WEB).
- Over 120 delegates from 45 countries across the world will participate in the webinar.

Association of World Election Bodies (A-WEB):

- It is the largest association of Election Management Bodies (EMBs) worldwide.
- At present A-WEB has 115 EMBs as Members & 16 Regional Associations/Organisations as
 Associate Members. ECI is closely associated with A-WEB. The name A-WEB was
 suggested by the ECI of India. The organisation provides training programmes to election
 officials of member countries upon request and also offers support during the election
 cycle to boost election management capacity.
- The India A-WEB Centre is located in New Delhi.
- A-WEB was established in South Korea in 2013.
- The current chairman of the organisation is India's Chief Election Commissioner Sunil Arora.

19. Official Secrets Act

Why in News?

The Delhi police has arrested a strategic affairs analyst and two others – a 30- year-old
 Chinese woman and her Nepalese accomplice under the Official Secrets Act, 1923.

Official Secrets Act:

 OSA has its roots in the British colonial era and the original version was The Indian Official Secrets Act (Act XIV), 1889.



- Objective: To suppress the voice of a large number of newspapers in several languages,
 opposing the Raj's policies and building political consciousness.
- It was amended and made more stringent in the form of The Indian Official Secrets Act, 1904, during Lord Curzon's tenure as Viceroy of India.
- The Indian Official Secrets Act was extended in 1923 to all matters of secrecy and confidentiality in governance in the country.
- The Act was retained after independence.

The Act deals with:

- ✓ It broadly deals with two aspects:
- ✓ Spying or espionage covered under Section 3.
- Disclosure of other secret information of the government under Section 5.
- Secret information can be any official code, password, sketch, plan, model, article, note, document, or information.
- Under Section 5, both the person communicating the information and the person receiving the information can be punished.
- If guilty, a person may get up to 14 years' imprisonment, a fine, or both.
- OSA itself does not say what a secret document is. It is the government's discretion to decide what falls under the ambit of a secret document to be charged under OSA.
- It has often been argued that the law is in direct conflict with the Right to Information Act, 2005.

Between the RTI Act and OSA, which has primacy?

- Section 22 of the RTI Act provides for its primacy vis-a-vis provisions of other laws, including OSA. This gives the RTI Act an overriding effect, notwithstanding anything inconsistent with the provisions of OSA.
- So, if there is any inconsistency in OSA with regard to furnishing of information, it will be superseded by the RTI Act.
- However, under Sections 8 and 9 of the RTI Act, the government can refuse information.
- If the government classifies a document as secret under OSA Clause 6, that document can be kept outside the ambit of the RTI Act, and the government can invoke Sections 8 or 9.

Efforts to change provisions of OSA:

1. Law Commission, 1971:

✓ In 1971, the Law Commission became the first official body to make an observation regarding OSA.



- ✓ It observed that merely because a circular is marked secret or confidential, it should not attract the provisions of the Act if the publication thereof is in the interest of the public and no question of national emergency and interest of the State as such arises.
- ✓ The Law Commission, however, did not recommend any changes to the Act.

2. Second Administrative Reforms Commission, 2006:

- ✓ In 2006, the Second Administrative Reforms Commission (ARC) recommended that OSA be repealed.
- ✓ It needed to be replaced with a chapter in the National Security Act containing provisions relating to official secrets.
- ✓ It was cited that OSA was incongruous with the regime of transparency in a democratic society.

3. Recent efforts:

- ✓ In 2015, the government had set up a committee to look into provisions of the OSA in light of the RTI Act.
- ✓ It submitted its report to the Cabinet Secretariat on June 16, 2017, recommending that OSA be made more transparent and in line with the RTI Act.

20. TRAI recommends body to Monitor Net Neutrality

Why in News?

Recently, the Telecom Regulatory Authority of India has recommended the creation of a
multi-stakeholder body (MSB) to ensure that Internet access providers adhere to the
provisions of net neutrality.

Multi-Stakeholder Body:

- To be established by the Department of Telecommunications (DoT).
- The Multi-Stakeholder Body (MSB) could include telecom service providers, Internet service providers, content providers, researchers, academic and technical community, civil society organisations, and the government.
- It should be set up as a non-profit entity.
- MSB will help DoT in the maintenance of a repository of reasonable traffic management practices.
- MSB is required to investigate complaints regarding the violation of net neutrality.
- The net neutrality principles adopted by DoT were technology-neutral and would apply equally to 5G technology.



Telecom Regulatory Authority of India (TRAI):

- The Telecom Regulatory Authority of India (TRAI) is a statutory body set up by the Government of India under the Telecom Regulatory Authority of India Act, 1997.
- The TRAI (Amendment) Act, 2000 had led to the reconstitution of the Authority. It consists of one Chairperson, two full-time members and two part-time members. Also led to the establishment of Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT) to take over the adjudicatory and disputes functions from TRAI.

Goals and Objectives of TRAI:

- Increasing tele-density and access to telecommunication services in the country at affordable prices.
- Making available telecommunication services which in terms of range, price and quality are comparable to the best in the world.
- Providing a fair and transparent policy environment which promotes a level playing field and facilitates fair competition.
- Establishing an interconnection regime that allows fair, transparent, prompt and equitable interconnection.
- Re-balancing tariffs so that the objectives of affordability and operator viability are met in a consistent manner.
- Protecting the interest of consumers and addressing general consumer concerns relating to availability, pricing and quality of service and other matters.
- Monitoring the quality of service provided by the various operators.
- Providing a mechanism for funding of net cost areas/ public telephones so that Universal Service Obligations are discharged by telecom operators for the spread of telecom facilities in remote and rural areas.
- Preparing the grounds for a smooth transition to an era of convergence of services and technologies.
- Promoting the growth of coverage of radio in India through commercial and noncommercial channels.
- Increasing consumer choice in reception of TV channels and choosing the operator who would provide television and other related services.



21. Epidemic Diseases Bill

Why in News?

- Lok Sabha passed the Epidemic Diseases (Amendment) Bill, 2020 to protect healthcare professionals against violence during crises such as the covid-19 pandemic.
- The Epidemic Diseases (Amendment) Bill, 2020, will replace the Epidemic Diseases (Amendment) Ordinance 2020 issued in April by the government to amend the Epidemic Diseases Act, 1897.

Epidemic Diseases (Amendment) Bill, 2020:

- The bill covers public and clinical healthcare service providers, such as doctors, nurses, paramedical workers, community health workers, and persons empowered under the Epidemic Diseases Act. Provides for up to seven years in jail for those attacking healthcare workers fighting the coronavirus or during any situation akin to the current pandemic.
- The bill intends to ensure that during any situation akin to the current pandemic, there is zero-tolerance to any form of violence against healthcare personnel and damage to property. The amendment bill states that any commission or abetment to acts of violence shall be punished with imprisonment of three months to five years and a fine of ₹50,000 to ₹2 lakh. If the attackers cause grievous hurt, they can be imprisoned for six months to seven years with fine of ₹1 lakh to ₹5 lakh.
- The offender will also be liable to pay compensation to the victim and twice the fair market value for damage of property.

22. IIIT Laws (Amendment) Bill 2020 passed in RS

Why in News?

- The Indian Institutes of Information Technology Laws (Amendment) Bill, 2020 was passed in Lok Sabha on 20th March 2020.
- The emerging needs of the industry and the economy, as a whole for skilled technical manpower is expected to be met from the talent pool of trained personnel of the institutes.

Highlights:

 The Indian Institutes of Information Technology Act of 2014 and Indian Institutes of Information Technology (Public-Private Partnership) Act, 2017 are the unique initiatives of the Government of India to impart knowledge in the field of Information Technology to provide solutions to the challenges faced by the country.



- IIITs are envisaged to promote higher education and research in the field of Information Technology.
- The Scheme of Setting up of 20 new IIITs in Public Private Partnership (IIIT PPP) mode was approved by the Union Cabinet on 26.11.2010.

Amendments:

- The Bill will declare 5 IIITs in Public-Private Partnership mode at Surat, Bhopal, Bhagalpur, Agartala & Raichur as Institutions of National Importance by granting them statutory status.
- Selected five IIITs are already functioning as Societies registered under Societies Registration Act of 1860.
- They will now be covered under the IIIT (PPP) Act, 2017, similar to the other 15 IIITs established under the scheme in PPP mode.
- The Bill will entitle the institutions to use the nomenclature of Bachelor of Technology (B. Tech) or Master of Technology (M. Tech) or PhD degree as issued by a University or Institution of National Importance.
- The Bill will also enable the Institutes to attract enough students required to develop a strong research base in the country in the field of Information Technology.

23. Social Stock Exchange

GATEWAYY

Why in News?

• The Securities and Exchange Board's (SEBI) working group has submitted its report with recommendations regarding the structure, mechanisms, and regulatory framework for the proposed Social Stock Exchange (SSE).

Issues with the idea of Social Stock Exchange:

- SSE exists in one form or another in UK, Singapore, South Africa, Canada and Brazil, but it is yet to take off in any country.
- It has been an instrument focussed on social enterprises with rather poor results.
- The proposed SSE in our country could have been an interesting innovation if it was first.
- Replicating an experiment from elsewhere in an extremely complex environment of endemic poverty, high inequality and regional variation does not seem a reasoned decision.
- It is therefore important to analyse why it has been pushed as a key policy.



Why Civil Society is Sceptical:

- The 2020-21 Union Budget says that not-for-profit organisations will need to apply every five years for income tax registration to ascertain their charitable status.
- They will also need to renew their 8o(G) certificate that provides tax relief to their donors.
- The not-for-profit sector would not be able to survive without the tax-exempt charitable status.
- These restrictions will open the gates to corruption and bullying by the tax and government bureaucracy.
- The SEBI working group was constituted of business leaders, government and SEBI officials with a token representative from civil society.
- Composition of the committee reflects the real intent of the SSE, which is to create instruments for market to enter the social sector.
- However, the way the exchange is envisioned makes it clear that the interests of the private sector are guiding the idea of SSE.

Will the entry of Private Sector Benefit Social Sector:

- The proponents of the SSE argue that it would help set standards and a performance matrix for the social sector.
- SSE is also expected to help bench-marking of sector actors (credibility checks), organise information and data, help in impact assessments, and do capacity building for the sector.

GATEWAY

Solving Complex Social Problems:

- Poverty or injustice are essentially systemic and political questions that need multipronged dynamic engagement.
- Developing set standards of impact assessment and performance matrix has the risk of privileging only one approach to the developmental challenges at hand.
- The SSE would create more intermediaries and benefit larger organisations.
- More than 99 per cent of the three million NGOs in the country are in the small category and will be untouched by the SSE.



3. SCIENCE & TECHNOLOGY

1. Indian Astronomers discover one of the Farthest Star Galaxies in the Universe

Why in News?

 The discovery was made by a team of astronomers led by Dr Kanak Saha from the Inter-University Centre for Astronomy and Astrophysics (IUCAA) Pune.

Highlights:

- The galaxy, called AUDFso1, is 9.3 billion light-years away from Earth.
- The galaxy, one of the earliest, is located in the Extreme Deep field.
- Even though the observation was made in 2016, it took the scientists almost two years to analyse the data and ascertain that the emission was indeed from a galaxy.
- The scientists were able to discover the galaxy by detecting extreme UV radiation emanating from the galaxy.
- The discovery was made by the Indian space observatory AstroSat.
- It is remarkable that such faint UV radiation has been detected because usually, such low energy photons usually get absorbed on the way or by the earth's atmosphere.
- Even the Hubble Space Telescope (HST) of NASA could not detect this probably due to noise.
- India's AstroSat/UVIT was able to achieve this unique feat because the background noise in the UVIT detector is much less than in the HST.
- The discovery has been reported in the leading international journal "Nature Astronomy" published from Britain.

AstroSat:

- AstroSat is India's first space observatory.
- It is the first dedicated Indian astronomy mission aimed at studying celestial sources in X-ray, optical and UV spectral bands simultaneously.
- It enables the simultaneous multi-wavelength observations of various astronomical objects with a single satellite.
- AstroSat with a lift-off mass of 1515 kg was launched in 2015 into a 650 km orbit inclined at an angle of 6 degrees to the equator by PSLV-C30 from Satish Dhawan Space Centre, Sriharikota. The minimum useful life of the AstroSat mission is expected to be 5 years.



- The satellite is managed by the spacecraft control centre at Mission Operations Complex (MOX) of ISRO Telemetry, Tracking and Command Network (ISTRAC), Bengaluru.
- Objectives of the AstroSat mission:
 - ✓ To understand high energy processes in binary star systems containing neutron stars and black holes.
 - ✓ Estimate magnetic fields of neutron stars.
 - ✓ Study star birth regions and high energy processes in star systems lying beyond our galaxy.
 - ✓ Detect new briefly bright X-ray sources in the sky.
 - ✓ Perform a limited deep field survey of the Universe in the Ultraviolet region.

2. Detecting Coronavirus using Mass Spectrometer

Why in News?

• Researchers at the Delhi-based Institute of Genomics and Integrative Biology (IGIB) and the National Centre for Disease Control (NCDC) have been able to detect novel coronavirus with 95% sensitivity and 100% specificity with respect to RT-PCR (reverse transcription polymerase chain reaction) using the mass spectrometer. The results have been published in the Journal of Proteins and Proteomics.

Mass Spectrometer:

- Mass spectrometers are sophisticated instruments that work on the principles of compound ionization and fragmentation (typically through the bombardment by electrons or selected ions), the physical separation of the charged fragments, and their detection.
- Mass spectrometers are capable of detecting many molecular ions, and ions formed by fragmentation, of heterocycles, even when only trace amounts are present.

Highlights:

- The new method can directly detect the virus without amplifying the RNA for detection, as is the case with RT-PCR.
- The new method relies on detecting the presence of two peptides which are unique to SARS-CoV-2 virus and not seen in any other coronavirus or other viruses.
- Though seven peptides were found to be unique to SARS-CoV-2, only two peptides are used for quick virus detection. One of the peptides is the spike protein and the other is a replicase protein. The unique peptides were seen in over 54,000 genomic sequences of the SARS-CoV-2 virus deposited in a public database (GISAID).



- Researchers could detect the peptides of SARS-CoV-2 virus even in patients who have recovered from the symptoms and have tested negative for the virus by RT-PCR. The peptides were present even after 14 days of initial infection. This highlights the sensitivity of the technique.
- The virus in the swab samples are inactivated using detergent and further processed before being used for virus detection.

Features of the test:

- **High Sensitivity:** The sensitivity is 90.4% as compared to RT-PCR in case of high stringency. The peptides of SARS-CoV-2 virus can be detected even in patients who have recovered from the symptoms and have tested negative for the virus by RT-PCR. The peptides were present even after 14 days of initial infection. This highlights the sensitivity of the technique."
- Less Time Results: Detection of the virus takes less than three minutes and the time from sample preparation to detection takes less than 30 minutes.
- Cheaper than RT- PCR: "The mass spectrometer is expensive but it would cost only about ₹100 per test, and so it is cheaper than RT-PCR. Many research labs have the mass spectrometer," Dr. Sengupta says.
- **Mass Screening:** It can be used for screening and diagnostic purposes. It can either complement RT-PCR or be used as an alternative to RT-PCR.

3. Two Black Holes Merged Billions of Years Ago

Why in News?

• Billions of years ago, a collision between two black holes sent gravitational waves rippling through the universe. In 2019, signals from these waves were detected at the gravitational wave observatory LIGO (United States) and the detector Virgo (Italy).

Highlights:

- The signal detected at LIGO and Virgo resembled "about four short wiggles" and lasted less than one-tenth of a second.
- It was in 2015, the first gravitational wave was actually detected by LIGO. Since then, there have been a number of subsequent Detections of Gravitational Waves.

Where did it come from?

 Analysis suggested that GW190521 had most likely been generated by a merger of two Black Holes.



- It was calculated to have come from roughly 17 billion light years away, and from a time when the universe was about half its age.
- One of the two merging black holes falls in an "intermediate mass" range, which misfit and cannot be explained by traditional knowledge.

Why is it Unusual?

- In the merger leading to the GW190521 signal, the larger black hole was of 85 solar masses.
- It is the first "intermediate mass" black hole ever observed.
- Stars that could give birth to black holes are between 65 and 120 solar masses. Stars in this range blow themselves apart when they die, without collapsing into a black hole.
- The smaller black hole too is borderline, at 66 solar masses.
- Merger create a new black hole of about 142 solar masses. Energy equivalent to eight solar masses was released in the form of gravitational waves, leading to the strongest ever wave Detected.

Gravitational Waves:

- Gravitational waves are invisible ripples that form when a star explodes in a supernova; when two big stars orbit each other; and when two black holes merge.
- Travelling at the speed of light, gravitational waves squeeze and stretch anything in their path. Gravitational waves were proposed by Albert Einstein in his General Theory of Relativity over a century ago.
- Massive accelerating objects would disrupt space-time in such a way that 'waves' of undulating space-time would propagate in all directions away from the source.
- These cosmic ripples would carry information about their origins, as well as clues to the nature of gravity itself.
- The strongest gravitational waves are produced by cataclysmic events such as colliding black holes, supernovae and colliding neutron stars.

4. Cellulose Acetate

Why in News?

 The National Green Tribunal has passed an order directing the Central Pollution Control Board (CPCB) to lay down guidelines for disposal of cigarette and bidi butts within the Next Three Months.



NGT's order:

- The NGT has directed Central Pollution Control Board (CPCB) to lay down guidelines for disposal of cigarette and bidi butts within the next three months.
- The order by NGT has come while hearing a plea moved by NGO 'Doctors for You' and is also based on a report filed by the Central Pollution Control Board (CPCB).
- The report by CPCB is based on a study conducted by the Indian Institute of Toxicology Research (IITR) which has analyzed the concentration of various parameters which it says are lower than the prescribed limits and will not be toxic to Humans and Environment.

Highlights:

- The report by IITR has given an analysis of the safety and toxicity of the cigarette and beedi butts.
- An analysis of the Concentration of various parameters were done which show that concentrations detected are not toxic to human and environment.
- The toxicity date is not available for cellulose acetate which is a major component (95%) of the cigarette and beedi butts along with the wrapping paper and rayon.
- The degradation studies of cellulose acetate show that it persists for a longer duration.
- Recycling of Cellulose acetate after recovery from cigarette butts can be one of the immediate solution to the problem until the degradation and safety data are generated.
- The study added that natural environmental conditions and laboratory stimulating conditions would be required to conclude the safety or toxicity of cigarette butts to further correlate with Human and Environmental Health Risk Assessment.

Cellulose Acetate:

- Cellulose acetate is a synthetic compound derived from the acetylation of the plant substance cellulose.
- Cellulose acetate is used as a film base in photography, as a component in some coatings, and as a frame material for eyeglasses; it is also used as a synthetic fiber in the manufacture of cigarette filters and playing cards. In photographic film, cellulose acetate replaced nitrate film in the 1950s, being far less flammable and cheaper to produce.
- Cellulose acetate is spun into textile fibres known variously as acetate rayon, acetate, or triacetate.
- It can also be molded into solid plastic parts such as tool handles or cast into film for photography or food wrapping, though its use in these Applications has Diminished.



5. Hybrid Warfare

Why in News?

• Hybrid warfare is a seemingly complex methodology adopted by major powers and has been used Interchangeably with Gray Zone operations and irregular warfare.

Hybrid Warfare:

 Any range of actions from non-violent economic manipulation to low levels of violence using mercenaries.

Main Tools of Hybrid Warfare:

1. Disinformation and Misinformation Operations:

✓ Emphasising the importance of information, the competitors have manipulated and weaponized information to wield power, gain influence, and counter allied narratives.

2. Political and economic coercion:

✓ While Russia is accused of using political coercion through the means of election interference, China has used debt trap diplomacy in countries participating in the Belt and Road Initiative to shape their policies toward Chinese benefit and interests.

3. Cyber and space operations:

- ✓ Russia, China, and Iran have been actively launching major cyberattacks against allied and partner interests over the past decade, with targets ranging from banks and businesses to academic institutions and government agencies.
- ✓ Hybrid space operations include actions such as jamming GPS signals and transmitting fake GPS signals.

4. Proxies and state-controlled forces:

- ✓ Purveyors of hybrid warfare have used proxy actors to conduct coercive operations below the threshold of all-out war.
- ✓ China's use of civilian fishing boats operating in contested waters of the South China Sea as an example of such Proxy Forces.

Data Mining for Hybrid Warfare:

- The dedicated companies target individuals and institutions in politics, government, business, technology, media, and civil society.
- They monitor the subject's digital footprint across social media platforms, maintains an information library, which includes content not just from news sources, forums, but also from papers, patents, Bidding Documents, even Positions of Recruitment.



Hence, it builds a relational database which records and describes associations between
individuals, institutions, and information. Collecting such massive data and weaving in
public or sentiment analysis around these targets, they offer threat Intelligence Services.

6. IN-SPACe

Why in News?

IN-SPACe to promote private investment and innovation in the space sector.

IN-SPACe:

- IN-SPACe or Indian Space Promotion and Authorisation Centre is the institutional and regulatory mechanism established by the Government of India to facilitate greater private participation in the space domain.
- It has been created to enable private players to use Indian space infrastructure.
- It is expected to boost private investment and innovation in the space sector.
- It will support and facilitate the private sector in the following ways:
 - ✓ Provide technical support
 - ✓ Share cash-intensive facilities
 - ✓ Allow establishing temporary facilities in Dept. of Space premises
 - ✓ Allow bidding for requirements coming from NSIL (New Space India Ltd)
 - ✓ Partner in science and space exploration missions
- Under this, financial provisions are not covered. Private players can participate in:
 - ✓ Building satellites
 - ✓ Building launch vehicles
 - ✓ Carrying out launches
 - ✓ Developing applications & providing space-based services
 - ✓ Developing subsystems and systems for space sector activities

7. NASA is Planning to Send Humans to the Moon Again by 2024

Why in News?

- NASA wants to send the first woman and the next man to the moon by 2024, through its Artemis Lunar Exploration Program.
- On Thursday, NASA published the outline for its Artemis program, which plans to send the next man and first woman to the lunar surface by the year 2024. The last time NASA sent humans to the Moon was in 1972, during the Apollo lunar mission.



Artemis Program:

- With the Artemis program, NASA wishes to demonstrate new technologies, capabilities and business approaches that will ultimately be needed for the future exploration of Mars.
- The program is divided into three parts, the first called Artemis I is most likely to be launched next year and involves an uncrewed flight to test the SLS and Orion spacecraft. Artemis II will be the first crewed flight test and is targeted for 2023. Artemis III will land astronauts on the Moon's South Pole in 2024.

What does it Take to go to the Moon?

- For NASA, going to the moon involves various elements such as the exploration ground systems (the structures on the ground that are required to support the launch), the Space Launch System (SLS), Orion (the spacecraft for lunar missions), Gateway (the lunar outpost around the Moon), lunar landers (modern human landing systems) and the Artemis generation spacesuits are all ready.
- NASA's new rocket called SLS will send astronauts aboard the Orion spacecraft a quarter of a million miles away from Earth to the lunar orbit.
- Once the astronauts dock Orion at the Gateway which is a small spaceship in orbit around the moon they will be able to live and work around the Moon, and from the spaceship, will take expeditions to the surface of the Moon.
- In June, NASA finalised a contract worth \$187 million with the Orbital Science Corporation of Dulles, Virginia, which will be responsible for the design and logistics.
- The astronauts going for the Artemis program will wear newly designed spacesuits, called Exploration Extravehicular Mobility Unit, or xEMU. These spacesuits feature advanced mobility and communications and interchangeable parts that can be configured for spacewalks in microgravity or on a Planetary Surface.

NASA and the Moon:

- The US began trying to put people in space as early as 1961. Eight years later, on July 20, 1969, Neil Armstrong became the first human to step on the Moon as part of the Apollo 11 mission.
- Apart from the purpose of space exploration itself, NASA's endeavour to send Americans to the Moon again is to demonstrate American leadership in space and to establish a strategic presence on the Moon, while expanding the US global economic impact.



Moon Exploration:

- In 1959, the Soviet Union's non crewed Luna 1 and 2 became the first rover to visit the Moon. Since then, seven nations have followed suit. Before the US sent the Apollo 11 mission to the Moon, it sent three classes of robotic missions between 1961 and 1968. After July 1969, 12 American astronauts walked on the surface of the Moon until 1972. Together, the Apollo astronauts brought back over 382 kg of lunar rock and soil back to Earth for study.
- Then in the 1990s, the US resumed lunar exploration with robotic missions Clementine and Lunar Prospector. In 2009, it began a new series of robotic lunar missions with the launch of the Lunar Reconnaissance Orbiter (LRO) and the Lunar Crater Observation and Sensing Satellite (LCROSS).
- In 2011, NASA began the ARTEMIS (Acceleration, Reconnection, Turbulence, and Electrodynamics of the Moon's Interaction with the Sun) mission using a pair of repurposed spacecraft, and in 2012, the Gravity Recovery and Interior Laboratory (GRAIL) spacecraft studied the Moon's gravity.
- Apart from the US, the European Space Agency, Japan, China, and India have sent missions to explore the Moon. China landed two rovers on the surface, which includes the first-ever landing on the Moon's far side in 2019. The Indian Space Research Organisation (ISRO) recently announced India's third lunar mission Chandrayaan-3, which will comprise a lander and a rover.

8. Brucellosis Control Programme

Why in News?

• Technology License Agreement on "Brucella abortus S19Δ per vaccine" between ICAR-Indian Veterinary Research Institute (IVRI) and Hester Biosciences Limited.

Brucellosis:

- Brucellosis is one of the most important zoonotic diseases worldwide which is also
 endemic in India causing huge economic losses to the dairy industry due to infertility,
 abortion, birth of weak offsprings and reduced productivity.
- It is responsible for abortions in cattle, buffalo, sheep and goats leading to infertility.
- Prevention of abortions will add new calves to the animal population leading to enhanced Milk Production.



- Brucellosis is an economically important zoonotic disease. Economic losses due to this
 disease is almost Rs.350 million per annum.
- It is a highly Contagious Disease.

Brucellosis Control Programme:

- This programme was formerly known as the National Control Programme on Brucellosis.
- It was introduced during the 10th Plan and renamed during the 12th
- It includes the vaccination of female calves aged between 6 8 months in all Indian states.
- It also includes the vaccination of all un-vaccinated adult female bovines.
- The programme also covers biannual village screening of pooled milk samples, mass screening and castration of infected bulls.
- The programme is being implemented on a 60:40 sharing basis between Centre and States except in North Eastern and the Himalayan States where the funding is on 90:10 Centre: State sharing basis, whereas 100% central share is being provided for Union Territories.
- The new vaccine strain developed at ICAR-IVRI, a modified strain of B. abortus S19, overcomes several drawbacks of the currently-used vaccine B. abortus S19, such as residual virulence to human and animals, not suitable for vaccination in adult animals, causing abortion when used in pregnant animals and also interfering with sero-diagnosis of clinical infection.

9. NASA's Sonification Project

Why in News?

• NASA's Chandra X-Ray Center (CXC) has gone a step further by unveiling a new 'sonification' project that transforms data from astronomical images into audio.

Data Sonification:

- Data sonification refers to the use of sound values to represent real data. Simply put, it is the auditory version of data visualisation.
- For example, In NASA's recent Chandra project, data is represented using a number of musical notes. With this data sonification project, users can now hear the birth of a star, a cloud of dust or even a black hole as a high- or low-pitched sound.

Sonification Project:

 NASA's sonification project is led by the Chandra X-ray Center in collaboration with NASA's Universe of Learning Program (UoL), which aims to incorporate NASA science content into the learning environment for learners of all ages.



• Sonification projects like this allow audiences, including visually-impaired communities, to experience space through Data.

How did NASA Translate Astronomical Images into Sound?

- NASA's Chandra X-Ray Observatory, Hubble Space Telescope and Spitzer Space Telescope
 in space collect digital data, in the form of ones and zeroes, before converting them into
 images. The images are visual representations of light and radiation of different
 wavelengths.
- So far, the astronomers behind Project Chandra have released three examples made using data collected from some of the most distinct features in the sky — the Galactic Centre, Cassiopeia A, and Pillars of Creation Nebula.
 - ✓ Galactic Centre: It is the rotational centre of the Milky Way galaxy. It comprises neutron, white dwarf stars, clouds of dust and gas, and a supermassive black hole called Sagittarius A*.
 - ✓ Cassiopeia A: It is one of the most well-known remnants of a once-massive star that was destroyed by a supernova explosion around 325 years ago.
 - ✓ The Pillars of Creation: It is located in the centre of the Eagle Nebula, which is also known as Messier 16.

GATEWAYY



4. ECONOMY

1. Financial Sector Regulatory Appointment Search Committee

Why in News?

• Key bodies such as the Reserve Bank of India (RBI) and the Telecom Regulatory Authority of India (TRAI), besides the State Bank of India (SBI), are set to have new people in top positions.

Highlights:

- RBI's deputy governor post became vacant after one of the four deputy governors, demitted office in March citing health reasons.
- The central bank has four Deputy Governors of which two are appointed from outside —
 one, a commercial banker and the other, an economist.
- The remaining two are promoted from within the RBI.
- The Reserve Bank's affairs are governed by a central board of directors.
- The board is appointed by the Government of India in keeping with the Reserve Bank of India Act.
- The Board consists of official directors, who include the Governor and up to four Deputy Governors, non-official directors, who include up to ten directors from various fields and two government officials, and one director from each of four local boards of the RBI.
- Searching for a new chairman for Telecom Regulatory Authority of India (Trai), as the current chairman, is expected to demit office on 30 September.
- The Banks Board Bureau recommended the elevation of SBI's managing director Dinesh Kumar Khara as the chairman of the country's largest lender SBI.

The Appointment Process:

- The Financial Sector Regulatory Appointment Search Committee, comprising the cabinet secretary, RBI governor, and the financial services secretary, interviewed the candidates for the post.
- As per the process, the panel will invite applications from eligible candidates and based on interactions with them will select the candidate.
- The appointment would be made by the central government on the recommendation of the FSRASC.
- It is noted that the FSRASC is free to identify and recommend any other person also, on the basis of merit, who has not applied for the post.



Significance of the Appointments:

- The responsibility of financial regulation falls on the now vacant post of deputy governor.
- The TRAI chairman's appointment is related to the policies governing the telecom sector are likely to have a bearing on the Trajectory of India's Economic Recovery.

Financial Sector Regulatory Appointment Search Committee:

- FSRASC was set up based on the recommendation of the Financial Sector Legislative Reforms Commission as a "standing committee" to "recommend suitable persons for selection of Chairperson and Whole Time and Part Time Members of the financial sector regulators."
- The Finance Ministry's objective was to adopt a uniform selection process for all financial sector regulators without going into the related issues of tenure, age and qualification.
- Apart from the Cabinet Secretary, who heads it, it includes
 - ✓ Additional Principal Secretary to the Prime Minister;
 - ✓ Secretary, Department of Economic Affairs or Department of Financial Services (depending on the administrative role);
 - ✓ Chairperson of the regulatory authority concerned, and
 - ✓ Three outside experts.

Telecom Regulatory Authority of India (TRAI):

- It was established by an Act of Parliament, to regulate the telecommunication services.
- It consists of one Chairperson, two full-time members and two part-time members.
- Some of the major recommendatory, regulatory and tariff setting functions of TRAI are to make recommendations on the need and timing for introduction of a new service provider, on the terms and Conditions of license to a Service provider among others.

Banks Board Bureau (BBB):

- Formed as part of Mission 'Indradhanush' a seven-point revamp programme for stateowned banks the board was to act as a link between public sector banks (PSBs) and the
 government. Its main task was to reinvent PSBs, make them more efficient, chalk out a
 merger strategy and roll out a well-constructed talent policy with revised salary structure
 and employee stock option plan (ESOP).
- The role of the BBB is also in selection of chairmen and other senior officials of the bank boards. According to a Reserve Bank of India (RBI) recommendation, the BBB was also to be morphed into Bank Investment Company (BIC), which was envisaged as the holding company for PSBs.



2. GDP falls 23.9%

Why in News?

• As per the data released by the National Statistical Office (NSO), under the Ministry of Statistics and Programme Implementation (MoSPI), India's Gross Domestic Product (GDP) for the April-June quarter (Q1) slipped by a sharp 23.9 per cent.

Highlights:

• The UN has released its first-ever guidelines on access to social justice for people with disabilities to make it easier for them to access justice systems around the world.

10 Principles set by the Guidelines:

Principle 1:

✓ All persons with disabilities have the legal capacity and, therefore, no one shall be denied access to justice on the basis of disability.

Principle 2:

✓ Facilities GDP falling by 23.9% means that the total value of goods and services must be universally accessible to ensure equal access to justice without discrimination of persons with disabilities.

Principle 3:

✓ Persons with disabilities, including children with disabilities, have the right to appropriate procedural accommodations.

Principle 4:

✓ Persons with disabilities have the right to access legal notices and information in a timely and accessible manner on an equal basis with others.

GATEWAY

Principle 5:

✓ Persons with disabilities are entitled to all substantive and procedural safeguards recognized in international law on an equal basis with others, and States must provide the necessary accommodations to guarantee due process.

Principle 6:

✓ Persons with disabilities have the right to free or affordable legal assistance.

Principle 7:

✓ Persons with disabilities have the right to participate in the administration of justice on an equal basis with others.



Principle 8:

- ✓ Persons with disabilities have the right to report complaints and initiate legal proceedings concerning human rights violations and crimes, have their complaints investigated, and be afforded effective remedies.
- Principle 9:
 - ✓ Effective and robust monitoring mechanisms play a critical role in supporting access to justice for persons with disabilities.
- Principle 10:
 - ✓ All those working in the justice system must be provided with awareness-raising and training programs addressing the rights of persons with disabilities, in particular in the context of access to justice.

People with disability:

- Definition of a person with a disability by UN:
- The UN Convention on the Rights of Persons with Disabilities, which was adopted in 2007,
 defines persons with disabilities as those
- "who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others". Discrimination on the basis of disability
- It means any distinction, exclusion or restriction on the basis of disability which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field.
- This includes all forms of discrimination, including denial of reasonable accommodation.
- Reasonable accommodation means the modification and adjustment in a particular case so
 that persons with disabilities can enjoy and exercise human rights and fundamental
 freedoms on an equal basis.

People with disability produced in India:

- In India 2.4 percent of males are disabled and two percent of females from all age groups are disabled. Disabilities include psychological impairment, intellectual impairment, speaking, multiple impairments, hearing, seeing among others.
- Article 41 of Constitution of India provides that the State shall, within the limits of its
 economic capacity and development, make effective provision for securing the right to
 work, to education and to public assistance in cases of unemployment, old age, sickness
 and disablement and in other cases of undeserved want.



 National Policy for Persons with Disabilities, 2006 recognizes that Persons with Disabilities are valuable human resources for the country and seeks to create an environment that provides them equal opportunities, protection of their rights and full participation in society.

United Nations Convention on the Rights of Persons with Disabilities (UNCRPD):

- It was adopted by the General Assembly in December 2006 and it came into force in in April, May 2008.
- It seeks to engage member countries in developing and carrying out policies, laws and administrative measures for securing the rights recognized in the Convention and abolish laws, regulations, customs and practices that constitute discrimination.
- It also requires countries to identify and eliminate obstacles and barriers and ensure that persons with disabilities can access their environment, transportation, public facilities and June this year is 23.9% less than the total value of goods and services, and information and communications technologies. produced in India in the same three months last year
- It also asks member countries to recognize the right to an adequate standard of living and social protection which includes public housing, services and assistance for disability-related needs, as well as assistance with disability-related expenses in case of poverty.

What causes GDP contraction?

- In any economy, the total demand for goods and services that is the GDP is generated from one of the four engines of growth. The biggest engine is consumption demand from private individuals. Let's call it C, and in the Indian economy, this accounted for 56.4% of all GDP before this quarter. The second biggest engine is the demand generated by private sector businesses. Let's call it I, and this accounted for 32% of all GDP in India.
- The third engine is the demand for goods and services generated by the government. Let's call it G, and it accounted for 11% of India's GDP.
- The last engine is the net demand on GDP after we subtract imports from India's exports. Let's call it NX. In India's case, it is the smallest engine and, since India typically imports more than it exports, its effect is negative on the GDP.
- So total GDP = C + I + G + N

The current state of the Indian economy:

• The Indian economy is said to be in a deeply vicious cycle as the demand is contracting heavily whereas the capacity to neutralise this contraction has also contracted equally because of the tax revenue contraction.



Sectors Wise Performance:

- In terms of the gross value added (a proxy for production and incomes) by different sectors of the economy, data show that barring agriculture, where GVA grew by 3.4%, all other sectors of the economy saw their incomes fall.
- The worst affected were construction (-50%), trade, hotels and other services (-47%), manufacturing (-39%), and mining (-23%). It is important to note that these are the sectors that create the maximum new jobs in the country. In a scenario where each of these sectors is contracting so sharply that is, their output and incomes are falling it would lead to more and more people either losing jobs (decline in employment) or failing to get one (rise in unemployment).

Main Reasons:

- The severe impact is of the COVID-19 lockdown, which halted most economic activities.
- Even in the pre- COVID time there was a slowdown trend in the economy.
- The private final consumption which holds almost 60% by weight in the GDP has seen a major contraction.

Reasons for the contraction in GDP based on Engines of Growth:

- Private consumption the biggest engine driving the Indian economy has fallen by 27%. The second biggest engine investments by businesses has fallen even harder it is half of what it was last year same quarter.
- So the two biggest engines, which accounted for over 88% of Indian total GDP, Q1 saw a massive contraction.
- The NX or the net export demand has turned positive in this Q1 because India's imports have crashed more than its exports. While on paper, this provides a boost to overall GDP, it also points to an economy where economic activity has plummeted.
- Last engine of growth the government. As the data shows, government's expenditure went up by 16% but this was nowhere near enough to compensate for the loss of demand (power) in other sectors (engines) of the economy.
- When the demand from C and I fell by Rs 10,64,803 crore, the government's spending increased by just Rs 68,387 crore. In other words, government's spending increased but it was so meagre that it could cover just 6% of the total fall in demand being experienced by people and businesses.
- The net result is that while, on paper, government expenditure's share in the GDP has gone up from 11% to 18% yet the reality is that the overall GDP has declined by 24%.



• It is the lower level of absolute GDP that is making the government look like a bigger engine of growth than what it is.

What will be the impact of the Quarterly GDP contraction?

- According to economists, the quarterly contraction might contribute to a contraction in annual GDP this year.
- The annual GDP might contract to 5%-7% in 2020-21 which might be the worst since Independence.
- The last such contraction of the economy occurred in 1979-80, when GDP shrank 5.2%.
- Four other instances of minor contraction between 1965-68, and 1972-73.
- Measures suggested:
- When incomes fall sharply, private individuals cut back consumption. When private consumption falls sharply, businesses stop investing. Since both of these are voluntary decisions, there is no way to force people to spend more and/or coerce businesses to invest more in the current scenario.
- The same logic holds for exports and imports as well.
- Under the circumstances, there is only one engine that can boost GDP and that is the government (G). Only when government spend more either by building roads and bridges and paying salaries or by directly handing out money can the economy revive in the short to medium term. If the government does not spend adequately enough then the economy will take a long time to recover.

3. Merchant Export from India Scheme (MEIS) scheme

Why in News?

• The government has decided to cap export incentives under Merchant Export from India Scheme (MEIS) scheme at ₹2 crore per exporter on outbound shipments made during September-December, 2020.

Highlights:

 The Centre has also announced an outlay of ₹5,000 crore for exports during September-December, 2020 with the condition that if claims exceeded this limit, the ceiling may further be revised downwards.

What will the impact of these changes?

• Export competitiveness: the sudden change in export incentives under MEIS may affect the traders as the exports that will be made during September-December are based on



- orders that had been negotiated earlier, factoring in the existing Merchant Export from India Scheme (MEIS) benefit.
- **Financial Burden:** The move will affect the exporters' financially as buyers were not going to revise their prices upwards

MEIS Scheme:

- With the aim of making India's products more competitive in the global markets, the scheme provides incentive in the form of duty credit scrip to the exporter to compensate for his loss on payment of duties.
- To offset infrastructural inefficiencies and the associated costs of exporting products produced in India giving special emphasis on those which are of India's export interest and have the capability to generate employment and enhance India's competitiveness in the world market. Merchandise Exports from India Scheme (MEIS) under Foreign Trade Policy of India (FTP 2015-20) is one of the two schemes introduced in Foreign Trade Policy of India 2015-20, as a part of Exports from India Scheme. (The other scheme is SEIS, Service Exports from India Scheme).
- The Government of India has brought in the Merchandise Exports Incentive Scheme (MEIS), replacing five other similar incentive schemes present in the earlier Foreign Trade Policy 2009-14. The schemes that have been replaced by the MEIS scheme include:
 - ✓ Focus Product Scheme (FPS)
 - ✓ Focus Market Scheme (FMS)
 - ✓ Market Linked Focus Product Scheme (MLFPS)
 - ✓ Agri. Infrastructure incentive scheme
 - ✓ Vishesh Krishi Gramin Upaj Yojna (VKGUY)
- As per the present FTP, the MEIS scheme does not aim to merely replace these five schemes but also aims to rationalize the incentives and enlarges their scopes by removing Various Restrictions.

4. Forex Reserves

Why in News?

 While the overall situation on the economic front is gloomy, with India's Gross Domestic Product (GDP) growth having contracted 23.9 per cent in the April-June quarter, and manufacturing activity and trade at standstill, the stock of forex reserves is one data point that India can cheer about amidst the Covid-19 pandemic.



• India's foreign exchange (forex) reserves surged by \$3.883 billion to touch a lifetime high of \$541.431 billion in the week ended August 28.

Forex Reserves:

- Forex reserves are external assets in the form of gold, SDRs (special drawing rights of the IMF) and foreign currency assets (capital inflows to the capital markets, FDI and external commercial borrowings) accumulated by India and controlled by the RBI.
- India's reserve position with the International Monetary Fund (IMF) is also considered by some a part of Forex Reserves.

Why are Forex Reserves rising despite the Slowdown in the Economy?

- The major reason for the rise in forex reserves is the rise in investment in foreign portfolio investors in Indian stocks and foreign direct investments (FDIs).
- Foreign investors have acquired stakes in several Indian companies over the past several months.
- The fall in crude oil prices has brought down the oil import bill, saving precious foreign exchange.
- Similarly, overseas remittances and foreign travels have fallen steeply.

What's the significance of rising Forex Reserves?

- The rising forex reserves give comfort to the government and the RBI in managing India's external and internal financial issues at a time of major contraction in economic growth and to cover the import bill of the country for a year.
- The rising reserves have also helped the rupee to strengthen against the dollar.
- The International Monetary Fund says official foreign exchange reserves are held in support of a range of objectives like supporting and maintaining confidence in the policies for monetary and exchange rate management including the capacity to intervene in support of the national or union currency.
- It also limits external vulnerability by maintaining foreign currency liquidity to absorb shocks during times of crisis or when access to borrowing is curtailed.

What does the RBI do with the forex reserves at its disposal?

- The Reserve Bank functions as the custodian and manager of forex reserves, and operates within the overall policy framework agreed upon with the government.
- The RBI allocates the dollars for specific purposes.
- For example, under the Liberalised Remittances Scheme, individuals are allowed to remit up to \$250,000 every year.



- The RBI uses its forex kitty for the orderly movement of the rupee.
- It sells the dollar when the rupee weakens and buys the dollar when the rupee strengthens.
- When the RBI mops up dollars, it releases an equal amount in rupees.
- This excess liquidity is sterilised through the issue of bonds and securities and Liquidity Adjustment Facility (LAF) operations.

Where are India's Forex Reserves Kept?

- The RBI Act, 1934 provides the overarching legal framework for deployment of reserves in different foreign currency assets and gold.
- As much as 64 per cent of the foreign currency reserves are held in securities like Treasury bills of foreign countries, mainly the US; 28 per cent is deposited in foreign central banks; and 7.4 per cent is deposited in commercial banks abroad, according to RBI data.
- In value terms (USD), the share of gold in the total foreign exchange reserves increased from about 6.14 per cent as at end-September 2019 to about 6.40 per cent as at end-March 2020.

Is there a cost involved in Maintaining Forex Reserves?

• The return on India's forex reserves kept in foreign central banks and commercial banks is negligible — analysts say it could be around 1 per cent, or even less than that, considering the fall in interest rates in the US and Euro zone. There was a demand from some quarters that forex reserves should be used for infrastructure development in the country. However, the RBI had opposed the plan. Another issue is the high ratio of volatile flows (portfolio flows and short-term debt) to reserves which is around 80 per cent. This money can exit at a fast pace.

5. FM launches Doorstep Banking Services by PSBs

Why in News?

 Minister of Finance & Corporate Affairs inaugurated Doorstep Banking Services by PSBs and participated in the awards ceremony to felicitate best performing banks on EASE Banking Reforms Index.

Doorstep Banking Services by PSBs:

- As part of the EASE Reforms, Doorstep Banking Services is envisaged to provide convenience of banking services to the customers at their door step.
- It is provided through the universal touch points of Call Centre, Web Portal or Mobile App.



- Customers can also track their service request through these channels.
- The services shall be rendered by the Doorstep Banking Agents deployed by the selected Service Providers at 100 centres across the country.
- At present only non-financial services viz. Pick up of negotiable instruments (cheque/demand draft/pay order etc.), Pick up new cheque book requisition slip, Pick up of 15G/15H forms, Pick up of IT/GST challan, Issue request for standing instructions, Request for account statement, Delivery of non-personalised cheque book, demand draft, pay order, Delivery of term deposit receipt, acknowledgement, etc., Delivery of TDS / Form 16 certificate issuance, Delivery of pre-paid instrument/gift card are available to customers.
- Financial services shall be made available from October 2020.
- The services can be availed by customers of Public Sector Banks at nominal charges.
- The services shall benefit all customers, particularly Senior Citizens and Divyangs who would find it at ease to avail these services.

Performance of PSB on EASE 2.0 Index:

- PSBs have shown a healthy trajectory in their performance over four quarters since the launch of EASE 2.0 Reforms Agenda.
- The overall score of PSBs increased by 37% between March-2019 and March-2020, with the average EASE index score improving from 49.2 to 67.4 out of 100.
- Significant progress is seen across six themes of the Reforms Agenda:
 - √ 'Responsible Banking' highest improvement
 - ✓ 'Governance and HR'
 - ✓ 'PSBs as Udyamimitra for MSMEs'
 - ✓ 'Credit off-take'
- PSBs have adopted tech-enabled, smart banking in all areas, setting up retail and MSME
 Loan Management Systems for reduced loan turnaround time and PSB loans in
 59minutes.com and TReDS for digital lending.
- PSBs have instituted real-time visibility to retail and MSME customers on the status of their loans. Most branch-based services are now accessible from home and mobile, including in local languages.

EASE Agenda:

 A common reform agenda for PSBs, EASE Agenda is aimed at institutionalizing clean and Smart Banking.



- It was launched in January 2018, and the subsequent edition of the program— EASE 2.0 built on the foundation laid in EASE 1.0 and furthered the progress on reforms.
- Reform Action Points in EASE 2.0 aimed at making the reforms journey irreversible, strengthening processes and systems, and driving outcomes.

EASE Reforms Index:

- EASE stands for Enhanced Access and Service Excellence.
- The index is prepared by the Indian Banking Association and Boston Consulting Group.
- The report measures the performance of each PSB on 140 objective metrics across 6 themes.

Six Themes:

- Responsible Banking
- Customer Responsiveness
- Credit off-take
- Governance and HR
- PSBs as Udyamimitra for MSMEs
- Deepening Financial Inclusion and Digitalisation.

EASE 2.0 Index Rankings:

- Bank of Baroda has been placed at the first spot.
- State Bank of India and Oriental Bank of Commerce (OBC) got the 2nd and 3rd place respectively. Bank of Maharashtra, Central Bank of India &erstwhile Corporation Bank were awarded in the 'Top Improvers' category basis EASE 2.0 Index.
- Punjab National Bank, Union Bank of India, and Canara Bank were also recognized for outstanding performance in select Themes.

6. SAROD-Ports' Launched

Why in News?

- Ministry of Shipping launched 'SAROD-Ports' (Society for Affordable Redressal of Disputes – Ports) through virtual ceremony.
- It will become the pivotal mechanism of ummeed (hope), vishwas(trust) and nyaya (justice) in the Port sector of India.

SAROD-Ports:

SAROD-Ports is established under Societies Registration Act, 1860.



- SAROD-Ports consists members from Indian Ports Association (IPA) and Indian Private Ports and Terminals Association (IPTTA).
- 'SAROD-Ports' is similar to provision available in Highway Sector in the form of SAROD-Roads constituted by NHAI.

Objectives:

- Affordable and timely resolution of disputes in fair manner while saving huge amount of legal expenditure and time.
- Enrichment of Dispute Resolution Mechanism with the panel of technical experts as Arbitrators.

Responsibilities:

- SAROD-Ports will advise and assist in settlement of disputes through arbitrations in the maritime sector, including ports and shipping sector in Major Port Trusts, Non-major Ports, including private ports, jetties, terminals and harbors.
- It will also cover disputes between granting authority and Licensee/Concessionaire /Contractor.
- Also the disputes between Licensee/Concessionaire and their contractors arising out of and during the course of execution of various contracts.

Significance:

- SAROD-Ports will inspire confidence in the private players and will ensure right kind of environment for our partners.
- It will promote ease of doing business in the maritime sector because of the fast, timely, cost effective and robust Dispute Resolution Mechanism.

Background:

• The Union Cabinet has approved amendments in the Model Concession Agreement (MCA) in January,2018 which envisaged constitution SAROD-PORTS as dispute resolution mechanism for PPP Projects in the Major Ports.

Model Concession Agreement:

- Model Concession Agreement is the core of public private partnership projects in India.
- It sets regulatory framework to implement PPP (Public Private Projects) in India.
- There are MCAs for national highways, urban rail transit system, state highways and ports.



7. Direct Deficit Monetization

Why in News?

The government and Reserve Bank of India (RBI) will be reviewing the plan for monetising
its deficit as a last resort as India is experiencing revenue shortfalls in the wake of COVID19 Pandemic.

Highlights:

- India's economy, hardest hit by the COVID-19 pandemic is facing revenue shortfalls.
 Hence the government and Reserve Bank of India (RBI) are discussing the possibility of monetising the deficit.
- The RBI is also planning to ease liquidity through open market operations to keep yields in check while helping the Government to raise Borrowing.

Deficit Monetization:

The monetization of deficits involves the financing of extra expenses with money, instead
of debt to be repaid at some Future Dates.

Methods of Deficit Montisation:

- **Printing Money:** Government prints its own money and finances its expenses. In practice, the same happens as the deficit is financed with newly created money issued by the central bank and transferred to the state treasury without future repayment obligations: the money issued by the central bank is either credited to the account of treasury or treasury is allowed an overdraft facility. Debt would obviously originate if treasury were to borrow the money from the central bank; yet, this would not constitute true monetization of the deficits, but simply a temporary support to treasury cash needs.
- Open Market Operations: Deficits are monetized as the government issues bonds in the primary market and the central bank purchases an equivalent amount of government bonds from the secondary market. However, for this modality to replicate the same effects of the first, the central bank must commit to the following actions: i) hold the purchased bonds in perpetuity, ii) roll over all the purchased bonds that reach maturity, and iii) return to government the interests earned on the purchased bonds

Indian Scenario:

• Direct monetization of deficit refers to a scenario where a central bank prints currency to the tune of accommodating massive deficit spending by the government. RBI does so by purchasing government securities directly in the primary market.



- Monetisation of deficit was in practice in India till 1997, whereby the central bank automatically monetised government deficit through the issuance of ad-hoc treasury bills.
- Such a monetization process used to be automatic only until 1997, when it was later decided to end this practice by entrusting RBI to conduct such OMOs (Open Market Operations) only in the secondary market.
- The implied understanding also was that the RBI would use the OMO route not so much to support government borrowing but as a liquidity instrument to manage the balance between the policy objectives of supporting growth, checking inflation and preserving financial stability. With the enactment of FRBM Act, 2003, RBI was completely barred from subscribing to the primary issuances of the government from April 1,2006. However, an escape clause in the 2017 amendment of the FRBM (Fiscal Responsibility and Budget Management Act) act permits such direct monetisation under special circumstances.
- It can be evoked on the grounds that there just aren't enough savings in the economy to finance government borrowing of such a large size. Bond yields would spike so high that financial stability will be threatened. The RBI must therefore step in and finance the Government directly to prevent this from happening.

Monetized Deficit:

- Monetized deficit also known as the 'net reserve bank credit to the government', it is that part of the government deficit which is financed solely by borrowing from the RBI.
- Since borrowings from the RBI can be both short-term and long-term, therefore, monetized deficit is the sum of the net issuance of short-term treasury bills, dated securities (that is, long-term borrowing from the RBI) and rupee coins held exclusively by the RBI, net of Government's deposits with the RBI.
- Difference between Monetized deficit and Traditional Budget deficit:
- Traditional Budget deficit includes 91-day treasury bills held by both, the RBI and non-RBI entities whereas Monetized deficit includes 91-day Treasury Bills held only by the RBI.
- Traditional Budget deficit includes only short-term sources of finance whereas Monetized deficit includes long-term securities also.

Arguments against Deficit Monetization:

- Monetisation exercise leads to an increase in total money supply in the system, and hence inflation, as RBI creates fresh money to purchase the bonds.
- Unlike the US dollar, Indian rupee is not considered a safe haven. Even when the US Federal Reserve prints more currency, there is still global demand for the US dollar.



- However, the same will not be the case for the rupee. Thus, when there is excess supply of the currency, it could lead to a fall in rupee value, leading to an outflow of foreign investment. A rupee depreciation would not be beneficial for the exports sector either.
- Direct monetization could weaken the macro fundamentals of the country, risking a
 downgrade by the credit rating agencies, which can in turn bring about more cost to the
 economy.

Arguments for Deficit Monetization:

- Modern Monetary Theory (MMT) argues that a fixation with government deficits is misguided and that in the absence of rising inflation and real resource constraints, the government should just print money, if necessary, to revive the economy.
- Argument of expansion of money supply which may lead to inflation are not correct in a
 situation where aggregate demand has fallen sharply and there is an increase in
 unemployment. In such a situation, monetisation of the deficit is more likely to raise actual
 output closer to potential output without any great increase in inflation.
- The impact on money supply is the same whether the central bank acquires government bonds in the secondary market or directly from the Treasure.

8. Ranking of States on Support to Startup Ecosystems, 2019

Why in News?

• The Results of the second edition of Ranking of States on Support to Startup Ecosystems were recently released by Minister of Commerce & Industry.

Highlights:

- The Department for Promotion of Industry and Internal Trade (DPIIT) has conducted the second edition of the States Startup Ranking Exercise.
- The key objective is to foster competitiveness and propel States and Union Territories to work proactively towards uplifting the startup ecosystem.
- It has been implemented as a capacity development exercise to encourage mutual learning among all states and to provide support in policy formulation and implementation.
 - 1. 7 focus areas
 - 2. Institutional Leaders
 - 3. Regulatory Change Champions
 - 4. Procurement Leaders
 - 5. Incubation Hubs



- 6. Seeding Innovation Leaders
- 7. Scaling Innovations Leaders
- 8. Awareness and Outreach Champions

9. India's child mortality rate declined between 1990-2019: UN Report

Why in News?

- India's child mortality rate has declined substantially between 1990 and 2019 but the country still accounted for almost a third of all under-five deaths last year.
- 'Levels and Trends in Child Mortality' report is released by the United Nations interagency group for Child Mortality.

Global Highlights of the Report:

- The report warned that COVID-19 pandemic threatens to undo decades of progress in eliminating preventable child deaths globally.
- The report said that the number of global under-five deaths dropped to its lowest point on record in 2019 down to 5.2 million from 12.5 million in 1990.
- The regions of Central and Southern Asia and Oceania (excluding Australia and New Zealand) both saw a faster decline in under-five mortality from 2010-2019 compared to 2000-2009. However, the global burden of under-five deaths weighs most heavily on just two regions sub-Saharan Africa and Central and Southern Asia.
- The report said that about 53 per cent of all under-five deaths in 2019 2.8 million occurred in sub-Saharan Africa, and roughly 1.5 million children (28 per cent) died in 2019 before reaching age 5 in Central and Southern Asia.
- These two regions alone accounted for more than 80 per cent of the 5.2 million global under-five deaths in 2019, but they only accounted for 52 per cent of the global under-five population.
- Nearly half (49 per cent) of all under-five deaths in 2019 occurred in just five countries: Nigeria, India, Pakistan, the Democratic Republic of the Congo and Ethiopia. Nigeria and India alone account for almost a third.

India Specific Highlights:

- The under-five mortality rate (deaths per 1,000 live births) in India declined to 34 in 2019 from 126 in 1990.
- India registered a 4.5 per cent annual rate of reduction in under-five mortality between 1990-2019.



- The number of under-five deaths in India dropped from 3.4 million in 1990 to 824,000 in 2019.
- The infant mortality rate (deaths per 1,000 live births) in India declined from 89 in 1990 to 28 last year, with the country registering 679000 infant deaths last year, a significant decline from 2.4 million infant deaths in 1990.
- The country also witnessed a decrease in neonatal mortality rate between 1990 and 2019 from 57 to 22 1.5 million neonatal deaths in 1990 to 522,000 deaths in 2019.
- Further, the probability of dying among children aged 5–14 years declined from 21 in 1990 to 5 in 2019 and the probability of dying among youth aged 15–24 years dipped from 24 to 10 between the period under review.
- The sex-specific under-five mortality rate (deaths per 1,000 live births) in India in 1990 stood at 122 males and 131 females and this declined to 34 males and 35 females in 2019.

10. SBI raises ₹7,000 Crores via Basel III Compliant Bonds

Why in News?

• The country's largest lender State Bank of India said it has raised ₹7,000 crore by issuing Basel III Compliant Bonds.

Raising Money through Compliant Bonds:

- The Committee of Directors for Capital Raising at its meeting of held on September 21, 2020 accorded its approval to allot 70,000 Basel III compliant non-convertible, taxable, redeemable debt instruments in the nature of debentures aggregating to ₹7,000 crores, to bond subscribers.
- The allotment of bonds to the subscribers took place on the same date i.e. September 21, 2020. The bonds qualify as tier II capital of the bank, and has face value of ₹10 lakhs each, bearing coupon rate of 6.24% per annum payable annually for a tenor of 10 years.
- There is call option after 5 years and on anniversary thereafter.
- Call option means the issuer of the bonds can call back the bonds before the maturity date by paying back the principal amount to investors.
- A month back, SBI had raised ₹8,931 crores by allotting 89,310 Basel III-compliant debt instruments to bond subscribers.

Basel Banking Norms:

 Basel guidelines refer to broad supervisory standards formulated by the Basel Committee on Banking Supervision (BCBS).



- The set of agreement by the BCBS, which mainly focuses on risks to banks and the financial system are called Basel accord.
- BCBS has 45 members, comprising central banks and bank supervisors from 28 jurisdictions.
- The purpose of the accord is to ensure that financial institutions have enough capital on account to meet obligations and absorb unexpected losses.
- India has accepted Basel accords for the banking system

Basel III Norms:

• Under the globally accepted Basel-III capital regulations, banks need to improve and strengthen their capital planning processes. Basel III norms are being implemented in phases since 2013 by Indian banks to mitigate concerns on potential stresses on asset quality and consequential impact on performance and profitability of banks. The banks have to comply with these regulations by end of September 2020.

11. TEX-Fund

Why in News?

Development of Powerloom Sector in the Country.

Highlights:

- The Government of India is implementing the Venture Capital Fund for Powerloom and Allied Products and Services (TEX-Fund), as a component under PowerTex India scheme with effect from 2017.
- The TEX Fund has a minimum corpus of Rs.35 crores with the Government of India's contribution of Rs.24.50 crores and the Small Industries Development Bank of India (SIDBI) has a minimum contribution of Rs.10.50 crores. SIDBI Venture Capital Limited (SVCL) is the Investment Manager of the TEX-Fund.
- The TEX-Fund is aimed at providing equity investment to micro and small enterprises in the power loom sector to boost innovation in the industry by creating of brands and generation of intellectual property and enable the development of the Powerloom Sector and allied activities.

PowerTex India Scheme:

• The scheme is a comprehensive scheme for the development of the power loom sector relaunched in 2017.



• The scheme integrated many sub-schemes for the sector into one comprehensive scheme.

The component schemes are:

- 1. Solar Energy Scheme for Powerlooms
- 2. Pradhan Mantri Credit Scheme for Powerloom Weavers
- 3. Group Workshed Scheme
- 4. Common Facility Centre
- 5. Yarn Bank
- 6. In-situ Upgradation of Plain Powerlooms
- Other components include the TEX-Fund, IT awareness, market development and publicity, grant-in-aid and modernisation & upgradation of Powerloom Service Centres.
- The scheme is under the Textile Ministry.
- Schemes for Powerloom Sector Development (SPSD) is a continuing Central Sector Plan Scheme from the 11th Plan for the development of the power loom sector. It was in operation since the year 2007-08.

12. How Remunerative is Farming in India

Why in News?

• The government's push to reform India's agriculture sector has divided opinions and triggered a debate about the state of Indian Agriculture.

Highlights:

• In the context of this debate, two long-standing characteristics of Indian agriculture are noteworthy:

Indian Agriculture is Highly Unremunerative:

• It has been heavily regulated by the government and protected from the free play of market forces.

Why are the New Legislation Introduced?

- According to the government, the new Bills passed by Parliament attempt to make it easier for farmers to sell to and produce for the private sector.
- The hope is that liberalizing the sector and allowing greater play for market forces will make Indian agriculture more efficient and more remunerative for the farmers.
- In this context, it is important to understand some of the basics of Indian agriculture.



Basics of Indian agriculture:

1. Workforce Engaged:

- ✓ At the time of Independence, about 70% of India's workforce (a little less than 100 million) was employed in the agriculture sector.
- ✓ Even at that time, agriculture and allied activities accounted for around 54% of India's national income.
- ✓ Over the years, agriculture's contribution to national output declined sharply. As of 2019-20, it was less than 17% (in gross value added terms).
- ✓ And yet, the proportion of Indians engaged in agriculture has fallen from 70% to just 55% (Chart 1).
- ✓ As the Committee on Doubling Farmers' Income (2017) observes, "the dependence of the rural workforce on agriculture for employment has not declined in proportion to the falling contribution of agriculture to GDP".

2. Land holdings:

- ✓ While the number of people dependent on agriculture has been burgeoning over the years, the average size of landholdings has become reduced sharply even to the extent of being unviable for efficient production.
- ✓ Data shows that 86% of all landholdings in India are small (between 1 and 2 hectares) and marginal (less than 1 hectare roughly half a football field).
- ✓ The average size among marginal holdings is just 0.37 ha which hardly provides enough income to stay above the poverty line.

3. Debts:

- ✓ The combined result of several such inefficiencies is that most Indian farmers are heavily indebted (Chart 2).
- ✓ The data shows that 40% of the 24 lakh households that operate on landholdings smaller than 0.01 ha are indebted. The average amount is Rs 31,000.
- ✓ A good reason why such a high proportion of farmers is so indebted is that Indian agriculture for the most part is unremunerative.
- ✓ Chart 3 provides the monthly income estimates for an agriculture household in four very different states as well as the all-India number.
- ✓ Some of the most populous states like Bihar, West Bengal and Uttar Pradesh have very low levels of income and very high proportions of indebtedness.



4. Buying & selling:

- ✓ Another way of understanding the plight of the farmers relative to the rest of the economy is to look at the Terms of Trade between farmers and non-farmers.
- ✓ Terms of Trade is the ratio between the prices paid by the farmers for their inputs and the prices received by the farmers for their output.
- ✓ As such, 100 is the benchmark. If the ToT is less than 100, it means farmers are worse off.
- ✓ As Chart 4 shows, ToT rapidly improved between 2004-05 and 2010-11 to breach the 100-mark but since then it has worsened for farmers.

5. MSP:

- ✓ A key variable in the debate is the role of minimum support prices. Many protesters fear governments will roll back the system of MSPs.
- ✓ MSPs provide "guaranteed prices" and an "assured market" to farmers, and save them from price fluctuations. This is crucial because most farmers are not adequately informed.
- ✓ But although MSPs are announced for around 23 crops, actual procurement happens for very few crops such as wheat and rice.
- ✓ Moreover, the percentage of procurement varies sharply across states (Chart 5). As a result, actual market prices what the farmers get are often below MSPs.

13. Document on UCBs' Cybersecurity | WAYY

Why in News?

 The Reserve Bank of India (RBI) has come out with 'Technology Vision for Cyber Security for Urban Co-operatve Banks (UCBs) 2020-2023' to enhance cybersecurity of urban cooperative banks (UCBs).

Highlights:

- It plans to achieve its objective through a five-pillared strategic approach GUARD, viz. Governance Oversight, Utile Technology Investment, Appropriate Regulation and Supervision, Robust Collaboration and Developing necessary IT, cybersecurity skill sets.
- The vision document, with its 12 specific action points, aspires to involve more board oversight over cybersecurity; enable UCBs to better manage and secure IT assets; develop a forum for UCBs so that they can share best practices etc.



What are Co-operative Banks?

- Co-operative banks are financial entities established on a co-operative basis and belonging
 to their members. This means that the customers of a co-operative bank are also its
 owners.
- These banks provide a wide range of regular banking and financial services.

Background:

- The problem of rural credit was the key reason behind the advent of the co-operative movement in India, which began with the passage of the Co-operative Societies Act in 1904.
- The next addition was the Co-operative Societies Act, 1912, which focussed on the need for regulation of such societies and hence the establishment of appropriate bodies to oversee their functioning.

Structure of co-operative Banks in India:



- Broadly, co-operative banks in India are divided into two categories urban and rural.
- Rural cooperative credit institutions could either be short-term or long-term in nature.
 - ✓ Short-term cooperative credit institutions are further sub-divided into State Cooperative Banks, District Central Co-operative Banks and Primary Agricultural Credit Societies.
 - ✓ Long-term institutions are either State Cooperative Agriculture and Rural Development Banks (SCARDBs) or Primary Cooperative Agriculture and Rural Development Banks (PCARDBs).
- Urban Co-operative Banks (UBBs) are either scheduled or non-scheduled. Scheduled and non-scheduled UCBs are again of two kinds- multi-state and those operating in single state.



Who Oversees these Banks?

- In India, co-operative banks are registered under the States Cooperative Societies Act. They also come under the regulatory ambit of the Reserve Bank of India (RBI) under two laws, namely, the Banking Regulations Act, 1949, and the Banking Laws (Co-operative Societies) Act, 1955.
- They were brought under RBI in 1966, a move which brought the problem of dual regulation along with it.

Difference between Scheduled Commercial Banks and co-operative Banks:

- Primary Function: Commercial bank's primary function is to accept deposits from the
 public and provision loans to individuals or businesses. A cooperative bank's primary
 business is to accept deposits from members and the public, and grant loans to farmers
 and small businessmen.
- **Motive:** Commercial banks can be considered as joint stock companies, incorporated as a banking company that operates for profit. Cooperative banks work for service (Financial Inclusion, Community Service) motive.
- **Regulation:** Unlike commercial banks, UCBs are only partly regulated by the RBI. While their banking operations are regulated by the RBI, their management and resolution in the case of distress is regulated by the Registrar of Co-operative Societies either under the State or Central government.
- Area of Operation: The area of operation of a commercial bank is comparatively larger than a cooperative bank, as opposed to the cooperative banks which are confined to a limited area.
- **Voting Powers:** The borrower in a commercial bank do not have any voting power. Cooperative banks borrowers influence the credit policy through their voting power.
- Inters Rates: Commercial bank's interest rate on deposits is relatively lesser than a cooperative bank.
- However, in the event UCBs fail, deposits with them are covered by the Deposit Insurance and Credit Guarantee Corporation of India up to a sum of ₹1 lakh per depositor, the same as for a commercial bank.



5. GEOGRAPHY & ENVIRONMENT

1. World's Largest Solar Tree

Why in News?

• CSIR-CMERI develops the world's largest solar tree.

Highlights:

- CSIR-Central Mechanical Engineering Research Institute, located in Durgapur, West Bengal, has developed the world's largest solar tree.
- It is installed at CSIR-CMERI Residential Colony, Durgapur.
- Its installed capacity is above 11.5 kWp (kilowatts peak). It has the annual capacity to generate 12,000-14,000 units of clean and green power.

Features of the Solar Tree:

- The Solar Tree has been designed in a manner to ensure maximum exposure of each Solar PV Panel to sunlight and also the creation of the least amount of shadow area beneath.
- There is a total of 35 Solar PV Panels in each tree with a capacity of 330 wp each.
- The inclination of the arms holding the Solar PV Panels are flexible and can be adjusted as per requirement, a feature not available in Roof-Mounted Solar facilities.
- The energy generation data can be monitored either in real-time or on a daily basis.
- The solar tree has the capability to incorporate IOT based features, i.e. round-the-clock CCTV surveillance in agricultural fields, real-time humidity, wind speed, rainfall prediction and soil analytics sensors.
- These Solar Trees can be aligned with agriculture for substituting price-volatile fossil fuels.
- Each Solar Tree has the potential to save 10-12 tons of CO2 emissions being released into the atmosphere as Greenhouse Gases when compared with fossil fuel-fired energy generation. Besides, the surplus generated power can be fed into an Energy Grid.
- CSIR-CMERI had also developed solar-powered e-Suvidha Kiosks which can also be connected to the solar trees for real-time access to the vast majority of the agricultural database as well as to the eNAM.

Solar Tree:

- A solar tree is a structure incorporating solar energy technology on a single pillar, like a tree trunk. It may be a solar artwork or a functional power generator. Basically, they are solar panels mounted atop a long pole.
- The pole can support multiple panels in different spots, much like Branches on a tree.



2. Maharashtra to declare 600 acres of Aarey as reserve forest

Why in News?

• The State Govt. of Maharashtra is planning to declare 600 acres of Aarey land near Sanjay Gandhi National Park (SGNP) as reserve forest.

Highlights:

- Section 4 of Indian Forest Act (IFA) will be applied to almost 600 acres of the land, to declare it a reserve forest after a hearing for suggestion and objections.
- The open land will be declared as forest, ensuring all rights of tribal communities which reside within it.
- **Under Phase 1:** Rehabilitation of slums within the area would be expedited.
- **Under Phase 2:** Survey for additional open/forest land in Aarey will begin to help in protecting the flora and fauna existent in SGNP and Aarey.

What is Reserve Forest?

- A reserved forest in India denote forests accorded a certain degree of protection.
- Land rights to forests declared to be Reserved forests are typically acquired (if not already owned) and owned by the Government of India.
- Unlike National parks or wildlife sanctuaries, reserved forests are declared by the respective state governments.
- They are often upgraded to status of Wildlife Sanctuaries and National Parks.
- National Parks and Wildlife sanctuaries are reserved forest areas in India.
- Rights to all activities like hunting, grazing, etc. are banned unless specific orders are issued. No public entry is allowed for collection of timber or Grazing of Cattle.

3. Oceanic debris reveals changes in Earth's climate

Why in News?

- Scientists have discovered how the Earth's climate has changed over 66 million years by analyzing marine debris.
- The tilt of the Earth's axis and the shape of its orbit around the Sun influence these states, each with a clear response to orbital changes.

Highlights:

 According to researchers, the Earth's climate has been an ice house for the past three million years, with hot and cold seasons.



- Based on their findings, the team has developed a climate reference curve to show continuous records of the past and how climate has changed since the extinction of dinosaurs. Samples collected from sea level for more than five decades were analyzed by an international research team.
- Scientists have performed a mathematical analysis to identify four climatic conditions associated with changes in greenhouse gas emissions.
- During the Paleocene-Eocene Thermal Maximum (PETM) period, about 55 million years ago, rapid global warming caused the climate to become a hot state, which is associated with the release of large amounts of carbon into the atmosphere.
- During the Eocene, about 34 million years ago, ice sheets began to form in Antarctica as atmospheric carbon dioxide levels declined and the climate changed to a coolhouse state.
- They say greenhouse gas emissions and other anthropogenic, or human-led activities are leading the planet into warmer, hotter house climates that have not been seen since the Eocene period.

4. Climate Smart Cities Assessment Framework (CSCAF 2.0) & Streets for People Challenge launched

Why in News?

• Ministry of Housing & Urban Affairs has launched the Climate Smart Cities Assessment Framework (CSCAF) 2.0 along with the 'Streets for People Challenge' in a virtual event.

Highlights:

• CSCAF initiative intends to inculcate a climate-sensitive approach to urban planning and development in India.

Climate Smart Cities Assessment Framework:

- To provide a clear roadmap for cities towards combating Climate Change while planning and implementing their actions, including investments, MoHUA launched a ClimateSmart Cities Assessment Framework in February 2019, for 100 smart cities.
- The framework was developed after review of existing frameworks and assessment approaches adopted throughout the world.
- The framework has 28 indicators across Five Categories Namely;
 - ✓ Energy and Green Buildings
 - ✓ Urban Planning, Green Cover & Biodiversity



- ✓ Mobility and Air Quality
- ✓ Water Management
- ✓ Waste Management
- The Climate Centre for Cities under National Institute of Urban Affairs (NIUA) is supporting MoHUA in implementation of CSCAF.
- Aim:To inspire cities to create walking-friendly and vibrant streets through quick, innovative, and low-cost Measures.

Streets for People Challenge:

- The Streets for People Challenge is the response to the need for making cities more walkable and pedestrian friendly.
- The Challenge builds on the advisory issued by MoHUA for the holistic planning for pedestrian-friendly market spaces.
- The Challenge will support cities across the country to develop a unified vision of streets for people in consultation with stakeholders and citizens.
- Adopting a participatory approach, cities will be guided to launch their own design competitions to gather innovative ideas from professionals for quick, innovative, and lowcost tactical solutions.
- All cities participating in the challenge shall be encouraged to use the 'test-learn-scale' approach to initiate both, flagship and neighbourhood walking interventions.
- The interventions can include inter alia creating pedestrian-friendly streets in high footfall
 areas, re-imagining under-flyover spaces, re-vitalizing dead neighbourhood spaces, and
 creating walking links through parks and institutional areas.
- Fit India Mission along with the India program of the Institute for Transport Development and Policy (ITDP) have partnered with the Smart Cities Mission to support the challenge.

5. International Coastal Clean-Up Day & BEAMS

Why in News?

- On the eve of International Coastal Clean-Up Day, Union Ministry of Environment, Forest and Climate Change (MoEFCC) announced that for the first time eight beaches of India are recommended for the Blue flag certification.
- Also launched India's own eco-label BEAMS by e-hoisting the flag #IAMSAVINGMYBEACH simultaneously at these eight beaches.



• International Coastal Clean-Up Day is celebrated across 100 countries since 1986 on the third Saturday in September.

Blue Flag Beaches:

- Blue Flag beaches are considered the cleanest beaches of the world.
- The eight beaches are Shivrajpur in Gujarat, Ghoghla in Daman & Diu, Kasarkod and Padubidri beach in Karnataka, Kappad in Kerala, Rushikonda in Andhra Pradesh, Golden beach of Odisha and Radhanagar beach in Andaman and Nicobar.
- The recommendations are done by an independent National Jury composed of eminent Environmentalists & Scientists.

Blue Flag Certification:

- 'Blue Flag' is an international certification of environmental properties and cleanliness on beaches.
- A 'Blue Flag' beach provides hygienic and clean bathing water, basic infrastructure to tourists and sustainable development in the area.
- The 'Blue Flag' is a certification that can be obtained by a beach, marina, or sustainable boating tourism operator, and serves as an eco-label.
- The certification is awarded by the Denmark-based non-profit Foundation for Environmental Education (FEE), which sets stringent environmental, educational, safety-related and access-related criteria that applicants must meet and maintain.
- It is awarded annually to beaches and marinas in FEE member countries.
- The Blue Flag Programme started in France in 1985.
- Spain has the largest number of 566 Blue Flag beaches while Greece and France have 515 and 395 such blue flag beaches respectively.
- Chandrabhaga beach located on the Konark coast of Odisha is the first beach in the country to receive 'Blue Flag Certification'.

BEAMS Programme:

- BEAMS is one of the several other projects of ICZM that the central government is undertaking for sustainable development of coastal regions, striving for the globally recognised and coveted eco-label" Blue Flag"
- To plan sustainable tourism and healthy coastal management, MoEF&CC has conceived an integrated coastal management scheme viz. BEAMS to reduce existing pollutants on beaches and to aspire & achieve such high International Standards in India.
- This program promotes beach recreation in absolute harmony with Nature.



 Society of Integrated Coastal Management (SICOM) has initiated the process for clean beaches in 13 pilot beaches (one pilot beach in every Coastal States/UTs) under this programme and in line with Swachh Bharat Abhiyaan.

Objective:

- To promote sustainable development in coastal regions of India for the beach management authorities to strive to achieve high international standards in four categories of:
- Environmental Management including cleanliness, solid waste management in beaches
 - ✓ Environment Education
 - ✓ Safety & Security of Beachgoers
 - ✓ Bathing Water Quality Standards

Integrated Coastal Zone Management (ICZM):

- Ministry of Environment, Forests & Climate Change launched the Integrated Coastal Zone
 Management (ICZM) activities in India to protect and conserve the coastal and marine
 ecosystems and environment through a holistic coastal management.
- It aimed to promote sustainable development & management of coastal zones through its own wing SICOM. The concept of ICZM was introduced in 1992 during the Earth Summit at Rio de Janeiro and most of the coastal countries in the World have been adopting ICZM principles for managing their coastal zones.
- Adoption of ICZM principles for managing and sustainably developing our coastal regions is helping India in keeping with its commitments to international agreements on ICZM.

6. Glacier retreat in Himalayas

Why in News?

- A recent study by the Observer Research Foundation has found that the retreat of glaciers in the Himalayan Hindu Kush region is now affecting the surface water and groundwater availability in the region.
- It has adversely affected springs a lifeline for the population in hill areas.

Highlights:

- Studies by ISRO show that approximately 75 per cent of the Himalayan glaciers are retreating at an alarming rate.
- Climate warming is affecting hydrological regimes in the HKH region because of factors like changes in seasonal extremes, increased evapotranspiration, and changes in glacier volume.



- The study forecasts that in all three basins, there would be a decrease in snow and a rise in glacier melt by the middle of the century.
- Initially, there will be an increased amount of meltwater available, but this quantity will decline abruptly as the glacier storage is reduced.
- These retreats will increase the variability of water flows to downstream areas and endanger the sustainability of water use in the earth's most crowded basins.
- The decline in groundwater due to anticipated decline of glacial meltwater is likely to affect the Ganges basin the most.
- There are 5 million springs in the Himalayas and they are showing a decline because of overuse by an increasing population, but also because of retreating glaciers and depleting ground water levels.

Hindu Kush Himalayan Region:

- The Himalayas is not only the youngest mountain range, but also the Third Pole.
- The HKH region extends across 3,500 km over eight countries—Afghanistan, Bhutan, Bangladesh, China, India, Myanmar, Nepal and Pakistan.
- They are known as the Water Tower of Asia due to its reserve of frozen water.
- It has the biggest reserves of water in the form of ice and snow outside the polar regions, and is the source of 10 of the largest rivers in Asia.
- According to an estimate Hindu-Kush-Himalaya (HKH) has the maximum snow storage after the poles.
- Being a major source of water for the rivers, these glaciers are the lifeline for one-third of the population across the globe.

Concerns:

- The glaciers are melting and receding at an alarming rate in the Himalayas.
- As per a study, the Glaciers in the Hindu Kush Himalayas might contain 27 percent less ice than previously suggested.
- If the Himalayan glaciers disappear our rivers will become bone dry.
- With no water for drinking and irrigation, life in any form would be impossible in the Indian peninsula.
- The region is expected to lose half of its present-day glacier area by 2060, a decade earlier than the previously expected deadline of 2070.



6. INTERNATIONAL RELATIONS

1. The UN's Guidelines on access to Social Justice for People with

Disabilities

Why in News?

• The UN has released its first-ever guidelines on access to social justice for people with disabilities to make it easier for them to access Justice Systems around the world.

10 Principles set by the Guidelines:

• Principle 1:

✓ All persons with disabilities have the legal capacity and, therefore, no one shall be denied access to justice on the basis of disability.

• Principle 2:

✓ Facilities and services must be universally accessible to ensure equal access to justice without discrimination of persons with disabilities.

• Principle 3:

✓ Persons with disabilities, including children with disabilities, have the right to appropriate Procedural Accommodations.

• Principle 4:

✓ Persons with disabilities have the right to access legal notices and information in a timely and accessible manner on an equal basis with others.

• Principle 5:

✓ Persons with disabilities are entitled to all substantive and procedural safeguards recognized in international law on an equal basis with others, and States must provide the necessary Accommodations to Guarantee due Process.

• Principle 6:

✓ Persons with disabilities have the right to free or affordable legal assistance.

• Principle 7:

✓ Persons with disabilities have the right to participate in the administration of justice on an equal basis with others.

• Principle 8:

✓ Persons with disabilities have the right to report complaints and initiate legal proceedings concerning human rights violations and crimes, have their complaints investigated, and be afforded Effective Remedies.



• Principle 9:

✓ Effective and robust monitoring mechanisms play a critical role in supporting access to justice for Persons with Disabilities.

• Principle 10:

✓ All those working in the justice system must be provided with awareness-raising and training programs addressing the rights of persons with disabilities, in particular in the context of access to justice.

People with Disability:

• Definition of a Person with a Disability by UN:

- ✓ The UN Convention on the Rights of Persons with Disabilities, which was adopted in 2007, defines persons with disabilities as those
- ✓ "who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others".

• Discrimination on the basis of Disability:

- ✓ It means any distinction, exclusion or restriction on the basis of disability which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field.
- ✓ This includes all forms of discrimination, including denial of reasonable accommodation.
- ✓ Reasonable accommodation means the modification and adjustment in a particular case so that persons with disabilities can enjoy and exercise human rights and fundamental freedoms on an equal basis.

• People with Disability in India:

- ✓ In India 2.4 percent of males are disabled and two percent of females from all age groups are disabled.
- ✓ Disabilities include psychological impairment, intellectual impairment, speaking, multiple impairments, hearing, seeing among others.
- ✓ Article 41 of Constitution of India provides that the State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement and in other cases of undeserved want.



✓ National Policy for Persons with Disabilities, 2006 recognizes that Persons with Disabilities are valuable human resources for the country and seeks to create an environment that provides them equal opportunities, protection of their rights and full participation in society.

United Nations Convention on the Rights of Persons with Disabilities (UNCRPD):

- It was adopted by the General Assembly in December 2006 and it came into force in May 2008.
- It seeks to engage member countries in developing and carrying out policies, laws and administrative measures for securing the rights recognized in the Convention and abolish laws, regulations, customs and practices that constitute discrimination.
- It also requires countries to identify and eliminate obstacles and barriers and ensure that
 persons with disabilities can access their environment, transportation, public facilities and
 services, and information and communications technologies.
- It also asks member countries to recognize the right to an adequate standard of living and social protection which includes public housing, services and assistance for disabilityrelated needs, as well as assistance with disability-related expenses in case of poverty.

2. Quad should ensure Freedom of Navigation in Indian Ocean

Why in News?

• Chief of Defence Staff (CDS) of India said that India wants the Quad to become a system to "ensure Freedom of Navigation (FoN) and Freedom of Navigation Operations (FONOPS)" in the Indian Ocean, while highlighting the threat of a combined challenge from Pakistan and China on two fronts.

Quad Grouping:

- The full form of 'Quad' is Quadrilateral Security Dialogue.
- It is an informal strategic dialogue between four countries i.e. United States, Japan, Australia and India.
- The idea of Quad or Quadrilateral grouping was first proposed by Japanese prime minister in 2007.

Why the Grouping Stopped Working and when?

Quad was ceased following the withdrawal of Australia. However, during the 2017 ASEAN
Summits, all four former members rejoined in negotiations to revive the quadrilateral
alliance.



Significance of Quad:

- It underlines the rising significance of maritime geopolitics in an increasingly integrated world.
- The Quad grouping is regarded as an answer to China's Belt and Road Initiative, which is establishing a China-centric trade route.
- All the four countries share a vision for increased prosperity and security in the Indo-Pacific region and wants to work together to ensure that the Indo-Pacific remains free and open.

3. World Solar Technology Summit (WSTS)

Why in News?

• World Solar Technology Summit (WSTS) is being organised by the International Solar Alliance (ISA).

Highlights:

- The virtual summit will focus on accelerating affordable and sustainable clean green energy by showcasing and deliberating on the innovative state of the art next-generation technologies in solar power.
- More than 26000 participants from 149 nations are expected to attend the summit.
- Many ISA countries' ministers will join high-level dignitaries, representatives of diplomatic missions, ISA Partners, business and industry leaders, solar project developers, solar manufacturers, R&D institutions, academia and think tanks, civil society, international organizations and donors, representatives of non-governmental and community-based organizations, research and training institutes, international media, multilateral and bilateral agencies.
- The summit will include many deliberations on low cost, innovative and affordable solar technologies.
- ISA would also be launching the ISA Journal on Solar Energy that would help authors from across the globe to publish their articles on solar energy, during the event.
- The keynote of the summit will be delivered by Nobel laureate, Dr M Stanley Whittingham.
 He had won the 2019 Nobel Prize for Chemistry along with two others for the discovery of the lithium-ion batteries.



4. India joins Djibouti Code of Conduct as observer

Why in News?

• India has joined the Djibouti Code of Conduct (DCOC), a grouping on maritime matters aimed at Countering piracy as an observer.

Highlights:

To combat piracy and enhance maritime security in the Indian Ocean region.

Djibouti Code of Conduct:

- The DCOC was adopted on January 29, 2009, by the representatives of Djibouti, Ethiopia, Kenya, Madagascar, Maldives, Seychelles, Somalia, Tanzania and Yemen.
- Comoros, Egypt, Eritrea, Jordan, Mauritius, Mozambique, Oman, Saudi Arabia, South Africa, Sudan and United Arab Emirates signed on later, taking the total members to 20.
- It aims to repress piracy and armed robbery against ships in the western Indian Ocean and the Gulf of Aden.
- The 18 member states are located in areas adjoining the Red Sea, Gulf of Aden and the east coast of Africa and include island nations in the Indian Ocean.
- Besides India, the other observers in the grouping are Japan, Norway, the UK and the US.

Functions:

- The member states cooperate in countering piracy and armed robbery on the high seas.
- They promote the implementation of relevant UN Security Council resolutions.
- They also cooperate in the investigation, arrest and prosecution of persons suspected of
 having committed acts of piracy and armed robbery against ships, the interdiction and
 seizure of suspect ships, the rescue of ships and people subject to piracy and armed
 robbery, and the conduct of joint operations.

Significance:

- The development comes at a time when India is shoring up its position in the Indian Ocean and nearby waters as part of its overall Indo-Pacific policy.
- India has signed reciprocal military logistics support agreements with Australia and Japan this year to increase interoperability with the navies of those countries.



5. Queen's Council

Why in News?

• India has suggested Pakistan to appoint a Queen's Counsel for the Kulbhushan Jadhav case to ensure a Free and Fair Trial.

Highlights:

- India's suggestion has come against the backdrop of negotiations between India and Pakistan to ensure a free and fair trial.
- The International Court of Justice had asked Pakistan to ensure a fair review of the death sentence.
- But according to India Pakistan has not provided unimpeded access to Kulbhushan Jadhav till now.

Queen's Counsel:

- As per its legal definition, Queen's Counsel is a barrister, or advocate, appointed Counsel to the Crown on the recommendation of the Lord Chancellor and is entitled to sit within the Bar of the court and wear a silk gown
- The position originated in England. Some Commonwealth countries have either abolished the position, or re-named it so as to remove monarchical connotations, for example, 'Senior Counsel' or 'Senior Advocate'.
- Queen's Counsel are retained in several Commonwealth realms where Queen Elizabeth II
 is head of state. Many countries still appoint from Queen's counsel
- In jurisdictions that have become republics, the office of Queen's Counsel has sometimes been replaced with an equivalent, for example, Senior Advocate in Nigeria, India and Bangladesh; and President's Counsel in Sri Lanka.

6. Quad discusses Indo-Pacific infrastructure and 5G

Why in News?

Senior officials from the Foreign Ministries of "the Quad" group of countries — India, the
U.S., Australia and Japan — met virtually on Friday, during the United Nations high level
week, as part of their periodic consultations on the Indo-Pacific region.

Highlights:

 Officials discussed ongoing and proposed practical cooperation in the areas of connectivity and Infrastructure Development.



- Noting the importance of digital connectivity and secure networks, the officials discussed ways to promote the use of trusted vendors, particularly for fifth generation (5G) networks.
- In an effort to stop Chinese G₅ giant Huawei from setting up shop networks in other countries, U.S. Secretary of State Michael Pompeo has been promoting "clean telcos" a list of companies considered by the U.S. administration to be free from security risks and the risk of surveillance by the Chinese government. Other topics discussed by the Quad officials, included counter-terrorism, cyber and maritime security, and quality Infrastructure in the Region.

ASEAN Inclusiveness:

- Both countries' statements say the officials committed support to the concept of ASEAN-centrality in the Indo-Pacific and ASEAN's leadership in the architecture of the region.
- The U.S. statement says the officials "explored ways to work together in the Mekong subregion, in the South China Sea, and across the Indo-Pacific to support international law, pluralism, regional stability, and post-pandemic recovery efforts".
- The MEA statement says the officials reiterated their readiness to work with ASEAN and all other countries towards realising "a common and promising vision for the Indo-Pacific". The U.S. statement describes collective efforts to advance "a free, open and inclusive Indo-Pacific region". The phrase normally used by US is "free and open Indo-Pacific". India had, at least initially since the Quad was revived after a ten year hiatus in 2017, been hesitant for the Quad to be seen as a framework to exclude or contain China. Prime Minister Narendra Modi had articulated an inclusive vision for the Indo Pacific in 2018 at the Shangri La Dialogue in Singapore, when India-China relations were on a high relative to this year, when there have been tensions and clashes along the Line of Actual Control (LAC).

7. India – Denmark MoU

Why in News?

• India, Denmark sign MoU on Intellectual Property cooperation.

Highlights:

• The Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry signed a Memorandum of Understanding (MoU) with the Danish Patent and Trademark Office, Ministry of Industry, Business and Financial Affairs, Denmark for intellectual property cooperation.



- The MoU aims at increasing IP cooperation between the two countries by way of:
- Exchange of best practices, experiences and knowledge on IP awareness among public, authorities, businesses and research and educational institution of both countries.
- Collaboration in training programmes, exchange of experts, technical exchanges and outreach activities.
- Exchange of information and best practices on processes for disposal of applications for patents, trademarks, industrial designs and Geographical Indications, as also the protection, enforcement and use of IP rights.
- Cooperation in the development of automation and implementation of modernization projects, new documentation and information systems in IP and procedures for the management of IP.
- Cooperation to understand how Traditional Knowledge is protected; including the use of traditional knowledge related databases and awareness raising of existing IP systems.
- This MoU is expected to go a long way in fostering the cooperation between India and Denmark, and provide opportunities to both countries to learn from the experience of each other, especially in terms of best practices followed in the other country.





7. INTERNAL SECURITY & DISASTER MANAGEMENT

1. INDRA Navy 2020

Why in News?

• India and Russia are scheduled to hold the bilateral naval exercise, Indra 2020, in the Andaman Sea, close to the strategic Strait of Malacca on September 4 and 5.

Indra 2020:

- INDRA Navy 2020 is a joint naval exercise conducted by India and Russia.
- As a part of exercise maritime drills such as gun firing on surface and aerial targets, tracking exercises and replenishment at sea approaches are planned
- Russian Navy ships Admiral Vinogradov, Admiral Tributs and Boris Butoma along with a fleet of helicopters will be part of the exercise
- The Indian Navy will deploy Ranvijay (destroyer), Sahyadri (frigate) and Kiltan (corvette) and Shakti (tanker) with integrated helicopters
- INDRA NAVY-2020, earlier planned in Vladivostok has been postponed due to Covid-19 pandemic situation. Russian Navy has instead proposed conducting a "non-contact, at sea only" Passage Exercise (PASSEX) to maintain the continuity of engagements between the two Navies.

Significance:

- The exercise will help to further bolster the operational interoperability in dealing with emerging security challenges
- The exercise will showcase the level of friendship, trust and interoperability between Indian Navy and the Russian Navy
- The timing of the exercise coincides with Defence Minister Rajnath Singh's visit to Russia for the Shanghai Cooperation organisation (SCO) defence ministers meet and also comes just after India withdrew from the Kavkaz-2020 multinational exercise in Russia scheduled for later this month.
- The Exercise also is conducted in the backdrop of India China issue

India-Russia Indra Exercises:

- India-Russia (INDRA) Exercises between the Army, Navy and Air Force of the two countries have been held since 2005.
- Joint Tri-Services Exercises 'INDRA' are also being held once in two years since 2017. The last INDRA Tri-Services Exercise was held in India in December 2019.



2. UP will get a New Special Force Soon

Why in News?

• Additional Chief Secretary of UP directed the Director-General of Police to prepare a road map of Uttar Pradesh Special Security Force (SSF).

Highlights:

• The UP state government on 26 June announced the formation of a Special Security Force (SSF).

Uttar Pradesh Special Security Force (SSF):

- The government aims to form the force in the next three months with 9900 personnel in the first phase. 1913 more posts will be created.
- SSF will be responsible for security of vital government and private buildings, and industrial establishments.
- According to the Uttar Pradesh Special Security Force (UPSSF) Act, 2020, the force will
 not require magistrate's order or warrants to make an arrest or conduct searches.
- Its powers will be governed by a set of rules made by the state government.
- This force will be deployed at places such as metro rail, airports, industrial institutions, courts, religious places, banks and other financial institutions.
- The headquarters will be in Lucknow, and an ADG-level officer will head the force.
- Initially, five battalions will be formed.
- Private firms can also hire the services of the force at a fixed cost, and the DGP can give his approval for the same.

Central Industrial Security Force:

- The CISF is a central armed police force under the aegis of Union Ministry of Home Affairs.
- The CISF came into existence in 1969 with a modest beginning, having three battalions, to provide integrated security cover to the Public Sector Undertakings (PSUs).
- However, it was converted to an armed force with a larger ambit under an amendment to the Act in 1983.
- So, CISF is no longer a PSU-centric organization. It has become a premier multi-skilled security agency of the country.
- It is mandated to provide security to major critical infrastructure installations of the country in Diverse Areas.



- CISF is currently providing security cover to nuclear installations, space establishments, airports, seaports, power plants, sensitive Government buildings and ever heritage monuments.
- Among the important responsibilities recently entrusted to the CISF are the Delhi Metro Rail Corporation, VIP Security, Disaster Management and establishment of a Formed Police Unit (FPU) of the UN at Haiti.
- After the Mumbai terrorist attack on November 2008, the mandate of the force has been broadened to provide direct security cover to private sector also.
- Presently, CISF is also providing security to the protected persons classified as Z Plus, Z, X,
 Y.
- CISF is the only force with a customized and dedicated fire wing.
- CISF is a compensatory cost force.
- Currently, the CISF guards 59 civil airports across the country.

