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HC and SC Judges (Salaries and Conditions of Service) Amendment Bill, 2021

In News: Government has introduced a bill that proposes to amend the High Court Judges (Salaries and Condition of Service) Act and the Supreme Court Judges (Salaries and Condition of Service) Act.

Key Takeaways

- According to the bill, in 2009 the two laws were amended to provide that every retired judge or after his death, the family, as the case may be, will be entitled to an additional quantum of pension or family pension.
- Accordingly, the additional quantum of pension to retired judges of the high courts and the Supreme Court is being sanctioned on completing the age of 80 years, 85 years, 90 years, 95 years and 100 years, as the case may be.
- The bill seeks to bring clarity from when Supreme Court and high court judges are entitled to an additional quantum of pension or family pension on attaining a certain age.
- The additional quantum of pension to a retired judge was earlier calculated **from the first day of the month in which he completes** 80/90/95/100 years the and not from the **first day of his entering the age**. However, Gauhati HC and Madhya Pradesh HC reiterated that the calculation of pension must start from first day of his entering the age.
- To clarify the matter and to align the provisions of law to the High Court judgements, the government has brought in this amendment bill.

6 lakh Indians renounced citizenship

In News: More than six lakh Indians renounced citizenship in the past five years, the Ministry of Home Affairs (MHA) informed the Lok Sabha on Tuesday.

Key Takeaways

- Number of Indians who gave up citizenship stood at

Year	Number of Indians giving up citizenship
2017	1,33,049
2018	1,34,561
2019	1,44,017
2020	85,248
2021 (till Sep 30)	1,11,287

- The reason for a large number of Indians surrendering their citizenship was not stated in the reply by Minister of Home Affairs.
- In 2018, the MHA had revised the form for declaration of renunciation of citizenship, which, for the first time, included a column on “circumstances/reasons for renouncing Indian citizenship”.
- Recently, the **MHA had simplified the process** and provisions were made for the applicants to upload documents online and an upper limit of 60 days was fixed for the renunciation process to be completed.
- According to a **Global Wealth Migration Review report,** in 2019, India came second only to China when it came to high net worth individuals (HNIs) leaving the country. As many as 7,000 HNIs left India in 2019.
- Government added that in the period 2016-20, 10,645 foreigners applied for Indian citizenship, of which more than 7,782 were from Pakistan and 452 were stateless.
- During the same period, **4,177 persons were granted Indian citizenship** but the country-wise breakup was not provided.
- A total number of **1,33,83,718 Indian nationals were living in foreign countries**, the reply stated.
- The Minister said the persons covered under the Citizenship Amendment Act (CAA), 2019 might apply **after the rules were notified.**

	• Government also reiterated that it has not taken any decision to prepare the National Register of Indian Citizens (NRIC) at the national level.

Assisted Reproductive Technology (Regulation) Bill, 2020	**In News:** The Lok Sabha passed the Assisted Reproductive Technology (Regulation) Bill, 2020, that proposes the establishment of a national registry and registration authority for all clinics and medical professionals serving in the field.
	Key Takeaways
	• The ART bill seeks to set **minimum standards and codes of conduct** for fertility clinics and egg/sperm banks.
	• The bill provides for the "**safe and ethical practice of assisted reproductive technology services**", including egg or sperm donation, in-vitro fertilisation (IVF), intrauterine insemination (IUI), and gestational surrogacy.
	• The bill also aims to **introduce protections** for egg donors, gestational surrogates, and children conceived through ART services.
	• **Offences under the bill** include
	  ○ Clinics offering sex selection
	  ○ Abandoning or exploiting children born through ART
	  ○ Selling, buying, or importing of human embryos,
	  ○ Exploiting the couple or donors concerned in any form.
	• Proposed jail terms for violations range from five to 12 years, and fines from Rs 5 lakh to Rs 25 lakh.

Pragyata Guidelines	**In News:** Keeping in view the availability of digital infrastructure PRAGYATA Guidelines on Digital Education had been issued to all State governments as well as Schools directly under Central Government as advice. • The guidelines brief on various modes of digital education including online mode that depends more on availability of internet, partially online mode that utilizes the blended approach of digital technology and other offline activities, and offline mode that utilizes television and radio as a major medium of instruction of education. • This information was given by the Union Minister of Education, Shri Dharmendra Pradhan in a written reply in the Rajya Sabha.
UNLAWFUL ACTIVITIES (PREVENTION) ACT	**In News:** Putting a person accused under the Unlawful Activities (Prevention) Act behind bars for an unduly long time with no progress in the trial or appeal process is a violation of his or her fundamental right, the Supreme Court has held in a judgment. **Key highlights of the judgement:** • While deprivation of personal liberty for some period may not be avoidable, the period of deprivation pending trial/appeal cannot be unduly long. • At the same time, **timely delivery of justice is part of human rights** and denial of speedy justice is a threat to public confidence in the administration of justice. • Once it is known that a timely trial is not possible and the accused has already suffered a significant period of incarceration, the courts are **"obligated" to enlarge an undertrial on bail.** • The court noted that cases investigated by the National Investigation Agency should be tried on a day-to-day basis and have priority over other cases.
Private Member's Bill	**In News:** Senior Congress leader Shashi Tharoor moved a private member's Bill in the Lok Sabha seeking to establish permanent Benches of High Courts in State capitals. Key Takeaways • The private member's Bill was moved in the Lok Sabha after a gap of nearly two years. • "Establishment of permanent benches of high courts at state capitals Bill" had been pending since 2019. • As many as 153 private members' Bills were introduced in the Lok Sabha on Friday, including one that sought compulsory teaching of the Bhagavad Gita in educational institutions. **Private Member's Bill**

	▪ Any Member of Parliament (MP) who is not a minister is referred to as a **private member.** ▪ The purpose of private member's bill is to draw the government's attention to what individual MPs see as issues and gaps in the existing legal framework, which require legislative intervention. ▪ Its drafting is the responsibility of the member concerned. ▪ Its introduction in the House requires **one month's notice.** ▪ The government bills can be introduced and discussed on any day, private member's bills can be introduced and discussed **only on Fridays.** ▪ Its rejection by the House has no implication **on the parliamentary confidence** in the government or its resignation. ▪ Upon conclusion of the discussion, the member piloting the bill can either withdraw it on the request of the minister concerned, or he may choose to press ahead with its passage. ▪ The last time a private member's bill was passed by both Houses was in **1970.** It was the **Supreme Court (Enlargement of Criminal Appellate Jurisdiction) Bill, 1968.**
Culture Mapping of 80 Villages	**In News:** Culture mapping of 80 villages associated with noted personalities in history, in particular the freedom movement, unique crafts and festivals has been started as a pilot project by Union Culture Ministry. **Key Takeaways** • From Sempore in Kashmir to Kanjirapally in Kerala, villages with a connection to the freedom movement as well as those with their own art practices have been selected for the project, being **conducted by the Indira Gandhi National Centre for the Arts (IGNCA).** • The project would lead to a "**national register and interactive database of artists** and art practices from the villages of India". Each artist would be given a unique ID and an e-commerce platform set up. • The work under the mission involves coordinating the data collection through ground and field surveys conducted on the basis of detailed formats and questionnaires, mobile application, interactive web-portal and an over-the-top (OTT) platform to showcase ethnographic documentaries/ cultural events/ festival/ melas etc. of villages. Some of the villages on the list • From Ladakh, the pilot project included Choglamsar and Wanla villages, known for wood carving. • Sempore or Pandrenthan in Budgam district of Jammu and Kashmir that is associated with **14th Century mystic Lal Ded or Lalleshwari.** • Khatkar Kalan village in Punjab, which has a **memorial of Bhagat Singh**. • Reni village of Uttarakhand, where the **Chipko movement started**. • Kathputli Colony in Delhi, known for the "**migrant kathputli artists",** are also on the list. • Two villages in Tamil Nadu — Ettayapuram (the birthplace of poet Subramania Bharathi) and Thiruchigadi (a **village of "women potters**") — are also on the list.
Statutory Bail	**In News:** The National Investigation Agency (NIA) has approached the Supreme Court against a Bombay High Court order granting bail to **advocate and activist Sudha Bharadwaj.** • In its bail order, the court has asked the NIA Court to decide the conditions for her release on December 8. • While she was given 'default bail', eight others were denied the benefit in the same case. • The case highlights the nuances involved in a court determining the circumstances in which statutory bail is granted or denied, even though it is **generally considered "an indefeasible right".** **What is Statutory bail?**

	• **Default bail, also known as statutory bail,** is a right to bail that accrues when the police fail to complete investigation within a specified period in respect of a person in judicial custody. • This is enshrined in Section 167(2) of the Code of Criminal Procedure where it is not possible for the police to complete an investigation in 24 hours, the police produce the suspect in court and seek orders for either police or judicial custody. • This section concerns the total period up to which a person may be remanded in custody prior to filing of charge sheet. • For most offences, the police have 60 days to complete the investigation and file a final report before the court. However, where the offence attracts death sentence or life imprisonment, or a jail term of not less than 10 years, the period available is 90 days. • In other words, a magistrate cannot authorise a person's judicial remand beyond the 60-or 90-day limit. At the end of this period, if the investigation is not complete, the court shall release the person "if he is prepared to and does furnish bail".

National Institute of Pharmaceutical Education And Research (Amendment) Bill , 2021	**Key takeaways**
	• The Bill seeks to amend the original act of 1998 to declare six additional National Institute of Pharmaceutical Education and Research (NIPERs) as Institutions of National Importance.
	• These institutes are located in Ahmedabad, Hajipur, Hyderabad, Kolkata, Guwahati and Raebareli.
	• The Bill also provides for a Council to coordinate the activities among the institutes to ensure development of pharmaceutical education and research.
	• The NIPERs are for strengthening and enhancing research in the Pharma sector, in the country.
	What is the Meaning of the Institute of National Importance?
	• The Central Government grants the status of 'Institute of National Importance' to premier higher educational institutions in India through an act of the Parliament.
	• Such an institute "serves as a pivotal player in developing highly skilled personnel within the specified region of the country/state".
	• Such institutes get special funding and recognition from the Government of India.
	• It is observed that generally, such INIs operate outside the University Grants Commission's ambit and enjoy certain advantages related to taxes.
	• **Ministry:** Ministry of Education
	• Some of the benefits that INIs enjoy are listed below:
	  • Functional autonomy
	  • Increased funding.
	  • Better quality of education.
	  • Faster decision-making capabilities.
	  • Minimal interference from the political executive.

Citizenship (Amendment) Act, 2019 (CAA)	**Context** Two years after the Citizenship (Amendment) Act, 2019 (CAA) was passed by Parliament, the Union Home Ministry is yet to notify the rules governing the Act. • The legislation cannot be implemented without notifying the rules. **What is the Citizenship (Amendment) Act?** • Citizenship (Amendment) Act, 2019 was passed by the Parliament of India on 11 December 2019. • It amended the Citizenship Act, 1955 by providing a pathway to Indian citizenship for persecuted religious minorities from Afghanistan, Bangladesh and Pakistan who are Hindus, Sikhs, Buddhists, Jains, Parsis or Christians, and arrived in India before the end of December 2014. • The law does not grant such eligibility to Muslims from these Muslim-majority countries. • The act was the first time that religion had been overtly used as a criterion for citizenship under Indian law and attracted global criticism.

SAMPANN project	**In News:** Over 1 lakh people getting pension directly into their bank accounts through SAMPANN project **SAMPANN –** 'System for Accounting and Management of Pension' is an ambitious project of Government of India being implemented by Controller General of Communication Accounts, Department of Telecommunications, Ministry of Communications. • A **seamless** online pension processing and payment system for Department of Telecommunications pensioners • Provides **direct credit of pension** into the bank accounts of pensioners • Helped the Department in **faster settlement** of pension cases, improved reconciliation/auditing and ease of accounting. • Instrumental in **settling** close to 76000 BSNL Voluntary Retirement Scheme 2019 cases in a short span of 6 months. • A system with a **flexible design** which enables it to accommodate ever expanding requirements • Has improved the service delivery to pensioners by providing a single window setup ensuring the following benefits: ▪ Timely settlement of pension cases ▪ Provision of e-Pension Payment Order ▪ Login for each pensioner enables access to key information like payment history ▪ Online submission of grievances and timely SMS alerts
Model Tenancy Act	**Model Tenancy Act** aims to promote rental housing by balancing and protecting the rights and interests of both the tenants and landlords by regulating renting of premises in an efficient and transparent manner. **Why this Act?** • **Restrictive Laws:** As per Census 2011, more than 1 crore houses were lying vacant in urban areas. The existing rent control laws are restricting the growth of rental housing and discourage owners from renting out their vacant houses due to fear of repossession. • **Large scale informalisation in sector:** One of the potential measures to unlock the vacant house is to bringing transparency and accountability in the existing system of renting of premises and to balance the interests of both the property owner and tenant in a judicious manner. • **Lack of Uniformity**: Since it is a state subject, states have enacted their laws and it differs from one state to another. • **Housing Poverty:** 2013 report by a Task Force for Rental Housing held that affordable rental housing "addresses the issues of the underprivileged and inclusive growth, in an even more direct manner than affordable ownership housing". Model Tenancy Act helps bring investment in the sector as the sector provides better safeguards. **Where it applies** • After enforcement of this Act, no person can let or take on rent any premises except by an agreement in writing. • The new Act will be applicable prospectively and will not affect existing tenancies. • The Act seeks to cover urban and as well as rural areas. **What's new in Model Tenancy Act?** • **Dedicated Institutions**: States will set up a grievance redressal mechanism comprising of Rent Authority, Rent Court and Rent Tribunal to provide fast-track resolution of disputes. • **Time Bound Resolution:** Disposal of a complaint/appeal by the Rent Court and the Rent Tribunal will be mandatory within 60 days. • **No monetary ceiling on rents:** At present, in many old properties let out under archaic rent-control Acts, such ceilings have left landlords stuck with outdated rent amounts. This will be done away with in new model act.

	• **A digital platform** will be set up in the local vernacular language or the language of the State/Union Territory for submitting tenancy agreement and other documents. Rent Authority will keep a tab on these agreements. • **Proper Documentation**: Verbal agreements will be out of the picture, as the MTA mandates written agreement for all new tenancies (prospective) which is to be submitted to Rent Authority. • **Clarity on Subletting**: Subletting of premises can only be done with the prior consent of the landlord, and no structural change can be done by the tenant without the written consent of the landlord. • **Guidelines on Security Deposit**: The security deposit to be paid by the tenant should not exceed two months' rent for residential property (six months' rent in case of non-residential property) • **Provision for eviction**: The Rent Court can allow repossession by the landlord if the tenant misuses the premises, after being served a notice by the landowner. Misuse of the premises, as defined, includes public nuisance, damage, or its use for "immoral or illegal purposes". **Merits of MTA** • Formalise the shadow market of rental housing • Protects interests of both tenant and owner • Faster resolution of disputes • Unlock vacant properties • Increase rental yields • Ease/remove exploitative practices • Reduce procedural barriers in registration • Increase transparency and discipline. • Attracts private investment into the sector. **Note:** Land and Colonization are **State subjects**.

'Beti Bachao, Beti Padhao ' (BBBP) scheme	**Context** The Parliamentary Committee on Empowerment of Women has noted in its report that The Government spent 80% of the funds under the 'Beti Bachao, Beti Padhao ' (BBBP) scheme on media campaigns.
	• It has recommended that it must now revisit this strategy and invest in measurable outcomes in health and education for girls.
	• The total utilisation under the scheme was also poor.
	• Advocacy and media campaigns include television publicity, outdoor and print media, SMS campaigns, radio spots and community engagement through exhibition vans.
	What is 'Beti Bachao, Beti Padhao ' (BBBP) scheme?
	• The scheme was launched by Indian Prime Minister in January 2015
	• Aim: To address sex-selective abortion and the declining child sex ratio, which was at 918 girls for every 1,000 boys in 2011.
	• The programme is being implemented across 405 districts.
	• There is a clearly laid down formula for utilisation of funds. Rs. 50 lakh a year is earmarked a district for utilisation under six different components.
	  ○ Of this, 16% is for inter-sectoral consultation or capacity-building
	  ○ 50% for innovation or awareness generation activities
	  ○ 6% for monitoring and evaluation
	  ○ 10% for sectoral interventions in health
	  ○ 10% for sectoral interventions in education
	  ○ 8% as flexi funds

Section 124A misuse	**Context** Recently, Union Law Minister replied in Parliament that there is no proposal to scrap sedition charge from the Indian Penal Code. • Few months ago, Chief Justice of India N.V. Ramana had remarked about the chilling effect of the "colonial law", which suppresses the freedoms of ordinary people

	What is Section 124A IPC? • It defines sedition as an offence committed when "any person by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards the government established by law in India". • Disaffection includes disloyalty and all feelings of enmity. • However, comments without exciting or attempting to excite hatred, contempt or disaffection, will not constitute an offence under this section. **Historical Background of Sedition Law** • Sedition laws were enacted in 17th century England when lawmakers believed that only good opinions of the government should survive. • The law was originally drafted in 1837 by Thomas Macaulay. • Section 124A was inserted in 1870 by an amendment introduced by Sir James Stephen when it felt the need for a specific section to deal with the offence. • It was one of the many draconian laws enacted to stifle any voices of dissent at that time
National Helpline Against Atrocities (NHAA)	**In News:** The Ministry of Social Justice and Empowerment is scheduled to launch a National Helpline Against Atrocities (NHAA) on 13th Dec 2021 with an aim to ensure proper implementation of the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities){PoA} Act, 1989 which was enacted with a view to, inter-alia, preventing atrocities on members of Scheduled Castes (SCs) and Scheduled Tribes (STs). • The NHAA will be available round the clock on toll-free number 14566 across the country. It can be accessed by making a voice call /VOIP either from a mobile or land line number of any Telecom Operator across the country. This service will be available in Hindi, English and regional language of the State/UTs. Its Mobile application will also be available. • The objective of the helpline is to build informed awareness about the provisions of the Law that are aimed at ending discrimination and provide protection to all. • The system will ensure that every complaint is registered as an FIR, relief is provided, all registered complaints are investigated and all chargesheets filed are prosecuted in the Courts for decision - all within the given timelines in the Act.
LokpalOnline	**Context** Chairperson, Lokpal of India, Justice Pinaki Chandra Ghose recently inaugurated a digital Platform for Management of Complaints called 'LokpalOnline' • It can be accessed by all citizens of the country and complaints can be filed from anywhere, anytime. **Key features** • LokpalOnline is an end-to-end digital solution for the management of complaints against public servants filed under the Lokpal and Lokayuktas Act, 2013. • Convenience to complainants for filing complaint online from anywhere anytime • Information to the complainant about action on complaint at every stage through e-mails and SMS • Facility to complainant to ascertain status of complaint at anytime • Identity of the complaint is kept confidential • The CVC, CBI and other inquiry agencies can upload their reports directly on 'LokpalOnline' platform. • Reminders to inquiry agencies through e-mails and SMS • Generation of analytical reports as per requirement **Do you know?** • Lokpal of India, has been established under the Lokpal and Lokayuktas Act, 2013 to inquire and investigate allegations of corruption against public functionaries falling within the scope and ambit of this Act.

	• At present complaints sent by post, e-mail or delivered by hand are entertained by the Lokpal of India.

Portal 'Bal Swaraj	**Context** The Supreme Court directed States to take immediate steps to identify and rescue homeless children hit by the COVID-19 pandemic.
	• The court said their details should be uploaded on the National Commission for the Protection of Child Rights (NCPCR) portal 'Bal Swaraj.
	• The court said the process of collecting the information with regard to the social background of the children and identification of benefits under the individual care plan had to be conducted by the Child Welfare Committees under the Juvenile Justice law.
	What is Bal Swaraj Portal?
	• **Created by:** The National Commission for Protection of Child Rights (NCPCR)
	• **Significance:** NCPCR has developed it as part of its role of a monitoring authority under section 109 of the Juvenile Justice Act, 2015 and to address the growing problem of Children being affected by COVID-19.
	• **Objective:**
	  ○ Online tracking and
	  ○ Real-time monitoring of Children who have lost both parents/either of the parents during COVID-19 and are in need of care and protection
	• **Working:** It will track children affected by COVID-19 right from the production of children before the Child Welfare Committee (CWC) to the restoration of the children to their parent/guardian/relative and its subsequent follow-up.
	• The data will be filled in the portal by the District officers and State officers for each child.

Pradhan Mantri Jan Vikas Karyakram (PMJVK)	**About:** Restructured in May 2018 earlier known as MsDP – Implemented for the benefit of the people from all sections of the society in identified Minority Concentration Areas for creation of assets in education, skill and health sectors.
	• Provide better socio economic infrastructure facilities to the minority communities particularly in the field of education, health & skill development as compared to the present situation, which would further lead to lessening of the gap between the national average and the minority communities with regard to backwardness parameters.
	• The flexibility introduced in the programme will enable addressing important issues that would result in speedier implementation leading to greater inclusiveness of the minority communities.
	• The criteria for identification of Minority Concentration Towns and Clusters of Villages have been rationalized by lowering the population percentage criteria of Minority Communities and fulfilment of backwardness parameters in the following manners:-
	  ○ Earlier only those Towns which were found backward in terms of both in Basic Amenities and Socio-economic parameters were taken up as MCTs. Now, the Towns which were found backward in either or both of the criteria have been taken up as MCT.
	  ○ Earlier only those Cluster of Villages which were having at-least 50% population of Minority Community were taken. Now the population criterion has been lowered to 25%.

Sixth Schedule	**Context** A MP from Ladakh belonging to BJP party has demanded that the region be included in the Sixth Schedule of the Constitution to safeguard land, employment, and cultural identity of the local population. **What is Sixth Schedule?** • The Sixth Schedule under Article 244 provides for the formation of autonomous administrative divisions — Autonomous District Councils (ADCs) — that have some legislative, judicial, and administrative autonomy within a state.

	• ADCs have up to 30 members with a term of five years, and can make laws, rules and regulations with regard to land, forest, water, agriculture, social customs and mining, etc. • The Bodoland Territorial Council in Assam is an exception with more than 40 members and the right to make laws on 39 issues. • The Sixth Schedule applies to the Northeastern states of Assam, Meghalaya, Mizoram (three Councils each), and Tripura (one Council). **Why does Ladakh want to be part of the Sixth Schedule?** • The UT has two Hill councils in Leh and Kargil, but neither is under the Sixth Schedule. • Their powers are limited to collection of some local taxes such as parking fees and allotment and use of land vested by the Centre.
Vanniyar quota law	**Context** The Supreme Court has held that admissions to higher education institutions and appointments to Tamil Nadu's government jobs made this year under the Vanniyar quota would not be disturbed. • However, SC has barred fresh appointments and admissions until February 15 next year. **What is Vanniyar Movement?** • Vanniyars are one of the largest and most consolidated backward communities in Tamil Nadu. • They had raised massive protests in the mid-1980s demanding 20% reservation in the state, and 2% in central services. • During agitation from September 17 to 23, 1987, many protesters were killed. • Split of OBC quota: In 1989, the OBC quota was split into two: Backward Castes and Most Backward Castes. • Vanniyars were categorised among the MBCs with 107 other communities, with 20% reservation. • Three decades later, the state government passed a Bill, and the current government has implemented it with a Government Order ensuring 10.5% reservation for Vanniyars within the 20% MBC quota.
JCP on the Personal Data Protection Bill	**Context** The Joint Committee of Parliament (JCP) on the Personal Data Protection Bill tabled its report in both Houses. **Major recommendations** • **Non-Personal Too:** The nature of the Bill itself is for inclusion of non-personal data within the larger umbrella. All issues under the new legislation will be dealt with by a single Data Protection Authority (DPA) instead of separate ones for personal and non-personal. • **Transition Period:** To ensure that all such data aggregators get ample time to comply with the rules under the new Bill, the JCP suggested that up to 24 months be given from the date of notification of the Act. • **Social Media Liability:** Social media platforms that do not act as intermediaries should be treated as publishers, and therefore be held liable for the content they host. • **Penalty:** A fine of up to Rs 15 crore or 4% of the total global turnover of the firm for data breaches, and a jail term of up to 3 years if de-identified data is re-identified. • **Timely Alert:** In case of any data breach, the data aggregator must notify the DPA within 72 hours of becoming aware of it.
Election Laws (Amendment) Bill, 2021	**Context** The Election Laws (Amendment) Bill, 2021 that seeks to link electoral rolls to Aadhaar number has been listed for introduction in the Lok Sabha. **About the Bill** • The Bill allows electoral registration officers to ask for Aadhaar numbers of applicants wanting to register as voters to establish the identity of the applicant. • It also seeks to allow the officers to ask for the number from "persons already included in the electoral roll.

	• People who cannot furnish their Aadhaar numbers will be allowed to present other documents to establish identity. **Various amendments to Representation of People Act, 1950** • Section 23 will be amended to allow linking of the roll data with the Aadhaar ecosystem. • Amendment to Section 14 will allow four "qualifying" dates for eligible people to register as voters. As of now, January 1 of every year is the sole qualifying date. • Amendment to Section 20 and Section 60 will allow the elections to become gender-neutral for service voters.

Standing committee	**Context** The Lok Sabha has sent the Bill which seeks to raise the age of marriage for women to 21 to a standing committee.
	What are Parliamentary Committees?
	• The parliamentary committee is a committee which is appointed or elected by the House or nominated by the Speaker.
	• It works under the direction of the Speaker and presents its report to the House or to the Speaker and the Secretariat.
	Different types of committees:
	• **'Standing' committees**: They are usually reconstituted on an annual basis.
	  ○ It is a permanent and regular committee which is constituted from time to time according to the provisions of an Act of Parliament or Rules of Procedure and Conduct of Business
	  ○ They are further divided into financial committees and departmentally-related standing committees (DRSCs).
	  ○ The three financial committees are the Public Accounts Committee, the Estimates Committee and the Committee on Public Undertakings.
	• **'Select' committees** are formed for a specific purpose. That select committee ceases to exist once the Bill is disposed of.

Adjournment sine die	**Context** The winter session of Parliament ended recently. Both Houses were adjourned sine die a day ahead of schedule. • During the session, 13 Bills were introduced, while 11 Bills were passed by both Houses of Parliament **Adjournment sine die** • When the House is suspended without naming a day for reassembly, it is known as adjournment sine die. • It means dismissing a sitting of Parliament for an unspecified period. • The authority of adjournment sine die lies with the presiding officer of the House. • The presiding officer of a House can call a sitting of the House before the date or time to which it has been suspended, or at any time after the House has been adjourned sine die.
Karnataka Right to Freedom of Religion Bill, 2021	**Context** The Karnataka legislative Assembly passed The Karnataka Right to Freedom of Religion Bill, 2021, commonly referred to as the anti-conversion Bill. • The Bill will now go to the Karnataka Legislative Council. **Key features of the bill** • It prohibits conversion from one religion to another by misrepresentation, force, fraud, allurement or marriage. • It, however, provides an exemption in the case of a person who "reconverts to his immediate previous religion" as "the same shall not be deemed to be a conversion under this Act". • Complaints regarding conversions can be filed by family members or any other person who is related to the individual who is getting converted. • A jail term of three to five years and a fine of Rs 25,000 has been proposed for those violating the law in the case of people from general categories.

	• A jail term of three to 10 years and a fine of Rs 50,000 has been mooted for those converting minors, women or persons from SC/ST communities. • The Bill also envisages payment of a compensation of Rs 5 lakh (on court orders) to victims of conversion by the persons attempting the conversion, and double punishment for repeat offences.
Right to Be Forgotten	**Context:** The Centre told the Delhi High Court that the "right to be forgotten" is part of the fundamental right to privacy, but added it has no significant role to play in the matter. **Key takeaways** • The right to be forgotten allows a person to seek deletion of private information from the Internet. • The concept has found recognition in some jurisdictions abroad, particularly the European Union. • The EU in 2018 adopted the General Data Protection Regulation (GDPR), Article 17 of which provides for the right to erasure of certain categories of personal data. • While the right is not recognised by law in India, courts in recent months have held it to be an intrinsic part of the right to privacy. • Petitions across courts have been seeking its enforcement. • In May 2019, Justice Pratibha M Singh of the Delhi High Court, said the "right to be forgotten" and "right to be left alone" are inherent aspects of the right to privacy, and restrained republication of these news reports.
Good Governance Index 2021	• Gujarat tops the composite ranking in the 58 indicator index followed by Maharashtra and Goa • Uttar Pradesh registers 8.9 percent improvement in GGI indicators in the period 2019 to 2021 • Jammu and Kashmir registers 3.7 percent improvement in GGI indicators in the period 2019 to 2021 • Delhi tops the Union Territories category composite ranking Good Governance Index, GGI 2021 framework covered ten sectors and 58 indicators. • Gujarat has performed strongly in 5 of the 10 sectors including economic governance, human resource development, public infrastructure and utilities, social welfare and development, judiciary and public safety, according to the statement. • Maharashtra has performed strongly in agriculture and allied sector, human resource development, public infrastructure and utilities, social welfare and development. • Goa has performed strongly in agriculture and allied sector, commerce and industry, public infrastructure and utilities, economic governance, social welfare and development and environment. • Twenty states have improved their composite GGI scores over the GGI 2019 index scores. **Good Governance Index:** • GGI is a uniform tool that will help in assessing the status of governance and the impact of interventions undertaken by governments across all states and UTs. • GGI had been "scientifically designed" to reflect various parameters of governance. • Objective of Good Governance Index: • To provide quantifiable data to compare the state of governance in all states and UTs, • Enable states and UTs to formulate and implement suitable strategies for improving governance and shift to result oriented approaches and administration
Year End Review-2021: Ministry of Women and Child Development	• Bill on prohibition of **Child Marriage (amendment) Act, 2021** introduced in lok sabha for raising the age of marriage of women from 18 to 21 years • Sex ratio at birth (srb) improved by 19 points at national level, from 918 in 2014-15 to 937 in 2020-21 • **Beti Bachao Beti Padhao**: The scheme is being implemented across India and covering 640 districts (as per Census 2011) across the country.

	• **POSHAN Tracker:** To promote the nutritional status of women and children, a transparent and enabling environment is being created that nurtures health, wellness and immunity. Poshan Tracker application has been built on latest technology for ensuring real-time monitoring of supplementary nutrition and providing information for prompt supervision and management of services. • Over 2 crore beneficiaries benefitted under **Pradhan Mantri Matru Vandana Yojana** scheme for pregnant women and lactating mothers. The Scheme envisages providing cash incentive amounting to INR 5,000/- in three installments directly to the Bank/Post Office Account of Pregnant Women and Lactating Mother (PW&LM) in DBT Mode during pregnancy and lactation. It is a measure for women empowerment through wage compensation and promotion of health seeking behavior. • Web portal for PM Cares For Children Scheme launched for registration and identification of beneficiaries to support children orphaned due to Covid pandemic • Over 54 lakh women provided assistance under One Stop Centre Scheme • Child helpline (1098) services started at bus stands in addition to railway stations • Decision to distribute 100% fortified rice to states/UTs under Supplementary Nutrition Programme to address malnutrition among women and children • Amendment In Juvenile Justice (Care And Protection Of Children) Act to strengthen implementation and monitoring mechanism under the act. Among others, the JJ Amendment Act, 2021 empowers the District Magistrate including Additional District Magistrate to effectively coordinate and monitor the functions of the agencies responsible for implementation of JJ Act, 2015 and decides the cases of adoption under the provisions of the Act and also introduces eligibility conditions for appointment of the members of Child Welfare Committee. • **Simplification of adoption procedure** for children adopted under the Hindu Adoption & Maintenance Act, 1956 by persons who desire to relocate the child abroad • Registered overseas citizens of India granted parity with non-resident Indians in the matter of adoption.

Atal Ranking of Institutions on Innovation Achievements (ARIIA)	**Context** According to Atal Ranking of Institutions on Innovation Achievements (ARIIA), Seven IITs and the Indian Institute of Science, Bengaluru, are among the top 10 central institutions in promotion and support of innovation and entrepreneurship development.
	Key takeaways
	• The top rank has been bagged by the IIT, Madras followed by the IITs in Bombay, Delhi, Kanpur and Roorkee.
	• The IISc has bagged the sixth position in the ranking.
	• **Atal Rankings of Institutions on Innovation Achievements (ARIIA)**
	• Initiative by: Ministry of Education
	• Implemented by: AICTE and Ministry's Innovation Cell
	• Aim: To systematically rank higher education institutions and universities in India on indicators related to Innovation, Start-up and Entrepreneurship Development amongst students and faculty.
	• **Parameters evaluated:**
	  ○ Patent filed and granted
	  ○ Number of registered students and faculty start-ups
	  ○ Gund generation by incubated start-ups
	  ○ Specialised infrastructure created by institutions to promote innovation and entrepreneurship.

Shakti Criminal Laws (Maharashtra Amendment) Act	**Context** The Maharashtra Assembly passed the Shakti Criminal Laws (Maharashtra Amendment) Act unanimously. **Key takeaways** • With the passage of the Bill, it became the second state in India after Andhra Pradesh to approve death penalty for heinous offences of rape and gangrape

	• The existing law on rape had provisions for death penalty only in cases of repeated offences. • The Act has also enhanced fines and punishment for offences of sexual violence against women and minors. • Under the POCSO Act too, punishment for penetrative sexual assault in heinous cases has been enhanced to death penalty. • The Act requires the trial in these cases to be conducted on a day-to-day basis and completed within 30 working days from the date of filing of the chargesheet. • It also requires for the investigation to be completed within a month of the FIR. • In cases of grievous hurt caused due to acid attacks under Section 326A, the punishment has been enhanced to a minimum of 15 years which can be extended to the remainder of the natural life of the perpetrator along with fine. • In cases of voluntarily throwing acid or attempting to throw it, punishment under section 326B has been enhanced to a minimum of seven years and a maximum of ten years.

Year End Review: Department of Justice	• 120 Judges and 63 Additional judges appointed in high courts
	• **Tele-Law Services**, to promote increased access to pre- litigation advice for rightfully claiming their entitlements and timely redressal of their difficulties, is available at 75,000 CSCs/Gram Panchayats in 699 Districts; 12,70,135 total cases registered, of which advice has been enabled to 12,50,911 beneficiaries
	• The **e-Court Integrated Mission Mode Project** was launched with the objective of improving access to justice using technology. Using Video Conferencing, the District and High Court have heard nearly 1.65 Crore cases and the Supreme Court had nearly 1.5 lakh hearings making it the world leader
	• **Citizen Centric Services** are provided through 7 platforms or service delivery channels for providing real time information on cases status, cause lists, judgements etc. to lawyers/litigants
	• 683 **Fast Track Special Courts (FTSCs)** including 383 exclusive POCSO (e-POCSO) Courts have disposed of 68120 cases in 2021 - to provide speedy justice to the victims of rape and POCSO Act through expeditious disposal of related cases.
	• Centrally Sponsored Scheme (CSS) for Development of Infrastructure Facilities for Judiciary extended till 2025-26
	• **National Legal Services Authority (NALSA):** Launched a Legal Services Mobile Application, wherein all the services provided by Legal Services Authorities can be availed through the said mobile application.
	• A **Gram Nyayalaya online portal** has also been created, wherein the states/High courts upload data relating to Gram Nyayalayas, including case disposal, on monthly basis.
	  ○ National Mission for Justice Delivery and Legal Reforms focuses on improvement of administration of justice and justice delivery and legal reforms in the entire country and to address the diverse needs of all sections of stakeholders. Its objectives are two-fold:
	  ○ Increasing access by reducing delays and arrears in the system, and
	• Enhancing accountability through structural changes and by setting performance standards and capacities
	• The Rule of Law Index is developed and published by World Justice Project (WJP). ROLI 2021 covers 139 countries and ranks them based on the country-specific data collected across 8 factors and 44 sub-factors. As per the latest report, India's current rank in ROLI is 79 out of 139 countries assessed by the WJP.

Year End Review: Ministry of	**Nasha Mukt Bharat Abhiyaan (NMBA)** • Annual anti-drug action plan (2020-21) would focus on 272 most affected districts and launch a three-pronged attack combining efforts of Narcotics Bureau, Outreach/Awareness by Social Justice and Treatment through the Health Dept.

Social Justice & Empowerment	• It will focus on institutional support and also on community outreach programmes in the districts identified by Narcotics Control Bureau. • Change in the strategy against drugs – from institutional level to level of society. It will launch campaigns in schools and colleges to prevent drug abuse among youth. • Till now through the various activities undertaken for the Abhiyaan, 1.4+ Crore people have been reached out so far in the identified districts **SMILE-Support for Marginalized Individuals for Livlihood and Enterprise** • The Ministry of Social Justice and Empowerment has formulated an umbrella scheme SMILE, which includes two sub-schemes - 'Central Sector Scheme for Comprehensive Rehabilitation for Welfare of Transgender Persons' and 'Central Sector Scheme for Comprehensive Rehabilitation of persons engaged in the act of Begging'. • This umbrella scheme covers several comprehensive measures including welfare measures for both transgender persons and persons who are engaged in the act of begging with focus extensively on rehabilitation, provision of medical facilities, counselling, education, skill development, economic linkages etc with the support of State Governments/UTs/Local Urban Bodies, Voluntary Organizations, Community Based Organizations (CBOs) and institutions and others. **Swachhta Udyami Yojna (SUY)** • Launched on the birth anniversary of Mahatma Gandhi on 2nd October 2014 with twin objectives of cleanliness and providing livelihood to Safai Karamcharis and liberated Manual Scavengers and their dependents. • NSKFDC provides financial assistance to its target group for procurement of operation of mechanised sanitation related equipments and vehicles. • Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi (PM-DAKSH) Yojana • In 2020-21, Department modified the existing Scheme of Assistance to skilling for OBCs/EBCs/DNTs with inclusion of SCs and Safai Karamcharis including Waste Pickers and renamed it as PM DAKSH Yojana, a Central Sector Scheme. • The objective is to provide high quality skills through good quality institutions and reputed Training institutes/partners (TIs/TPs) so as to ensure higher employability for the target group. • Apart from this, rural artisans who have become marginalized owing to newer technologies in market, would be trained so as to adopt newer processes and increase their incomes. • With a target to skill around 2,71,000 SCs/OBCs/EBCs/DNT/Safai Karamcharis including Waste Pickers during next five years (2021-22 to 2025-26) **For the Elderly** • Elderline – 14567 - The Helpline provides a platform to the senior citizens for grievance redressal. The Helpline also contributes in the field of awareness generation in respect of the Maintenance and Welfare of Parents and Senior Citizens (MWPSC) Act, 2007, and the Schemes of the Central Government meant for welfare of senior citizens. • Senior Able Citizens for Re-Employment in Dignity (SACRED)- launched to provide employment to willing senior citizens by virtually matching their preferences with preferences of companies ready to engage such senior citizens. • SAGE portal: A scheme for promoting Silver Economy in the country was launched under Atal Vayo Abhuday Yojana, which aims at assisting start-ups in the field of elderly welfare (silver economy) by the Government of India. These start-ups are to be assisted by way of equity participation of GOI subject to a maximum of 49% equity, and subject to a maximum Rs. 1 crore, per start up. **Scheme for Economic Empowerment of De-notified, Nomadic and Semi-Nomadic Communities (SEED)** • To provide coaching of good quality for DNT candidates to enable them to appear in competitive examinations

	• To provide Health Insurance to them • To facilitate livelihood initiative at community level • To provide financial assistance for construction of houses for members of these communities.

ECONOMY

GDP growth of 8.4% in Q2	**In News:** India's gross domestic product (GDP) grew by 8.4% in the July to September quarter, compared to a **7.4% contraction** a year ago, with the economy's gross value added (GVA) rising 8.5%, the National Statistical Office said on Tuesday. • Factoring in the first quarter GDP growth of 20.1%, **the first half of this year has recorded 13.7% growth** and India is likely to record double digit growth for 2021-22 as a whole. • It shows that the recovery process is continuing to play out. • Economists, however, were not fully convinced about the extent and durability of this recovery and reacted with caution. • Though the absolute GDP in the second quarter (Q2) was 0.3% higher than **pre-pandemic levels,** there were still many worrying areas. • In particular, the insipid **private consumption spending** that still lagging below pre-COVID levels along with activity in employment-intensive sectors like construction and contact-intensive sectors like retail and hotels. • The **base effect of negative growth last year** also helped nudge the GDP numbers up. • **Investments, largely from the Government**, continued to remain the key growth drivers while private consumption is yet to show a decisive recovery. • On the domestic demand side, only gross fixed capital formation emerged positive in Q2 over the 2019-20 level. • Even if the pace of recovery is sustained in the next two quarters, India's GDP for the year is expected to be only marginally higher than that in 2019-20 (by around 2%)," • Improvements in Demand and investments are expected to be limited and gradual given that even before the pandemic, the domestic economy was grappling with slowdown.
National Edible Oil Mission-Oil Palm	**Context:** During the year 2020-21, India imported 133.5 lakh tonnes of edible oil, out of which the share of palm oil was around 56 %. **The National Mission on Edible Oils - Oil Palm (NMEO-OP)** has been launched with the aim to augment the availability of edible oil in the country by harnessing area expansion, increasing crude palm oil production with the aim to reduce the import burden. • **Objective**: To ensure self-sufficiency in edible oil production. • **Aim**: To reduce import dependence from 60% to 45% by 2024-25, by increasing domestic edible oil production from 10.5 million tonnes to 18 million tonnes which is a 70% growth target. • Farmers will get all needed facilities, from quality seeds to technology. • Along with promoting the cultivation of oil palm, this mission will also expand the cultivation of our other traditional oilseed crops. **What is the need for such schemes?** • India is the largest consumer of vegetable oil in the world. • India's Palm oil imports are almost 60% of its total vegetable oil imports. • Recently, India's dependence on expensive imports has driven retail oil prices to new highs. • In India, 94.1% of its palm oil is used in food products, especially for cooking. Thus, palm oil is extremely important to India's edible oils economy. • **Top consumers**: India, China, and the European Union (EU). For the year 2021-22, a total of Rs 10422.69 lakh has been approved for various state annual action plans.
Pradhan Mantri Matsya Sampada	**Context:** Pradhan Mantri Matsya Sampada Yojana scheme was launched to bring about Blue Revolution through sustainable and responsible development of fisheries sector in India was recently launched. The PMMSY is an umbrella scheme with two separate Components: (a) Central Sector Scheme (CS) and (b) Centrally Sponsored Scheme (CSS).

Yojana (PMMSY)	**Key takeaways** • Total estimated investment will be of Rs. 20,050 crores to be implemented over a period of 5 years from FY 2020-21 to FY 2024-25. • **Goal:** To double the fish exports in the next 3 to 4 years i.e. by 2024-25. • **Objective:** • (1) To address critical gaps in fish production and productivity; quality, technology, post-harvest infrastructure and management, modernisation and strengthening of value chain, traceability, establishing a robust fisheries management framework and fishers' welfare; • (2) Harnessing of fisheries potential in a sustainable, responsible, inclusive and equitable manner; • (3) enhancing contribution to Agriculture GVA and exports; • (4) Social, physical and economic security for fishers and fish farmers; • (5) Robust fisheries management and regulatory framework
Global Fuel Economy Initiative (GEFI)	**In News:** According to GFEI 2021, the global goal to halve the fuel consumption of new light-duty vehicles by 2030 from 2005 levels is stalling. • The average rated fuel consumption of new light-duty vehicles fell by only 0.9% between 2017 and 2019. • The 3 major car markets - China, the European Union and the US - accounted for 60% of global sales of light-duty vehicles in 2019, which totalled 90 million, down 7% from 2017 • A number of factors were responsible for the slowing pace of improvement between 2017 and 2019. These included- o Stagnating fuel economy standards in the US and the EU up to 2019 o Market share of SUVs is increased and these cars can use almost one-third more fuel than a medium-sized car o Slow adoption of electric cars to compensate for larger vehicles **About GFEI** • The Global Fuel Economy Initiative (GFEI) is collaboration between the UNEP, IEA, the University of California, International Council on Clean Transportation, International Transport Forum and the FIA Foundation. • GFEI promotes fuel efficiency in cars and light duty vans, through the adoption of the cost effective fuel efficiency technologies. • The objective of the GFEI is to help stabilize greenhouse gas emissions from the global light duty vehicle fleet through a **50% improvement of vehicle fuel efficiency worldwide by 2050**. • GFEI promotes the introduction of cleaner, more energy efficient vehicles in developing and transitional countries. • It offers support to governments to develop fuel economy policies.
Employment of Rural Youth	**A. Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS):** This is a demand driven wage employment programme which provide for the enhancement of livelihood security of the households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work. **B. Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY):** This is a placement linked skill development programme for wage employment. **C. Skill development through Rural Self Employment and Training Institutes (RSETIs):** This enables a trainee to take bank credit and start his/her own Micro-enterprise. Some of such trainees may also seek regular salaried jobs. **D. Pradhan Mantri Kaushal Vikas Yojana (PMKVY):** For Skill based training of the youth across the country including of youth belonging to Scheduled Caste/ Scheduled Tribe/

	Economically weaker Section under Short Term Training (STT) courses and Recognition of Prior Learning (RPL). E. **Prime Minister's Employment Generation Programme (PMEGP):** Ministry of Micro, Small & Medium Enterprises is implementing Prime Minister's Employment Generation Programme (PMEGP), which is a major credit-linked subsidy programme aimed at generating self-employment opportunities through establishment of micro-enterprises in the non-farm sector by helping traditional artisans and unemployed youth. PMEGP Scheme facilitates generation of self-employment opportunities through establishment of micro-enterprises in the non-farm sector by helping traditional artisans and unemployed youth.
Dam Safety Bill (2019)	**In News:** The Rajya Sabha passed the landmark Dam Safety Bill (2019), paving the way for enactment of the Dam Safety Act in the country. • The Dam Safety Bill (2019) was passed by the Lok Sabha on 2nd August 2019. **Key Features of the bill** • **Regulation of Specific dams:** The Bill provides for the surveillance, inspection, operation, and maintenance of all specified dams across the country. These are dams with height more than 15 metres, or height between 10 metres to 15 metres with certain design and structural conditions. • **Institutional Mechanisms:** It constitutes two national bodies: o the National Committee on Dam Safety, whose functions include evolving policies and recommending regulations regarding dam safety standards; and o the National Dam Safety Authority, whose functions include implementing policies of the National Committee, providing technical assistance to State Dam Safety Organisations (SDSOs), and resolving matters between SDSOs of states or between a SDSO and any dam owner in that state. • **State Bodies:** It also constitutes two state bodies: State Committee on Dam Safety, and State Dam Safety Organisation. These bodies will be responsible for the surveillance, inspection, and monitoring the operation and maintenance of dams within their jurisdiction. • **Penal Provisions:** An offence under the Bill can lead to imprisonment of up to two years, or a fine, or both.
Global Hunger Index 2021	**In News:** India's score is 27.5 and it has ranked 101 among 116 countries. **What is the Global Hunger Index?** • The GHI is an annual peer-reviewed publication by Concern Worldwide and Welthungerhilfe. • It aims to track hunger at global, regional and national levels. • It uses four parameters to calculate its scores – o Undernourishment o child wasting o child stunting and o Child mortality • Information from the World Health Organization, the World Bank and the United Nations are taken to calculate these parameters. • All these international organisations draw from national data, which, in India's case, includes the National Family Health Surveys (NFHS). **Global Hunger Index (GHI) does not reflect India's true picture as it is a flawed measure of 'Hunger'.** It should not be taken at face value as it is neither appropriate nor representative of hunger prevalent in a country. Out of its four indicators, only one indicator, i.e., undernourishment, is directly related to hunger. • The two indicators, namely, Stunting and Wasting are outcomes of complex interactions of various other factors like sanitation, genetics, environment and utilisation of food

	intake apart from hunger which is taken as the causative/outcome factor for stunting and wasting in the GHI. • Also, there is hardly any evidence that the fourth indicator, namely, child mortality is an outcome of hunger.
Women Farmers in the Country	**In News:** As per the information collected in Agriculture Census 2015-16, about 11.72% of the total operated area in the country was operated by female operational holders. • The National Crime Records Bureau (NCRB) under the Ministry of Home Affairs compiles and disseminates information on suicides in its publication titled 'Accidental Deaths and Suicides in India'. • As per the publication, the term 'Farmer' is defined as "the Person whose profession is farming and includes those who cultivate on their own land as well as those who cultivate on leased land/other's land with or without the assistance of agricultural labourers".
Urban co-op banks	**Context** Reserve Bank of India (RBI) Governor has indicated that the RBI will bring regulatory changes to reform urban cooperative banks (UCBs). • UCBs have been plagued by a series of failures. • RBI has also warned people against depositing their savings in banks offering high returns. **What is an Urban co-op bank?** • The term Urban Co-operative Banks (UCBs) refers to primary cooperative banks located in urban and semi-urban areas. • These banks were traditionally centred around communities, localities and workplace groups. They essentially lent to small borrowers and businesses. Today, their scope of operations has widened considerably. **Difference between UCBs and Commercial Banks** • Regulation: Unlike commercial banks, UCBs are only partly regulated by the RBI. ○ Banking operations of the UCBs are regulated by the RBI, but 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. • Borrower can be a Shareholder: In a commercial bank, there is a clear distinction between its shareholders and its borrowers whereas in a UCB, borrowers can even double up as shareholders.
World's largest Green Hydrogen Microgrid Projects:	• To be set up at Simhadri • It would be a precursor to large scale hydrogen energy storage projects and would be useful for studying and deploying multiple microgrids in various off grid and strategic locations of the country. • Would open doors for decarbonising the far-off regions of the country like Ladakh, J&K etc., hitherto dependent on diesel generators. • The project is in-line for India to become carbon neutral by 2070 and making Ladakh a carbon neutral territory.
Pradhan Mantri Krishi Sinchayee Yojana for 2021-26	**Context:** Accelerated Irrigation Benefit Programme (AIBP), Har Khet ko Paani (HKKP) and Watershed Development components have been approved for continuation during 2021-26. • **Accelerated Irrigation Benefit Programme -** Aims for financial support to irrigation projects. Apart from focused completion of 60 ongoing projects including their 30.23 lakh hectare command area development, additional projects can also be taken up. • **Har Khet Ko Pani (HKKP)** aims for enhancement of physical access on the farm and expansion of cultivable area under assured irrigation. Under HKKP, surface minor irrigation and repair-renovation-restoration of water bodies component of PMKSY is targeted to provide additional 4.5 lakh hectare irrigation. In view of importance of rejuvenation of water bodies, the Cabinet has approved a paradigm shift in funding of their rejuvenation in both urban and rural areas, with significant expansion of their

	inclusion criteria, and enhancement of central assistance from 25% to 60% in general area. • **Watershed Development** component focuses on development of rainfed areas towards soil and water conservation, regeneration of ground water, arresting runoff and promoting extension activities related to water harvesting and management. The approved Watershed Development component of Department of Land Resources envisages completion of sanctioned projects covering 49.5 lakh hectare rainfed/ degraded lands to bring additional 2.5 lakh hectare under protective irrigation, during 2021-26. A specific provision for development of spring sheds has been included in the program. **Background:** • Launched in 2015, PMKSY is an umbrella scheme, providing central grants to the State Governments for specific activities detailed below. • It consists of two major components by Department of Water Resources, River Development and Ganga Rejuvenation, namely, Accelerated Irrigation Benefits Programme (AIBP), and Har Khet Ko Pani (HKKP). HKKP, in turn, consists of four sub - components, being Command Area Development (CAD), Surface Minor Irrigation (SMI), Repair, Renovation and Restoration (RRR) of Water Bodies, and Ground Water Development. In addition, Watershed Development part is being implemented by Department of Land Resources.

CCI fines Amazon for Rs. 200 crore	**Context** The Competition Commission of India (CCI) froze its approval given in November 2019 to Amazon's investment in a Future Group unit on the grounds that the Amazon had suppressed the scope and full details of its investment while seeking regulatory approval.
	About Competition Commission of India (CCI)
	• It is a statutory body established in 2003 and became fully functional in 2009.
	• It is responsible for enforcing The Competition Act, 2002 throughout India.
	  ○ The Act prohibits anti-competitive agreements, abuse of dominant position by enterprises.
	  ○ The Act regulates combinations (acquisition, acquiring of control and Merger and acquisition), which causes or likely to cause an appreciable adverse effect on competition within India.
	• **Composition:** A Chairperson and 6 Members appointed by the Central Government.
	• **Eligibility:** Person should be qualified to be a judge of a High Court, or, has special knowledge of, and professional experience of not less than fifteen years in international trade, economics, commerce, law, finance.
	• **Duties:**
	  ○ eliminate practises having adverse effect on competition
	  ○ promote and sustain competition.
	  ○ protect the interests of consumers.
	  ○ ensure freedom of trade in the markets of India.

International Development Association (IDA)	**Context** International Development Association (IDA) has recently provided $93 billion cash to help the world's poorest nations which would help scale up aid for pandemic recovery and other programs. **Key takeaways** • It was the biggest replenishment ever for the International Development Association (IDA), which provides grants for 74 countries, most of which are in Africa. • The package includes $23.5 billion of contributions from high- and middle-income countries as well as financing raised in the capital markets and the World Bank's own contributions. • The funds will help countries prepare better for future crises. What is The International Development Association (IDA)?

	• It is an international financial institution which offers concessional loans and grants to the world's poorest developing countries. • The IDA is a member of the World Bank Group • Headquartered: Washington, D.C. • It was established in 1960 to complement the existing International Bank for Reconstruction and Development
Sustainable Urban Development and Service Delivery Program	**Context** The Government of India and the Asian Development Bank (ADB) have signed Sustainable Urban Development and Service Delivery Program. **Key takeaways** • Ministry: Ministry of Housing and Urban Affairs • It is a $350 million policy-based loan to improve access to urban services in India. • Policy actions and reforms will be accelerated to enhance service delivery and promote performance-based central fiscal transfers to urban local bodies (ULBs). • ADB will provide knowledge and advisory support to the in program implementation, including monitoring and evaluation. **Asian Development Bank (ADB)** • It is a regional development bank established on 19 December 1966 • Headquartered: Manila, Philippines. • ADB aims to promote social and economic development in Asia. • The ADB was modelled closely on the World Bank, and has a similar weighted voting system. • It now has 68 members. • ADB is an official United Nations Observer. • India was a founding member of the Asian Development Bank (ADB) in 1966 and is now the bank's fourth largest shareholder and top borrower.

Fugitive Economic Offenders	**Context** Union Finance Minister Nirmala Sitharaman informed the Lok Sabha that banks have recovered ₹13,109.17 crore by selling the assets of fugitives like Vijay Mallya, Nirav Modi and Mehul Choksi.
	• All the three have been declared 'Fugitive Economic Offenders' by PMLA (Prevention of Money Laundering Act) Court in Mumbai.
	About Fugitive Economic Offenders Act, 2018
	• Fugitive Economic Offenders Act (FEOA) became a law on July 31, 2018.
	• **Objectives:**
	  ○ To deter economic offenders from avoiding the process of Indian law by remaining outside the jurisdiction of Indian courts.
	  ○ To ensure that fugitive economic offenders return to India to face the action in accordance with law.
	• **Defining Fugitive economic offender (FEO):** FEO is defined as an individual
	  ○ who has committed offences involving an amount of 100 crore rupees or more and
	  ○ has ran away from India to avoid criminal prosecution.
	• Special Court: A special court will be established under the Prevention of Money-laundering Act, 2002 to declare a person as a Fugitive Economic Offender.
	• Attachment of property: Special courts can direct the Central government to seize assets of fugitive economic offender including those that are proceeds of the crime.
	• Appeal: Appeals against the orders of the special court will lie before the High Court.

VanDhan Chronicle	**Context** TRIFED Vandhan Chronicle was launched by Minister for Tribal Affairs. **Key takeaways** • TRIFED VanDhan Chronicle is an in-depth resource on the Van Dhan Yojana and TRIFED's activities in this important scheme.

	• Over the past two years, The 'Mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) & Development of Value Chain for MFP' has impacted the tribal ecosystem in a major way. • The Van Dhan tribal start-ups have emerged as a source of employment generation for tribals and forest dwellers. **About The Tribal Cooperative Marketing Development Federation of India (TRIFED)** • Established in 1987, under the Multi-State Cooperative Societies Act, 1984, this statutory body works for the social and economic development of the tribal people of the country and is administered by the Ministry of Tribal Affairs. • It has been registered as a National Level Cooperative body by the Government of the country • It helps tribal people manufacture products for national and international markets on a sustainable basis and also supports the formation of Self-Help Groups and imparting training to them.
Anti-dumping duty	**Context:** India has imposed anti-dumping duty on five Chinese products for five years to protect local manufacturers from cheap imports from the neighbouring country. **About Anti-dumping Duty** • An anti-dumping duty is a protectionist tariff that a domestic government imposes on foreign imports that it believes are dumped. • The imposition of anti-dumping duty is permissible under the World Trade Organization regime. • It is aimed at ensuring fair trading practices and creating a level-playing field for local producers vis-a-vis foreign producers and exporters. • These tariffs can also lead to higher prices for domestic consumers.
Flex Fuel Vehicles (FFV)	**Context:** Union Minister for Road Transport and Highways advised the Automobile Manufacturers in India to start manufacturing Flex Fuel Vehicles (FFV) and Flex Fuel Strong Hybrid Electric Vehicles (FFV-SHEV) complying with BS-6 Norms in a time bound manner within a period of six months. **Key takeaways** • In line with the government's policy on promoting ethanol as a transport fuel, Flex Fuel Vehicles are capable of running on a combination of 100% Petrol or 100% bio-ethanol and their blends, along with strong Hybrid Electric technology in case of FFV-SHEVs. • Significance: This move will drastically reduce Greenhouse Gas emissions from vehicles, helping India to comply with its commitment made at COP26 to reduce the total projected carbon emissions by One Billion Tonnes by 2030. • In order to accelerate the introduction of Flex Fuel vehicles, the Production Linked Incentive (PLI) scheme has included automobile & auto components and auto components of flex fuel engines. **What are flex-fuel engines?** • A 'flex-fuel engine' is an internal combustion engine that can run on more than one type of fuel and also a mixture. • Typically, a blend of petrol and ethanol or methanol is used, and the engine is capable of automatically adjusting for any ratio. • Flex-fuel engines are capable of running on 100 percent petrol or ethanol and are already available in countries such as Brazil, USA and Canada.
e-Shram portal	**Context** The Centre's e-Shram portal crossed the 15-crore mark recently. • Uttar Pradesh sees the highest number of enrolments at 31.6 lakh. **e-Shram portal** • It is a portal through which the government aims to register 38 crore unorganised workers, such as construction labourers, migrant workforce, street vendors and domestic workers, among others. • **Ministry**: Ministry of Labour & Employment

	• The workers will be issued an e-Shram card containing a 12-digit unique number, which, going ahead, will help in including them in social security schemes. • Registration at E-shram will facilitate unorganized workers to get the benefits of various social security and employment-based schemes

2021- A Year of Game Changing Reforms for Ministry of Textiles	India has the unique advantage of the entire value chain for textile production present within the country vis-à-vis other competing nations which have to import fibre, yarn and fabric to meet their requirement for garment production. It has a large market, which is growing rapidly with affordable manpower.
	• The domestic textile and apparel production is approx US$ 140 Bn including US$ 40 Bn of Textiles and Apparel export.
	• The textile and apparel industry contributed 2% in the overall GDP of India in 2019 and 11% to total manufacturing in GVA.
	• Widely referred to as a change agent owing to its transformative powers, this industry alone has the capacity to generate around 70 jobs in garmenting and an average of 30 jobs overall for every INR 1 crore (USD 132,426) invested as compared to 12 jobs created on an average in other industries.
	• With direct and indirect employment of close to 105 million people, this industry is the second largest employment generator in the country, next only to agriculture.
	• More significantly, women constitute 70% of the workforce in garment manufacturing and about 73% in Handloom.
	Supporting Factors
	• Availability of almost all types of raw materials
	• Existence of total value chain
	• Young demography of India
	• Entrepreneurial mindset of industry leaders
	• Continuous support of Government
	• Technology up gradation
	• Focus on innovation
	• Strong presence of support industries will help this sector grow at a healthy pace in coming decade.
	Game changing Reforms
	• Government approved setting up of 7 **Pradhan Mantri Mega Integrated Textile Region and Apparel (MITRA) Parks** with a total outlay of Rs. 4445 Crores
	  ○ PM MITRA Park will encompass all '5F' components: Farm to Fibre; Fibre to Factory; Factory to Fashion; Fashion to Foreign.
	  ○ Under PM MITRA Parks World-class Industrial infrastructure would attract cutting age technology/scale and FDI / local investment in the sector
	  ○ PM MITRA Parks to generate around 1 Lakh direct and 2 lakh indirect employment per park
	• Production Linked Incentive (PLI) Scheme for Textiles is specially focused at high value and expanding MMF and Technical Textiles segments of Textiles Value Chain
	• Government approved continuation of RoSCTL scheme up to March 2024 to boost export competitiveness of Indian apparel and made-ups
	• Under **SAMARTH Scheme**, a total of 71 textile manufacturers, 10 industry associations, 13 state government agencies and 4 sectoral organizations on-boarded with an allocated target of 3.45 lakh beneficiaries. Samarth is a placement oriented programme

	targeting skill development of unemployed youth in the value chain of textiles for gainful employment in organized sector and skill upgradation of weavers & artisans in traditional sector. ● Ministry of Textiles approved rationalization and continuance of Integrated Wool Development Programme (IWDP) from 2021-22 to 2025-26 with total financial allocation of Rs. 126 Crore ● A National Action Plan for Indian Toy Story has been made with collaboration of 14 Ministries/Departments of Government of India.

Electricity Capacity from Non-Fossil Fuel	**In News:** India has achieved the ambitious target of 40 per cent of installed electricity capacity from non-fossil fuel sources. **Key Takeaways** • The Ministry of New and Renewable Energy has said that total installed non-fossil fuel-based capacity stands at 156.83 Giga Watts in the country. • The Ministry said, as a part of its Nationally Determined Contributions, India had committed to achieve **40 percent of its installed electricity capacity from non-fossil energy sources by 2030.** • The Ministry said, the country's installed Renewable Energy capacity today stands at 150.05 Giga Watts while its nuclear energy-based installed electricity capacity stands at 6.78 Giga Watts. • It said, this brings the total non-fossil based installed energy capacity to 156.83 Giga Watts which is 40.1 percent of the total installed electricity capacity of over 390 Giga Watts. • Government said it is committed to achieve 500 Giga Watts of installed electricity capacity from non-fossil fuel sources by the year 2030 in line with the Prime Minister's announcement at the recently concluded CoP-26.
Hornbill Festival	• It is annually held from 1 – 10 December. The first festival was held in 2000. • The festival organized by Nagaland Government is an annual tourism promotional event to showcase the state's traditional and rich cultural heritage in all its ethnicity, diversity and grandeur. • The objective is to encourage inter-tribal interaction and to promote cultural heritage of Nagaland. • Highlights of the Hornbill Festival include witnessing the cultural performance of different tribes of Nagaland and Northeastern States, indigenous games, city tour, night carnival, art exhibition, photo-fest and many more. • One of the major highlights of this festival is the Hornbill International Rock Festival where local and international rock bands perform. **Hornbills:** • India is home to **nine species of hornbills:** three of them, the **wreathed hornbill** (Aceros undulatus), the **brown hornbill** (Anorrhinus austeni) and the **Rufous-necked hornbill** (Aceros nipalensis) **great hornbill** is the state bird of Arunachal Pradesh and Kerala. India also has **Narcondam Hornbill**, found only on the island of Narcondam. • Hornbill festival celebrated in Nagaland is named after the bird – Hornbill which is the most revered and admired bird for the Nagas. **Do you know?** • Hornbills used to be hunted for their casques — upper beak — and feathers for headgear despite being cultural symbols of some ethnic communities in the northeast, specifically the **Nyishi of Arunachal Pradesh**. • But a 20 year-old conservation programme entailing the use of fibreglass beaks reduced the threat to the birds to a large extent.
Centre's Air Quality Commission	**In News:** The Supreme Court approved the measures taken by the Centre's Air Quality Commission to create an 'Enforcement Task Force' and flying squads to prevent and penalise polluters in Delhi NCR. • The task force was formed on December 2. The task force has two independent members. It will meet at 6 p.m. everyday. The task force will take **action on behalf of the commission against violators.** • Also, 17 flying squads (which will increase to 40) to conduct surprise check was formed that would directly report to the task force. **About Centre's Air Quality Commission**

	• The Commission for Air Quality Management in the National Capital Region (NCR) and Adjoining Areas act, 2021 established the said commission. • The objective of the commission is for better coordination, research, identification, and resolution of problems related to air quality in the NCR and adjoining areas. • Adjoining areas have been defined as areas of Haryana, Punjab, Rajasthan, and Uttar Pradesh adjoining the NCR where any source of pollution may cause adverse impact on air quality in the NCR. • It also dissolves the **Environment Pollution Prevention and Control Authority** established in the NCR in 1998. **Functions of the Commission**: • Co-ordinating actions by concerned state governments (Delhi, Haryana, Punjab, Rajasthan, and Uttar Pradesh) • Planning and executing plans to prevent and control air pollution in the NCR • Providing a framework for identification of air pollutants • Conducting research and development through networking with technical institutions • Training and creating a special workforce to deal with issues related to air pollution • Preparing various action plans such as increasing plantation and addressing stubble burning. **Powers of the Commission**: • Restricting activities influencing air quality • Investigating and conducting research related to environmental pollution impacting air quality • Preparing codes and guidelines to prevent and control air pollution • Issuing directions on matters including inspections, or regulation which will be binding on the concerned person or authority. • It may impose and collect environment compensation from farmers causing pollution by stubble burning. This compensation will be prescribed by the central government.
Project Re-Hab	**In News:** Buoyed by the success of its innovative Project RE-HAB (Reducing Elephant-Human Attacks using Bees) in Karnataka, Khadi and Village Industries Commission (KVIC) has now replicated the project in Assam. • Surrounded by dense forests, a large part of Assam is infested by elephants with 332 human deaths reported between 2014 and 2019 due to elephant attacks. **What is Project Re-Hab?** • Project RE-HAB (Reducing Elephant-Human Attacks using Bees) • Objective: To prevent elephant attacks in human habitations using honeybees. • It entails installing bee boxes along the periphery of the forest and the villages. • Under Project RE-HAB, "Bee-fences" are created by setting up bee boxes in the passage ways of elephants to block their entrance to human territories. • The boxes are connected with a string so that when elephants attempt to pass through, a tug or pull causes the bees to swarm the elephant herds and dissuade them from progressing further. • It is a cost-effective way of reducing human-wild conflicts without causing any harm to the animals. It is scientifically recorded that elephants are annoyed by the honey bees. • It is believed that elephants' fear of the bees will prevent them from transgressing into human landscape. • Project Re-HAB is a sub-mission of the KVIC's National Honey Mission. • Project RE-HAB was launched at 11 locations in Kodagu district of Karnataka on 15th March 2021. In just 6 months, this project has reduced elephant attacks by over 70%.
Government has set a target to raise the share of	**In News:** The Government has set a target to raise the share of natural gas in energy mix to 15% in 2030 from about 6.7% now. ▪ To achieve the target, following initiatives have been taken: - ▪ Expansion of National Gas Grid to about 35,000 Km from current 20,000 Km.

natural gas in energy mix to 15% in 2030	▪ Expansion of CGD network -11th CGD round launched on 17.09.2021. After completion of 11th city gas distribution (CGD) round, 96% of India's population and 86% of its geographic area would be covered under CGD network. ▪ Setting up of LNG Terminals. ▪ Allocation of domestic gas to CNG (T) / PNG (D) in no cut category. ▪ Allowing marketing and pricing freedom to gas produced from high pressure/high temperature areas, deep water & ultra-deep water and from coal seams. ▪ SATAT initiatives to promote Bio-CNG. Considering the demand of natural gas across sectors and the possibility of price of LNG coming down in future, current high prices do not threaten India's goal to boost the use of gas in its energy mix.
Right to climate justice	**Context** India's President has expressed concern that time was running out for preserving nature for future generations and called for a debate on the right to climate justice. **What is Climate justice?** ● Climate justice is a term used for framing global warming as an ethical and political issue, rather than one that is purely environmental or physical in nature. ● Relevance of Climate Justice in present times ○ Development vs. environment degradation: Measures taken for development largely have negative impact on the environment. IPCC reports have given strict warning about the devastating impacts of rising global temperature beyond 1.5 degree Celsius. ○ Prioritising investment: Developing countries particularly lack funds for investment for implementing climate change actions. Climate justice helps to prioritise investment around the vulnerabilities of the communities worst affected by climate change. ○ Lobbying by businesses and industrial groups: Big industrialists in fossil fuel based businesses pressurize governments not to take decisions for quick transition to renewable based solutions. Climate justice shifts the focus of policy planning to the suffering communities. ○ Resistance shown by developed countries: Climate justice focuses on inequitable nature of impact of climate change and brings into the picture accountability for actions done by some countries over the other countries.
Stubble as biofuel	**Context** The Union Government is working on a plan to use stubble as a biofuel and manure as part of an effort to deal with stubble burning that was often cited as a source of pollution in northern India **What is Stubble Burning?** • Stubble burning is the act of setting fire to crop residue to remove them from the field to sow the next crop • It is a traditional practice in Punjab and Haryana to clean off the rice chaff to prepare the fields for winter sowing • It begins around October and peaks in November, coinciding with the withdrawal of southwest monsoon. • On December 10, 2015, the National Green Tribunal (NGT) had banned crop residue burning in the states of Rajasthan, Uttar Pradesh, Haryana and Punjab **What are biofuels?** • Biofuels are liquid or gaseous fuels primarily produced from biomass. • Can be used to replace or can be used in addition to diesel, petrol or other fossil fuels for transport, stationary, portable and other applications.
India co-chairs Global Methane Initiative	**Context:** Global Methane Initiative (GMI) is a voluntary Government and an informal international partnership having members from 45 countriesincluding the United States and Canada.

	• The forum has been created to achieve global reduction in anthropogenic methane emission through partnership among developed and developing countries having economies in transition. • The forum was created in 2004 and India is one of the members since its inception and has taken up Vice-Chairmanship for the first time in the Steering Leadership along with USA. The Chairperson of the Steering Leadership is from Canada. • Emission of methane is a big concern as it is a greenhouse gas having 25-28 times harmful effect than carbon dioxide **About Methane** • Methane is a greenhouse gas. • It is 80 times more potent than carbon dioxide in terms of its global warming capacity. • Approximately 40% of methane emitted is from natural sources and about 60% comes from human-influenced sources, including livestock farming, rice agriculture, biomass burning and so forth.
United Nations grants observer status to International Solar Alliance	**In News:** United Nations granted Observer status to International Solar Alliance. • This is going to give impetus to " One Sun One world one grid " • This will help in bringing equitable energy solutions to the world. • Help towards achieving the goal of net-zero carbon emissions through global co-operations. **What is ISA?** • The International Solar Alliance (ISA) is an alliance of 121 countries initiated by India, most of them being sunshine countries, which lie either completely or partly between the Tropic of Cancer and the Tropic of Capricorn. • The primary objective of the alliance is to work for efficient consumption of solar energy to reduce dependence on fossil fuels. • The alliance is a treaty-based inter-governmental organization. Countries that do not fall within the Tropics can join the alliance and enjoy all benefits as other members, with the exception of voting rights. • The initiative was launched by Prime Minister Narendra Modi at the Paris Climate Summit, and a meeting of member countries ahead of the 2015 United Nations Climate Change Conference in Paris in November 2015. • The framework agreement of the International Solar Alliance opened for signatures in Marrakech, Morocco in November 2016, and 200 countries have joined. • The ISA is headquartered in Gurugram. • The focus is on solar power utilization. The launching of such an alliance in Paris also sends a strong signal to the global communities about the sincerity of the developing nations towards their concern about climate change and to switch to a low-carbon growth path. • 'One Sun One World One Grid' (OSOWOG) initiative proposed by India • Proposed by India to set up a framework for facilitating global cooperation which aims at building a global ecosystem of interconnected renewable energy resources that can be easily shared • Envisions building and scaling inter-regional energy grids to share solar energy across the globe, leveraging the differences of time zones, seasons, resources, and prices between countries and regions • Help decarbonise energy production, which is today the largest source of global greenhouse gas emissions. • With India's Ministry of New and Renewable Energy, the World Bank and the ISA signing a tripartite agreement on OSOWOG, the initiative could be the world's most important renewables catalyst. It can unlock unprecedented economies of scale in energy generation and transmission.

	• Rigorous assessments and modelling have confirmed the initiative's technical and economic viability, building a strong business case. • Its commercial feasibility has been further augmented by multilateral development banks such as World Bank, which are helping create markets by driving down costs of solar power.
Kazhuveli notified as bird sanctuary	**Context** The ecologically important Kazhuveli wetlands in Villupuram district, Tamil Nadu, was recently notified as bird sanctuary. **Key takeaways** • Kazhuveli wetlands is said to be the second largest brackish water lake in South India after Pulicat lake. It is a wetland of international importance • Significance: The creation of the sanctuary will now ensure better protection of the wetlands. ○ The area has adequate ecological significance for the purpose of protecting, propagating and developing wildlife and its environment. • The place is home to a diverse species of flora and fauna. • It is a feeding ground for long-distance migrants from the cold subarctic regions of Central Asia and Siberia including Black-tailed Godwits, Eurasian Curlew, White Stork and Ruff.
Buxa Tiger Reserve	**Context** Recently, a Royal Bengal Tiger has been spotted in Buxa tiger reserve in West Bengal after at least 23 years. It was in 1998 that images of a Royal Bengal tiger were last captured at the reserve. **About Buxa tiger reserve** • It is a tiger reserve in Alipurduar district, West Bengal. • Created in 1983 as the 15th tiger reserve • Its northern boundary runs along the international border with Bhutan. • The Sinchula hill range lies all along the northern side of BTR and the eastern boundary touches that of the Assam state. • It represents the highly endemic Indo-Malayan region. • The fragile "Terai Ecosystem" constitutes a part of this reserve. • The Phibsoo Wildlife Sanctuary of Bhutan is contiguous to the north of BTR. Manas National Park lies east of BTR. • BTR, thus, serves as an international corridor for Asian elephant migration between India and Bhutan. • Some of the rivers flowing through this reserve are Jayanti, Sankosh, Raidak, Churnia, Turturi, Dima, Nonani, Phashkhawa. • The forest of the reserve is classified as the Moist Tropical forest. • Rajabhatkhawa Vulture Breeding Center at Buxa Tiger Reserve for the breeding and conservation of endangered Indian vultures was established as the second such center with the help of Bombay Natural History Society and British charity Royal Society for the Protection of Birds.
Biological Diversity Act , 2002	**Context** The Biological Diversity Amendment Bill 2021, introduced in the Lok Sabha, exempts Ayush practitioners from the ambit of the Biological Diversity Act, 2002. • It also facilitates access to biological resources and traditional knowledge by the Indian traditional medicine sector. • Legal experts have expressed concerns that easing the norms for the sector could be detrimental to ecology and go against the principle of sharing commercial benefits with indigenous communities. **What is the Biological Diversity Amendment Bill 2021?** • The Biological Diversity Act, 2002 was enacted for the conservation of biological diversity and fair, equitable sharing of the monetary benefits from the commercial use of biological resources and traditional knowledge.

	• Now, according to the Bill, it seeks to reduce the pressure on wild medicinal plants by encouraging their cultivation • It exempts Ayush practitioners from intimating biodiversity boards for accessing biological resources or knowledge • It facilitates fast-tracking of research, simplify the patent application process, decriminalises certain offences; • It brings more foreign investments in biological resources, research, patent and commercial utilisation, without compromising the national interest.
Rain Water Harvesting	**Context** Minister of State for Jal Shakti informed Rajya Sabha about the Rain Water Harvesting. **Key takeaways** • Though Water is a State subject, Central Government has taken important measures for implementation of rain water harvesting through scientific manner including watershed principles in the country. • Ministry of Housing & Urban Affairs (MoHUA) has formulated guidelines for the States to adopt measures suitable to local conditions. • In addition, a number of States have done notable work in the field of water conservation/harvesting such as o 'Mukhyamantri Jal Swavlamban Abhiyan' in Rajasthan o 'Jalyukt Shibar' in Maharashtra, 'Sujalam Sufalam Abhiyan' in Gujarat o 'Mission Kakatiya' in Telangana o NeeruChettu' in Andhra Pradesh o Jal Jeevan Hariyali in Bihar o 'Jal Hi Jeevan' in Haryana o Kudimaramath scheme in Tamil Nadu.
Albino Indian Flapshell Turtle	**Context** In the Sirnapalli forest of Telangana, an international forest forensic investigator had a chance encounter with the rarely found species of Albino Indian Flapshell turtle. **About Albino Indian Flapshell Turtle** • It is a freshwater species of turtle found in South Asia. It is widespread Pakistan, India, Sri Lanka, and Bangladesh. • The "flap-shelled" name stems from the presence of femoral flaps. • These flaps of skin cover the limbs when they retract into the shell. • Its **IUCN status** is Vulnerable. • While typical Indian flapshell turtles are dark green and brown, the example found recently has a decidedly more vibrant appearance. • The Indian flapshell turtle's albino appearance is due to genetics. It is a congenital disorder and it is characterised by complete or partial absence of tyrosine pigment.
Biligiri Rangaswamy Temple (BRT) Tiger Reserve	**Context** There are plans to uproot lantana spread over 70,000 hectares of forests in BRT Tiger Reserve and Bandipur during the course of next five years. • But there are concerns that uprooting it on such a scale will entail disturbance to the forest. **What is Lantana?** • Lantana is a genus of about 150 species of perennial flowering plants. • They are native to tropical regions of the Americas and Africa. • They exist as an introduced species in numerous areas, especially in the Australian-Pacific region, South and Northeastern part of India. **Why is lantana a problem?** • It is a serious economic pest to the citrus industry. • In many frost-free regions it has become an invasive nuisance, crowding out grazing lands and agricultural areas. • Lantana is toxic for most livestock to graze **About BRT Tiger Reserve**

	• Situated between the Western and Eastern Ghats the Biligiri Rangaswamy Temple (BRT) Tiger Reserve is based in south eastern Karnataka, at the border of Tamil Nadu. • It has been named after the Rangaswamy temple that is embellished with a whitish rock at the helms of the sanctuary. • It was declared as a protected reserve in the Wildlife Protection Act of 1972. • This unique sanctuary exhibits scrub, dry deciduous, moist deciduous, evergreen, semi evergreen and shola forests. • It is widely known for its many endemic species of plants including valuable medicinal ones.
Olive Ridley	**Context** Scientists have resumed tagging of Olive Ridley turtles at Rushikulya rookery along the Odisha coast **Key takeaways** • Researchers of the Zoological Survey of India (ZSI) are carrying out tagging of the Olive Ridleys at three mass nesting sites — Gahirmatha, Devi River mouth and Rushikulya. • The tagging would help them identify the migration path and places visited by the marine reptiles after congregation and nesting. • The study would also reveal the inter-rookery movement of turtles in Odisha. • The metal tags affixed to turtles are non-corrosive and they do not harm their body. • The tags are uniquely numbered containing details such as the name of the organisation, country-code and email address. **About Olive Ridley** • The Olive Ridley sea turtle is the most abundant of all sea turtles found in the world. • It is found in warm and tropical waters, primarily in the Pacific and Indian Oceans. • It is best known for their unique mass nesting called arribada, where thousands of females come together on the same beach to lay eggs. • IUCN status: Vulnerable.
Year End Review: Ministry of Environment, Forest and Climate Change	**A. Sustainable Development Goals (SDGs)** • The UN General Assembly in its 70th Session considered and adopted the 17 Sustainable Development Goals (SDGs) and associated 169 targets for the next 15 years. The 17 SDGs came into force with effect from 1st January, 2016. • Though not legally binding, the SDGs have become de facto international obligations and have potential to reorient domestic spending priorities of the countries during the decade ending 2030. • The SDG 13, 15 and 12 have been mapped majorly to Ministry of Environment, Forest and Climate Change. **Significant strides have been made in achieving** • SDG 13 (Urgent action to protect against Climate Change and its impact) - 24% reduction in emission intensity of GDP against 2005 levels has been achieved in 2016 itself. India has emphasized that Climate Finance from developed countries as promised in the Paris agreement is integral to achieve this goal. • Country's pledge on land degradation neutrality and intense afforestation are helping the country move towards SDG 15(Sustainable use of terrestrial Ecosystems and prevention of Biodiversity Loss). • The commitment of the country in implementing the Extended Producer responsibility in plastics and ratification of Basel Convention to monitor hazardous substances is a remarkable step in moving towards SDG12 for ensuring sustainable production and consumption patterns. • The 2030 Agenda also underscored that quality, reliable and disaggregated data will be needed for measurement of progress and to ensure that "No One is Left Behind". • MoEF&CC is strengthening its data systems for realistic monitoring of progress on the sustainable development goals. **B. Climate Change**

- Took part in the 26th Session of the Conference of Parties (COP-26) to the United Nations Framework Convention on Climate Change (UNFCCC) was held in Glasgow, United Kingdom for green net zero program
    - India's non-fossil energy capacity to reach 500 GW by 2030
    - India will meet 50 per cent of its energy requirements with renewable energy by 2030.
    - India will reduce its total projected carbon emissions by one billion tonnes from now to 2030.
    - India will reduce the carbon intensity of its economy by 45 per cent by 2030, over 2005 levels.
    - By 2070, India will achieve the target of net zero emissions.
- The transfer of climate finance and low-cost climate technologies have become more important for implementation of climate actions by the developing countries. The ambitions on climate finance by developed countries cannot remain the same as they were at the time of Paris Agreement in 2015 and the Indian Delegation mentioned through multilateral negotiations with major countries for adoption of greener norms in the global scenario.
- The Glasgow Climate Conference adopted decisions, which inter-alia, include adoption of an overarching decision titled "Glasgow Climate Pact" that stresses the urgency of enhancing ambition and action in relation to mitigation, adaptation and finance in this critical decade to address the gaps in the implementation of the goals of the Paris Agreement.
    - **Noted that the goal of developed country Parties to mobilize jointly USD 100 billion per year by** 2020 has not yet been met.
    - The COP 26 outcome also include completion of work related to rules, procedures, and guidelines for the implementation of the Paris Agreement including that for cooperative approaches, mechanisms and non-market approaches referred to in Article 6, enhanced transparency framework, and common timeframes for Nationally Determined Contributions (NDCs) and it was discussed with Ministers and Representatives from United Kingdom, Scotland, South Korea, Australia, BASIC countries, Nepal, Bhutan, Maldives, France, Canada, Brazil, USA, UAE, Germany, Norway, Singapore, Jamaica, Sweden, and Japan.
    - Meetings were held with the Ministers of Like Minded Developing Countries and also with representatives from United Nations Environment Programme, United Nations Convention to Combat Desertification, and Green Climate Fund.

C. PARIVESH

- In pursuant to the spirit of 'Digital India' and capturing the essence of Minimum Government and Maximum Governance, a Single-Window Integrated Environmental Management System named PARIVESH (Pro-Active and Responsive facilitation by Interactive, Virtuous and Environmental Single Window Hub) has been developed by the Ministry of Environment, Forest and Climate Change for complete online, expeditious and transparent system for environment, forest, wildlife and CRZ clearances in the country.
- The facility is operational for processing of applications for Environmental Clearances (ECs), Forest Clearances (FCs), Coastal Regulatory Zone Clearances (CRZ).

D. Nagar Van Yojana

- Aim: Developing 400 Nagar Vans and 200 Nagar Vatikas with the objective to significantly enhance the tree outside forests and green cover in cities leading to better environment, enhancement of biodiversity and ecological benefits to the urban and peri-urban areas apart from improving quality of life of city dwellers.

- School Nursery Yojana: To associate students in the process of raising plantations as part of their learning and by providing an environment for the students to understand and appreciate the significance of plants in maintaining and sustaining the natural ecosystem.

E. Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

- The "National Compensatory Afforestation Fund Management and Planning Authority" (National Authority) came into existence in place of the Ad-hoc CAMPA; the day the Compensatory Afforestation Fund (CAF) Act, 2016 and CAF Rules, 2018 came into force.
- The National Authority manages and utilises the "National Compensatory Afforestation Fund" (National Fund), which has been created under the public account of India.
- The other fund at the State/UT level is known as "State Compensatory Afforestation Fund" under the public accounts of respective States/UTs.
- CAF collected against approvals under the Forest (Conservation) Act, 1980 is distributed in the ratio of 90:10 between the concerned State Fund and National Fund and are made available to the National Authority and respective State Authorities through budgetary process.

F. Wildlife

- The project Dolphin and the project lion have been initiated and the associated environmental impact of this are also strengthen at the major sanctuary and forest areas for cleaner Environmental Protection of endangered species.
- The Protected Area coverage in the country has been steadily increasing. The coverage of Protected Areas which was 4.90% of country's geographical area in 2014 has now increased to 5.03%. This includes an increase in Protected Areas in the country from 740 with area of 1,61,081.62 sq.kms. in 2014 to present 981 with an area of 1,71,921 sq.kms.
- Population of several species like Tiger, Asiatic Lion, Greater one Horned Rhinoceros, Asian elephants, etc. increased. Wildlife health is being addressed to aggressively monitor zoonotic diseases.
- India has taken a leadership role in conservation of migratory birds along the Central Asian Flyway
- The Ministry has released 'Guidelines for sustainable ecotourism in forest and wildlife areas-2021 in October 2021. These guidelines emphasise on participation of local community in ecotourism activities.

G. Biodiversity Conservation

- India enacted the Biological Diversity (BD) Act in 2002, and notified the Rules in 2004, through an extensive consultative process initiated in 1994. India was one of the first few countries to have enacted such a comprehensive legislation on biodiversity.
- The Act is implemented through a three-tier institutional mechanism, at national, state and local levels: The National Biodiversity Authority (NBA) at the national level set up by the Government of India, State Biodiversity Boards set up by the State Governments at the State level, and Biodiversity Management Committees (BMCs) constituted by the elected bodies at the local level.
- The Convention on Biological Diversity (CBD) will hold its second part of the 15th Conference of the Parties (COP 15) in Kunming, China in 2022 in which delegates will come together to adopt a "Post-2020 Global Biodiversity Framework". The vision for proposed framework is that "By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people. 2021 is viewed as a decisive year on biodiversity action. India joined High Ambition Coalition for Nature and People which calls for protecting at least 30 percent of world's land and ocean by 2030 where India has already reported about 27% of area as conserved under Aichi Target 11 to CBD.
- The Biological Diversity (Amendment) Bill, 2021 is being introduced to simplify, streamline and reduce compliance burden in order to encourage conducive

environment for collaborative research and investments, simplify patent application process, widen the scope of levying access and benefit sharing with local communities and for further conservation of biological resources, without compromising the objectives of United Nation Convention on Biological Diversity and its Nagoya Protocol and also national interests.'

- National Biodiversity Authority: National Biodiversity Authority, a statutory body of the Ministry of Environment Forest and Climate Change established to implement the Biological Diversity Act, 2002 has ensured that 28 State Biodiversity Boards, 8 Union Territory Biodiversity Councils and 2,76,156 Biodiversity Management Committees have been constituted in all local bodies to implement the provisions of the Act.
    - The BD Act envisages its implementation through consultation with local communities living in forest and rural areas.
    - India is a leading country in issuing Internationally Recognized Certificate of Compliance (IRCC) which recognizes stakeholders for legally accessing biological resources.
    - 22 Biodiversity Heritage Sites have been notified by 12 State Governments and 159 plants and 175 animals have been notified as threatened species in 18 states and 2 Union Territories.
    - Seventeen institutions of national importance have been recognized as national Repositories for preserving voucher specimens of biodiversity

H. Wetland

- The number of Ramsar sites (Wetlands of International Importance) in India have increased to 47 covering an area of 10,90,230 hectares which include 21 new sites designated during 2019-2021.
- India has the largest number of Ramsar sites in South Asia.
- Health cards prepared for 500 wetlands under the four pronged approach for conservation of wetlands.

I. Vienna Convention, Montreal Protocol to Protection of Ozone

The Ozone Cell of the Ministry of Environment, Forest and Climate Change is the national ozone unit for implementation of the Montreal Protocol in India and phase out of substances controlled under the Montreal Protocol.

- After successfully phasing out chlorofluorocarbons, carbon tetrachloride, halons, methyl bromide and methyl chloroform for controlled uses, India is now phasing out hydrochlorofluorocarbons as per the accelerated phase out schedule of the Montreal Protocol
    - The Government of India ratified the Kigali Amendment to the Montreal Protocol to phase down Hydrofluorocarbons.
    - Hydrofluorocarbons are used in air conditioners, refrigerators, aerosols, foams and other products, which even though do not deplete the stratospheric ozone layer, they have high global warming potential ranging from 12 to 14,000.
- As per the Kigali Amendment, to the Montreal Protocol, India will complete its phase down of Hydrofluorocarbons in 4 steps from 2032 onwards with cumulative reduction of 85% of production and consumption of HFCs by 2047.
- The Ministry of Environment, Forest and Climate Change has developed and launched the India Cooling Action Plan (ICAP) during March 2019, to provide an integrated vision towards cooling across sectors encompassing inter alia reducing cooling demand, refrigerant transition, enhancing energy efficiency and better technology options with a 20-year time horizon.
    - Space cooling in buildings being the most important and can significantly contribute to achieving the goals in the ICAP, has been prioritized for implementation of the recommendations given in the ICAP.

- Action points for implementation of the recommendations for Space Cooling in Buildings was finalized and launched on the World Ozone Day held on 16th September 2021.
- Preparation of Stage-III of HPMP has been initiated, to the implemented from 2023-2030, after securing funding from the Multilateral Fund for preparation of project proposal.

J. National Clean Air Program

- Ministry of Environment, Forest and Climate Change (MoEF&CC) is implementing National Clean Air Programme (NCAP) for reducing levels of air pollution in non-attainment cities (NACs) of the country since January 2019.
- NCAP is implemented in targeted 132 cities.
- A Commission on Air Quality Management in NCR and Adjoining Areas (CAQM) has been constituted by enactment of an Act by Parliament for better coordination, research, identification and resolution of problems surrounding the air quality index and for matters connected therewith or incidental thereto.

K. Avoiding Use of Single Use Plastics and Efficient and Effective Management of Plastic Waste.

- To enhance the efficacy implementation of PWMR, the Ministry has notified the Plastic Waste Management Amendment Rules, 2021 which also prohibits identified single use plastic items, which have low utility and high littering potential, by 2022.
- As per the notification, the manufacture, import, stocking, distribution, sale and use of 12 identified single-use plastic items including polystyrene and expanded polystyrene, commodities shall be prohibited with effect from the 1st of July, 2022.
- The thickness of plastic carry bags has been increased from fifty microns to seventy-five microns with effect from 30th September, 2021, and to one hundred and twenty microns with effect from the 31st December, 2022.
- The Ministry has organized "Awareness Campaign on Single Use Plastic – 2021".
- The States/UTs have been requested to constitute a Special Task Force under Chairpersonship of Chief Secretary/Administrator for elimination of single use plastics and effective implementation of Plastic Waste Management Rules, 2016. 31 Task Forces have been formed.
- The Ministry of Environment, Forest and Climate Change has notified the draft Regulations on the Extended Producer Responsibility for plastic packaging under Plastic Waste Management Rules, 2016, as amended from time to time on 6th October 2021 for public consultation.

L. Combating the Land Degradation, Desertification and Drought:

- India committed to achieve Land Degradation Neutrality and restoration of 26 million hectares of degraded land by 2030, which includes 21 million hectares of Bonn Challenge and additional commitment of 5 million hectares as voluntary commitment.
- India presently holds the Presidency of UNCCD COP for 2 years till April 2022.
- Prime Minister attended the High level Dialogue on desertification, land degradation and drought of United Nations General Assembly, held on 14th June 2021 highlighting the initiatives taken by India on combating Land Degradation.

M. Integrated Coastal Zone Management

- Blue Economy is one of the thrust areas of the Government for sustainable development of coastal resources.
- The development is in due consideration of Conservation & protection of coastal and marine resources, Pollution abatement measures, Management of coastal and Marine ecosystem, Livelihood enhancement with security of coastal community, Capacity building and will also comprehend Sustainable development goals.
- 10 beaches in 7 States and One Union Territory, have been developed at par with international Standards and has been conferred with prestigious Blue Flag certification

	for its environmentally sound management and ecological sustainable infrastructures with adequate safety measures. This has resulted in better waste management, maintaining bathing water quality, self-sustaining solar energy-based infrastructure, containing marine littering, enhancing local level livelihood options and increased tourist based economy.
Indian pangolin	**Context** The Odisha Forest and Environment Department has completed its first-ever radio-tagging of the Indian pangolin in an attempt to standardise the rehabilitation protocol for the animal in the State. **Key takeaways** • Aa radio-tagged Indian pangolin was released into the wild in Nandankanan Wildlife Sanctuary following soft release protocols and provision for post-release monitoring • After Madhya Pradesh, Odisha is the second State in the country to release a radio-tagged Indian pangolin into the wild **Indian Pangolin** • Has thick scaly skin • Hunted for meat and used in traditional Chinese medicine. • Pangolins are among the most trafficked wildlife species in the world. • Indian pangolin is the largest among eight pangolin species. • Out of the eight species of pangolin, the Indian and the Chinese pangolins are found in India. • Both these species are listed under Schedule I Part I of the Wildlife (Protection) Act, 1972. • The nocturnal animal lives in burrows and feed on ants and termites. **IUCN Red List** • Indian Pangolin: Endangered • Chinese Pangolin: Critically Endangered

Cyclone Jawad	**In news:** The India Meteorological Department (IMD) noted that a well-marked low-pressure area currently lies over the southeast Bay of Bengal, and it is expected to move west northwestwards and intensify into a depression during the next 12 hours. • The depression will then moves northwestwards and turn into a cyclonic storm over the central parts of Bay of Bengal in the subsequent 24 hours. • This cyclonic storm – known as cyclone Jawad -- is expected to reach the coast of Andhra Pradesh and Odisha on December 4 mornings. **Cyclones:** • Tropical cyclones are violent storms that originate over oceans, in tropical areas and move over to coastal areas bringing about large scale destruction caused by violent winds very heavy rainfall and storm surges. • A cyclone consists of a low-pressure area with high pressure all around. • Tropical cyclones are generated in regions of near zero horizontal temperature gradient. Tropical cyclones require very low values of tropospheric vertical shear in order to form and grow. • They have large diameters. **How are cyclones forecast?** • Over the years, India's ability to track the formation of cyclones has improved significantly. • **Radar Network:** There is a network of 21 doppler weather radars (DWR) in the country (12 along the coast). Depending on where a storm is forming, these radars send pulses of radio waves to gauge the size as well as the speed at which water droplets are moving. • **Real time feedback:** The earlier generation of radars was unable to track such progress in real time, but with DWRs, now the base standard of weather radars, it is usually possible to detect a potential storm at least four-five days in advance. • **International Collaborations:** The IMD also collaborates with similar international networks, such as the Japan Meteorological Agency, the U.S. National Hurricane Center, and the U.S. Central Pacific Hurricane Center, and these bodies constantly send warnings and forecasts about changes in the ocean weather. • **Technologies that supplement radars:** The near ubiquity of ocean-buoys that track changes in ocean sea surface temperatures as well as dedicated meteorological satellites improve the odds of early detection
Loktak Inland Water ways project	**In News:** Union Minister of Ports, Shipping & Waterways and AYUSH inspected the Inland Waterways of India (IWAI) Jetty at the iconic Loktak Lake. ***Loktak Lake*** • The only floating national park in the world • The largest fresh water lake in North east located at Moirang in Manipur. • One of the largest water bodies in Asia and its beauty, greenery, marine life, surrounded by blue mountains stand out. • Loktak Lake is famous for the **phumdis** floating over it. Phumdis are a series of floating islands of entangled vegetation formed by the accumulation of organic debris and biomass with soil, exclusive to the Loktak Lake in Manipur. Its thickness varies from few centimeter to two meters. The humus of phumdi is black in colour and very spongy with large number of pores. It floats with 4/5 part under water. • It has been designated as a **wetland** of international importance under the **Ramsar Convention** in 1990.

	• It is also listed under the **Montreux Record** in 1993, "a record of Ramsar sites where changes in ecological character have occurred, are occurring or are likely to occur".
More cyclones in Arabian Sea	**Context** The frequency of "very severe cyclonic storms" has increased in recent years over the Arabian Sea. • However, this has not measurably increased the threat to India's western coast, as most of these cyclones were making landfall in Oman and Yemen. • A very severe cyclone is defined as one with wind speeds touching 220 kmph. It is the fourth highest category of cyclones • The eastern coast remained far more vulnerable to "extremely severe cyclones" than the western coast • On an average, 60%-80% of the cyclones developing over the North Indian Ocean (NIO), comprising the Bay of Bengal and the Arabian Sea, made landfall causing loss of life and property. • Low-lying coastal belts of West Bengal, Odisha, Andhra Pradesh and Tamil Nadu and Puducherry were more prone to the impact of these systems
Super Typhoon Rai	**Context** Super Typhoon Rai has hit the Philippines. About Typhoon • Typhoon and hurricane are two of the regionally specific names for strong tropical cyclones • Tropical cyclones are rotating, organized systems of clouds and thunderstorms that originate over tropical or subtropical waters and have closed, low-level circulation. • What a tropical cyclone gets called is determined by the ocean it forms over and how severe it becomes. • In the North Atlantic, central North Pacific, and eastern North Pacific, tropical cyclones are called hurricanes. • In the Northwest Pacific, they are known as typhoons. **Super Typhoon** • Since 2009 the Hong Kong Observatory has divided typhoons into three different classifications: typhoon, severe typhoon and super typhoon. • A typhoon has wind speed of 118–149 km/h, a severe typhoon has winds of at least 150 km/h, and a super typhoon has winds of at least 190 km/h.
Samudrayaan Project	**Context**: Under the Deep Ocean Mission launched by the Government of India, a manned scientific submersible has been proposed to be developed for **deep ocean exploration and mining of rare minerals**. The project is named as Samudrayaan. • National Institute of Ocean Technology (NIOT), an autonomous Institute under the Ministry of Earth Sciences, had developed and tested a 'personnel sphere' for a manned submersible system for 500 metre water depth rating. • Personnel Sphere of 2.1m diameter to be used as a crew module up to 500 m water depth has been developed using mild steel and tested up to 600 m water depth in the Bay of Bengal using the research Vessel Sagar Nidhi during October, 2021. • One Titanium alloy personnel sphere for manned submersible system for 6000 metre water depth rating, is under development
Kalanamak rice	**Context:** Production of Kalanamak rice has increased significantly during last three years Presently, Kalanamak rice is being exported to countries like Singapore and Nepal. In addition to export, it is available on e-market place like Amazon, Flipkart and ODOP e-market. • One of the finest quality scented rices of Nepal and India. • Kalanamak rice has been granted the Geographical Indication (GI) Tag • It derives its name from black husk (kala = black; the suffix 'namak' means salt). • This variety has been in cultivation since the Buddhist period (600 BC). • It is quite popular in Himalayan Tarai of Nepal i.e., Kapilvastu, and eastern Uttar Pradesh of India, and is also known as the scented black pearl of Uttar Pradesh.

	• It was also featured in the book 'Speciality rices of the world' by Food and Agriculture Organization of the United Nations. • Rich in micro-nutrients such as Iron and Zinc. Therefore, having this rice is said to prevent diseases borne out of Iron and Zinc deficiencies. • is said that regular intake of Kalanamak rice can prevent Alzheimer's disease. • It has 11% protein which is almost double of common rice varieties. Besides it has low Glycemic Index (49% to 52%) making it "Sugar Free" and suitable for even diabetic people. • Have critical micro nutrients to fight malnutrition and improve nutrition status of the vulnerable section of society
Chillai Kalan	**Context** Kashmir is in a deep freeze as the 40-day harshest spell of winter, locally called 'chillai kalan', started on December 21, 2021. • The minimum temperature already reached sub-zero in the entire Valley. **What is Chillai Kalan?** • Chillai Kalan is a Persian word which literally means forty days of intense cold. • It is the local name given to 40 day period of harsh winter in Kashmir. • It is the coldest part of winter, starting from 21 December to January 29 every year. • Chillai-Kalan is followed by 20-day long **Chillai Khurd** (small cold) and a 10-days long **Chillai Bachha** (baby cold). • **Impact of Chillai Kalan on daily life of Kashmiris**: Use of Pheran (Kashmiri dress) and a traditional firing pot called Kanger increases. ○ Due to subzero temperature, tap water pipelines freeze partially during this period and world-famous Dal Lake also freezes.
National Mission on Edible Oils - Oil Palm (NMEO-OP)	**Context**: The National Mission on Edible Oils - Oil Palm (NMEO-OP) has been launched with the aim to augment the availability of edible oil in the country by harnessing area expansion, increasing crude palm oil production with the aim to reduce the import burden. • **Objective**: To ensure self-sufficiency in edible oil production. • **Aim**: To reduce import dependence from 60% to 45% by 2024-25, by increasing domestic edible oil production from 10.5 million tonnes to 18 million tonnes which is a 70% growth target. • Farmers will get all needed facilities, from quality seeds to technology. • Along with promoting the cultivation of oil palm, this mission will also expand the cultivation of our other traditional oilseed crops. **What is the need for such schemes?** • India is the largest consumer of vegetable oil in the world. • India's Palm oil imports are almost 60% of its total vegetable oil imports. • Recently, India's dependence on expensive imports has driven retail oil prices to new highs. • In India, 94.1% of its palm oil is used in food products, especially for cooking. Thus, palm oil is extremely important to India's edible oils economy. • The oil is used in food manufacturing, in beauty products, and as biofuel. • Palm oil accounted for about 33% of global oils produced from oil crops in 2014. • **Top consumers**: India, China, and the European Union (EU). **Note: No forest land** is recommended for oil palm cultivation.

PAIKA REBELLION OF ODISHA	**In News:** Government has clarified that the 1817 Paika rebellion of Odisha could not be called the first war of Independence, but can be considered it as a beginning of a popular uprising against the British and will included as a case study in the Class 8 NCERT history textbook. **About:** • The Culture Ministry had received a reference from the Odisha Chief Minister asking that the Paika rebellion be declared the first war of Independence. • The ministry said the matter was examined in consultation with the Indian Council of Historical Research, under the Union Education Ministry, and according to the comments by the Indian Council of Historical Research, the Paika rebellion could not be called the first war of Independence. • However, from a historical point of view, it can be said that the 'Paika Bidroha', which was set off in March 1817 and continued until May 1825, had set an example for the classes as well as the masses in India to follow later on. **About Paika Rebellion** • The Paikas (pronounced "paiko", literally 'foot soldiers'), were a class **of military retainers** had been recruited since the 16th century by kings in Odisha from a variety of social groups to render martial services **in return for hereditary rent-free land** (nish-karjagirs) and titles. • The advent of the British and establishment of colonial rule brought new land revenue settlements, which led to the **Paikas losing their estates** mostly to Bengali absentee landlords • The British changed the currency system, demanding revenue payments in rupees, which increased pressure on the dispossessed, marginal tribals. • The British control over salt — which had pre-1803-4 origins, but was extended to coastal Orissa in 1814 — also meant increased hardship for the people in the region. • In 1817, some 400 Kondhs rose in revolt against the British under the leadership of **Bakshi Jagabandhu** Bidyadhar Mohapatra Bharamarbar Rai, the highest-ranking military general of Mukund Dev II, and erstwhile holder of the lucrative Rodanga estate. • Paikas fought bloody battles at several places, but the **colonial army gradually crushed the revolt.** • Bakshi Jagabandhu escaped to the jungles, and stayed out of reach of the British until 1825, when he finally surrendered under negotiated terms.
Mahaparinirvana Divas	**Context:** Observed on the 6th of December every year to mark the death anniversary of Dr BR Ambedkar. • Bhimrao Ramji Ambedkar (14 April 1891 – 6 December 1956), popularly known as Babasaheb Ambedkar, was an Indian jurist, economist, politician and social reformer who inspired the Dalit Buddhist movement and campaigned against social discrimination towards the untouchables (Dalits), while also supporting the rights of women and labour. • He was independent India's first law and justice minister, the principal architect of the Constitution of India, and a founding father of the Republic of India.
Dr Rajendra Prasad	**Context:** Jayanti of the first President of India, Dr. Rajendra Prasad • The first president of India, in office from 1952 to 1962 • A supporter of Mahatma Gandhi, Prasad was imprisoned by British authorities during the Salt Satyagraha of 1931 and the Quit India movement of 1942 • In his speech before the Constitution was adopted, Dr Rajendra Prasad rightly noted that the successful working of democratic institutions requires willingness to respect the views of others, and capacity for compromise and accommodation. He said,

	[quote] "Many things which cannot be written in a Constitution are done by conventions. Let me hope that we shall show those capacities and develop those conventions." [Unquote] Seventy years later, we have reasons to believe that the nation has lived up to his hopes to a fair degree.
Chendamangalam Handloom	**In News:** A serious shortage of yarn and dyes and plummeting sales have pushed the popular Chendamangalam handloom weavers' cooperative societies in Ernakulam district and around a thousand weavers into a serious financial crisis, which now threatens to end up in the closure of at least a few cooperatives. **About** • There are four main centres for weaving the **traditional handlooms of Kerala** – Balaramapuram, **Chendamangalam**, Kuthampully, Kannur and Kasaragod. • Like in other parts of Kerala, weavers in Chendamangalam were under official patronage of the feudal family of Paliam, who served as chief ministers for the Rajas of Cochin. • In terms of the actual process, Chendamangalam textiles are woven on frame looms, and their texture is slightly heavier than similar fabrics from Balaramapuram. • Chendamangalam are similar to what one finds in Balaramapuram, but with less emphasis on *kasavu* patterns. Instead, the typical Chendamangalam *mundu or settu mundu* has coloured borders with a matching colour stripe, and only small amounts of kasavu for ornamentation. • In 2010, the Government of Kerala applied for **Geographical Indication for Chendamangalam Dhoties, Sarees/Set Mundu**. The Government of India recognized it as a Geographical indication officially since the year 2011.
Jyotirlingam Temples of Maharashtra	**Temples:** • **Trimbakeshwar (Tryambakeshwara):** Located about 28 km South West of **Nashik** and it is also one of four places where **Sinhastha Fair (Kumbh Mela**) is held which draws people from all over India. This temple built of black stone in the **Nagara style of architecture** is enclosed in a spacious courtyard • **Bhimashankar:** An ancient Shiva Temple in the **Sahyadri** Mountain Ranges of Maharashtra. It is also the source of the **river Bhima**. The temple is closely associated with the legend of Shiva slaying the demon Tripurasura. Shiva is said to have taken abode in the Bhima form, upon the request of the Gods, on the crest of the Sahyadri Hills, and the sweat that poured from his body after the battle is said to have formed the Bhimarathi River. The Temple is built in the **Nagara** style of architecture. • **Grishneshwar Jyotirlingam:** Situated in Aurangabad, the temple was constructed by **Queen Ahilyabai Holkar**. It is aslo known as Ghushmeshwar. The archaeological antiquity goes back to the 11th-12th centrury CE. The temple name has been mentioned in **Purana literature** sucha as Shiva Purana and Padma Purana. It is made from red stone and has a five-tier **nagara style shikhara**. The statue of **Nandi** is a bliss to the eyes of the visitors. The UNESCO World Heritage Site – Ellora Caves are very close by about 7-10 minutes' drive from the temple. • **Aundha Nagnath** in Hingoli District of Maharashtra is a 13th –century temple. Aundha Nagnath is supposed to be the **finest Jyotirlinga**. It is considered to be the first or 'Ádhya' linga supposedly installed by the **Pandavas**. The temple of 'Nagnath' built in the **Hemadpanti style of architecture** and has exquisite carvings. The temple was built by **Yadavas of Devgiri**,

	• **Parali Vaijnath:** Called Vaidyanath and it was renovated by **Rani Ahilyabai Holkar**. The temple is built on a hill using stones. Temple is approximately at a height of 75-80 feet from ground level.
Durga Puja	**Context** The 16th Committee of UNESCO for safeguarding of the Intangible Cultural Heritage (ICH) has inscribed DURGA PUJA in KOLKATA on the representative list of Intangible Cultural Heritage of Humanity. • This is the 1st festival in Asia to achieve recognition as UNESCO ICH of Humanity. **About Durga Puja** • Durga Puja is an annual Hindu festival originating in the Indian subcontinent which reveres and pays homage to the Hindu goddess Durga. • It is also celebrated because of Durga's victory over Mahishasur. • It is observed in the Indian calendar month of Ashwin, which corresponds to September–October • It is a ten-day festival. **About UNESCO's list of intangible culture** • It is an annual list which focuses on those forms of performing art which are of outstanding value but are vulnerable due to lack of support. • Convention for the Safeguarding of the Intangible Cultural Heritage was adopted in 2003. India ratified it in 2007. • In total, 14 Intangible Cultural Heritage elements from India have now been inscribed on UNESCO's Representative List. • This list is made up of those intangible heritage elements that help demonstrate diversity of cultural heritage and raise awareness about its importance. • The Ministry of Culture has also launched the draft National List of Intangible Cultural Heritage (ICH) of India.
The Chalcolithic cultures of Central India	**A. Excavation at Eran:** Eran (ancient Airikina) is situated on the left bank of the Bina (ancient Venva) river and surrounded by it on three sides. • The recent excavation at this site, during 2020-21, has unearthed a variety of antiquities including a copper coin, an iron arrowhead, terracotta bead, stone beads along with a copper coins, stone celt, beads of steatite and jasper, glass, carnelian, terracotta wheel, animal figurines, miniature pots, iron objects, stone querns, pestles and a red slipped terracotta with inscription in Devnagari. • The occurrence of few specimens of plain, thin grey ware is noteworthy. • The use of iron was evidenced by few metallic objects at the site. **B. Excavation at Tewar:** Tewar (Tripuri) village is located 12 km west of Jabalpur district on Jabalpur – Bhopal highway. • During 2020-21 ASI conducted excavation of Tewar at two locations, this excavation did not reach the natural soil and revealed four folds of cultural sequences i.e. Kushana, Shunga, Satvahana, and Kalachuri. • Antiquarian remains in this excavation include viz remains of sculptures, hopscotch, terracotta balls, Iron nails, copper coins, terracotta beads, implements of Iron and terracotta figurine, in ceramics red ware, black ware, red slipped ware with shapes of handi, bowl, spouted pot, small pot, big jar, etc., structural remains consist of brick wall and structure of sandstone columns.
Operation Vijay	**Context** Every year on 19 December, Goa Liberation Day is celebrated as Goa was liberated from Portuguese rule on that day in 1961. • Goa was a Portuguese colony for 451 years. **About Operation Vijay** • Goa was taken over by the Portuguese from the Maratha rule in 1641 and the conflict ended in a peace treaty between the Portuguese and Maratha Empire (Bicholim conflict). • Goans also participated in Satyagraha in the late 1940s.

	• After India got independence, the Portuguese refused to give up their hold over Goa. • The Indian government under Jawaharlal Nehru in 1961 adopted Operation Vijay to free the Portuguese colonies (Gos, Daman and Diu) in India. • The Portuguese surrendered and the coastal state acquired its liberation on December 19, 1961. • Then Goa was annexed into the Indian Union and became the Union Territory of India along with Daman and Diu. • Goa continued to be a Union Territory till 1987 and then was given statehood by becoming the 25th state of India.
150th Birth Anniversary of Sri Aurobindo	**Context** The Prime Minister chaired the first meeting of the High Level Committee (HLC) which has been constituted to commemorate 150th Birth Anniversary of Sri Aurobindo **Key takeaways** • The Committee comprises 53 members from various walks of life. • The Prime Minister said that the two aspects of Sri Aurobindo's philosophy of 'Revolution' and 'Evolution', are of key importance and should be emphasized as part of the commemoration. • The commemoration celebrations of Sri Aurobindo were proposed to launch from Puducherry coinciding with the celebration of National Youth Day. **About Sri Aurobindo** • Sri Aurobindo was an Indian philosopher, yoga guru, maharishi, poet, and Indian nationalist. • He was also a journalist, editing newspapers such as Bande Mataram. • He joined the Indian movement for independence from British colonial rule, until 1910 and then became a spiritual reformer. • At Pondicherry, Sri Aurobindo developed a spiritual practice called Integral Yoga.
Sahitya Akademi	**Context** The Sahitya Akademi announced its awards for 2021 for literary works in 20 languages **Key takeaways** • Literary critic D.S. Nagabhushan has been awarded the Kendra Sahitya Akademi award for 2021 for his work Gandhi Kathana, biography of Mahatma Gandhi • Award is presented to the most outstanding books of literary merit published in any of the twenty-four major Indian languages recognized by the Akademi (including English). • Sahitya Akademi award is the second highest literary honour by the Government of India, after Jananpith award. • The Award in the form of an engraved copper-plaque, and cash prize of Rs. 1,00,000/- • The author must be of Indian Nationality. • Indian film-maker Satyajit Ray is the designer of the plaque awarded by the Sahitya Akademi

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Delays in Army's offloading model	**In News:** The Army's ambitious plan for modernisation of the Army Base Workshops (ABWs) and implementation of '**Government-owned, contractor-operated (GOCO)**' model is delayed. • The original timeline for implementing the system lapsed in December 2019, the Comptroller and Auditor General (CAG) said in its report tabled in the Parliament. **About** • In GOCO model, the assets owned by government will be operated by the private industries. • Under the GOCO model, the private companies need not make investments on land, machinery and other support systems. • The GOCO model was one of the recommendations of the Lt. Gen. DB **Shekatkar committee** to enhance combat capability and re-balance defence expenditure. • Army Base Workshops (ABWs) carry out repairs and overhaul of weapons, vehicles and equipment of the Army. The GOCO model was meant to modernise the workshops as well free up Army personnel from maintenance work. • The implementation of GOCO model is fraught with risks and operational challenges as **managing the existing manpower** becomes challenging. ○ 385 out of the 1,077 affected civilian manpower of closed stations/static workshops are lying idle and the same situation may arise in ABWs, if these issues are not addressed while implementing the GOCO Model. • Audit recommends that the Ministry of Defence formulate a strategy to mitigate all risks, including deployment of existing manpower, relating to GOCO implementation," the CAG said.
India-ITU Joint Cyberdrill 2021	**In News:** Department of Telecommunications (DoT) and International Telecommunication Union (ITU) have commenced India-ITU Joint Cyberdrill 2021. • It is a four days virtual event starting from 30 November to 3 December 2021 **About:** • This Cyberdrill is intended for Indian entities especially Critical Network Infrastructure operators. • Several experts from ITU, United Nations Office on Drugs and Crime (UNODC), INTERPOL, National Security Council Secretariat (NSCS), Indian Computer Emergency Response Team (CERT-In) and other eminent organizations participated in the inaugural session. • More than 400 participants participated from critical sectors, namely, power, insurance, finance, CERT-In and CSIRT, industry, academia, telecom service providers and field units of DoT. • India has secured 10th rank in the ITU Global Cybersecurity Index (GCI).
ZyCoV-D VACCINE	**In News:** Union Government has asked seven States to identify high-priority districts where the three-dose ZyCoV-D vaccine could be launched initially. • Bihar, Jharkhand, Maharashtra, Punjab, Tamil Nadu, Uttar Pradesh and West Bengal, will identify the districts with high numbers of people who have not received the first dose, for introduction of ZyCoV-D. • The 'Har Ghar Dastak' nation-wide COVID-19 vaccination campaign has resulted in a hike of 5.9% in the first dose coverage [till November 30] and a jump of 11.7% in the second dose coverage has been registered during the campaign. **About Zycov-D** • Zycov-D is a COVID-19 vaccine developed by the Ahmedabad based Zydus Cadilla group and is the first vaccine in India that can be administered to adults as well as those 12 and above.

	• It's also the only DNA-based vaccine in the world and can be administered without a needle, minimizing chances of reactions. • The vaccine has been developed in partnership with the Department of Biotechnology under the 'Mission COVID Suraksha'. • The three-dose vaccine once administered produces the spike protein of the SARS-CoV-2 virus and elicits an immune response. • The plug-and-play technology on which the plasmid DNA platform is based can be easily adapted to deal with mutations in the virus, such as those already occurring. • This is the fifth vaccine, after Covishield, Covaxin, Sputnik V and Moderna to be approved for use in India.
S-400 Triumf Missile System	**In News:** A contract has been signed for delivery of S-400 system from Russia. • The S-400 Missile is a potent system in terms of its operational capability to provide continuous and effective air defence system to a very large area. • With the induction of this system, air defence capability of the nation will be significantly enhanced. • The system is also known as the 'Triumf' interceptor-based missile system. • This risks the possibility of sanctions from the U.S. under the Countering America's Adversaries Through Sanctions Act (CAATSA) which would come up for discussion at the India-U.S. 2+2 ministerial dialogue, also scheduled for early December. **What is CAATSA?** • Countering America's Adversaries through Sanctions Act (CAATSA)'s core objective is to counter Iran, Russia and North Korea through punitive measures. • Enacted in 2017. • Includes sanctions against countries that engage in significant transactions with Russia's defence and intelligence sectors. **What are S-400 Triumf anti-aircraft missile systems?** • The S-400 Triumf is a mobile, surface-to-air missile system (SAM) designed by Russia. • It can simultaneously track numerous incoming objects — all kinds of aircraft, missiles and UAVs — in a radius of 400km and launch appropriate missiles to neutralise them. • It is the most dangerous operationally deployed modern long-range SAM (MLR SAM) in the world, considered much ahead of the US-developed Terminal High Altitude Area Defense system (THAAD).
S-Gene Drop Out	**In News:** The Omicron variant of the SARS-CoV-2 virus has been confirmed in India and in at least 30 other countries by the World Health Organization (WHO). **What is the S-gene drop out?** • Tests usually look for three target genes related to parts of the virus: S (spike), N2 (nucleocapsid or inner area) and E (envelope or outer shell). • The S-gene refers to the **gene that codes for the spike protein,** or the most distinctive part of the coronavirus. • The SARS-CoV-2, like many other coronaviruses, has key protein-regions that define its structure: The envelope protein (E), thenucleocapsid protein(N), the membrane protein (M) and the **spike protein (S).** • To accurately identify the virus, diagnostic tests are made that can **identify characteristic genes that make these proteins.** • While the variant can only be reliably confirmed with genome sequencing, the WHO has also recommended that certain commonly used COVID-19 detection tests, with 'S-gene dropout' capabilities, can be used to quickly screen for an Omicron infection.
Rice Fortification	**What is food fortification?** • According to the WHO, fortification is the process of increasing the content of an essential micronutrient, such as vitamins or minerals, in a food item to improve its nutritional value and provide public health benefits at minimal cost.

	• It has minimal effects on taste and cooking properties while at the same time adding multiple nutrients to cure multiple deficiencies.
	• It also has minimal behaviour change, unlike supplements.
	• For example, milk is often fortified with vitamin D, and calcium may be added to fruit juices.
	• Rice is the fifth item to get the government's fortification push after salt, edible oil, milk and wheat.
	How to fortify rice?
	• According to the norms of the Food and Safety Standards Authority of India, 1 kg of fortified rice must contain iron (28mg-42.5mg), folic acid (75-125 mg) and vitamin B-12 (0.75-1.25mg).
	• Usual milled rice is low in micronutrient content because its nutrient-rich superficial layer is removed during rice milling and polishing operations. This makes the grain taste better and visually appealing but less nutritious.
	• Rice can be fortified by adding a micronutrient powder containing **iron, folic acid and other B-complex vitamins, vitamin A and zinc,** which then sticks to the grains.
	The Significance
	• Malnutrition especially child malnutrition is a major threat to the growth and development of children.
	  ○ According to a National Family Health Survey report, India has the largest burden of iron-deficiency and anaemia worldwide.
	  ○ About 59% of children and 50% of pregnant women are anaemic in India.
	  ○ Child and maternal malnutrition accounts for 15% of India's total disease burden.
	  ○ The country reportedly loses around 1 per cent of GDP (Rs 1.35 lakh crore) every year due to iron-deficiency anaemia.
	• Micronutrient deficiencies or 'hidden hunger' also continue to pose significant public health problems in Indian populations.
	• Therefore, the decision to fortify rice was taken to address the malnutrition and lack of essential nutrients especially among poor women and poor children.
	• Government distributes more than 300 lakh tonnes of rice to 81 crore people under schemes covered under National Food Security Act (NFSA), 2013.

New Food Processing Policy	**Context:** The Food Processing Sector has emerged as an important segment of the Indian economy and it constitutes as much as 9.9 percent and 11.4 percent share of GVA in Manufacturing and Agriculture sector respectively in 2019-20 at 2011-12 prices. **Key challenges facing the sector are-** ● Supply chain infrastructure gaps ● Institutional gaps ● Relatively low level of processing ● Technological gaps ● Lack of seamless Linkage between Agri-Production and Processing ● Credit availability gaps **The draft National Food Processing Policy lays down strategy for unhindered growth of the sector by addressing these challenges through** ● Promotion of clusters ● Convergence of services provided by different Ministries / Departments ● Focused interventions for improving competitiveness ● Promotion of India's Unique Selling Proposition (USP) ● Strengthening unorganized food processing units

	• Increased access to institutional credit at affordable cost **Some of the key objectives of the draft policy are-** • Attaining a higher growth trajectory through significant increase in investment for strengthening supply chain infrastructure and expansion of processing capacity particularly in perishables; • Improving Competitiveness through technology upgradation, Research &Development, Branding and strengthening India's USP in food sector; • Attaining long term sustainability in growth of the sector through efficient use of water, energy, adoption eco-friendly technology in processing, storage, packaging and use of waste from FPI industry.
WHO and Omicron	**Context** The WHO has said The Omicron coronavirus variant is more transmissible than the Delta strain. • It also reduces vaccine efficacy but causes less severe symptoms according to early data. • Faster transmission was noted in South Africa, where Delta is less prevalent, and in Britain, where Delta is the dominant strain. **About Omicron** • It is a variant of Coronavirus detected first in South Africa. • This variant has been detected at faster rates than previous surges in infection, suggesting that this variant may have a growth advantage. • WHO also noted current PCR tests continue to successfully detect the variant. • While medical experts warned against any overreaction before the variant was better understood, nations have raced to halt air travel, markets fell sharply and scientists held emergency meetings to weigh the exact risks
Successful Test Launch of Stand-off Anti-tank (SANT) Missile	**In News:** Defence Research and Development Organisation (DRDO) and Indian Air Force (IAF) flight-tested the indigenously designed and developed Helicopter launched Stand-off Anti-tank (SANT) Missile from Pokhran ranges successfully. • Equipped with a state-of-the-art MMW seeker which provides high precision strike capability from a safe distance. The weapon can neutralise targets in a range up to 10 kms. • This is the third in the series of indigenous stand-off weapons to be tested in recent times after long range bomb and smart anti airfield weapon for strengthening the arsenal of IAF. The indigenous development of various configurations for different applications with advanced technologies is a firm march towards 'Aatmanirbharta' in defence.
Successful Launch of Supersonic Missile assisted Torpedo System	**In News:** Defence Research and Development Organisation (DRDO) developed supersonic missile assisted torpedo system was successfully launched from Wheeler Island in Odisha • The system is a next generation missile-based standoff torpedo delivery system. • Designed to enhance anti-submarine warfare capability far beyond the conventional range of the torpedo. • This canister-based missile system consists of advanced technologies viz. two stage solid propulsion, electro-mechanical actuators and precision inertial navigation. • The missile is launched from ground mobile launcher and it can cover a range of distances.
Armed Forces (Special Powers) Act	**Context** After a recent killings of Nagaland civilians by 21 Para Commando unit in Nagaland's Mon district, its Chief Minister Neiphiu Rio has called for scrapping of the Armed Forces (Special Powers) Act (AFSPA)

	What is the Armed Forces (Special Powers) Act (AFSPA)? • It is a Parliamentary act that grants special powers to the Indian Armed Forces and the state and paramilitary forces in areas classified as "disturbed areas". • Objective: To maintain law and order in the disturbed areas • Section (3) - If the governor of a state issues an official notification in The Gazette of India then the Central government has the authority to deploy armed forces for assisting the civilian authorities. • Section (4) - Special powers to army officers in disturbed areas to shoot any individual who violates law or is suspected to violate law. The only condition is that the officer has to give a warning before opening fire. • Security forces can arrest anybody even without a warrant, and carry out searches without consent. • Once a person is taken into custody, he/she has to be handed over to the nearest police station as soon as possible. • Prosecution of the officer on duty for alleged violation of human rights requires the prior permission of the Central Government. **Demand for Revocation of AFSPA in the past** • BP Jeevan Reddy committee examining it in relation to the Northeast in 2005, and the Veerappa Moily report of the Second Administrative Reforms Commission of 2007, recommended that the Act be repealed. **States and union territories under AFSPA** • Throughout Assam and Nagaland. • In Manipur with the exception only of the municipal area of Imphal. • AFSPA has been withdrawn from Mizoram, Tripura and Meghalaya. • Operational in some areas of Kashmir valley.
Omicron slow to infect the lungs: Hong Kong study	**Context** According to the study by researchers from the LKS Faculty of Medicine at the University of Hong Kong, the Omicron variant of SARS-CoV-2 infects and multiplies faster than the Delta variant and original SARS-CoV-2 in the human bronchus. • The study may explain why it may transmit faster between people than previous variants. **Key findings of the study** • Omicron does not easily infect the lower lungs and this potentially explains why instances of severe disease are lower in cases involving Omicron. • Omicron replicated around 70 times higher than the Delta variant and the original SARS-CoV-2 virus over 24 hours. • In contrast, the Omicron variant replicated less efficiently (more than 10 times lower) in the lung tissue than the original SARS-CoV-2 virus. • The severity of disease is not determined only by virus replication but also by the host immune response, which may lead to dysregulation of the innate immune system. • By infecting many more people, a very infectious virus may cause more severe disease and death even though the virus itself may be less pathogenic.
Covovax	**Context** The WHO said it had granted emergency approval to the India-manufactured coronavirus vaccine Covovax. **Key takeaways** • The vaccine is produced by the Serum Institute of India under licence from the U.S.-based Novavax. • It will now be distributed as part of global vaccine-sharing system COVAX . • Covovax requires two doses and is stable at 2 to 8 degrees Celsius refrigerated temperatures. **What is COVAX?**

	• The COVAX program is led by the vaccine alliance GAVI, WHO and the Coalition for Epidemic Preparedness Innovations (CEPI) in partnership with UNICEF, vaccine manufacturers and the World Bank, among others. • Aim: To ensure equitable distribution of COVID-19 vaccines globally • It is supposed to be the largest vaccine procurement and supply operation in history. • The program wants to vaccinate roughly 20% of the population in the 92 Advance Market Commitment (AMC) countries, which include middle and lower-income nations that cannot afford to pay for COVID-19 vaccines.
Baby Friendly Hospital Initiative (BFHI)	**Context** The Breastfeeding Promotion Network of India (BPNI), in collaboration with the Association of Healthcare Providers of India (AHPI) has launched an accreditation programme that will enable hospitals to get a "breastfeeding-friendly" tag. **Key takeaways** • This programme is called "Baby Friendly Hospital Initiative (BFHI)". ○ The BFHI programme is a worldwide programme of the WHO and UNICEF. • Chennai's Bloom Healthcare has become the first hospital to be recognised as "breastfeeding-friendly" under this programme. • The initiative is only for private hospitals and is based on the Ministry of Health and Family Welfare's MAA programme for government hospitals launched in 2016. • Process: The certification process involves two stages — the first stage includes self-assessment by a hospital, followed by an external assessment by an authorised appraiser **Breastfeeding status in India** • Early initiation of breastfeeding continues to be low in the country. • According to the National Family Health Survey-5 (2019-2021), while there were 88.6% institutional births, only 41.8% of infants were breastfed within the first one hour. • In fact, many States such as Maharashtra, Karnataka, Gujarat, Uttar Pradesh, Jharkhand and Chhattisgarh have shown a decline in the proportion of children breastfed within the first hour
Mormugao: Indian Navy's indigenous stealth destroyer	**Context** Mormugao, Indian Navy's second indigenous stealth destroyer of the Project 15B class, planned to be commissioned in mid-2022, proceeded on her maiden sea short trip recently. **About Mormugao** • Mormugao is being built at Mazagon Dock Shipbuilders Ltd (MDSL) as part of the Project 15B destroyers. • Mormugao will add significantly to the Indian Navy's combat capabilities. • With the recent commissioning in November 2021 of INS Visakhapatnam and the fourth P75 submarine INS Vela, sea trials of Mormugao are testimony to the indigenous shipbuilding tradition of India. **About P-15B** • The Visakhapatnam-class destroyers or simply P-15B, is a class of guided-missile destroyers currently being built for the Indian Navy. • Designed by the Directorate of Naval Design, a total of four ships are being built by Mazagon Dock Limited (MDL). • The four ships are named after major cities from all four corners of the country — Visakhapatnam, Mormugao, Imphal and Surat. • The first vessel of the class, INS Visakhapatnam was commissioned on 21 November 2021.
Missile 'Pralay'	**In News**: Defence Research and Development Organisation (DRDO) successfully conducted maiden flight test of indigenously developed surface-to-surface missile 'Pralay'. • Powered with solid propellant rocket motor and many new technologies • Has a range of 150-500 kilometre and can be launched from a mobile launcher

	• The missile guidance system includes state-of-the-art navigation system and integrated avionics.
ASIGMA	**Context** Indian Army launched a contemporary messaging application named ASIGMA. **Key takeaways** • ASIGMA stands for Army Secure IndiGeneous Messaging Application. • It is a new generation, state-of-the-art, web based application developed entirely in-house by team of officers of the Corps of Signals of the Army. • The application is being deployed on the Army's internal network as a replacement of Army Wide Area Network messaging application which has been in service for the past 15 years. • The application has been fielded on Army owned hardware. • It has a variety of contemporary features including multi-level security, message prioritisation and tracking. • This future ready messaging application will meet real time data transfer and messaging requirements of the Army.
Siddha system of medicine	• One of the oldest codified traditions of healthcare originated in the Indian sub-continent with many intricate, novel therapeutic interventions and treatment modalities. • The fundamentals and principles largely rely upon Panchabootham, taste and three humours. • It enjoys state patronage as part of the officially recognized Ayush systems and caters to considerable proportion of population through public and private health care facilities • Ministry of Ayush observes Siddha Day on eve of Agathiyar's birthday every year, which falls during the Ayilyam star of Margazhi Month.
Magnetar	**In News:** Scientists have found the first clues to understand violent short duration flares from a compact star of rare category called magnetar located thirteen million light years away. • These compact stars with the most intense magnetic field known, of which only thirty have been spotted so far in our galaxy, suffer violent eruptions that are still little known due to their unexpected nature and their short duration. • Scientists have long been intrigued by such short and intence bursts --- transient X-ray pulses of energies several times that of the Sun and length ranging from a fraction of a few millisecond to a few microseconds. • When massive stars like supergiant stars with a total mass of between 10 and 25 solar masses collapse they might form neutron stars. • Among neutron stars, stands out a small group with the most intense magnetic field known: magnetars. • It is believed that eruptions in magnetars may be due to instabilities in their magnetosphere or to a kind of "earthquakes" (”starquakes”) produced in their crust, a rigid and elastic layer about a kilometer thick. • “Regardless of the trigger, in the magnetosphere of the star a type of waves will be created. These waves which are well known in the Sun, are called Alfvén waves and while bouncing back and forth between the points at the base of its lines of magnetic field, they interact with each other dissipating energy
Paxlovid	**Context** Recently, US Pharma Giant Pfizer has received USFDA emergency use authorization for its Covid-19 antiviral treatment Paxlovid. **About Paxlovid** • The drug, Paxlovid, is a faster way to treat early COVID-19 infections, though initial supplies will be extremely limited. • It is an antiviral Covid-19 treatment candidate, which is administered in combination with low dose HIV medicine ritonavir.

	• Paxlovid can be used to treat adults with Covid-19 who do not require supplemental oxygen and who are at increased risk of progressing to severe disease. • Under the deal, it signed a voluntary license agreement for Covid-19 oral antiviral treatment candidate Paxlovid. • The production and distribution of Paxlovid shall also be facilitated by granting sub-licenses to qualified generic medicine manufacturers.
World's oldest family tree created using DNA	**Context** Recently, scientists have compiled the world's oldest family tree from human bones interred at a 5,700-year-old tomb in the Cotswolds, UK. • The Neolithic tomb, or "cairn", at Hazleton North in Gloucestershire has two L-shaped chambers, one facing north and the other south. **Key takeaways** • The tomb dates to an important period just after farming was introduced to Britain by people. • Analysis of DNA from the tomb's occupants revealed the people buried there were from five continuous generations of one extended family. • Most of those found in the tomb were descended from four women who all had children with the same man. • The first-generation women probably held a socially significant place in the memories of this community. • While the tomb reveals evidence of polygyny – men having children with multiple women – it also shows that polyandry was also widespread (women having children with multiple men). • Significance: The work will help researchers understand family dynamics among these Stone Age people and learn more about their culture.
State Health Index	**Context:** NITI Aayog Releases Fourth Edition of State Health Index The report, titled "Healthy States, Progressive India", ranks states and Union Territories on their year-on-year incremental performance in health outcomes as well as their overall status. • Objective through this index is to not just look at the states' historical performance but also their incremental performance. • The index encourages healthy competition and cross-learning among States and UTs. • The reports aim to nudge states/UTs towards building robust health systems and improving service delivery. **Round IV of the report focuses on measuring and highlighting the overall performance and incremental improvement of states and UTs over the period 2018–19 to 2019–20.** • The State Health Index is annual tool to assess the performance of states and UTs. • It is a weighted composite index based on 24 indicators grouped under the domains of 'Health Outcomes', 'Governance and Information', and 'Key Inputs/Processes'. • Each domain has been assigned weights based on its importance with higher score for outcome indicators. • To ensure comparison among similar entities, the ranking is categorized as 'Larger States', 'Smaller States' and 'Union Territories'. **Results:** • Among the 'Larger States', in terms of annual incremental performance, Uttar Pradesh, Assam and Telangana are the top three ranking states. • Among 'Smaller States', Mizoram and Meghalaya registered the maximum annual incremental progress. • Among UTs, Delhi, followed by Jammu and Kashmir, showed the best incremental performance.
Year-End-Review-2021-Ministry of	**Context:** The year 2021 brought some unprecedented challenges for humankind. DST and its autonomous institutions geared themselves up to help India deal with the challenges. The department also implemented the lessons learnt last year through COVID-19 pandemic to

Science and Technology	reach out to the world with STI solutions that brought about positive transformations in every sphere, be it healthcare, sustainability, energy efficiency, Climate change, food production or even in terms of the way we work. ● India has risen to the **46th position** featuring within the top 50 innovative economies globally as per Global Innovation Index (GII). ● Under the National Super-Computer Mission (NSM), **4 new Supercomputers** have been installed ● A new program called **Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI)** announced recently is envisioned to boost human resource and its capacity building through open access to S & T Infrastructure across the country. ● Proposals have been invited to support strengthening the R&D base of the performing Universities in the country under the Scheme "**Promotion of University Research and Scientific Excellence" (PURSE).** ● The Women Science Programme of DST has started a new initiative to support Women PG Colleges under the **CURIE (Consolidation of University Research for Innovation and Excellence in Women Universities) Program** and invited proposals for the same. ● 30 institutions have officially started **GATI (Gender Advancement for Transforming Institutions) Pilot Program**. ● The first of its kind program for lateral entry for women researchers in joint R&D projects between India and Germany was launched. ● Setting up of **Community COVID Resilience Resource Centres (CCRRCs)** for better recovery, building Science Technology and Innovation (STI) capacities and capabilities against various uncertainties at community level ○ Point-of-care, cost effective, easy-to-perform diagnostic toolkits developed to detect Salmonella, Staphylococcus aureus, Clostridium perfringens, Campylobacter jejuni and Campylobacter coli contamination of food. ○ A pen drive size android app enabled user friendly DNA sensor was developed for onsite detection of scrub typhus. ○ A bouquet of coloured artificial diets for rearing silkworm was developed to produce naturally coloured cocoon. ● Through North East Centre for Technology Application & Reach (NECTAR) Northeast saw the successful cultivation of saffron for the first time in Yangang village of South Sikkim. ● The Indian research community will soon be able to pursue industry-relevant research opportunities in the areas of deep technologies that are novel, transformative, and can have a ground-breaking impact on a national scale through 'Fund for Industrial Research Engagement (FIRE)' launched by the Science and Engineering Research Board (SERB) in collaboration with Intel India. ● Marching towards Atmanirbhar Bharat with several indigenous smart, low cost technologies under DST supported make in India ● DST along with National Innovation Foundation (NIF) has supported several grassroot innovations like traditional method of making **Etikoppaka toys**, Laxmi Asu Making Machine which has revolutionized the weaving of the Pochampally silk and reduced the drudgery of thousands of weavers involved in the occupation as well as polyherbal and cost-effective medicine to treat Mastitis, an infectious disease of dairy cattle.

- DST supported research helps move towards affordable health and wellbeing for all
    - Researchers have developed a compound called "6BIO" that can provide a better method to treat Autism Spectrum Disorder (ASD).
    - A molecule that disrupts the mechanism through which neurons become dysfunctional in Alzheimer's disease (AD) has been developed
    - A new technique to measure DNA modifications can help early diagnosis of multiple diseases.
    - The first National Heart Failure Biobank (NHFB) in the country that would collect blood, biopsies, and clinical data as a guide to future therapies was inaugurated
- DST supported research assesses state level vulnerability, health & other effects of climate change
    - Climate parameters accounted for 9-18% of the total infectious disease cases in children.
    - Mineral dust, biomass burning, secondary sulfate, secondary nitrate from northwest India and Pakistan, polluted cities like Delhi, the Thar Desert, and the Arabian Sea area, and long-range transported marine mixed aerosols are the main sources of aerosols in the central Himalayan region.
    - North-Western, Central, and further to south-central region of India were found to be the new hotspot of intense heatwave events over the past half-century highlighting need for developing effective heat action plans in the three heatwave hotspot regions with a focus on different vulnerabilities among the inhabitants.
    - Researchers have also calculated the economic impact of aerosols, dust, and clouds reducing solar energy generation from photovoltaic and rooftop solar installations, found severe cyclonic storms in the North Indian Ocean region increasing in the past four decades, and that thermocol could be the material of the future for construction of earthquake-resistant buildings.
- For better disaster management: Found the first geological evidence of an earthquake at Himebasti Village on the border of Assam and Arunachal Pradesh, documented by historians as Sadiya earthquake in history, which is recorded to have caused massive destruction in the region and almost destroyed the town in 1697 CE. This finding could contribute to a **seismic hazard map** of the eastern Himalaya, which can facilitate construction and planning in the region. On the other hand Mishmi ranges (MR) in the North-Eastern tip of India, which has witnessed the imprints of the largest earthquake ever recorded in the Himalaya in the Kamlang Nagar town of Arunachal Pradesh, India has a widely distributed earthquake pattern, unlike the western and central Himalaya where the pattern is concentrated south of the Indus Suture Zone (ISZ), in the margin between the Eurasian and Indian Plates) over a nearly 30-km-wide at 10 - 20 Km depth.
- **Clean and potable water for all**
    - A much-improved Advanced Oxidation Process (AOP) technology targeting zero discharge water management system is being utilized for the complete reuse of industrial dye wastewater for domestic and industrial usage at a rate of 10 Kilo litres /day.
    - A new technology using UV-Photocatalysis can treat municipal sewage and highly polluting industrial wastewater streams

- **Agricultural technologies** ranging from grassroots to lab based for doubling farmer's income: Grassroots technologies like a variety of **mango called Sadabahar**, which is resistant to most major diseases and common mango disorders, practice to **develop support roots in cashew trees** to protect from borer attacks and cyclonic storms, **self-pollinating apple variety** that does not require long chilling hours were supported. A composite paper made of carbon (graphene oxide) loaded with preservatives has been developed by scientists which **can be used as wrappers** to help extend shelf life of fruits.
- Waste Management technologies helps the march towards waste to wealth:
    - A novel high-performance bioreactor system integrated with sustainable pre-treatment process enables anaerobic digestion of complex fat-rich sludge from dairy industry.
    - Researchers have developed a technology to produce energy-efficient walling materials using construction and demolition (C&D) waste and alkali-activated binders.
    - A new high rate biomethanation technology for the integrated treatment of sewage and organic solid waste and concomitant generation of biogas and bio manure can treat groundwater and wastewater and convert it to potable water.
    - A low-cost, integrated composting technology, which includes microbe-aided vermistabilisation can convert toxic sludge from the textile industry into plant probiotics in a short time.
- Helped develop a slew of **new age technologies:**
    - A highly stable and non-toxic security ink from nano-materials that spontaneously emits light (luminescent) due to its unique chemical properties can combat the counterfeiting of branded goods, bank-notes, medicine, certificates, currency.
    - Scientists at INST have produced electron gas with ultra-high mobility, which can speed up transfer of quantum information and signal from one part of a device to another and increase data storage and memory.
    - A classification method based on Deep Learning (DL) network can evaluate hormone status for prognosis of breast cancer.
    - Researchers at RRI have discovered a new exotic, strange state of materials in contact with an environment that alters its physical properties in the presence of an electromagnetic field, leading to better quantum technologies, which are tunable and controllable as per the user requirements.
- The IIA's **Indian Astronomical Observatory (IAO)** located at Hanle near Leh in Ladakh is becoming one of the promising observatory sites globally.
    - A faster method of predicting space weather has been identified in a type of **Solar Radio Bursts (SRBs)** observed using the global network of solar radio telescopes called **CALLISTO** a clue to the mystery behind the high abundance of **Lithium**— a trace element on Earth has been traced while an active galaxy found in a very bright state with 10 times more X-ray emission than normal, equivalent to more than 10 trillion Sun, and located 5 billion light-years away could help probe how particles behave under intense gravity and acceleration to the speed of light.

	○ An algorithm that can increase the accuracy of data from exoplanets by reducing the contamination by the Earth's atmosphere and the disturbances due to instrumental effects and other factors has been developed while a new method to understand the atmosphere of extrasolar planets has been found. ○ Besides, we now have clues to mystery of solar flares & CMEs in regions on Sun with disturbed magnetic field can help improving solar weather predictions.
Year-End-Review-2021-Ministry of Earth Sciences	• The Deep Ocean Mission, India's ambitious plan to explore and harness deep-oceanic resources and support the Blue Economy Initiatives of the Government of India was approved by the Cabinet. SAMUDRYAAN, Indian Manned Ocean Mission under Deep Ocean Mission was thus launched in November 2021. ○ The underwater mining system was deployed from ORV Sagar Nidhi and Seabed locomotion trials of the experimental undercarriage system of underwater mining system (Varaha-I and II) was successfully undertaken over a distance of 120m on water-saturated soft soil at 5270 m depth in the Central Indian Ocean (CIO). ○ Two gliders were deployed in the Bay of Bengal to monitor the deep ocean physical and biogeochemical parameters with special emphasis to understand the temporal and spatial variability of the Oxygen Minimum Zone (OMZ). • An Earth System Science Data Portal (ESSDP) of MoES was launched The ESSDP hosts about 1050 metadata records of data collected and maintained underdifferent programs implemented by MoES over the years and link them to the respective data centres. • Accurate and timely prediction of tropical cyclones Tautkae, Yaas, Gulab and Shaheen combined with fieldwork by disaster management agencies, which helped save thousands of precious lives of countrymen. ○ Significant improvements in forecasting accuracy with respect to severe weather events including tropical cyclones, heavy rainfall, fog, heat wave, cold wave, thunder storm-20 to 40 percent improvement ○ Three Doppler Weather Radars were commissioned at Mukteshwar, Uttarakhand and Kufri, Shimla, Himachal Pradesh and Jammu. ○ Atmospheric Research Testbed is an open field observatory spread over 100 acres of land (50 km northwest of Bhopal in Sehore District of Madhya Pradesh) for better understanding on the processes governing monsoon convection and land-atmosphere interactions over the core monsoon region using the state-of-the-art observational systems such as Radars, Wind Profilers, UAVs etc. This Atmospheric Research Testbed will be a unique facility in the Tropical region. A Dual-polarimetric C-band Doppler Weather Radar was commissioned in the above facility recently for detailed precipitation process studies in the core monsoon zone. ○ Under Lightning Location Network, 83 sensors across the country have been established. ○ IITM has developed indigenous Decision Support System for advanced air quality management for Delhi NCR region. The Data Assimilation (DA) system at National Centre for Medium Range Weather Forecasting (NCMRWF), has been updated to assimilate more new satellite observations. A High-Resolution Rapid Refresh (HRRR) system was also implemented to support nowcasting activities of IMD. • The High Resolution Rapid Refresh (HRRR) model has been developed to generate forecasts for next 12 hours. • A Virtual Centre on Artificial Intelligence (AI) / Machine Learning (ML)/ Deep Learning (DL) is established at IITM Pune in order to expand the domain through multidisciplinary programs in the field of Earth System Sciences.

	• During the year, several advisories (88 nos.) on possible coral bleaching were provided comprising of the locations of Hot Spots (HS) and Degree of Heating Weeks (DHWs) estimated using SST anomalies derived from satellite data on a bi-weekly basis.
	• A water quality buoy has been deployed by National Centre for Coastal Research (NCCR) in the coastal water off Puducherry at 10m depth (~1.5 km from the coast). This is an automated water quality buoy fitted with sensors to monitor the variations in the water quality and productivity of the coastal waters.
	• Under the Resource Exploration and Inventorization System (REIS) programme taxonomic studies of samples collected on-board FORV Sagar Sampada within the Indian Exclusive Economic Zone (EEZ) yielded six new species of decapod crustaceans, one new species of polycheate and two species of deeps eels.
	• The Joint OMNI-RAMA Indian Ocean Data Portal developed by INCOIS jointly with NIOT and PMEL-NOAA will showcase the large inventory of meteorological and oceanographic data sets with direct access for data display and delivery.
	• The existing National Seismological Network has now been strengthened to 150 stations with the addition of 35 new seismic observatories to improve the operational capability to detect any earthquake of M:3.0 or above in most parts of the country
	• The seismic microzonation work has been started and various Geophysical & Geotechnical surveys are in progress.
	• Under the Scientific Deep Drilling project in the Koyna Intraplate Seismic Zone, Maharashtra, the evidence of deep-water percolation in the Koyna Seismogenic Zone has been established with several damage zones being delineated between 2 and 3 km in the Koyna pilot borehole based on the physical and mechanical properties of the rock formations.
	• Under the national network project, Submarine Ground Water Discharge (SGD), National Centre for Earth Science Studies (NCESS) has estimated SGD flux from three coastal catchments of southwest coastal zone of India through aquifer modelling technique. There are nine critical zones with a total shore length of 106.5 km, out of 640km surveyed, in the SW coastal zone having SGD signatures
	• The 40th Indian Scientific Expedition to Antarctica (40-ISEA) and 41st Indian Scientific Expedition to Antarctica launched from National Centre for Polar and Ocean Research (NCPOR), Goa in 2021.
	  ○ The 41st expedition has two major programs. The first program encompasses geological exploration of the Amery ice shelf at Bharati station. This will help explore the link between India and Antarctica in the past.
	  ○ The second program involves reconnaissance surveys and preparatory work for drilling of 500 meters of ice core near Maitri in collaboration with the British Antarctic Survey and the Norwegian Polar Institute. It will help in improving the understanding of Antarctic climate, westerly winds, sea-ice and greenhouse gases from a single climate archive for past 10,000 years.
	• The International Training Centre for Operational Oceanography (ITCOocean) established at INCOIS, Hyderabad a UNESCO Category 2 Centre, had trainees from 95 countriestill date. The online training mode due to the pandemic has enabled increased participation from Indian Ocean Rim countries in the training programmes.
	• The Implementation Agreement on "Technical Cooperation in Development of the Research moored Array for African-Asian-Australian Monsoon Analysis and prediction (RAMA) and the Ocean Moored buoy Network in the northern Indian ocean (OMNI) for Improving Weather and Monsoon Forecasts" was signed
	• India and Vietnam signed a Memorandum of Understanding (MoU) towards promoting scientific and technical cooperation in marine science and ecology
	• The innovative technologies developed by National Institute of Ocean Technology (NIOT) on “Recombinant Ectoine Deep Sea Bacteria for Skin Care And Cosmetic

	Application" And Bio-surfactant From Marine Bacteria For Environmental Clean up And Waste Management. • The seventh edition of the India International Science Festival (IISF 2021) organized by the Ministry of Earth Sciences, Ministry of Science and Technology and Vijnana Bharati along with Government of Goa was held in Goa during 10-13, December 2021. The National Centre for Polar and Ocean Research (NCPOR), MoES was the nodal agency for organizing the IISF 2021. The theme of IISF 2021 was 'Celebrating Creativity in Science'.

G20's TROIKA	**In News:** India joined the G20 'Troika' • With this move, India has started the procedure for taking over the G20 presidency next year. **Key Takeaways** • Troika refers to the **top grouping within the G20** that consists of the current, previous and the incoming presidencies — Indonesia, Italy and India. • India will assume the G20 presidency on December 1, 2022 from Indonesia, and will convene the G20 Leaders' Summit for the first time in India in 2023. • Italy hosted the G20 summit during October 30-31 that was attended by Prime Minister Narendra Modi where India had raised the issue of Afghanistan's future following the takeover by the Taliban. • Indonesia took over the G20 presidency on December 2, 2021. Next year's summit will be organised along the overall theme of "Recover Together, Recover Stronger". • As a Troika member, India will work closely with Indonesia and Italy to ensure consistency and continuity of the G20's agenda.
G7	**Context** The Group of Seven (G7) economic powers told Russia to "de-escalate" its military buildup near the Ukrainian border, warning that an invasion would have "massive consequences" and inflict severe economic pain on Moscow. **About G7** • G7 stands for "Group of Seven" industrialized nations. • It used to be known as the G8 (Group of Eight) until 2014 when Russia was excluded because of its annexation of Crimea from Ukraine. • Countries: United States, the United Kingdom, Germany, Canada, Japan, France and Italy. • The G7 does not have a formal constitution or a fixed headquarters. • It is an informal bloc and The decisions taken by leaders during annual summits are non-binding. • Generally every member country hosts the summit once every 7 years
Diplomatic boycott of Beijing Winter Olympics	**Context** USA recently formally announced a diplomatic boycott of the upcoming 2022 Beijing Winter Olympics in response to China's human rights record, especially the ongoing Uighur abuse • The diplomatic boycott would mean the USA will not send "any diplomatic or official representation," while still allowing American athletes to compete. **About winter Olympic** • The Winter Olympic Games is a major international multi-sport event held once every four years for sports practised on snow and ice. • The first Winter Olympic Games was held in 1924 in Chamonix, France. • The IOC is the governing body and the Olympic Charter defines its structure and authority. **About Uighurs** • Uighurs, are a minority Turkic ethnic group originating from and culturally affiliated with the general region of Central and East Asia. • The Uyghurs are recognized as native to the Xinjiang Uyghur Autonomous Region of the People's Republic of China. • China rejects the idea of them being an indigenous group • Since 2016, it is estimated that over a million Uyghurs have been detained in Xinjiang re-education camps

Central Asian leaders invited for R-Day

Context India has invited leaders of all five Central Asian nations to attend as chief guests of Republic Day.

- If they accept, this will be the first time all five countries will attend the Republic Day parade together

India and the Central Asia

- The Republic Day meeting will help strengthen India's initiatives through Chabahar and through the International North South Transport Corridor.
- The invitation is part of India's reach-out to the former Soviet States which has intensified since 2015.
- India joined the Shanghai Cooperation Organisation (SCO) in 2017, which all Central Asian States other than Turkmenistan are members of.
- The India-Central Asia dialogue was launched in 2019, and in July 2021, Minister of External Affairs attended the Central Asia-South Asia connectivity conference.

Do you know?

- Central Asia is a region in Asia which stretches from the Caspian Sea in the west to China and Mongolia in the east, and from Afghanistan and Iran in the south to Russia in the north
- It includes the former Soviet republics of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan

PANEX-21

Context A Curtain Raiser Event for Humanitarian Assistance and Disaster Relief exercise, PANEX-21, for the member nations of BIMSTEC countries, was held in New Delhi recently.

Key takeaways

- The exercise is planned to be conducted from 20-22 December 2021 at Pune.
- It will witness participation from subject matter experts and delegates from India, Bangladesh, Nepal, Bhutan, Myanmar, Sri Lanka and Thailand.

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)

- It is a regional organization comprising seven Member States lying in the areas of the Bay of Bengal.
- This organization came into being in 1997 through the Bangkok Declaration.
- **Member States**: Bangladesh, Bhutan, India, Nepal, Sri Lanka, Myanmar and Thailand.

UNSC adopts resolution to ease

Context The United Nations Security Council (UNSC) unanimously passed a resolution permitting a carve-out in sanctions against the Taliban to facilitate the delivery of humanitarian aid to Afghanistan.

Key takeaways

Afghan assistance	• This carve-out covers urgently needed humanitarian assistance and other activities that support basic human needs in Afghanistan. • The resolution (2615) mandates a review of the carve-out every six months. • It also requests that an Emergency Relief Coordinator brief the UNSC every six months on the delivery of assistance and any obstacles to implementation. • It also "calls on all parties" to respect human rights and observe international humanitarian law. **About United Nations Security Council** • The UNSC is one of the six principal organs of the United Nations • It is charged with the maintenance of international peace and security. • **Permanent members (P5)**: Russia, UK, France, China, and USA • The Security Council also has 10 non-permanent members, elected on a regional basis to serve two-year terms. • The body's presidency rotates monthly among its 15 members.
Mission SAGAR	**Context** As part of deployment undertaken by the Indian Navy since May 2020 under Mission SAGAR, Indian Naval Ship Kesari entered the Port of Maputo, Mozambique recently. **Key takeaways** • 500 Tons of food aid has been shipped by INS Kesari to support Mozambique to cope with ongoing drought and concurrent challenges of pandemic. • INS Kesari is carrying two Fast Interceptor Craft and self defence equipment to be handed over to the Armed Forces of Mozambique. **About mission SAGAR:** • Mission Sagar was a COVID-19 relief mission launched by India in May 2020 as a part of its efforts to provide essential aid to the Indian Ocean countries. • This was followed up by Mission Sagar II in November and Mission Sagar III in December 2020. • Mission SAGAR 1- India sent INS Kesari in May 2020 with food items, medicines and medical assistance teams to Mauritius, Seychelles, Madagascar, Comoros and La Reunion. • Mission SAGAR 2- In November 2020, INS Airavat was delivering food to Sudan, South Sudan, Djibouti and Eritrea. • Mission SAGAR 3- In December 2020, INS Kiltan made its way towards Cambodia and Vietnam carrying 15 tons of Humanitarian Assistance and Disaster Relief (HADR) for disaster relief following catastrophic floods in Vietnam and Cambodia. • Mission SAGAR 4- In March 2021, INS Jalashwa reached Port Anjouan, Comoros to deliver 1000 metric tonnes of rice to the island nation. **Do you know?** • INS Kesari, a Landing Ship Tank (Large) had undertaken a similar mission in May – June 2020 to provide humanitarian and medical assistance to Maldives, Mauritius, Seychelles, Madagascar and Comoros, including deployment of Medical Assistance Teams of the Indian Navy in multiple locations. • Since May 2020, the Indian Navy has deployed ships to 15 Friendly Foreign Countries under SAGAR missions.
Counter Terrorism Committee of UNSC	**Context** India will chair the Counter-Terrorism Committee of United Nations Security Council (UNSC) in January 2022 after 10 years. **Key takeaways** • The Counter-Terrorism Committee was established by Security Council resolution 1373 adopted unanimously on 28 September 2001 in the wake of the 9/11 terror attacks in the US. • The Committee was tasked with monitoring implementation of resolution 1373 which requested countries to implement a number of measures aimed at enhancing their legal and institutional ability to counter terrorist activities at home and around the world. • This includes:

	○ taking steps to criminalize the financing of terrorism ○ freezing any funds related to persons involved in acts of terrorism ○ deny all forms of financial support for terrorist groups ○ suppress the provision of safe haven ○ support for terrorists and share information with other governments on any groups practicing or planning terrorist acts. • Besides, the Committee monitors steps taken to cooperate with other governments in the investigation, detection, arrest, extradition and prosecution of those involved in terror acts and criminalizes active and passive assistance for terrorism.
India-Australia interim FTA	**Context** India and Australia are expected to complete negotiations for an interim free trade agreement (FTA) soon. **Key takeaways** • The agreement is aimed at boosting economic ties between the two countries. • The final agreement, officially known as the Comprehensive Economic Cooperation Agreement (CECA), is expected to be completed by the end of 2022. • The pact covers areas such as goods, services, investment, rules of origin, customs facilitation, legal and institutional issues. • A similar agreement with the UAE is likely to be signed in March 2022. • This new strategic economic agreement is expected to increase bilateral trade in goods to $100 billion within five years of the signed agreement and increase trade in services to $15 billion.

World AIDS Day:	• It is observed on 1st December • AIDS is a pandemic disease caused by the infection of Human Immunodeficiency Virus (HIV), which damages the human immune system. • It is a chronic, potentially life-threatening condition. • By damaging immune system, HIV interferes with the body's ability to fight infection and disease. • The virus can be transmitted through contact with infected blood, semen or vaginal fluids. • AIDS symptoms include weight loss, fever or night sweats, fatigue and recurrent infections. • No cure exists for AIDS. • Strict adherence to antiretroviral regimens (ARVs) can slow the disease's progress and prevent secondary infections and complications. **Initiatives by India** • India's unique **HIV prevention model** is centered around the concept of 'Social Contracting' through which the 'Targeted Interventions Program' is implemented. • **The HIV & AIDS Prevention and Control Act, 2017**, provides a legal and enabling framework to safeguard the human rights of infected and affected populations. • India is providing **free anti-retro-viral treatment** to close to 1.4 million people. • **Project Sunrise:** Launched by the Ministry of Health and Family Welfare (2016) to tackle the rising HIV prevalence in north-eastern states • **The Red Ribbon:** Wearing a ribbon is a way to raise awareness on and during the run up to World AIDS Day. • **90-90-90:** 90% of those who are HIV positive in India know their status, 90% of those who know their status are on treatment and 90% of those who are on treatment experience effective viral load suppression. • **Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM):** It is designed to accelerate the end of AIDS, tuberculosis and malaria as epidemics. **National AIDS Control Program** • **Launched by:** The National AIDS Control Organization (NACO) launched in 1992-1999. • NACO is a division of the Ministry of Health and Family Welfare. • India is gradually transitioning the people living with HIV to Dolutegravir (a safer and efficacious anti-retro-viral medication regimen).
Summit for Democracy	**Context** Summit for Democracy was recently convened by the U.S. President Joe Biden. **Key highlights** • India emphasised that the world must also jointly shape global norms for emerging technologies like social media and cryptocurrencies. • USA president announced the establishment of the Presidential Initiative for Democratic Renewal. ○ Under this, the administration plans to provide $424.4 million to support free media, fight corruption, strengthen democratic reforms, for the use of technology
Launch of Atmanirbhar Hastshilpkar Scheme	• **By:** North Eastern Development Finance Corporation Ltd. (NEDFi), a premier financial institution in the North-Eastern Region • **Objective:** To develop the petty artisans of the North Eastern Region by providing financial assistance in the form of term loan for income generating activities for setting up / expansion / modernization / working capital requirement and other activities related to the sector

C. Rajagopalachari (1878-1972)	C. Rajagopalachari (1878-1972) was a freedom fighter, politician, an associate of Gandhi and the final governor general of India. Rajagopalachari parted ways with the Congress in 1957 after being disillusioned by the path it was taking. He founded the Swatantra Party in 1959, which favoured classical liberal principles and free enterprise.
Swarnim Vijay Parv	**In News** Inauguration of the 'Swarnim Vijay Parv', commemorating 50 years of the Liberation War of Bangladesh was recently inaugurated at India Gate, New Delhi. • Swarnim Vijay Parv celebrations will go on for 2 days and will commemorate 50 years of India's historic victory in the 1971 war and Indo-Bangladesh friendship.
New Gas Stove for Domestic PNG	Context The Minister of Petroleum and Natural Gas recently informed that a novel fuel efficient domestic cooking stove for Piped Natural Gas (PNG) has been developed by Petroleum Conservation Research Association (PCRA) in collaboration with CSIR-Indian Institute of Petroleum (IIP) Dehradun. **Key takeaways** • This is the first product of its kind in the Country. • Entire combustion system has been customised in this new stove to handle PNG. • The stove has been optimised to have the highest thermal efficiency of around 55% in comparison to the maximum efficiency of 40% for the modified LPG stoves • It has a cost almost similar to a normal LPG stove.
Finn's weaver bird	**In News** Finn's weaver (Ploceus megarhynchus) bird, numbering less than 500 in India, which until now was listed as "vulnerable" in the IUCN Red List has been uplisted to "endangered" category. • The bird is primarily found in Terai grasslands in Uttarakhand and western Uttar Pradesh, apart from a few pockets in Assam.
Sri Ramna Kali Mandir	**Context** On December 17, 2021, President of India will inaugurate a famous Hindu shrine, Sri Ramna Kali Mandir, that was destroyed by the Pakistani forces during the war (Operation Searchlight) of 1971. **Key takeaways** • The Ramna Kali Bari used to be a famous landmark of Dhaka where a Kali temple stood for centuries. • India supported the renovation and conservation of the historic temple with the help of the Government of Bangladesh. The inauguration comes 50 years after Pakistan was defeated in 1971.
Possible largest nuclear power generating site	To be established at Jaitapur in Maharashtra with a total capacity of 9900 MW
Order of the Druk Gyalpo	The King of Bhutan conferred its highest civilian award, the Order of the Druk Gyalpo, on India's Prime Minister on the occasion of Bhutan's National Day.
Tamil Thai Vaazhthu	• The Tamil Nadu government has declared Tamil Thai Vaazhthu, a prayer song sung in praise of Mother Tamil, as the State Song. • A Government Order (GO) had been issued directing that everyone who is present during the rendition of the song, barring differently abled persons, should remain standing. • Government order has come less than two weeks after the Madurai Bench of Madras High Court said that "There is no statutory or executive order requiring the attendees to stand up when Tamil Thai Vaazhthu is sung."
KAPILA - Kalam Program for Intellectual Property Literacy and	The campaign has been launched to • Increase awareness regarding protection and exploitation of Intellectual Property (IP) • Provide funding support in order to promote filing of the Intellectual Property (IP)in Higher Education Institutions. • Under the initiative, activities like IP Clinic, Case Studies/ Articles regarding Innovation and Intellectual Property and online awareness programs and National Intellectual

Awareness Campaign	Property Literacy Week (NIPLW) have been conducted. More than 46,000 users have registered for KAPILA awareness programs. A KAPILA portal has also been launched for this purpose.
Nai Manzil Scheme	Context: The scheme aims to benefit the youth (both men & women) belonging to six notified minority communities of 17-35 years of age, who do not have formal school leaving certificate, i.e., those in the category of school –dropouts or educated in community education institutions like Madrasas. • 30% of the beneficiary seats are earmarked for girl/women candidates • 5% of the beneficiary seats for persons with disability belonging to the minority community under the scheme. The scheme provides a combination of formal education (Class VIII or X) and skills to enable beneficiaries seek better employment and livelihood. **Nai Roshni Scheme** • The scheme aims to empower and enhance confidence in women by providing knowledge, tool and techniques for Leadership Development of Women belonging to six notified minority communities i.e., Sikh, Buddhist, Jain, Muslim, Christian and Parsi. • It is a training programme conducted for women belonging to minority community between the age group of 18 years to 65 years; covering areas related to Programmes for women, Health and Hygiene, Legal rights of women, Financial Literacy, Digital Literacy, Swachch Bharat, Life Skills, and Advocacy for Social and Behavioural change.
Digital transactions in India	• There has been a growth of 88% in volume of digital transactions during the last 3 years since 2018-19 • India's own payment platform, **UPI** has emerged as the country's favourite digital payment choice, with over 22 billion transactions registered during FY 2020-21, showing 4 times growth over the last 3 years. • 31.17 crore RuPay debit cards have been issued to PMJDY account holders
Desmond Tutu	**Context** Desmond Tutu, the Nobel Peace Prize laureate who helped end apartheid in South Africa, has died aged 90. **Key takeaways** • A contemporary of anti-apartheid icon Nelson Mandela, he was one of the driving forces behind the movement to end the policy of racial segregation and discrimination enforced by the white minority government against the black majority in South Africa from 1948 until 1991. • He was awarded the Nobel prize in 1984 for his role in the struggle to abolish the apartheid system.
Iran's new space launch	**Context**: Iran announced that it has carried out a new space launch. • The Simorgh (Phoenix) satellite launcher carried three research cargoes into space • UN Security Council Resolution 2231 of 2015, endorsing the nuclear deal, imposed no blanket ban on Iranian rocket or missile launches.

MAINS

POLITY AND GOVERNANCE

Cooperative Sector Reforms

Context: 'Cooperation has failed, but cooperation must succeed,' wrote the All India Rural Credit Survey Committee in 1954.

- This verdict came five decades after the **first cooperative legislation of 1904**. The Governor of the **Madras Presidency,** Lord Wenlock, was the first to seriously attempt replicating European cooperatives in India.
- Madras was ideal for this experimentation as it had similar institutions in its Nidhis.

European Cooperatives

- **Friedrich Raiffeisen**, who along with compatriot Schulze-Delitzsch in Germany, and Luzzatti of Italy, **pioneered cooperatives in Europe.**
- Raiffeisen based them on the principles of **self-help, self-governance, and self-responsibility.**
- Known for their trustworthiness and resilience against financial crises, most were known as **Raiffeisenbanks,** spreading to other parts of Europe and America.

India Cooperatives & challenges

- Colonial Rulers while moving the Cooperative Societies Bill on October 23, 1903, had said that the Bill sought to create 'small and simple credit societies for small and simple folk with simple needs and requiring small sums only'.
- It was emphasised that 'co-operation must be built up from the bottom, and not from the top'.
- However, what India had was not a movement, **but a policy.** It was 'created by 'resolutions of the Central Government' unlike Europe.
- **The challenge was to loosen government grip** on cooperation over the years. But, government control has only increased, violating a core cooperative principle of political neutrality. This reflects a collective failure of the political class.
- After Independence, cooperative institutions **became an instrument of planning** and state action.
- Not surprisingly, the most successful Indian cooperatives such as the AMUL, ndian Farmers Fertiliser Cooperative Limited (IFFCO) and Krishak Bharati Cooperative Limited (KRIBHCO), are outside government control.
- Globally, seven of the top 10 cooperatives by asset size are from the **financial sector.** The Indian financial sector is nowhere in the picture going by asset size.
- When a cooperative bank scales up, maintaining its cooperativeness is a challenge. Cooperatives have also become avenues for regulatory arbitrage, circumventing lending and **anti-money laundering regulations.**
- Cooperative banking **suffered from the top-down quality.** Recent initiatives such as an umbrella organisation for urban cooperatives and a new Ministry of Cooperation at the Centre threaten to further this approach in the absence of safeguards.

Measures to be adopted

1. Powers of Registrar of Cooperative Societies (RCS) need to be scaled back

- A British Indian innovation, it failed to stick to its original role of a facilitator: a friend, philosopher, and guide to cooperative societies.
- In almost all States, the RCS has become an instrument of inspection and domination, one which imposes uniform by-laws, and amends them when individual societies do not fall in line.
- The RCS was empowered to grant exemptions considering local conditions. But, the position continued even after the Montagu-Chelmsford Reforms placed cooperation under the provinces in 1919. The RCS continued to hold sway after Independence.

	• Some States even provide for across-the-board takeover of cooperative boards. • There is a need to **transfer work from the RCS to cooperative federations** — as in Singapore. **2. Get rid of Rural-Urban dichotomy** • The rural-urban dichotomy in the regulatory treatment of cooperatives is specious and outdated. • It perpetuates age-old divisions based on the nature of operations and population size. • Such differences are immaterial when regulation is to be based on the cooperative nature of organisations. **3. Streamline Regulation** • The regulation and the supervision of cooperative banks should move to a new body from the RBI for urban banks and the National Bank for Agriculture and Rural Development (NABARD) for rural banks. • The arguments for combining supervisory powers with the RBI do not hold good for cooperative institutions. • Moreover, **new regulatory body** will ensure a fresh look at the regulation of these institutions to which stringent regulations like that of the Basel Committee are not designed to apply. • As for NABARD, the burden of inspecting rural cooperatives (and regional rural banks) is a distraction from its core mandate, apart from being a drain on resources. • In India, adopting a multi-agency approach, especially after bank nationalisation, has affected the efficiency of both commercial and cooperative banks.
The need to reopen anganwadis	**In News:** Being closed since the April 2020-lockdown, anganwadis are slowly reopening. **What is the significance of anganwadis?** • As part of the Integrated Child Development Services (ICDS), anganwadis play a crucial role in supporting households, **particularly from low-income families**, by providing childcare, health and nutrition, education, supplementary nutrition, immunisation, health check-up and referral services. • The largest in the world, ICDS covers about **88 million children aged 0-6 years** in India. • Their closure significantly impacted service delivery and weakened an important **social safety net.** • Even as anganwadis resumed services, the closure has impacted their ability to serve as childcare centres. **What are the challenges faced by Anganwadis?** • Despite being the primary information-source on nutrition, anganwadi workers can **lack key knowledge.** • Surveys conducted in 2018-19 found that among mothers listed with anganwadi workers, **knowledge about key health behaviour** such as complementary feeding and handwashing was low, at 54% and 49%. • Anganwadi workers often do not have the support or **training to provide early childhood care and education (ECCE)** • Administrative responsibilities take up significant time, and core services like pre-**school education are deprioritised.** o A typical worker spends an estimated 10% of their time — 28 minutes per day — on pre-school education, compared to the recommended daily 120 minutes. • Anganwadis often **lack adequate infrastructure.** NITI Aayog found that only 59% of anganwadis had adequate seating for children and workers, and more than half were unhygienic. • These issues worsen in an urban context, with the utilisation of early childcare services at anganwadis at only 28%, compared to 42% for rural areas, according to NFHS-4 data. **Way Ahead**

	• As anganwadis reopen, we must prioritise interventions with a demonstrated history of success, and evaluate new ones. • Studies in Odisha and Andhra Pradesh (and globally) have found that **home visits, where volunteers work with children and caregivers**, significantly improved cognition, language, motor development and nutritional intake while also reducing stunting. • Many States will have to improve career incentives and **remuneration for anganwadi workers.** One way to ensure they have more time is to hire additional workers at anganwadis. • Policymakers have tried linking anganwadis and primary schools to **strengthen convergence,** as well as expanding the duration of daycare at anganwadis. • **Reaching out to women during pregnancy** can increase the likelihood that their children use ICDS services **Conclusion** • As the world's largest provider of early childhood services, anganwadis perform a crucial role in contributing to life outcomes of children across India. To improve these outcomes, we need to invest more significantly in anganwadis, and roll out proven innovative interventions.
AFSPA and the Northeast	**Context**: The Nagaland Cabinet recently recommended that the Armed Forces Special Powers Act (AFSPA), 1958 be repealed from the state after the incident in the Mon district of the state in which **security forces gunned down 13 civilians**. ● This has been a long-standing demand in the North eastern states. After the firing, Nagaland CM and Meghalaya CM have both called for **repeal of AFSPA** **What is AFSPA?** ● **Colonial Legacy continued**: The Act in its original form was promulgated by the British in response to the Quit India movement in 1942. After Independence, government decided to retain the Act, which was first brought in as an ordnance and then notified as an Act in 1958. ● **Power of imposition**: AFSPA can be imposed by the Centre or the Governor of a state, on the state or parts of it, after it is declared "disturbed'' under Section 3. The Act defines these as areas that are "disturbed or dangerous condition that the use of armed forces in aid of the civil power is necessary''. ● **Special Power to Armed Forces:** The Act, which has been called draconian, gives sweeping powers to the armed forces. It allows them to open fire', even causing death, against any person in contravention to the law or carrying arms and ammunition. It gives them powers to arrest individuals without warrants, on the basis of "reasonable suspicion", and also search premises without warrants. ● **Immunity to Armed Personnel:** The Act further provides blanket impunity to security personnel involved in such operations: There can be no prosecution or legal proceedings against them without the prior approval of the Centre. ● **Areas of Operation:** AFSPA has been imposed on the Northeast states, Jammu & Kashmir, and Punjab during the militancy years. Punjab was the first state from where it was repealed, followed by Tripura and Meghalaya. It remains in force in Mizoram, Nagaland, Manipur, Assam, J&K, and parts of Arunachal Pradesh. **Are there safety nets?** ● **Prior Warning:** While the Act gives powers to security forces to open fire, this cannot be done without prior warning given to the suspect. ○ In the recent firing in Nagaland, it has been an issue of discussion whether the security forces gave prior warning before opening fire at the vehicle carrying coal miners, and then later at a violent mob.

- **Handing over to Local Police:** The Act further says that after any suspects apprehended by security forces should be handed over to the local police station within 24 hours.
- **Coordination with District administration:** It says armed forces must act in cooperation with the district administration and not as an independent body. In the recent Nagaland operation, local law-enforcement agencies have said they were unaware of the operation.

What are the criticisms of AFSPA?

- **Social Fallout:** Nagaland and Mizoram faced the brunt of AFSPA in the 1950s, including air raids and bombings by the Indian military. Allegations have been made against security forces of mass killings and rape.
    - The Malom massacre in 2000, and the killing and alleged rape of Thangjam Manorama led to the subsequent repeal of AFSPA from the Imphal municipal area.
    - In 2012, the Extrajudicial Execution Victim Families Association of Manipur filed a case in the Supreme Court alleging 1,528 fake encounters between 1979 and 2012.
- **Culture of Impunity:** Activists note that AFSPA creates an atmosphere of impunity among even state agencies such as the Manipur Police and their Manipur Commandos, believed to be responsible for most encounters in the state, some of them jointly with Assam Rifles.
- **Proliferation of militant groups despite act:** Manipur had two groups when the State was brought under the Act. Today, Manipur has more than twenty such groups, Assam has not less than fifteen, Meghalaya has five of them and other States have more groups.
- **Misuse of Act:** Human rights activists have said the Act has often been used to settle private scores, such as property disputes, with false tip-offs provided by local informants to security forces.
- **Federal Issues:** The Centre had also imposed AFSPA in Tripura in 1972 despite opposition from the then state government. The Centre can take a decision to repeal AFSPA after getting a recommendation from the state government. However, Nagaland, which has freshly recommended a repeal, had raised the demand earlier too, without success.
- **Creates Hurdles in Peace Process:** Mr R. N. Ravi, former head of the Intelligence Bureau for the North East is on record that AFSPA is the biggest obstacle to peace in the region. Former Home Secretary Mr G. K. Pillai has come out openly against the Act. These statements come from persons who have worked in the system and know the dynamics of the Act and of running the Government.

What attempts have been made to repeal AFSPA in the past?

- In 2000, Manipur activist Irom Sharmila began a hunger-strike, which would continue for 16 years, against AFSPA.
- In 2004, the UPA government set up a five-member committee under a former Supreme Court Judge. **The Justice Jeevan Reddy Commission** submitted its report in 2005, saying AFSPA had become a symbol of oppression and recommending its repeal.
- The Second Administrative Reforms Commission, headed by Veeerapa Moily, endorsed Jeevan Reddy Commission recommendations.
- Former Home Secretary G K Pillai too supported the repeal of AFSPA, and former Home Minister P Chidambaram once said the Act, if not repealed, should at least be amended. But **opposition from the Defence Ministry stalled** any possible decision.

	Conclusion The problems in the North East and in Kashmir should be solved through a political process and not through a law that violates people's right to life and dignity with impunity. **Connecting the dots** ● Asymmetrical Federalism ● Naga Peace Process
Citizenship Debate in the Constituent Assembly	**Context**: With the contentious farm laws repealed, the discussions turn to the second most politically and legally resisted legislation of recent times, The Citizenship (Amendment) Act, 2019. **Citizenship in Constituent Assembly** • The citizenship question had been one of the most gruelling tasks confronted by the drafting committee as admitted by Dr B.R.Ambedkar who said that multiple drafts were prepared and destroyed before arriving at a consensus, which may satisfy most people, if not all. • The secular and liberal provisions of the proposed draft and the official amendments were fiercely contested on the floor of the Constituent Assembly on religious, ethnic and hyper-nationalistic considerations. • Article 5 of the Constitution of India was criticised for **its lack of exclusive and preferential provisions on religious lines** regarding the declaration as to who shall be the citizen of India (as on the date of commencement of the Constitution). ○ **Dr P.S.Deshmukh** from the Central Provinces and Berar proposed changes to Article 5 of the draft by proposing to replace the universally honoured **"jus soli" principle** by qualifying it with a religious appendage that "every person who is a Hindu or a Sikh by religion and is not a citizen of any other State, wherever he resides shall be entitled to be a citizen of India." • **Article 5A of the draft** (Article 7 of the Constitution of India), was removed on the ground that its proviso sought to grant citizenship rights to the **migrants of Pakistan who had returned to India** under a permit for resettlement granted by Indian authorities. **The defenders** • **R.K.Sidhva from C.P. and Berar** retorted that mentioning the name of some communities will make other communities feel that they were being ignored. • **Jawaharalal Nehru** supported the draft definition of citizenship on Universal (non-religious) basis and secularism in unequivocal terms. • Nehru did not mince words when he stated that "you cannot have rules for Hindus, for Muslims and for Christians only. It is absurd on the face of it". • With regard to Article 5A drafted, Nehru also impressed upon the possibility of the second wave of migration including non-Hindus and non-Sikhs who were part of the first wave influx. Hence, in his view, foreclosing the doors fearing the influx of some may deprive others of exercising their choice. • **Brajeshwar Prasad,** a member from Bihar, went further in stating that "I see no reason why a Muslim who is a citizen of this country should be deprived of his citizenship at the commencement of this Constitution, especially when we are inviting Hindus who have come to India from Pakistan to become citizens of this country. why cannot a Muhammadan of the frontier be so when we have always said that we are one?" • **Mahboob Ali Baig** went one step ahead by calling the proposition of Dr.Deshmukh as " ridiculous" as it contemplated giving citizenship rights only to persons who are Hindus and Sikhs. • **Alladi Krishnaswamy Ayyar** said "we cannot on any racial or religious or other grounds make a distinction between one kind of persons and another, or one sect of persons and another sect of persons having regard to our commitments and the formulation of our policy on various occasions."

	Challenge now • The assertion of Dr.Deshmukh that "by the mere fact that he is a Hindu or a Sikh, he should get Indian citizenship" finds its resonance today in the 2019 Citizenship Amendment Act that only people belonging to some faiths are victims of persecution and violence and the doors of the country can be legitimately shut to any other instance of persecution and ethnic violence. **The final outcome of Citizenship debate** • The amendment No. 164 proposed by Dr. Deshmukh modifying Article 5 to make citizenship as a matter of right to Hindus and Sikhs irrespective of the place of residence **was rejected.** • The Constituent Assembly debates on citizenship showed that utilising the sentiments of ethnicity and distrust, sagacity & maturity had an upper hand, leading to toleration & establishment of Secular state. **Connecting the dots** • Protests against Citizenship Amendment (during bill stage) • Consequences of CAA, 2019
Defining EWS	**In News:** The Ministry of Social Justice and Empowerment has recently appointed a three-member committee to revisit the criteria for 10% reservation for economically weaker sections (EWS) in educational institutions and government jobs. The committee will comprise Former Finance Secretary Ajay Bhushan Pandey, Member Secretary ICSSR Prof VK Malhotra and Principal Economic Advisor to the Indian government Sanjeev Sanyal. **Background** This came after Supreme Court's observations while hearing petitions challenging the government notice issued in July which provides for 10% EWS quota in NEET admissions. *According to a memorandum issued by the union government on EWS quota –* • Only those persons who are not covered under the scheme of reservation for SCs, STs and OBCs and whose family has gross annual income below 8.00 lakh rupees are to be identified as EWSs for benefit of reservation. This Income shall also include income from all sources i.e. salary, agriculture, business, profession, etc. • Persons whose families own landholdings of a certain size such as at least five acres of agricultural land, or a residential flat of at least 1,000 sq. feet are excluded from the purview of this reservation. **The Committee** • The committee will examine various approaches followed in the country so far for identifying the economically weaker sections. It will also send its recommendations to the Centre in the next three weeks. • The office memorandum issued by the ministry, signed by joint secretary RP Meena, states that the committee is being set up "in accordance with the commitment" given to the Supreme Court to "revisit the criteria for determining the economically weaker sections in terms of the provisions of the explanation to **Article 15 of the Constitution**". • Last week, the government had submitted to the Supreme Court that it would revisit the Rs 8 lakh annual income criteria for EWS to be eligible for reservation benefits. **Do You Know?** • It was 103rd Constitutional Amendment Act that introduced provide 10 per cent reservation in government jobs and education (except in minority educational institutions) to economically backward section in the general category • The act inserted Articles 15(6) and 16(6) of the Constitution that provided for these reservations. • Article 46 of the Constitution (DPSP) enjoins that the State shall promote with special care the educational and economic interests of the weaker sections of the people.

John Rawl's Two Principles of Justice	**Context**: John Rawls was a highly influential American liberal political philosopher of the last century. ● The Two Principles of Justice in his 1971 classic, A Theory of Justice,forms the singular-most operative facet of Rawls' doctrine of justice, which he termed justice as fairness. ● This theory of Justice has radically redefined the philosophical debates on achieving greater economic redistribution. ● The other concepts elaborated in the book – those of the basic structure of a well-ordered society, the original position, the veil of ignorance and primary goods – are building blocks of the overall edifice of justice **What is John Rawl's Two Principles of Justice?** ● **Equality Principle:** The first of Rawls' two principles says that every citizen has the same claim to a scheme of equal basic liberties, which must also be compatible with those of every other citizen. ○ Rawls enumerates an extensive list of basic civil and political rights, including a person's freedom of conscience, expression and association; the right to a basic income; and the right to exercise the franchise ● **Difference Principle**: The second of Rawls' two principles grapples with the underlying inequalities of social and economic institutions. Rawls posits that in order to be morally defensible, these institutions must satisfy two conditions. ○ First, they must guarantee fair equality of opportunities for competition to positions of public office and employment. ○ Second, social and economic inequalities must be arranged in a manner that they work to the greatest benefit of the least advantaged members of society. **What is the significance of Two Principles of Justice?** ● The political significance of Rawls' two principles of justice comes from the primacy he assigns to their different components. ● Between them, the first principle is accorded absolute priority over the second. That is to say, the primacy of the **equal basic liberties of citizens is non-negotiable in a democratic society.** ● The entitlement of each to the various liberties is as critical as they are universal and non-discriminatory. ● Within the second principle, the first part takes precedence over the second. In other words, public institutions could not appear legitimate in the eyes of citizens unless everybody could reasonably expect to enjoy the fruits of fair equality of opportunities. ● Rawls reasoned that the two principles of justice would be fair because these are precisely those that would be chosen impartially by rational, free and equal citizens, had they no knowledge of their own individual or social circumstances in life. **Conclusion** Rawl's Theory of Justice has greater support & acceptance than a conception of justice that prioritised the maximisation of overall well-being or happiness, but overlooked differences in how benefits are distributed and burdens imposed on particular individuals.
Sex Ratio	**In News:** The latest National Family and Health Survey (NFHS-5), facts sheets of which were released recently, has indicated positive growth in the sex ratio of India. The National Family Health Surveys (NFHS) is brought out by the International Institute for Population Sciences (IIPS), and provide some of the most critical information on demographic, health, nutrition and socio-economic status of people in the country. **The Numbers** *The numbers indicate that India can no longer be called a country of "missing women", a phrase first used by Nobel Prize winning economist Amartya Sen in a 1990 essay in the New York Review of Books.*

As seen from the NHFS-5 data, for the first time since Independence, the number of women in India have surpassed the number of men, which is unprecedented.

- India now has 1,020 women for every 1000 men.
- During NFHS-3, conducted in 2005-06, the **sex ratio** was 1000:1000 and in NFHS-4 done in 2015-16 it declined to 991:1000.
- The NFHS-5 figures have also shown that the **sex ratio at birth** improved from 919 in 2015-16 to 929 in 2019-20.
- 78.6 percent of women have their **own bank account** compared to 53 percent five years ago.
- The percentage of women who said they had **a say in making decisions relating to healthcare and major purchases** for the family increased from 73.8 percent in 2015-16 to 92 percent in 2020-21.
- **Contraceptives:** Use of contraceptives improved from 53.5% to 66.7%
- **Sterilisation:** An increase in female sterilisation. Continued stagnation in male sterilisation uptake. It shows that the onus of family planning still lies with women.
- NFHS-5 reveals that **institutional births** have increased substantially from 79 percent to 89 percent nationwide. Institutional births mean that pregnant women and newborns get proper medical attention and this is visible in improving maternal and child health in the country. In addition, more women are opting for C-section deliveries.
- NFHS-5 shows that the percentage of married women in the 18-49-year age group that have suffered spousal violence has more than doubled from 20.6 percent in 2014-15 to 44.5 percent per NFHS-5. Distressingly, 30 percent of women surveyed said their husband was justified in beating them.

India's low SRB can be attributed to the deep prejudice that girls face. Unlike girls, who are seen as an economic burden on parents because of the practice of dowry, sons are preferred. Families celebrate the birth of a boy, a girl child's arrival is reason for mourning. If in earlier decades, people chose to kill new-born girls, the availability of technology to identify the sex of the fetus has resulted in women committing sex selective abortions to prevent a girl from being born. Pre-natal sex screening is banned in the country. Yet female feticide continues as reflected in India's low SRB.

Criticism for the Report

Demography experts are saying it is not the time to rejoice yet as the figures do not give an accurate picture of India's sex ratio. The overestimation of sex ratio (number of women per 1,000 men) in NFHS-5 was due to two major reasons.

- First, the sex ratio mentioned in the factsheet was based on de facto enumeration, meaning the number of males and females who were present in the household on the last night of the survey.
- The second reason was a significant improvement in the sex ratio in India during the last 30 years.

There are now 1,037 women per 1,000 men in India's rural areas according to NFHS-5, which is a new record. But according to experts, the possibility of migrant rural men and women being away from their homes on the last night of the de facto enumeration cannot be ruled out.

The Way Forward

While the statistics quoted above are a watershed moment in India's socio-economic and demographic transformation story, other findings of NFHS also convey a similar message. Socio-economic challenges facing India, going forward, will need to be dealt with more nuance and

some of the stereotypes and political beliefs (such as the political obsession with population control laws) which dominate the public discourse will need to be shelved.

- The fact that we are now an aging population suggests that our approach to women's health needs a more holistic life cycle view rather than one that prioritises reproductive health only
- More women have completed ten years of schooling in 2019-20 than previously, coincides with a drop in female labour force participation points to significant structural challenges in India's labour market. These need to be urgently addressed if India is to make progress
- The findings on fertility decline are good news for maternal and child health and nutrition outcomes. However, the high fertility-high undernutrition states of Uttar Pradesh, Bihar, and Jharkhand still need to see more progress on fertility reductions – improvements in those high burden states are essential to move the all-India average for all outcomes

NOTE:

What is National Health Family Survey (NHFS)?

- NFHS is a large-scale nationwide survey of representative households. The data is collected over multiple rounds.
- **Implementation Agencies**: The MoHFW has designated International Institute for Population Sciences in Mumbai as the nodal agency and the survey is a collaborative effort of IIPS; ORC Macro, Maryland (US); and the East-West Center, Hawaii (US).
- **Funding**: The survey is funded by the United States Agency for International Development (USAID) with supplementary support from UNICEF.
- **Previous Surveys**: The first four NHFS were conducted in 1992-93, 1998-99, 2005-06 and 2015-16, respectively.

What data does it collect?

- The initial factsheet for NFHS-5 provides state-wise data on 131 parameters.
- These parameters include questions such as how many households get drinking water, electricity and improved sanitation; what is sex ratio at birth, what are infant and child mortality metrics, what is the status of maternal and child health, how many have high blood sugar or high blood pressure etc.
- Each round of NFHS has also expanded the scope of inquiry.
- In the fifth iteration, for instance, there are new questions on preschool education, disability, access to a toilet facility, death registration, bathing practices during menstruation, and methods and reasons for abortion.

Why are NFHS results important?

- **Evidence Based Policy making**: The NFHS database is possibly the most important one because it not only feeds into the research needs and informs advocacy but also is central to both central and state-level policymaking.
- **International Comparison:** NFHS survey results also provide internationally comparable results. That's because the questions and the methodology is internationally valid. Thus, it places the results of say child malnutrition trends in Bihar in the global context.

Can you answer the following question?

1. NFHS-5 survey results show that population growth has stabilized but misogyny remains strong. Discuss.

Legal Age of Marriage	**Context**: The Union Cabinet has raised the legal age of marriage for girls to 21 on the recommendations of the four-member task force led by former Samata Party chief Jaya Jaitly. **What is the minimum age of marriage?** ● **Personal laws that govern marriage** and other personal practices for communities prescribe certain criteria for marriage, including age of the bride and groom. ● For example, Section 5(iii) of The Hindu Marriage Act, 1955, sets a minimum age of 18 for the bride and 21 for the groom. This is the same for Christians under the Indian Christian Marriage Act, 1872 and the Special Marriage Act. ● For Muslims, the criteria is attaining puberty, which is assumed when the bride or groom turns 15. **Why is there a minimum age?** ● Essentially to **outlaw child marriage.** ● This is done through special legislation such as the Prohibition of Child Marriage Act, 2006 and the Protection of Children from Sexual Offences Act, 2012. ● Under the Child Marriage Prevention Act, any marriage below the prescribed age is illegal and the perpetrators of a forced child marriage can be punished. **What happens to such marriages once detected?** ● Child marriages are **illegal but not void**. ● It is voidable at the option of the minor party. This means the marriage can be declared void by a court only if the minor party petitions the court. ● This flexibility is kept to ensure that the rights of the minor, especially the girl, is not taken away in marital homes later on. ● However, if a court finds a minor was coerced into marriage by parents or guardians, the provisions of the **Juvenile Justice (Care and Protection of Children) Act** come into effect to keep the custody of the minor until he or she attains majority and can make a decision on the marriage. **What was the rationale behind increasing legal age?** ● The task force was set up by the WCD Ministry to re-examine age of marriage and its correlation to health and social indices such as infant mortality, maternal mortality, and nutrition levels among mothers and children. ● Committee has said the recommendation is **not based on the rationale of population control** (India's total fertility rate is already declining) but more with women's empowerment and **gender parity.** ● The committee has said access to education and livelihood must be enhanced simultaneously for the law to be effective. **What laws will have to be changed to raise the minimum age of marriage?** ● First, the age limit in the Prohibition of Child Marriage Act will have to be changed. ● The government had indicated this will be followed by necessary changes in personal law. The Hindu Marriage Act, the Indian Christian Marriage Act and the Special Marriage Act will also have to be change consequently. ● However, changes in the Muslim law could raise significant legal issues. **The opposition** Experts have been opposing a raised age of marriage on two broad counts. ● First, the law to prevent child marriages does not work. While child marriage has declined, it has been marginal: from 27% in 2015-16 to 23% in 2019-20, according to National Family Health Survey (NFHS) 5. The decrease was, however, dramatic in NFHS 4, from 47% in NFHS 3. ● The marriage age at 18 was set in 1978, but child marriage started to decline only in the 1990s, when the government stressed **primary education of the girl child and took measures to reduce poverty.** ○ Often the girl child drops out after primary school simply because she has no access to higher education, and is then married off.

	○ According to the State of the World Report 2020 by UNFPA, in India, 51% of young women with no education and 47% of those with only a primary education had married by age 18, compared to 29% of young women with a secondary education and 4% with post-secondary education. ● The second objection being raised is the **criminalisation of a large number of marriages** that will take place once the law comes into effect. While 23% of marriages involve brides under age 18, far more marriages take place under age 21. ○ The median age at first marriage for women aged 20-49 increased to 19 years in 2015-16 from 17.2 years in 2005-06, but remained under 21 years. **What are these legal issues?** ● The Prohibition of Child Marriage Act does not contain any provision that explicitly says the law would override any other laws on the issue. And there is an obvious discrepancy in the letter of the law between the Prohibition of Child Marriage Act and Muslim law on the minimum age of marriage. ● For example, although the marriage of a 16-year-old girl deemed to have attained puberty is not considered invalid in Muslim law, it would be a child marriage under the Prohibition of Child Marriage Act. ● Additionally, the Supreme Court, in a landmark 2017 verdict, has held that in case of a minor wife, the law recognises **marital rape.** Husbands of minor women, as opposed to husbands of adult women, cannot enjoy the blanket immunity that the Indian Penal Code provides in Exception 2 to Section 375 against charges of marital rape. **Can Muslim law be amended too?** ● Muslim law is a mere **codification of Shariah law.** ● In **Shayara Bano v Union of India**, the case in which the Supreme Court declared the practice of instant triple talaq as unconstitutional, one of the key questions was whether the Supreme Court could quash a religious or divine law. ● The court said all personal laws will have to fall under the constitutional framework and will be **subject to public order, morality and health.** ● Experts suggest the minimum age of marriage can be justified under public health**.** However, there are several differing verdicts from high courts on this issue. ○ In February this year, the Punjab and Haryana High Court granted protection to a Muslim couple (a 17-year-old girl married to a 36-year-old man), holding that theirs was a legal marriage under personal law. The HC examined provisions of the Prohibition of Child Marriage Act but held that since the special law does not override personal laws, Muslim law will prevail. ○ In other cases, the Karnataka and Gujarat High Courts have held that the 2006 special law would override personal laws and have sent the minor girl to a care facility. **Which sections of society will be most affected due to rise of legal marriage age?** ● Experts noted that 70% of early marriages take place in **deprived communities such as SCs and STs,** and said the law will simply push these marriages underground instead of preventing them. ● According to NFHS 4 (2015-16), the median age at first marriage for women aged 25-49 is higher among the social categories of Others (19.5 years), OBC (18.5), ST (18.4) and SC (18.1). ● The experts said **rural women will be affected more than urban women**. According to NFHS 4, the median age at first marriage (age 25-49) for urban women (19.8) is 1.7 years more than that for rural women (18.1).
Reimagining Self-Help Groups (SHGs)	**Context**: SHGs were created for providing financial access and gradually metamorphosed into the world's largest microfinance program, where multiple agencies, NGOs, governments, banks work in unison. ● The first SHG was linked by Bangarpet Branch of Vysya Bank in Kolar district, Karnataka.

	• RBI made this unconventional idea of linking informal women groups to formal banks, possible. **The salient features of a good SHG are** • Homogeneity • Regular meetings • Savings • Book-keeping • Accessing bank credit (usually 4-times their savings) • Inter-lending and on-time repayment. **Progress of SHGs** • SHGs moved a long way, from the policy intention in 1992, to link 500 SHGs to banks. Now, there are about 1.2 crore SHGs. • Their savings deposit is about, ₹37,500 crore and outstanding credit ₹1,03,000 crore. • But, average loan outstanding per SHG at about ₹1.80 lakh (₹15,000-per member-considering 12 women per SHG) and percentage of non-credit linked SHGs at about 50 per cent has almost remained same. • Considerable investments in community mobilisation through SHGs and capacity building resulted in **social capital**, manifested as **women empowerment** and **credit-discipline**. **Linkage between Microfinance Institutions (MFIs) and SHGs** • MFIs began operations in early 2000s, initially in southern India. MFIs include, NBFC-MFIs, NBFCs, SFBs, banks and others which provide micro loans. About 200 such entities exist. • They currently have about 10 crore loan accounts with loan outstanding of about ₹2,47,000 crore. Per member loan is about ₹40,000 • SHGs cater to the poorest and mostly rural clients and MFIs usually peri-urban. • SHGs lend to members taking loans from banks. MFIs provide loans to clients through **Joint Liability Groups (JLG)**, comprising of about five members. They are jointly and severally responsible for loan repayment. • Clients of SHGs and MFIs are **predominantly women.** • The process of Joint Liability Group formation and loaning is not as intensive, when compared to SHGs. • MFIs operate in the social sector but are profit oriented whereas SHGs share profits from group lending amongst members. • The NPA level, in both these programmes, is almost the same at 4-5 per cent. • Interestingly about 70 per cent of the current loan portfolios of MFIs is in south and eastern region where SHG movement is strong because of State patronage. The outstanding loans to SHGs is about 50 per cent in this region. • MFIs are cost effective vehicle for providing loans as compared to commercial banks which have an advantage in providing bulk loans **Way Forward** • Many rural **bank branches can also provide micro loans** when/if they strategise to increase business by providing loans to their existing eligible clients. • Further, if banks use the **credit-card model** of fixing loan limits, contours of micro credit will be changed for good. • If, NGOs and Corporate Banking Correspondents, transform themselves into an intermediary; hand holding SHGs, providing financial literacy, guiding them with micro-enterprises, ensuring end use of credit, marketing assistance and repayment, livelihoods will improve. • If first loss default guarantees to banks can also be provided it would be wonderful.
India's digital health mission	**Context:** The 2017 National Health Policy's mandate was to bring India closer to achieving universal health coverage.

- This policy envisioned healthcare access of the highest level to all age groups, and the use of a preventive approach for treating diseases. In its implementation, the Ministry of Health and Family Welfare (MoHFW) acknowledged that to achieve these aims, India needs to digitise healthcare.
- Commonly referred to as the **Ayushman Bharat Digital Health Mission (ABDM**), its establishment was recommended by India's National Digital Health Blueprint under a committee set up by the MoHFW.

The growing need to introduce electronic health records

- In the current form, ABDM lays little emphasis on the use of this health data by the public health research community.
- Electronic health records are most useful to public health research. In the absence of electronic health records, data for public health research studies is usually collected by public health agencies or research institutes as part of an ongoing or new study.
- This requires time to plan the study, recruit participants, and train field staff before the actual data collection.
- To facilitate longitudinal analysis, such data collection also needs to be carried out at pre-decided future intervals that could be months or years apart.
- The limitations to this include **high cost and lengthy durations of time**. Having access to pre-collected data will address both these limitations. Most importantly, data from the health ID is likely to be more complete as compared to most hospital records in India, which comprise of paper prescriptions or manual register entries.
- The **COVID-19 pandemic** has made it clear that to obtain evidence-based findings real-world data needs to be available. While there is no doubt that with prior health records, a doctor or physician can flag the severity of COVID-19 for someone who has a history of diabetes or blood pressure, the reverse of this is also true.
- Using medical history and disease end-point data, **unknown risk factors of the disease can also be identified.** This would require that electronic health records be made available and supplemented with additional information of the patient such as lifestyle.
- For western countries, electronic health records are maintained at the hospital level, and they commonly store responses to basic lifestyle questions as part of the patient's health record.

Unique Health ID

One of ABDM's objectives is to develop a repository of verified hospitals, clinics, doctors, physicians, nurses, and pharmacies. As claimed by the ABDM, this will help filter out all the unscrupulous medical entities to avoid fraud. The ABDM relies on the premise of **creating a unique health ID (identifier)** for Indians.

The idea is to allow an individual **to integrate all their health records** onto one platform. Subject to the consent of the participating individual/patient, their health data will be made available for use by the treating doctor or physician, and more parties such as health insurance companies.

This health ID is different from the Aadhaar ID; multiple health IDs can be generated for the same individual.

- ABDM claims that this will allow individuals to keep **certain medical records private** such as those relating to sexual history.
- Armed with a retrospective medical history of the patient, a physician can make better diagnoses. This will improve quality of treatment and overall healthcare, and bring down financial costs for the patient.
- Subject to the consent of the participating individual/patient, their health data will be made available for use by the treating doctor or physician, and more parties such as health insurance companies.

Technological Infrastructure

The involved digital infrastructure for storage and accessing this data will be built on the **National Health Stack.**

- The stack is a collection of pre-written code (or commonly referred to as APIs) specific to interface with the ABDM system.
- This will be one platform where those interested (and approved) file for insurance claims, can perform analytics in addition to storing individual health data and hosting the repository of various medical agencies.
- This health stack will also integrate with payment gateways.

Currently, **around 14 crore users have enrolled for a health ID** with the ABDM and the programme has been piloted for a year in six union territories in India.

What are the challenges?

Although ABDM is visionary and can be the much-needed digital intervention to improve healthcare access in India, its implementation and overall objectives need more thought. There are some issues that can be foreseen. These include patient-physician trust, technological challenges, and data protection.

- **Public Trust: I**n instances where remote or specialised consultation is being sought, a new physician or a doctor will need to gain the patient's trust for obtaining consent of the patient to share their electronic health records.
- **Internet Connectivity Problems:** The public sector IT systems lack faster internet speed, robust websites, and lags in providing a seamless user experience. For a country where rates of computer illiteracy are high, interfaces need to be kept simple and should be more user friendly.
- **Training Personnel in Rural Areas**: There is the issue of citizens living in rural areas accessing such a facility digitally. These citizens would need to rely on their treating doctor or physician, who is local to them, to register them for the health ID.
    - This treating doctor or physician would also need to be trained in dealing with patients' personal details and, most importantly, the fact that enrollment into the ABDM Health ID is voluntary, and not mandatory.
    - Explanation on how the system works and the involved intricacies would also need to be communicated to allow citizens, especially in rural areas, to make an informed decision.
- **Data protection:** In the absence of data protection laws, both storage of one's health data and its use will need to be governed by well laid down rules, even if there is consent by the individual/patient.
    - Currently, there is a Data Empowerment and Protection Architecture (DEPA) drafted by the NITI Aayog in 2020 to govern access of such data by public and private agencies.
    - For ABDM, the DEPA entails that if the individual/patient provides consent then their data can be shared to the agency requesting access.
    - Granting of 'consent' to a doctor or any other involved agency such as insurance companies should not mean that the data can be used for any other purpose than what the consent was granted for or be stored by them locally.
- **Informed Consent:** ABDM claims that the individual is at liberty to deny consent in sharing their data; however, this may lead to some penalisation of the individuals who do not provide consent. For example, an insurance company may incentivise those who consent to share their electronic health data and make processes more rigid for those who do not.
    - Additionally, in some cases, consent may be sought from the organisation and not the individual. This would bypass individual consent for each request and needs another set of data governing rules, which are well-advertised and explained to the individual providing consent.

Can you answer the following question?

1. Digitalisation of healthcare in India is a game changer but it must be done with caution and awareness of the challenges associated with it. Discuss.

Impartiality of the Election Commission	**Context**: Chief Election Commissioner (CEC) Sushil Chandra met with Principal Secretary to the Prime Minister, P. K. Mishra, on November 16, where he was "expected to be present." ● An official communication from the **Law Ministry**, which is the **administrative ministry of the Commission**, said the meeting had been called to discuss electoral reforms. ● Also, the Ministry claimed that the session with the CEC and Election Commissioners Rajiv Kumar and Anup Chandra Pandey was an **"informal interaction".** **Why does this raise issues about the functioning of the Commission?** ● The "directive" from the PMO has raised concerns about the **independent functioning of the Commission**, whose autonomy successive CECs have sought to protect zealously. ● The "**informal interaction**" of the CEC and two other Election Commissioners with the Prime Minister's Principal Secretary has raised questions about the **neutrality of the Commission,** especially when **elections to crucial States are around the corner.** ● The Election Commission is a constitutional authority whose responsibilities and powers are prescribed in the Constitution of India under **Article 324.** In the performance of its functions, the Election Commission is insulated from executive interference. ● It is the Election Commission of India which **decides the election schedules** for the conduct of elections, whether general elections or by-elections. ● Again, it is the Commission which decides on the location of polling stations, assignment of voters to the polling stations, location of counting centres, arrangements to be made in and around polling stations and counting centres and all allied matters. ● The decisions of the Commission can be challenged in the High Court and the Supreme Court of India by appropriate petitions. ● By **long-standing convention** and several judicial pronouncements, once the actual process of elections has started, the judiciary does not intervene in the actual conduct of the polls. **What was wrong in the letter from the Law Ministry to the EC?** ● The three ECs are expected to **maintain distance from the executive** — a constitutional safeguard to insulate the commission from external pressure and allow it to continue as an independent authority. ● The EC's communication with the Government on election matters is through the bureaucracy — either with its administrative ministry — the Law Ministry or the Home Ministry for the deployment of security forces during elections. ● In such cases, the **Home Secretary is often invited in front of a full commission** where the three commissioners are also present. The Law Ministry spells the fine print on law for the country and is expected not to breach the constitutional safeguard provided to the commission to ensure its autonomy. ● From former CEC M.S. Gill who had written to the then PM Vajpayee proposing electoral reforms to former CEC S.Y. Quraishi's letter to former PM Manmohan Singh on the delay in payment for EVMs by the Law Ministry, election commissioners, have from time to time written to prime ministers in the past. ● However, in this case, after receiving the letter from the Law Ministry, the **CEC conveyed his displeasure and stayed away from the meeting** in which his subordinate officials were present. ● However, the three commissioners did make themselves available for an interaction with Principal Secretary Mr. Mishra later. **By making themselves available , has the EC acted in good faith?** ● Over the last couple of years, several actions and omissions of the commission have come in for criticism. ● For example, during the 2019 Lok Sabha Elections, the EC under Chief Election Commissioner Sunil Arora gave a clean chit to PM Narendra Modi, who in an election rally in Latur, had referenced his campaign with an **appeal on behalf of the armed forces.**

	• The Election Commission of India took the view that Mr. Modi did not violate its rule book. In doing so, the Commission overruled the opinion of the district election officers by stating that Mr. Modi did not seek votes by invoking the Balakot air strikes. • In 2021, the Commission's **delayed decision in banning election campaigns** in the midst of a rampaging pandemic, raised eyebrows. Eventually, when they banned rallies and public meetings of over 500 people, the decision came a day after Mr. Modi cancelled his four scheduled rallies. • Nearly 66 former bureaucrats in a letter addressed to the President, expressed their concern over the working of the Election Commission which they felt was suffering from a **credibility crisis**, citing various violations of the model code of conduct during the 2019 Lok Sabha Elections. **Connecting the dots** • Electoral Reforms • Electoral Bond Scheme
Linking voter rolls to Aadhaar	**Context**: Rajya Sabha passed by voice vote The Election Laws (Amendment) Bill, 2021, enabling "the linking of electoral roll data with the Aadhaar ecosystem" as the Opposition walked out in protest. The Bill had been passed by Lok Sabha. • The Bill amends the Representation of the People Act, 1950 and the Representation of the People Act, 1951 to implement certain electoral reforms. • The 1950 Act provides that a person may apply to the electoral registration officer for inclusion of their name. • The amendment Bill says the electoral registration officer may require a person to furnish their Aadhaar number for establishing their identity. If their name is already in the electoral roll, then the Aadhaar number may be required for authentication of entries in the roll, but people will not be denied inclusion in the electoral roll or have their names deleted, if they are unable to show their Aadhaar cards. **What is the government's argument for bringing the Bill?** • The government says the Bill incorporates various electoral reforms that have been discussed for a long time. • The government says linking Aadhaar with electoral rolls will **solve the problem of multiple enrolments** of the same person at different places. This will consequently reduce **electoral malpractices.** • Once Aadhaar linkage is achieved, the electoral roll data system will instantly alert the existence of previous registration(s) whenever a person applies for new registration. • This will help in **cleaning the electoral roll** to a great extent and facilitate elector registration in the location at which they are 'ordinarily resident'. • Indeed, this can also allow for remote voting, a measure that could help migrant voters. • The four qualifying dates for **revision of rolls will help in faster** enrolment of those who turn 18. • The incidence of multiple entry could also be eliminated which is required in **participative democracy.** • In Parliament, Law Minister said linking Aadhaar with the voter ID card is voluntary. It is **not compulsory or mandatory.** • Government held "many meetings" with the Election Commission before the Bill was brought. **What are the Opposition's objections?** • **Violation of Right to Privacy**: There is criticism that the linking of voter IDs and Aadhaar violates the fundamental right to privacy as defined by the Supreme Court in the judgment. There is a view that the Bill could violate secrecy of the vote undermining the principle of secret ballots. • **May not solve problem of voting by non-Citizens:** Aadhaar is not proof of citizenship and it is said so very clearly in the Aadhaar Act. There are doubts on how this will prevent non-citizens (especially Nepalis & Bangladeshis) from voting because non-citizens can

	have an Aadhar card. The goal of preventing non-citizens from voting will not be solved with Aadhaar.
	• **Mirco-Targeting using leaked data**: The other concern is that there is a documented case that Aadhaar data was being leaked. It could lay the foundation of targeted political propaganda which is against the model code of conduct as well.
	  ○ In April 2019, the UIDAI complained to police about a Hyderabad-based software company, IT Grids (India) Private Limited, accusing it of illegally procuring details of 7,82,21,397 Aadhaar holders in Andhra Pradesh and Telangana, and storing these in its databases
	• **Voluntary Provision:** One of the concerns is whether the Bill's implementation will be successful if the linkage is not compulsory. The Bill says the election registration officer may require the submission of the Aadhaar number both for new enrolments and those already enrolled. The choice not to submit is linked to a "sufficient cause", which will be separately prescribed.
	• **Judicial Scrutiny:** The tests laid down by the Supreme Court — a permissible law, a legitimate state interest and proportionality has not been rigorously examined due to lack of deliberation in Parliament.
	  ○ If an individual's refusal to submit the detail is deemed unacceptable, it may result in loss of franchise. Therefore, the measure may fail the test of proportionality.
	• **Profiling Concerns:** There are allegations that the government would be able to use voter identity details for "profiling the citizens".
	Can individual votes be tracked that way?
	• While individual identification of voting choices may not be possible with the linkage of Aadhaar with voter IDs, it will lead to profiling.
	• Verification of a person's identity is separate from the capturing of the identity which is already happening in booths when a person goes to vote.
	• But it may help the government link it to other services where larger schemes may be designed based on the data
	Conclusion
	If the Government really has no ulterior motive in the form of triggering mass deletions from the electoral rolls, it must invite public opinion and allow deeper parliamentary scrutiny before implementing the new provisions that now have the approval of both Houses of Parliament.

The dispute over Belagavi	**Context**: The border town of Belagavi has been a part of Karnataka since boundaries were demarcated on linguistic lines under the States Reorganisation Act, 1956. But the inter-State border dispute between Karnataka and Maharashtra erupts every now and then. • In the most recent instance, trouble began after some Kannada activists blackened the face of a leader of **the Maharashtra Ekikaran Samiti (MES)** – a Marathi outfit formed to demand Belagavi's inclusion into Maharashtra -- during 'Maha Melava' rally. • The rally coincided with the first day of the Legislature session of Karnataka in Belagavi on December 13, 2021. • In turn, some Marathi outfits burnt the **Kannada flag** in Kolhapur in Maharashtra. This was widely condemned by Kannada organisations and state government Karnataka. • To settle scores, some Kannada activists poured ink on a statue of Chhatrapati Shivaji in Bengaluru. MES activists then vandalised a statue of Sangolli Rayanna, a 19th century icon of Karnataka who fought the British, at Belagavi**.** **What are the claims of both states?** • In 1957, unhappy with the demarcation of boundaries, Maharashtra demanded realignment of its border with Karnataka. • It invoked Section 21 (2) (b) of the Act, and submitted a petition to the Union Ministry of Home Affairs stating its objection to **Marathi-speaking areas included in Karnataka.** • **Maharashtra claimed 814 villages,** and three urban settlements of Belagavi, Karwar and Nippani, all **part of Mumbai Presidency** before independence.

- A petition by Maharashtra in the Supreme Court, staking a claim over Belagavi, is currently pending.
- Karnataka has consistently argued that inclusion of Belagavi as part of its territory is beyond dispute. It has cited the demarcation done on linguistic lines as per the Act and the later **Mahajan Commission Report** to substantiate its position.
- Karnataka has argued for inclusion of areas in Kolhapur, Sholapur and Sangli districts (falling under Maharashtra) as its territory.
- Karnataka started holding the winter session of the Legislature in Belagavi from 2006. It built a massive Secretariat building in the district headquarters, on the lines of the Vidhana Soudha in Bengaluru, to reassert its claim.
- In 1960, a four-member committee was formed by both States. The committee could not arrive at a consensus and respective representatives submitted reports to their government. In the subsequent decades, chief ministers of both States have met several times to find an amicable solution but to no avail.

What were the terms of the Mahajan Commission?

- In 1966, at Maharashtra's insistence, then Prime Minister Indira Gandhi established a one-man commission, the Mahajan Commission (Mehr Chand Mahajan, third Chief Justice of India) a few months before the 1967 general elections and its report was released after the elections.
- It recommended that 264 villages be transferred to Maharashtra and that **Belgaum and 247 villages remain with Karnataka.**
- Maharashtra rejected the report, while Karnataka welcomed it. Karnataka argued that either the Mahajan Commission Report should be accepted fully or status quo maintained.
- In the following decades, Belagavi has significantly **changed on demographic and economic fronts.**
    - The middle-class core areas and surroundings of the city are predominantly Kannada-speaking people.
    - But in and around Belagavi a good number of people speak both Marathi and Kannada. Intercommunity marriages between the two linguistic groups exist.

What has been the politics around the dispute?

- In the immediate decades of formation of States, no national party, particularly the Congress which has a social base in both States, was willing to take the risk and address the dispute. This helped MES sustain its fight with a single agenda to seek Belagavi's inclusion in Maharashtra.
- MES-supported candidates, who have been winning one or more seats in the district since the 1957 Karnataka Assembly elections, were defeated in the 2018 Assembly elections.
- As another election draws close in 2023, **MES is keen to revive its political fortunes.**
- One factor for renewal of the conflict came from then Chief Minister in 1986 when he made the **Kannada language test mandatory for anyone** joining the State Government service.
- The stoppage of the concession given to linguistic minorities strained relations between two linguistic groups. Later, CM had to assure Marathi leaders that Kannada would not be made compulsory in primary education in the border areas.
- The dispute strongly resonates in the **cultural arena too.** For instance, two sahitya sammelanas – the 73rd Akhil Bharatiya Marathi Sahitya Sammelana (ABMSS) and the 70th Akil Bharatiya Kannada Sahitya Sammeala – were held in Belagavi in 2000 and 2003, respectively.
    - Both events prepared the ground for the re-opening of an otherwise muted issue.
    - Well known scholar Y.D. Phadke, president of the 73rd ABMSS, reminded the audience of the unfinished agenda of incorporating Belagavi into Maharashtra

	while noted Kannada writer and journalist Patil Puttappa who presided over the 70th Kannada literary meet said the town will remain part of Karnataka. **Connecting the dots** ● Inter-State Council ● River Water disputes

ECONOMY

Global Wealth Tax on Multimillionaires	**Context:** Global billionaire wealth in 2021 represents 3.5 per cent of global household wealth. • Also, the share of the top 0.01 per cent rose from 7 per cent of global wealth in 1995 to 11 per cent in 2021 as per the findings of the latest World Inequality Report 2022 showed. **The concentration of wealth** • Since the mid-1990s, the richest 1 per cent captured 38 per cent of wealth growth at the global level, the report says. • As per the report, the richest 10 per cent own around 60-80 per cent of wealth, and the poorest half systematically own less than 5 per cent of wealth. • The bottom 50% of the global population owns just 2% of wealth and 8 per cent of income, while the top 10 per cent of population owns 76 per cent of total household wealth and captured 52 per cent of total income in 2021, as per the report. • It said that government intervention is key to tackling inequality with social and tax policies. **The solutions** • Economist Thomas Piketty has suggested developing new forms of wealth taxation on multimillionaires including a progressive rate of wealth tax with tax rates according to the value of the total amount of wealth owned. • What has been happening is a higher concentration of wealth, more wealth inequality and our tax systems so far in most countries in the world have not adapted to this. • Such new taxes also makes sense especially when the governments are looking for money to repay the increased debt during Covid times. **Why the need for Global Wealth Tax?** • There is a proposal of global wealth tax on multimillionaires, people who own more than a million dollars or euros and this tax in this proposal is progressive, meaning that the rates are going to be according to the value of the total amount of wealth that one owns. • In countries, where wealth is highly concentrated, more rates on the stock of wealth of very wealthy individuals can deliver high amounts of revenues. • The global bottom 50 per cent income share remains historically low despite growth in the emerging world in the past decades. • The share of global income going to top 10 per cent highest incomes at the world level has fluctuated around 50-60 per cent between 1820 and 2020 (50 per cent in 1820, 60 per cent in 1910, 56 per cent in 1980, 61 per cent in 2000, 55 per cent in 2020). • However, the share going to the bottom 50 per cent lowest incomes has generally been around or below 10 per cent (14 per cent in 1820, 7 per cent in 1910, 5 per cent in 1980, 6 per cent in 2000, 7 per cent in 2020). • The top 0.1 per cent of the global population captures more income than the entire bottom 50 per cent. • The average annual wealth growth rates among the poorest half of the population were between 3 per cent and 4 per cent per year between 1995 and 2021. • The poorest half of the world population only captured 2.3 per cent of overall wealth growth since 1995.

	• The top 1 per cent benefited from high growth rates (3 per cent to 9 per cent per year). This group captured 38 per cent of total wealth growth between 1995 and 2021. • The share of wealth detained by the world's billionaires rose from 1 per cent of total household wealth in 1995 to nearly 3.5 per cent today, it said. **Income inequality in gender terms** • In gender terms, the income inequality is sharp, with women workers getting just one-third of total labour income. • Women today get just one-third of all labour income in the world whereas gender parity would mean they get half of that. • But currently women earn just one-third of all incomes from work and the situation has increased since the 1990s but at a very slow rate. If we continue at this rate, we need to wait at least a century to reach gender parity.
Census 2021 with a Mixed-Mode Approach	**Context:** Due to outbreak of COVID-19 pandemic, the Census 2021 and related field activities have been postponed. • Will be the first digital Census • Mobile App for collection of data and a Census Portal for management and monitoring of various Census related activities have been developed. • State Governments of Bihar, Maharashtra and Odisha have requested to collect caste details • The names of the mother tongue and two other languages known in order of proficiency are to be recorded • There is a provision for self-enumeration. Self-enumeration refers to completion of census survey questionnaires by the respondents themselves. **What is Census?** • In Census (decennial census), data is collected on demographic and various socio-economic parameters like education, SC/ST, religion, language, marriage, fertility, disability, occupation and migration of the individuals. • Office of the Registrar General and Census Commissioner, India under Ministry of Home Affairs, Government of India is responsible for carrying out the census. • It provides information on size, distribution and socio-economic, demographic and other characteristics of the country's population. • The first synchronous census in India was held in 1881. Since then, censuses have been undertaken uninterruptedly once every ten years. • As per the official Gazette, the individual data collected in Census under the Census Act, 1948, are not made public as per the provisions contained in the Act. ○ The individual data are not used for the preparation of any other database, including the National Register of Citizens. • Only the aggregated Census data at various administrative levels are released. • The Census 2021 will be conducted in 18 languages out of the 22 scheduled languages (under 8th schedule) and English, while Census 2011 was in 16 of the 22 scheduled languages declared at that time. • The Census data would be available by the year 2024-25 as the entire process would be conducted digitally and data crunching would be quicker. ***Census Act 1948*** The Census Act 1948, as amended in 1994 defines the act as:,In this Act, unless the context otherwise requires — (a) "premises" means any land, building or part of a building and includes a hut, shed or other structure or any part thereof; (b) "Prescribed" means prescribed by rules made under this Act; (c) "Vehicle" means any vehicle used or capable of being used for road transport, whether propelled by mechanical power or otherwise

	What is the Registrar-General and Census Commissioner of India? • Registrar General and Census Commissioner of India, was founded in 1961 by the Government of India, Ministry of Home Affairs. • **Role:** Arranging, conducting and analysing the results of the demographic surveys of India including Census of India and Linguistic Survey of India. • The position of Registrar is usually held by a civil servant holding the rank of Joint Secretary. **What is the Socio-Economic Caste Census (SECC)?** • Socio-Economic Caste Census (SECC), which collected the first figures on caste since 1931, is the largest exercise of the enumeration of caste. • SECC supplies data to differentiate the socio-economic status of households based on housing, educational status, landholding, differently abled, occupation, possession of assets, SC/ST households, incomes etc. • The Census thus provides a portrait of the Indian population, while the SECC is a tool to identify beneficiaries of state support.
Multidimensional Poverty	**Context:** The Resolution of the United Nations General Assembly on 25 September 2015 established the 17 Sustainable Development Goals (SDG). SDG 1 in its entirety ("End poverty in all its forms everywhere") is multidimensional in nature and definition. While target 1.1 seeks to eradicate extreme poverty –measured as people living on less than $1.25 a day (subsequently increased to $1.90/day), target 1.2 aims at reducing multidimensional poverty, as defined by national definitions, by half. **In News:** NITI Aayog has recently released the state-wise National Multidimensional Poverty Index or MPI in line with the global index released by the United Nations each year. **According to Global MPI 2021, India's rank is 66 out of 109 countries.** **The Global MPI** • The Global MPI is part of the government's decision to monitor the performance of the country on 29 select global indices. • It is an international measure of multidimensional poverty covering 107 developing countries. • It was first developed in 2010 by Oxford Poverty and Human Development Initiative and United Nations Development Programme. • It is released at the High-Level Political Forum (HLPF) on Sustainable Development of the United Nations in July, every year. • The dimensions of poverty range from deprivations of health facilities, education and living standards. • It is computed by scoring each surveyed household on 10 parameters based on - nutrition, child mortality, years of schooling, school attendance, cooking fuel, sanitation, drinking water, electricity, housing and household assets. **National Multidimensional Poverty Index (MPI)** A national Multidimensional Poverty Index for India will • Facilitate formulation of sectoral policies and targeted interventions which contribute towards ensuring that "no one is left behind". • This baseline National MPI Report and Dashboard is a landmark first step in bringing multidimensional poverty as a tool to the policy table at the national and subnational levels in India. • Enable estimation of poverty not only at the level of the States but also for all the 700 plus districts (600 plus in 2015-16, 700 plus in 2019-20) across twelve indicators, capture simultaneous deprivations and indicator-wise contribution to poverty • It is expected that the report will play an instrumental role in sensitizing government, researchers, civil society, citizens, and other stakeholders on the need for and importance of MPI as a powerful policy instrument.

	• At the higher levels, MPI could be used as an input to the design of development policies schemes, budget allocations, and target setting. • At the lower levels, for instance, of that of district, MPI could decide priority of execution and delivery. With every revision of MPI based on new survey data, actions could be redesigned to shift focus to those who need it the most. **NITI Aayog** will play a key role in charting this path and supporting the stakeholders in their actions, through the following approaches. • The National MPI Project is the first attempt in years to define poverty measures and is aimed at deconstructing the Global MPI and creating a globally aligned and yet customised India MPI. • The MPI is based on three dimensions -- health, education, and standard of living -- with each having a weighting of one-third in the index. • The household micro data collected at the unit-level for the NFHS serves as the basis of the computation of National MPI. This unit level micro data collected in 2015-16 has been used in the current MPI report to derive an idea of baseline multidimensional poverty i.e. where the country was with respect to MPI before full-scale roll out of the above mentioned schemes. • The MPI identifies 25.01 per cent of the population as multidimensionally poor. • The progress of the country with respect to this baseline will be measured using the NFHS-5 data collected in 2019-20. **MPI Coordination Committee (MPICC):** The inter-ministerial coordination committee constituted under NITI Aayog included Ministries and departments pertaining to areas such as health, education, nutrition, rural development, drinking water, sanitation, electricity, and urban development, among others. It also included experts from Ministry of Statistics and Programme Implementation and the publishing agencies – OPHI and UNDP. **Engagement with States:** Building consensus on MPI at the subnational level State and Union Governments are pivotal stakeholders which make up the institutional bulwark of the country. • With 36 States and Union Territories and over 700 districts –subnational entities represent the myriad socio-political, geographical and economic diversity in the country. • For a public policy tool such as the national MPI to fully realise its potential, utilisation of its results and findings by State and UT governments is crucial. • Simultaneously, the success of identification and implementation of reform areas and actions to improve the lives of households and individuals, would significantly be influenced by the level of adoption at the level of States. • Therefore, building consensus on the need to create a national MPI and the model thereof, developing capacities, understanding and appetite for this novel policy tool, with our primary stakeholders, ie., the State governments and policy makers and implementers at the sub-national level, was felt to be imperative at the stage of MPI project design. **The Calculation:** The MPI uses the globally accepted methodology developed by the Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme (UNDP). The dimensions of the index have proven to help identify and achieve targeted policy interventions. The index is calculated by first setting the deprivation cut-offs for each indicator, i.e., the level of achievement considered normatively sufficient for an individual to be considered not deprived in an indicator. For example, the individual has completed at least six years of schooling. Such a cut off would be applied to determine whether the individual is deprived in each indicator. Weights are added to each indicator and a composite metric is then used to calculate the index. **Some results**

	• **Bihar** has the highest proportion of people, at 51.91 per cent of the state's population, who are **multidimensionally poor**, followed by Jharkhand at 42.16 per cent and Uttar Pradesh at 37.79 per cent. • Bihar also has the highest number of malnourished people followed by Jharkhand, Madhya Pradesh, Uttar Pradesh, and Chhattisgarh. • Kerala, Goa, and Sikkim have the lowest percentage of population being multidimensionally poor at 0.71 per cent, 3.76 per cent and 3.82 per cent, respectively. • Among the Union Territories (UTs), Dadra and Nagar Haveli (27.36 per cent), Jammu & Kashmir, and Ladakh (12.58), Daman & Diu (6.82 per cent) and Chandigarh (5.97 per cent), have emerged as the poorest UTs in India. **Can you answer the following questions?** 1. The poverty ratio in India is still high means that growth by itself will not be adequate to reduce poverty. Critically analyse. 2. How does poverty stifle human development? Can poverty alleviation measures address the problem of stifled human development? Critically examine.
Connected Lending	**In News:** The Reserve Bank of India (RBI) has recently decided to **keep on hold** the implementation of a recommendation made by an internal working group to issue banking licences to large industrial groups. Many view the RBI's decision as a prudent step to preserve financial stability. **What is it?** • An internal working group of the RBI **headed by P.K. Mohanty** in November 2020 recommended, among other things, that the RBI allow large industrial groups to set up banks. • The group's recommendation was seen by analysts as an **effort to bring more private capital** into the banking system and help increase lending. • The proposal was met with criticism from many experts, including former RBI governor Raghuram Rajan and former RBI deputy governor Viral Acharya. • Many countries across the world either completely ban industrial groups from owning banks or heavily restrict such ownership. • The RBI has been mulling the working group's recommendations over the past one year and has accepted some of its recommendations. However, it has decided to put on hold the major recommendation to allow industrial groups to own and operate banks. **What is the problem with allowing large industrial groups to set up banks?** • Critics of the working group's proposal argue that giving large industrialists such as the Ambanis, the Adanis and the Tatas the licence to own and operate banks will lead to **misallocation of capital.** • The logic behind the opposition is that this **could give rise to connected lending**, a system where the owner of the bank gives their company or companies or connected parties (his friends and families) loans at lesser rates of interest. Basically, if you own a bank you can lend yourself money at a lower rate of interest for a risky project. ○ For example, a bank owned by the Ambanis may prefer to lend to companies that come under the Reliance Group over those owned by the Tatas or the Adanis. • A bank owned by a certain industrial group may also be more willing to offer loans to its sister companies even if they do not meet credit standards, critics believe. Such loans are more likely to turn into bad assets and **threaten the stability of the financial system.** • Critics also believe that India **lacks the infrastructure necessary** to effectively implement regulations to prevent such dangerous connected lending. • The **failure of many private banks in the past** due to bad lending decisions too has been cited as a reason to oppose the idea of large industrial groups entering banking.

	• Even though private banks maintain better asset quality than public sector banks, critics still fear that private banks may be more prone to making bad loan decisions. **Are the critics right?** • Granting bank licences to industrial groups would give these groups easy access to capital. Remember that under the current fractional-reserve banking system, banks possess the rare privilege to create loans out of thin air without a commensurate size of deposits. • So, an industrial group that owns a bank **can expect an abundant supply of loans** from its banking wing. This can potentially lead to serious problems. • For example, an industrial group suffering huge losses could use its banking wing to keep itself afloat for a long time. • But connected lending *per se* does not have to be dangerous if the bank management understands that throwing good money after bad is not a wise decision. • It should also be noted that banks in general are protected from going bust by the RBI usually citing the systemic risks posed by bank failures and the desire to protect depositors. • Such protection itself, however, **raises the risk of moral hazard** as it encourages banks to engage in poor lending practices without worrying about the consequences. • Even though the IWG clearly says that large business groups will be allowed as promoters of banks only after necessary amendments to the Banking Regulation Act, 1949, former RBI Governor Raghuram Rajan posits that if the Indian banking system was so strong on regulation, the sector would not have had such a large problem of NPA (non-performing assets) and bad loans.

Challenge of achieving 9.5% growth rate	**Context**: The National Statistical Office (NSO) released the Q2 GVA and GDP numbers for FY 2021-22, indicating the pace of economic recovery in India after the two COVID-19 waves
	Key findings of NSO
	• The **contraction was highest** in the first quarter of 2020-21, gradually easing off in the subsequent quarters.
	• **Base Effect** was strongest in the first quarter of 2021-22 with real GDP and GVA growth rates of 20.1% and 18.8%, respectively.
	  ○ The base effect weakened in the second quarter with GDP and GVA growth rates at 8.4% and 8.5%, respectively.
	  ○ The base effect is expected to weaken further in the third and fourth quarters of 2021-22.
	• **Real GVA for the first half of 2021-22** has remained below the level in the first half of 2019-20 by (-)3.7%.
	• **Real GDP for the first half of 2021-22**- This difference is even larger for GDP which is (-) 4.4% below the corresponding level in 2019-20.
	• So a strong growth momentum would be needed to ensure that at the end of this fiscal year GVA and GDP in real terms exceed their corresponding pre-COVID-19 levels of 2019-20.
	• **Gross Fixed Capital Formation (GFCF)** - GFCF shows a positive growth of 1.5% in the second quarter of 2021-22 over its corresponding level in 2019-20. Even then GFCF in H1 of 2021-22 has remained below its corresponding level in 2019-20
	• **Private Final Consumption Expenditure (PFCE) –** H1 2021-22 remains below its corresponding level in 2019-20. This indicates that investment as well as consumption demand have to pick up strongly in the Q3 and Q4 to ensure that the economy emerges on the positive side by the end of 2021-22 as compared to its pre-COVID-19 level.
	
	Which sectors have boosted growth?
	• In H1 of 2021-22, on the output side, only four of the eight GVA sectors have exceeded their corresponding levels in 2019-20. These are

	○ Agriculture ○ Electricity, Gas and others. ○ Mining and Quarrying ○ Public administration, Defence and other services. (Q1 5.8% & Q2 17.4%) • The upsurge in the growth of public administration, defence sector in the second quarter of 2021-22 is due to the Central government's emphasis on capital expenditure which started gathering momentum in recent months. **What measures are required?** • A **strong fiscal support in** the form of government capital expenditure is required. This is currently being facilitated by the buoyant Centre's gross tax revenues having a growth rate of 64.2% in H1 of 2021-22. ○ The nominal GDP growth at 23.9% and the implicit price deflator-based inflation at 9.0% in H1FY22 is the key reason for the buoyant tax revenues. • The **Centre's incentivisation of state capital expenditure** through additional borrowing limits would also help in this regard. ○ According to available information, 11 States in the first quarter and seven States in the second quarter qualified for the release of the additional tranche under this window. **Challenges Ahead** • **Increase in expenditure** is due to food and fertilizer subsidies, MGNREGA and extension of the Pradhan Mantri Garib Kalyan Anna Yojana • With increase in government capital expenditure with some shortfall in non-tax and non-debt capital receipts - fiscal deficit target may come under pressure. • In spite of these pressures, it would be advisable for the Centre to continue infrastructure spending. **Connecting the dots** • National Monetisation Pipeline • National Infrastructure Pipeline
Biofuel Industry in India	**Context:** PM Modi, in his address at the COP26, released India's updated NDCs in the form of five key announcements. The most prominent of these included India's goal to produce **500 GW of renewable energy by 2030** and its ambitious target to **achieve net-zero by 2070**. **The Global Situation** • The global energy demand is ever rising, projected to reach a whopping 17 billion tonnes of oil equivalent in the next decade. According to the BP Energy Outlook 2019, India's share in the global energy demand is expected to reach 11 percent by 2040. • As emission-heavy fuels like coal, oil and gasoline contribute to 69 percent of the national energy supply, this whopping demand will naturally bring adverse climate ramifications as well as skewed import dependence. • Amidst the anthropogenic climate threat posed by greenhouse gas emissions from fossil-based fuels and the looming fear of depleting fossil reserves, biofuels promise to be an alternative with many advantages. **Biofuels as a Sustainable Energy System** Biofuels provide a sustainable energy system that is renewable, environmentally friendly and capable of utilising indigenous raw materials. The most commonly employed method for biofuel production involves ***fermentation***, a process in which microbes convert simple sugars such as glucose to value-added chemicals by various biochemical pathways. • **Biofuel production** can be carried out at mild temperatures between 25-45℃ in contrast to chemical methods (requiring >500℃), which makes the entire process energy efficient. • In comparison to fossil fuel-derived energy, biofuels project scope not only in reduction of carbon emissions but also ensure self-sufficiency of the raw materials.

Challenge 1: High Process Cost – Despite the above-mentioned advantages, microbial fermentation for biofuel production faces a lot of challenges - the process cost is very high in comparison to commercial fuels. A major fraction of this cost is owed to expensive substrates such as glucose.

Based on the feedstocks used, biofuels are categorised into four generations, each emerging to overcome the limitations of the previous one.

- The first generation uses food crops such as corn, sugarcane etc., while the second generation is based on utilisation of lignocellulosic agro-residues such as rice bran, wheat bran etc.
- While the first one leads to the ethical debate of food vs fuel, second-generation feedstocks are in plenty and generally considered a waste.
    - Additionally, food waste from restaurants, kitchens, or supply chain slacks is a good source of sugar.
    - Referred to as Municipal Solid Waste (MSW), food waste is a nuisance to the environment and public health.
    - India has a huge capacity to produce these feedstocks, generating >300 million tonnes of agricultural waste every year and nearly 0.3 billion tonnes of food waste every year. They are potential substrates for biofuel production due to their indigenous abundance, cost-effectiveness and high sugar content.
    - Additionally, utilisation of such raw materials also enables a circular economy.

Challenge 2: Low efficiency of this fermentative production:

- To compete with market demands, high yields from a low substrate is desirable.
- However, utilising agricultural and food wastes means additional steps of **pre-treatment for breaking layers of cellulose, hemicellulose and chitin** respectively before carbohydrates can be recovered.
- This often results in multi-step processing, making the process tedious, expensive and inefficient.
- To improve the yield and process efficiency biotechnological tools such as genetic engineering and process engineering are being applied.

India & the Biofuels: Recent Policy Initiatives

The Indian government has recognised this capacity of indigenous feedstocks for biofuel production.

- The policies are centred around increasing the production of bioethanol using sugar-containing (sugar beet, sweet sorghum etc.) and starch-containing materials (corn, damaged food grain, etc.) that are unfit for human consumption.
- Recognising the lack of capital in this sector, the government has mobilised a viability funding gap scheme worth INR 5000 crore for second-generation ethanol biorefineries. India also targets a 20 percent ethanol-blending in petrol by 2023-24.
- Through various domestic and international initiatives in the biofuels industry in the last few years, India has reiterated its inclination to explore bio-solutions as yet another form of renewable energy and alternative to fossil-based fuels.
- Launched the mission “Integrated Biorefineries”, a collaborative initiative between India and the Netherlands to develop clean energy solutions under Mission Innovation Initiative.
    - An integrated biorefinery is a facility that transforms biomass into value-added products while recovering as much energy as possible.
    - It has the potential to produce bulk and fine chemicals in a robust, self-sufficient, sustainable, and ecologically friendly manner.

	• Even before the recent COP26 announcements, India has sought to establish itself in the biofuels sector through international mechanisms in recent years. In the backdrop of PM Modi's visit to the United States in September 2021, India and the US formed a bilateral **India-US New Task Force on Biofuels**, which will promote technology transfers and develop business models to develop the biofuels sector. • In December 2020, the Asian Development Bank approved a US $2.4 million grant under Asian Clean Energy Fund for supporting biofuels development in India. India also has an MoU with Brazil on Bioenergy Cooperation, which holds an excellent track record of harnessing sugarcane feedstock for biofuels. **Biofuels for 'Atma Nirbharta'** • Will reduce **dependence on fuel imports that save foreign reserves** and will **plug the capital outflow**. According to NITI Aayog's Expert Committee, fulfilling the 2025 targets for 20 percent ethanol blending (E20) will save US $4 billion in forex reserves annually. • Address the **supply chain vulnerabilities** of a fossil-fuel-based energy system. As India's mammoth agricultural waste is generated in the countryside, setting up biofuel manufacturing plants will create **localised supply chains**. These local supply chains need to be efficient to account for the perishability of feedstock due to pest contamination and weather. It will **cut down the logistics and transportation** costs of non-renewable energy and insulate the supply chains from geopolitical instability and global economic shocks. • Generate **semi-skilled employment in rural areas** and create **additional incomes for Indian farmers**. For example, sugar mills may earn an additional profit of US $2 billion in 2020-21 owing to the ethanol industry. Increasing the **purchasing power of rural India** would drive consumer demand, which would have a multiplier effect on India's informal economy. **Conclusion** Biofuel production for self-reliance can become a reality by incentivising and educating the local suppliers and waste segregation about the wealth-creating potential of their waste. India needs to promote greater engagements between science, industry and society to meet this goal. **Can you answer the following question?** 1. Examine the potential and associated challenges of biofuels as a sustainable energy resource.
Impact of PepsiCo verdict	**Context**: Two years ago PepsiCo India had sued nine Gujarati farmers for allegedly infringing patent rights by growing its registered potato variety. • However, now the company's registration of the variety has been revoked by the Protection of Plant Varieties and Farmers Rights' Authority (PPV&FRA). • The PPV&FRA questioned the documentation produced by PepsiCo claiming it was the owner of the variety, and thus could be considered the Registered Breeder under the law. • The wider implications of the verdict for intellectual property rights in the agricultural sector are being examined by farmers' groups as well as seed developers and industrial agriculture companies, both international and Indian. **What does the verdict mean for farmers' rights?** • Although the PPV&FRA **verdict largely depended on procedural errors** and shortcomings of PepsiCo and the registrar with regard to documentation and transfer of rights between the plant breeder and the production company, it does touch briefly on the protection of farmers' rights and public interest. • "Farmers have been put to hardship including the looming possibility of having to pay huge penalty on the alleged infringement they were supposed to have been committing which violated the public interest" said the judgment.

	• The verdict sent a strong signal to those who hold intellectual property rights for seeds that the unique rights that the PPV&FR Act provides Indian farmers are not to be transgressed. **What is the difference in rights provided under law to farmers and breeders?** • 'Producing from a variety', including a farmer saving seed and **using unbranded seed from a harvest,** is very different to '**producing a variety'**, which involves breeders following complex technical procedures that farmers largely do not have the skills for. • There is no risk of commercial competition for the IPR owner in the first case, when harvests are meant for consumption, processing and the grocery market, unlike in the latter case when harvests are meant for further planting and multiplication of the genome or to generate heterosis in hybrid varieties **Does the PPV&FR Act encourage innovation and protect intellectual property rights of seed developers?** • The biggest problem with the law is the **lack of proper enforcement,** according to the seeds industry. • There must be a mechanism to catch and punish those who illegally sell the variety, but **enforcement is left to States** and is uneven. The rampant spread of unauthorised and genetically modified HTBt cotton seeds as an example of this. • The unique protections provided to farmers in India can act as an enforcement loophole given the **grey area between farmers and aggregators.** • A farmer is allowed to grow protected varieties, sell the produce, even sell the unbranded seeds under the law, and that intention is good. But there is ambiguity on what happens when many farmers sell registered seeds to an aggregator who collects it and then sells it in a branded fashion, or sells to a competitor. • If the aggregator owns an acre of land somewhere, he may also call himself a farmer, and therefore there is a possibility of pilferage of the parent seed from farmers' fields to other farmers. • Other issues with PPV&FR implementation which obstruct innovation include the **slow turnaround time for registration of varieties** and the requirement that companies submit parent seeds when applying for registration. • As a result, not just foreign investment, even domestic investment in innovation is low because of lack of protection of IPR. • The Indian seed market has annual revenues of ₹20,000 crore, but less than 3% or about ₹500-600 crore is ploughed back into research, in contrast with 10-12% which is the global standard. **How does contract farming law impact the issue?** • With the first national contract farming law passed by Parliament in 2020 being repealed in Nov 2021 under pressure from protesting farm unions, there is **no uniformity among the few State laws that exist.** • The seed industry, which depends on farmers for seed production, prefers to deal with local contractors rather than sign direct contracts with farmers. • If a contract is violated, there is no way for private players to enforce it at the village level, so it is better to deal with a local player and form tripartite agreements. Also, it is inconceivable for any company to sue a farmer given that PepsiCo and Monsanto have faced political and public backlash for doing so. **Connecting the dots:** • India's IPR policy. • IPR waiver for COVID-19 Vaccines
Multistate Cooperatives	**Context**: Recently, Union Cooperation Minister Amit Shah announced that the Centre has decided to amend the Multi State Cooperative Societies (MSCS) Act, 2002 to "plug the loopholes in the Act".

What is the Act, and what are multistate cooperative societies?

- Cooperatives are a state subject, but there are many societies such as those for sugar and milk, banks, milk unions etc whose **members and areas of operation are spread across more than one state.** The Act was passed to govern such cooperatives.
- For example, most sugar mills along the districts on the Karnataka-Maharashtra border procure cane from both states. They draw their membership from both states, and they are thus registered under the **MSCS Act.**
- Their **board of directors has representation from all states** they operate in.
- Administrative and financial control of these societies is with the **central registrar**, with the law making it clear that **no state government official can wield any control** on them.
- Since the law was enacted, **1,479 such societies have been registered,** of which 9 have been deregistered since.
- Maharashtra has the highest number at 567, followed by Uttar Pradesh (147) and New Delhi (133).
- Credit societies constitute the bulk of registered societies at 610, followed by agro-based ones (which include sugar mills, spinning mills etc) at 244. There are 96 multistate cooperative dairies and 66 multistate cooperative banks.

Why does the government plan to amend the Act?

- Experts on cooperatives talk of loopholes in the Act.
- The exclusive control of the central registrar, who is also the Central Cooperative Commissioner, was meant to allow smooth functioning of these societies.
- The central Act cushions them from the interference of state authorities so that these societies are able to function in multiple states. What was supposed to facilitate smooth functioning, however, has created obstacles.
- Experts pointed out for state-registered societies, financial and administrative control rests with state registrars who exercise it through district- and tehshil-level officers.
    - Thus if a sugar mill wishes to buy new machinery or go for expansion, they would first have to take permission from the sugar commissioner for both. Post this, the proposal would go to the state-level committee that would float tenders and carry out the process.
- While the system for state-registered societies includes checks and balances at multiple layers to ensure transparency in the process, these **layers of checks & balances do not exist in the case of multistate societies.**
    - Instead, the board of directors has control of all finances and administration. For expenditure above a certain level, the annual general body meeting of the society has to be called.
- Many experts have noted there is an apparent **lack of day-to-day government control** on such societies. Unlike state cooperatives, which have to **submit multiple reports** to the state registrar, multistate cooperatives need not.
- The central registrar can only allow inspection of the societies under special conditions — a written request has to be sent to the office of the registrar by not less than one-third of the members of the board, or not less than one-fifth of the number of members of the society**. Inspections can happen only after prior intimation to societies.**
- The on-ground **infrastructure for central registrar is thin** — there are no officers or offices at state level, with most work being carried out either online or through correspondence.
- For members of the societies, the **only office where they can seek justice is in Delhi**, with state authorities expressing their inability to do anything more than forwarding their complaints to the central registrar.
- There have been instances across the country when **credit societies have launched ponzi schemes taking advantage of these loopholes**. Such schemes mostly target

	small and medium holders with the lure of high returns. Fly-by-night operators get people to invest and, after a few instalments, wind up their operations. ○ In Maharashtra, the state commissioner used to get multiple complaints of this nature but could not take any action, given the lack of ground staff necessary for verifying the antecedents of such societies. **What kind of amendments can be expected?** ● The Centre is holding extensive **consultations with experts from various fields**: bankers, sugar commissioners, cooperative commissioners, housing societies federations etc. ● Central government will also **increase their manpower**, first in Delhi and then in the states, to ensure better governance of the societies. ● Also, **technology** will be used to bring in transparency. ● Some suggest that administrative control of such societies should be vested in the state commissioners. This way, day-to-day control can be wielded to ward off cases of fraud. **Connecting the dots:** ● Ministry of Cooperation ● SC judgment on Cooperative amendment ● Cooperative Sector Reforms
Suspension of futures trading in agri products	**Context**: The Securities & Exchange Board of India (SEBI) recently issued directions to stock exchanges in commodity derivatives segment for immediately suspending trading in derivative contracts in key farm commodities namely paddy (non-basmati), wheat, chana, mustard seeds and its derivatives, soya bean and its derivatives, crude palm oil & moong for a year. ● The derivative contracts in these commodities were already suspended, as per a SEBI press release dated August 16, 2021 and October 08, 2021, respectively. **What are derivative contracts?** ● Derivative contracts are contracts between two or more parties where the derivative **value is based upon an underlying asset,** in this case agri commodities. ● The price of the derivatives are established by the price fluctuations of the underlying assets. ● Derivatives can be traded on an exchange or over the counter (OTC). **How does the system work and what are derivatives trading?** ● Derivatives trading takes place when **traders speculate on the future price of an asset** through buying or selling of derivative contracts to maximise profit **as compared to buying the underlying asset outright.** ● Traders also use derivatives for **hedging to minimise risk** against an existing position. With derivatives, traders can go short and make profit from falling asset prices. ● They also use derivatives to hedge against any existing long positions. ● The ultimate objective is to profit. This is viewed as a **deterrent to bring in price discipline** in the market. **What does the SEBI order mean?** ● Now no new contract will be introduced till SEBI's further orders. ● In respect of running contracts, no new position will be allowed to be taken. Only squaring up of position has been allowed. ● The imports of such commodities especially edible oils would reduce in the short term as traders will not have a hedging platform. ● Hedging which is speculative in nature has been made difficult. This will lead to **release of blocked local produce supplies into the market** which should cool the prices, and imports of commodities for speculative gains will be discouraged. **Why suspension?**

	• **Control Inflation:** To reign in on the rising prices of these essential commodities which is fuelling inflation. It is believed that speculators have a role in jacking up of prices and this needs to be discouraged to curb inflation • **Curb Imports:** India is the world's biggest importer of vegetable oils and this measure will make it difficult for edible oil importers and traders to transact business since they use Indian exchanges to hedge their risk. • **Growth agenda of Government:** The suspension of trading in these commodities follows a communication from the Department of Economic Affairs which is closely monitoring price movements. Such measure will also help in supporting growth as the economy is recovering from the COVID-19 impact. **How alarming is inflation?** • As per RBI governor's recent monetary policy statement**, CPI inflation ticked up in October 2021 to 4.5%** from 4.3 in September, after falling sharply between June and September. • The persistence of **high core inflation (i**.e., CPI inflation excluding food and fuel) since June 2020 has been an area of policy concern as input cost pressures could rapidly be transmitted to retail inflation as demand strengthens. • RBI governor's assessment is that **price pressures may persist in the immediate term.** He observed that supply side interventions by the government have limited the fallout of continuing high international edible oil prices on domestic prices. • While cost-push pressures continue to impinge on core inflation, the inflation prints are likely to be somewhat higher over the rest of the year as base effects turn adverse. • However, it is expected that headline inflation will peak in Q4:2021-22 and soften thereafter. RBI has **projected CPI inflation at 5.3% for FY22.** **What is being done to deal with it?** • Besides suspension of futures trading in key farm commodities by the SEBI, the government and the RBI are undertaking multiple interventions to curb the rising inflation. • Recently as prices of edible oil hit near record highs, the Union Government substantially **reduced taxes on imports** of palm, soy and sunflower oil, but the move had **limited impact on combating inflation.** • The Union & State Governments had also recently **reduced excise duty and VAT on petrol and diesel** which was aimed at bring down inflation by way of direct effects as well as indirect effects operating through fuel and transportation costs.
Year End Review: Ministry of Commerce and Industry	1. **Export Target of US$ 400 billion** for Merchandise in 2021-22 **2. Export Performance** a. India's exports have been performing extremely well in last 8 months with exports exceeding USD 30 billion for the 8th consecutive month in the current financial year. b. The cumulative value of exports during April-November 2021 has been estimated at USD 263.57 Billion compared to USD 174.16 Billion during April-November 2020, which is a positive growth of 51.34 percent. c. India's **services exports** remained relatively resilient to the pandemic which impacted world trade in commercial services in 2020. India's share in world commercial services exports has increased from 3.5% in 2019 to 4.1% in 2020, leading to improvement of India's rank in leading exporters of commercial services from 8th to 7th in 2020. **3. Ease of Doing Business** a. In order to provide policy stability during the pandemic period, Foreign Trade Policy (FTP) 2015-20 was extended for the year 2021-22 i.e. up to 31st March 2022.

b. Exemption from Integrated Goods & Service Tax and Compensation Cess under Advance Authorizations (AA)/ EPCG, EOU scheme extended up to 31st March 2022.
c. IT systems of DGFT revamped with API based message exchange with community partners on export promotion schemes.
d. The common eCoO portal has been extended for issuing non-preferential certificates of origin also.

4. Implementation of RoDTEP Scheme

a. The Scheme creates a mechanism for reimbursement of taxes/ duties/ levies, which are currently not being refunded under any other mechanism, at the central, state and local level, but which are incurred in the process of manufacture and distribution of exported products.
b. Major component of such taxes is electricity duty and VAT on fuels used in transportation / distribution.
c. The RoDTEP Scheme operates with an end to end digitization and no separate application is required to be filed to claim RoDTEP benefits.

5. **Service Exports from India Scheme (SEIS) launched:** Aims to promote export of services from India by providing duty scrip credit for eligible exports. Under the scheme, service providers, located in India, would be rewarded under the SEIS scheme, for all eligible export of services from India.
6. **India and Mauritius** signed the Comprehensive Economic Cooperation and Partnership Agreement (CECPA)

a. First trade Agreement signed by India with a country in Africa.
b. The Agreement is a limited agreement, which will cover Trade in Goods, Rules of Origin, Trade in Services, Technical Barriers to Trade (TBT), Sanitary and Phytosanitary (SPS) measures, Dispute Settlement, Movement of Natural Persons, Telecom, Financial services, Customs Procedures and Cooperation in other Areas.
c. Provides for an institutional mechanism to encourage and improve trade between the two countries.
d. Covers 310 export items for India.
e. As regards trade in services, Indian service providers will have access to around 115 sub-sectors from the 11 broad service sectors.

7. India-UAE Comprehensive Economic Partnership Agreement (CEPA) Negotiations

a. Both sides reiterated the importance of the India-UAE CEPA and its potential to not only expand economic and investment opportunities, but mark a new phase of cooperation and collaboration
b. This new strategic economic agreement is expected to increase bilateral trade in goods to US$ 100 billion within five years of the signed agreement and increase trade in services to US$ 15 billion.

8. **India-Australia Comprehensive Economic Cooperation Agreement (CECA) Negotiations**: The key negotiating subjects are Trade in Goods, Services, Investment, Rules of Origin, Customs Facilitation, Legal and Institutional issues etc.
9. **BRICS Trade Fair 2021** during 16th to 18th August 2021 (Virtual): BRICS Trade Fair, an initiative of the Department of Commerce, witnessed the participation of over 5000 delegates, and the event had over 2500 pre-fixed B2B meetings. The Trade Fair also saw over 8000 Virtual booth visits by the business delegates, which attributed to over 2000 business interactions.

10. India Pavilion at World Expo 2020 at Dubai

a. This is the first expo that was held in MEASA (Middle East, Africa and South Asia) region.

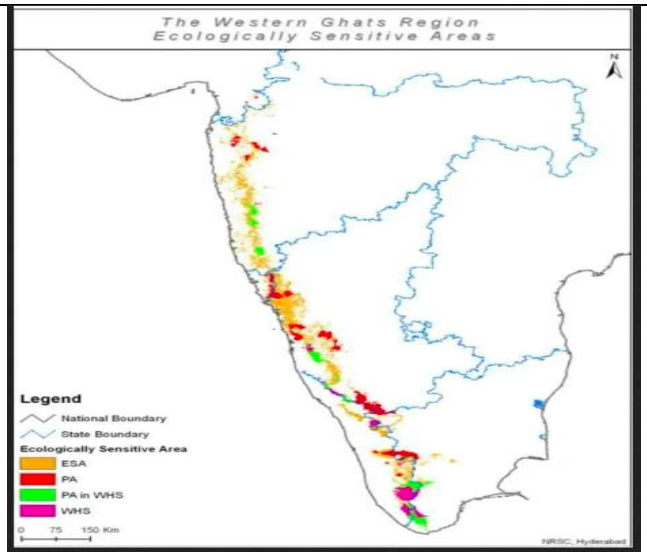
b. The main theme of World Expo 2020 is "Connecting Minds, Creating the Future". The main theme is further branched into three sub themes of the Expo viz. - Opportunity, Mobility and Sustainability.
c. World Expo, Dubai is expected to herald the revival of global economy post the COVID-19 pandemic with participation of more than 190 countries and 25 million expected visitors.
d. India Pavilion at the Dubai Expo has turned out to be a huge draw, registering another landmark by receiving more than six lakh visitors in just 83 days of its opening.

11. **Government e-Marketplace (GeM):** Open and Transparent Procurement
    a. A total 31.8 Lakh vendors have been onboarded on GeM, out of which 7.39 Lakh are MSMEs, which constitute about 23% of the vendor base and contribute over 57% of the cumulative Gross Merchandise Value on GeM.
    b. GeM has drastically brought down waiting time and prices for buyers and ensured timely payments to the sellers. It has enabled various modes of procurement as prescribed in GFR and has made available various analytical tools to facilitate buyers to make informed decision while making procurement.
    c. GeM has created a Unified Procurement System for the country in line with the vision of the Government, will consolidate the scattered vendor bases on publishing portals onto GeM leading to advantages of economies of scale, better price discovery and dissemination of best practices in procurement.
12. **National Logistics Policy**
    a. National Logistics Policy has been developed on the supply and demand side and takes a comprehensive view of the sector defining specific action points with the key objective of matching and improving upon global standards in logistics efficiency and to integrate with Global supply chains.
    b. A 75-point National Logistics Reform Action Plan has also been prepared with specific actionable items on the policy.
    c. The Policy targets to reduce the cost of logistics by about 5% over the next 5 years, achieving a ranking in top 25 of major global logistics-related performance indices, and encourage environmentally sustainable, inclusive and future ready logistics.
13. **PM Gati Shakti NMP:** PM Gati Shakti National Master Plan for multi-modal infrastructure connectivity to Economic Zones which is an Integrated Plan depicting Economic zones and Multi-modal Connectivity Infrastructure on a GIS Platform was launched to holistically integrate individual interventions of various Ministries/Departments with a national perspective and provide coordinated IT enabled Map based approach to planning, operations and monitoring of projects.
14. **The Logistics Performance Index (LPI)** released every two years by the **World Bank** is one of the most widely referred reports used to assess logistics performance of countries. On the index**, India was ranked 44** out of 160 countries in 2018 vis-à-vis rank of 54 in 2014 (most recent study conducted till date is in 2018).
15. **Trade Infrastructure for Export Scheme (TIES):** Launched with the objective to enhance export competitiveness by supporting development of export linked infrastructure that can be utilized by multiple exporters.
16. **Agri Export Policy (AEP)**
    a. Five States and one UT have finalized the State specific Action Plan viz. Mizoram,
    b. APEDA signed an MoU with NAFED for strengthening the export linkage of Farmer Cooperatives.
    c. In pursuance to the series of interactions held with Amazon Web Services (AWS) team, the approval was accorded for executing two pilot projects for the proposals submitted on Blockchain traceability for GI Mangoes (Alphonso) and Digital assaying at APEDA packhouses.

	d. Blockchain Technology in GrapeNet: APEDA implemented Blockchain solution as part of its GrapeNet traceability system. The Blockchain technology helped tracking all the activities and steps involved in the grape lifecycle, right from farm allocation to the delivery of grapes. 19. **Rubber Census:** Rubber Board is conducting nationwide census on rubber by using digitalized mobile application, 'RUBAC', developed in association with Digital University, Kerala, with a view to ascertain the area under rubber, new-planted area, re-planted area, the age profile of trees, discarded area over the years, level of adoption of new clones, size of holdings and details of tappers etc. **20. Collaborative Project for rubber plantation development in NE region:** a. A project for supporting development of new rubber plantations in North East and improving quality of processed forms of rubber with a contribution of Rs.1,100 crore from major tyre companies, represented by Automotive Tyre Manufacturers Association (ATMA) The plan is to develop 2,00,000 ha of rubber plantations in North East in five years.

ENVIRONMENT

Kasturirangan Committee in Western Ghats	**In News:** On December 4, Karnataka Chief Minister informed the Centre that the state is opposed to the Kasturirangan Committee report on Western Ghats. • He said that declaring Western Ghats as ecologically sensitive zone would adversely affect the livelihood of people in the region. • However, the experts called the state's opposition disastrous for the ecologically fragile Western Ghats. **What are the recommendations of the Kasturirangan committee report?** • The Kasturirangan committee report proposes **37 per cent of the total area of Western Ghats**, which is roughly 60,000 square kilometres, to be declared as **eco-sensitive area (ESA).** • Out of this, 20,668 sq km of the area falls in Karnataka covering 1,576 villages. T • The report recommended a **blanket ban on mining, quarrying, setting up of red category industries** and thermal power projects. • It also stated that the impact of infrastructural projects on the forest and wildlife should be studied before permission is given for these activities. • It also stated that the **UNESCO Heritage tag** is an opportunity to build global and domestic recognition of the enormous natural wealth that exists in the Western Ghats. ○ The 39 sites are located across the Western Ghats and distributed across the states (Kerala 19), Karnataka (10), Tamil Nadu (6) and Maharashtra (4). ○ The boundary of the sites, are in most cases, boundaries of the legally demarcated national parks, wildlife sanctuaries, tiger reserves and forest divisions and therefore, already accorded with high level of protection. ○ The Eco-Sensitive Area mapping and demarcation done by the committee also indicates that all sites are within this area. • The state governments should view this development and build a plan to protect, conserve and value the resources and opportunities of the region. • The state of Karnataka has the highest percentage of the ESA- 46.50 per cent.



Why have the successive governments in Karnataka rejected the report?

- The state government believes that implementation of the report will halt the **developmental activities** in the region.
- The government has stated that Karnataka has the distinction of being one of the states with extensive forest cover and the government has taken care to protect the biodiversity of Western Ghats.
- The Kasturirangan report has been prepared based on the satellite images, but the ground reality is different. People of the region have **adopted agriculture and horticultural activities in an eco-friendly manner.**
- Priority has been accorded for environment protection under the Forest Protection Act. In this background bringing one more law that would affect the livelihood of the local people is not appropriate.
- The union government since 2014 has issued several draft notifications to the Karnataka government to finalise the eco-sensitive areas in the Western Ghats but the government has been firm in rejecting the implementation of the report.

What impact will the non-implementation of the report have on the Western Ghats?

- Considering the changes in climate (evident from recurring floods, droughts, landslides, increasing temperature, etc), which would affect the livelihood of all people (irrespective of poor or rich) and hurt the nation's economy, it is prudent to conserve the fragile ecosystems.
- Experts suggests the government to accept and implement the report.
- World are in the throes of extreme climate events, which are impacting nature and people. Yet, the **government continues to object valued suggestions** of acclaimed researchers.
- If the government truly cares for the welfare of **22 crore people who are sustained by the Western Ghats,** it would accept at least 85 per cent of the recommendations of the Kasturirangan Committee. Else, it would be the reason for the sufferings of the people.

What is the present status of the deemed forest land in Karnataka?

- While there is a growing concern over the forest encroachments in Karnataka, the state government has planned to further **shrink the deemed forest area** from 3,30,186.938 hectares to 2 lakh hectares.
- In the order dated December 12, 1996 of the Supreme Court of India in Writ Petition in **Godavarman Thirumulpad Vs Union of India & others**, the term forest as per dictionary meaning and the forests recorded in government records were to be included in the broad definition of 'forests' along with notified forests for consideration of any diversion proposal under the Forest (Conservation) Act, 1980.
- The state expert committee in 1997 had identified 10 lakh hectares of deemed forest area which over the years were shrunk by the successive governments.

Connecting the dots

- Environment Impact Assessment(EIA)
- Sustainable Development Goals

The push for Zero Budget Natural Farming (ZBNF)

Context: Zero budget natural farming (ZBNF) is back on top of the Government's agricultural agenda, with Prime Minister Narendra Modi set to highlight it at a national conclave in Gujarat.

- The Centre has sanctioned support for converting four lakh additional hectares of crop land in eight States to using ZBNF techniques this year. This is meant to provide a showcase for their benefits although scientific studies on the method have not yet been completed.

What is it and how did it come about?

- Zero budget natural farming is a method of **chemical-free agriculture** drawing from traditional Indian practices.
- It was originally promoted by agriculturist and Padma Shri recipient **Subhash Palekar**, who developed it in the mid-1990s as an alternative to the Green Revolution's methods driven by chemical fertilizers, pesticides and intensive irrigation.
- He argued that the rising cost of these **external inputs was a leading cause of indebtedness** and suicide among farmers, while the impact of chemicals on the environment and on long-term fertility was devastating.
- Without the need to spend money on these inputs — or take loans to buy them — the cost of production could be reduced and **farming made into a "zero budget"** exercise, breaking the debt cycle for many small farmers.
- The "four wheels" of ZBNF are '**Jiwamrita', 'Bijamrita', 'Mulching' and 'Waaphasa',** says Palekar

Jiwamrita	• It is a mixture of fresh cow dung and aged cow urine, jaggery, pulse flour, water and soil. • This is a fermented microbial culture that adds nutrients to the soil and acts as a catalytic agent to promote the activity of microorganisms and earthworms in the soil. • About 200 litres of jivamrita should be sprayed twice a month per acre of land; after three years, the system is supposed to become self-sustaining. • **Only one cow is needed for 30 acres of land,** according to Mr. Palekar, with the condition that it must be a local Indian breed — not an imported Jersey or Holstein.
Bijamrita	• It is a mix of desi cow dung and urine, water, bund soil and lime that is used as a seed treatment solution prior to sowing.
Mulching	• It is covering the plants with a layer of dried straw or fallen leaves, is meant to conserve soil moisture and keep the temperature around the roots at 25-32 degrees Celsius, which allows the microorganisms to do their job.
Waaphasa	• It is providing water to maintain the required moisture-air balance, also achieves the same objective.
	• Mr. Palekar is against vermicomposting, which is the mainstay of typical organic farming, as it introduces the most common composting worm, the European red wiggler (*Eisenia fetida*) to Indian soils. He claims these worms absorb toxic metals and poison groundwater and soil.

What are the advantages of Zero Budget Natural Farming?

- **Promotes Better agronomic practices:** The ZBNF method promotes soil aeration, minimal watering, intercropping, bunds and topsoil mulching and discourages intensive irrigation and deep ploughing.
- **Small Farmer Friendly**: As both a social and environmental programme, it aims to ensure that farming – particularly smallholder farming – is economically viable by enhancing farm biodiversity and ecosystem services.
- **Reduces Cost to Farmers:** Through eliminating external inputs and using in-situ resources to rejuvenate soils, the farmers cost is reduced whilst simultaneously increasing incomes, and restoring ecosystem health through diverse, multi-layered cropping systems.
- **Efficient use of Cow dung**: Cow dung from local cows has proven to be a miraculous cure to revive the fertility and nutrient value of soil**.** One gram of cow dung is believed to have anywhere between 300 to 500 crore beneficial micro-organisms. These micro-organisms decompose the dried biomass on the soil and convert it into ready-to-use nutrients for plants.
- **Environment Friendly:** Zero budget natural farming requires only 10 per cent water and 10 per cent electricity than what is required under chemical and organic farming. ZBNF may improve the potential of crops to adapt to and be produced for evolving climatic conditions.

Is it effective?

- A limited 2017 study in Andhra Pradesh claimed a sharp decline in input costs and improvement in yields.
- However, reports also suggest that many farmers, including from Mr. Palekar's native Maharashtra, **have reverted to conventional farming** after seeing their ZBNF **returns drop after a few years**, in turn raising doubts about the method's efficacy in increasing farmers' incomes.
- ZBNF critics, including some experts within the central policy and planning think tank NITI Aayog, note that India **needed the Green Revolution** in order to become self-sufficient and ensure food security.
- Critics warn against a wholesale move away from that **model without sufficient proof** that yields will not be affected.
- Sikkim, which has seen some decline in yields following a conversion to organic farming, is used as a cautionary tale regarding the pitfalls of abandoning chemical fertilizers.
- In 2019, soon after Prime Minister praised ZBNF while addressing a United Nations conference on desertification, the National Academy of Agricultural Sciences wrote to Mr. Modi warning against promoting the method without **sufficient research to assess its long-term impact.**

Which are the States with big plans?

- The Centre has sanctioned the proposals of eight States for support under the **Paramparagat Krishi Vikas Yojana scheme** this year.
- Andhra Pradesh has the biggest ambition to bring one lakh additional hectares of land under ZBNF under the scheme, followed by Chhattisgarh, with 85,000 additional hectares and Gujarat, with 71,000 additional hectares.
- Government has said the proposals being implemented under the scheme would be used to showcase the benefits of the method.

What lies ahead?

- The Prime Minister is set to promote ZBNF's benefits and provide more details on the strategies to implement it at valedictory session of a three-day national summit on agro and food processing, with a focus on natural farming, which is being held in Anand, Gujarat. Over 5,000 farmers are expected to be present in person.
- So far as scientific validation is concerned, all eyes are focussed on the Indian Council of Agricultural Research, which is conducting studies on the ZBNF methods practised by basmati and wheat farmers in Modipuram (Uttar Pradesh), Ludhiana (Punjab), Pantnagar

	(Uttarakhand) and Kurukshetra (Haryana), evaluating the impact on productivity, economics and soil health including soil organic carbon and soil fertility. • The Agriculture Secretary said such studies needed at least three years to arrive at a conclusion.
India reject UNSC draft on climate	**Context**: On December 13, India joined Russia in opposing a draft proposal at the United Nations Security Council which would effectively bring climate change in the Security Council's purview. • This would have allowed UNSC to enforce and hold countries accountable for their promises to mitigate global warming. • The proposal was sponsored by Niger and Ireland, who claimed that 113 countries, which included permanent Security Council members U.S., the U.K., and France, backed their view to integrate climate-related security risks into the UNSC's conflict prevention mandate. • However, after a heated debate and a strong counter by India, the proposal was vetoed by Russia, and the UNSC recorded 12 in favour, 2 against as well as an **abstention from China.** **Why are sponsors keen to introduce climate change into the UNSC mandate?** • Climate change has been discussed at the UNSC since 2007, and several UNSC statements reference the impact of global warming on conflicts. • Both Niger and Ireland pointed out that people in countries most vulnerable to climate change are also most vulnerable to terror groups and violence, attempting to connect both to the **UNSC's mandate on peacekeeping.** • They said **climate-related conflicts over arable land**, food security, desertification and forced migration, the increase **in climate refugees** due to global warming would all **eventually lead to conflicts that the UNSC** needs to weigh in on. • According to a report by Peace Research Institute SIPRI, 10 of 21 ongoing UN peacekeeping operations are located in countries ranked as most exposed to climate change. • Some commentators in favour, said it was only after 2000 when the UNSC passed Resolution 1325 on women, peace and security that **gender violence in conflict really entered the debate**, and hoped they could do the same for climate. • Niger's representative said if the Security Council could pass a resolution on the COVID-19 pandemic and health security (UNSCR 2565 (2021)), why could climate security not be addressed there? **Why did India vote with Russia?** • India's stand on the proposal is consistent with a desire not to allow the UNSC too broad a mandate to "**intervene" and overreach on sovereign issues**. • While the **UN Framework Convention on Climate Change (UNFCCC**), which held the CoP 26 at Glasgow collates the voluntary contributions of countries in order to battle climate change and promote sustainability, India believes these are not issues where the UNSC should interfere. • India reiterated that it is "second to none" on keeping its climate commitments and fighting for **climate justice**, it would be "misleading" to view conflicts through the prism of climate change worldwide. • India even suggested that it would support a **more limited draft that focused exclusively on the Sahel region of North Africa,** where desertification of arid areas is directly sparking water-related conflict, but this was not considered, and India then recorded its first negative vote in this term at the UNSC. • The Chinese representative, also said that UNSC should only consider security risks driven by climate change, based on "country-by-country or situation-by-situation" analysis. **Will the climate security proposal be reviewed and resubmitted?**

	• Given the strong support the proposal has received, and the **numerically small opposition from Russia and India** at the UNSC at present, it is unlikely that the issue will go away, and it is only a matter of time before American, European, African and Latin American countries come together with another proposal to introduce climate change to the Security Council's mandate. • The current proposal is a revised version of a draft proposed by Germany that was opposed in the UNSC in 2020. • According to its backers, the real objective is to ensure that the UNSC considers the impact of climate change along with other causes of conflicts it is debating. • However, those opposed to it, which include about 80 countries, say that bringing climate change into an **already polarised Security Council,** torn between the U.S., the U.K. and France versus Russia and China will only deepen divisions over an issue that concerns the whole globe and **requires an undivided approach.** **Conclusion** As one of the most populous countries in the UNSC at present, and representing a region that is itself highly exposed to the risks of climate change, India's voice will be important in deciding the debate between securitising climate change, and ensuring the global peacekeeping body doesn't overstep its mandate. **Connecting the dots** • COP 26 Climate Conference • China's Climate Commitments • Paris Accord

GEOGRAPHY

Dam Safety Bill and Tamil Nadu's objection	**Context**: The Dam Safety Bill was passed by Parliament on Friday amid strong objections from the Opposition. While it was passed by the Lok Sabha in August 2019, it was cleared by Rajya Sabha on Friday.
	• The Opposition sought that it be sent to the Parliamentary Standing Committee for further scrutiny. However, a motion to this effect was defeated in the House.
	What is the Dam Safety Bill?
	• The Bill proposes to help all states and Union Territories adopt **uniform dam safety procedures.**
	• It aims to "provide for surveillance, inspection, operation and maintenance of the specified dam for **prevention of dam failure-related disasters**, and to provide for institutional mechanism to ensure their safe functioning and for matters connected therewith or incidental thereto."
	• A **National Committee on Dam Safety** with a three-year tenure, comprising
	  ○ Chairman of the Central Water Commission
	  ○ Maximum of 10 representatives of the central government in the ranks of joint secretary
	  ○ Maximum of seven representatives of the state governments
	  ○ Three experts
	• **A state dam safety organisation** will be formed as well, which will be responsible for the dam safety.
	  ○ This organisation is empowered to investigate and gather data for proper review and study of the various features of the design, construction, repair and enlargement of dams, reservoirs and appurtenant structures.
	  ○ The state dam safety organisation must also report events such as dam failures to the National Dam Safety Authority and also maintain records of major dam incidents of each specified dam.

	• **The National Dam Safety Authority**, to be headquartered in Delhi, will be formed under the Act. ○ It will be headed by an officer not below the rank of Additional Secretary to the Government of India to deal with problems relating to dam engineering and dam safety management. **What is the Context of Dam Safety Bill?** • Most of the dams in India are constructed and maintained by the states, while some of the bigger dams are managed by autonomous bodies such as Damodar Valley Corporation or Bhakra Beas Management Board of Bhakra-Nangal Project. • The Centre has presented the Dam Safety Bill, 2018 against the backdrop of over **5,200 large dams in India and about 450 dams under construction** right now. • Due to lack of legal and institutional architecture for dam safety in India, dam safety is an issue of concern. Unsafe dams are a hazard and dam break may cause disasters, leading to huge loss of life and property. • However, during deliberations by the Centre in 2016 to collect feedback from states on the Bill, then Tamil Nadu chief minister J Jayalalithaa had raised questions on the bill. **What are the objections by Tamil Nadu?** • Tamil Nadu has argued that the Bill was detrimental to federal principles and powers of the state governments • Tamil Nadu alleges that it contains clauses which violate the rights of the state, especially with respect to the dams constructed by it in neighbouring states, and will cause problems in maintenance and operation. • The main **concern of the state is about retaining its power** in controlling the dams, autonomy, and ownership of the assets. • Tamil Nadu CM has said the move was nothing but authoritarianism and usurped the rights of the state governments without regard to the democratic-parliamentary ethos or the Constitution of India. **Conclusion** In a country where most of the dams are built, operated, maintained and owned by state governments, the impact of the Act remains to be seen when long-pending disputes arise. **Connecting the dots** • Hydropower Vs Solar Power • Hydropower Projects in the Himalayas

SCIENCE AND TECHNOLOGY

Hypersonic Weapons Arms Race	**In News:** China tested a nuclear-capable hypersonic missile in August 2021 that circled the globe before speeding towards its target, demonstrating an advanced space capability that caught U.S. intelligence by surprise. ● However, China has denied that it was nuclear capable. **What are hypersonic weapons?** ● They are manoeuvrable weapons that can fly at **speeds in excess of Mach 5, five times the speed of sound.** ● Ballistic missiles, though much faster, follow a fixed trajectory and travel outside the atmosphere to re-enter only near impact. ● On the contrary, **hypersonic weapons travel within the atmosphere** and can **manoeuvre midway**. ● The above capabilities combined with their high speeds makes their **detection and interception extremely difficult.** ● This means that radars and air defences cannot detect them till they are very close and little time to react.

- There are two classes of hypersonic weapons:
    - Hypersonic glide vehicles (HGV): These are launched from a rocket before gliding to a target
    - Hypersonic cruise missiles (HCM): These are powered by high-speed, air-breathing engines, or scramjets, after acquiring their target.
- Hypersonic missiles are a **new class of threat** because they are capable both of manoeuvring and of flying faster than 5,000 kms per hour, which would enable such missiles to penetrate most missile defences and to further compress the timelines for response by a nation under attack.

What is the status of Chinese and Russian programmes and where does the U.S. stand?

- In early October 2021, Russia announced that it had successfully test launched a **Tsirkon hypersonic cruise missile** from Barents Sea which hit a target 350 kms away.
- Talking of the test in November, Russian President Vladimir Putin declared that the tests were almost complete and the Russian Navy would start receiving them in 2022.
- While the **U.S. has active hypersonic development programmes** but it was lagging behind China and Russia because most U.S. hypersonic weapons, in contrast to those in Russia and China, are not being designed for use with a **nuclear warhead**.
- As a result, U.S. hypersonic weapons will likely require greater accuracy and will be more technically challenging to develop than nuclear-armed Chinese and Russian systems.
- The U.S. is now looking to accelerate its own programmes, though it is unlikely to field an operational system before 2023.
- The Pentagon's budget request for hypersonic research for financial year 2022 is $3.8 billion, up from the $3.2 billion it requested a year earlier. The Missile Defence Agency additionally requested $247.9 million for hypersonic defence.

What is the status of development by other countries?

- Number of other countries - including Australia, India, France, Germany, and Japan—are also developing hypersonic weapons technology.
- **India operates approximately 12 hypersonic wind tunnels** and is capable of testing speeds of up to Mach 13.
- Reportedly, India is also developing an indigenous, dual-capable hypersonic cruise missile as part of its **Hypersonic Technology Demonstrator Vehicle (HSTDV) program** and successfully tested a Mach 6 scramjet in June 2019 and September 2020.
    - In a scramjet engine, air goes inside the engine at supersonic speed and comes out at hypersonic speeds.
    - DRDO had said after the test in 2020, many critical technologies such as aerodynamic configuration for hypersonic manoeuvres, use of scramjet propulsion for ignition and sustained combustion at hypersonic flow, thermo-structural characterisation of high temperature materials, separation mechanism at hypersonic velocities have been validated.

Is Hypersonic a game changer in arms race?

- Debunking some of the claims surrounding hypersonic weapons, Physicists David Wright and Cameron Tracy argued that hypersonic weapons "may have advantages in certain scenarios, but by no means do they constitute a revolution."
- According to these Physicists, many of the claims about hypersonic weapons are exaggerated or simply false.
- And yet the widespread perception that hypersonic weapons are a game-changer has **increased tensions among the U.S., Russia and China, driving a new arms race and escalating the chances of conflict.**

Conclusion

Given the rising tensions between the U.S., China and Russia as also the worsening geopolitical situation worldwide, the focus for hypersonic weapons is only set to accelerate more countries to invest significant resources in their design and development.

	Connecting the dots ● Integrated Guided Missile program of India ● Scramjet Engine ● Cryogenic Engine by ISRO
Semiconductors and Industry 4.0	**Context**: The Union Cabinet recently approved a comprehensive program for the development of sustainable semiconductor and display ecosystem in the country. ● With an outlay of Rs.76,000 crore (10 billion US dollars), the scheme has incentives for every part of supply chain including electronic components, sub-assemblies, and finished goods. ● In total, the Government of India has committed support of Rs. 2,30,000 crore (USD 30 billion) to position India as global hub for electronics manufacturing with semiconductors as the foundational building block. **Significance of the Sector** ● Semiconductor chips are integral parts of the power train, chassis, safety systems, advanced driver assistance systems, and other parts of automobiles. ● They are used more in passenger vehicles compared to commercial vehicles or two-wheelers ● The move to electric vehicles has led to increased demand of chips. For example, a Ford Focus typically uses roughly 300 chips, whereas one of Ford's new electric vehicles can have up to 3,000 chips ● With supply of semiconductor chips slowing down, the production in automobile sector is also adversely impacted. **Programme for Development of Semiconductors and Display Manufacturing Ecosystem** ● The program will usher in a new era in electronics manufacturing by providing a globally competitive incentive package to companies in semiconductors and display manufacturing as well as design. ● Pave the way for India's technological leadership in these areas of strategic importance and economic self-reliance. ● Semiconductors and displays are the foundation of modern electronics driving the next phase of digital transformation under Industry 4.0. ● Semiconductors and display manufacturing is very complex and technology-intensive sector involving huge capital investments, high risk, long gestation and payback periods, and rapid changes in technology, which require significant and sustained investments. ● Give an impetus to semiconductor and display manufacturing by facilitating capital support and technological collaborations. **Semi-Conductor Shortage** There was a global shortage of semiconductor chips that had started making its effect felt in the small and medium-sized enterprises (SME) sector in India. ● **Rise in Covid-19 cases** in supplying countries, especially those in Asia, led to disruption of production (shutdown of factories) thereby causing the current shortage. ● An atrocious winter storm in Texas shutdown semiconductor factories, and a fire at a plant in Japan caused similar delays. ● Also, relatively low margins of **Substrate manufacturing** have led to its underinvestment and added to the pain of a global chip shortage ○ Substrates connect chips to the circuit boards that hold them in personal computers and other devices. ○ Made up of thin copper wire sandwiched in resin, substrates help transmit user instructions to a computer's chips and relay the answers. ○ They are necessary because the ultrathin wiring that comes out of chips can't tolerate a direct soldered connection to a circuit board ○ Substrate Manufacturing is therefore seen as a backwater of the global chip supply chain.

	○ Supplies of substrates is very tight and small disruption in this underinvested sector is causing big worries to chip manufacturers ● The chief executives of Intel and IBM have both said recently that the chip shortage could last two years. **Consequences of chip shortage on automobile sector:** ● Due to longer lead time — the time between when the order is placed and the shipment is delivered — the automobile sector has been forced to cut down on its production. ● The slowing down of production by big automotive players has led to reduction in new orders being placed to MSME vendors (who supply parts) ● The MSMEs who are vendors and sub-vendors of the automobile industry are now working just 8 hours instead of the 12 hours they normally do. This has not only affected their earning but is also making them to migrate to other sectors. ● While the local MSME industrial sector was slowly coming back to normal after the second wave of Covid-19, the recovery has been hampered by the high price of raw material and low orders. **Conclusion** Coming at a time when the entire world is facing a shortage of semiconductors, analysts say the move could go a long way in establishing the country as a global hub for electronics goods, besides creating jobs and attracting investments from top firms around the world. **Can you answer the following question?** 1. How will the approved program help India boost its semiconductor capabilities? Discuss. 2. Enumerate the practical challenges despite the fiscal support, and the technological collaborations required to propel India towards becoming a semiconductor hub.
James Webb Space Telescope	**Context**: The James Webb Space Telescope (JWST), hurled into space by the Ariane 5 rocket from European Space Agency's Spaceport in French Guiana, South America, on December 25, is en route to its destination. ● Costing $9.7 billion, this joint project of the National Aeronautics and Space Administration (**NASA**), ESA (**European Space Agency**) and the **Canadian Space Agency** is billed as the next-generation telescope. ● It is slated to unveil unseen distant parts of the universe and help fathom the mysteries of the cosmos**.** ● After it arrives at its destination, the 18 telescope mirror segments will have to be aligned flawlessly. This will be followed by weeks of testing and calibration. The first image from the telescope is at least six months away. **Why are telescopes in space?** ● The **thermal turbulence** of the Earth's atmosphere hinders telescopic observation of the universe. ● Stars twinkle, light from the faint stellar objects are **absorbed by the thick lower atmosphere,** and part of the spectrum, such as infrared rays from space, **hardly reach the ground.** ● By placing the telescopes on a high mountain top, we avoid as much atmosphere as possible. Yet the atmospheric turbulence hinders the super-sharp images of objects in space. ● Telescopes in space altogether **avoid the atmospheric disturbance** and provide us with a clear, sharp and more profound vision of the farthest reaches of the universe. ● While the most giant ground-based telescopes revealed galaxies over 5 billion light-years away, the Hubble space telescope has identified the farthest known galaxy located at whooping 13.4 billion years in the past. **Why is JWST an infrared telescope?** ● The telescope mounted on the JWST is an infrared telescope. ● The invisible magical rays that change channels in our TV remote are infrared.

	• They are like the visible light and radio waves, part of the electromagnetic spectrum, but of different wavelengths. • Why take an infrared telescope rather than a telescope that can see the visible spectrum? The answer to this resides in the Big Bang. • After the Big Bang, galaxies, stars and planets evolved. Since the Big Bang, the universe has been in a **constant state of expansion**. As the universe expands, space stretches**. As the light travels far in space, the wavelength elongates**. Aged light turns redder. The light from the earliest massive young stars and nascent galaxies was predominately visible and ultraviolet. • However, traversing the vast stretches of the expanding space, they turn into infrared rays before reaching the Earth. An infrared telescope is apt to observe the ancient, early universe, which is the primary goal of the JWST. **Will JWST see better than Hubble?** • Suppose we keep two tubs, one smaller radius and the other larger radius, in the open. During rain, the larger tub will collect a lot more rainwater than the smaller one during a given time. • Likewise, the JWST telescope's **6.5 metres in diameter will collect more photons** than Hubble's 2.4 metres mirror. • JWST will have about seven times as much light-gathering capability as Hubble. Therefore, the JWST would observe fainter stellar objects that Hubble cannot detect. Farther a thing is, fainter it is. • The JWST would see objects much farther in the universe with a bigger collecting area than Hubble. With its sharp eye, JWST can see details on a twenty-five paise coin (penny) held at a distance of 40 kilometres. • The average time for light to reach Earth from the Moon is about 1.282 seconds. This means the Moon shining bright is 1.282 seconds old. As the light takes nearly eight minutes from the Sun to reach the Earth, the image of the Sun we see is about eight minutes old. **By looking far away, we look back in time.** **How far can JWST peer into the past?** • Let us imagine the time from the Big Bang to now as a year-long calendar. In this cosmic calendar, the Big Bang occurred precisely at midnight on January 1. In this timeline, right now is December 31 at midnight. • The JWST would let us see the universe as it was all the way back to January 6. That was when the earliest stars started to shine. Literally, the JWST would take us on time travel to the unimaginable ancient past. • A telescope can **detect an object and show how it looks.** • The spectroscope, a key instrument mounted on the telescope, can analyse the light rays and tell us what is there. From the spectral image, we can understand the **elemental composition**, the **temperature of the stellar object** and much more. • Unlike the Hubble, JWST carries the spectrascope, which is expected to unravel the elemental composition of early stars and galaxies.

INTERNATIONAL RELATIONS

The Iran-US deadlock over nuclear capability	**Context:** After a gap of five months, Iran, Russia, China and the European countries resumed negotiations in Vienna to revive the 2015 nuclear agreement, known as the Joint Comprehensive Plan of Action (JCPOA), that had sought to restrict Iran's nuclear programme. • As Iran has refused to hold direct talks with the U.S., European officials will shuttle between the Iranian and American delegations, exchanging talking points and seeking common ground. **What were the terms of the nuclear agreement?** • The 2015 agreement sought to cut Iran off a possible path to a nuclear bomb in return for the lifting of economic sanctions.

- Iran maintains that its nuclear programme is peaceful, a claim disputed by many international powers.
- At the time of the agreement, Iran had two nuclear enrichment plants— Natanz and Fordow — that were enriching uranium at a higher purity than what's required for a civilian programme, and had almost 20,000 centrifuges.
- Typically, low-enriched uranium, with less than 5% concentration of the fissile isotopes U-235, is used in nuclear power plants. While uranium with 20% and more purity is used in research reactors, the fuel with 90% purity is used in bombs. Centrifuges are used to enrich uranium.
- Reduce Purity & Stockpile: According to the 2015 deal, Iran agreed to cut its stockpile of enriched uranium by 98% to 300 kg and keep them at a low purity level of 3.67%.
- Open to Inspection: Restrictions were introduced on the number of centrifuges it could keep and Iran agreed to open all its facilities to the inspection of the International Atomic Energy Agency (IAEA).
- These measures meant that even if Iran reneged on the promises and decided to make a bomb, it would take at least one year (the breakout period) to manufacture enough highly enriched uranium and centrifuges to do so.
- In return for Iran signing the agreement, the US administration under Obama lifted sanctions on Iran.

What triggered the current crisis?

- US withdrawal from deal: In May 2018, U.S. President Donald Trump, Barack Obama's successor, unilaterally pulled the U.S. out of the nuclear deal despite the UN certification that Iran was complying with all the terms of the agreement.
- Criticism of Inadequate Measures: Critics of the deal in USA as well as in Saudi Arabia and Israel argued that the agreement was inadequate to address Iran's growing influence in the region.
- Scope for Rise of Iran: Critics of agreement argued that the lifting of the sanctions would leave Iran economically more powerful and raise its geopolitical profile, which would pose fresh challenges to America's allies in West Asia.
- US need for new Items in Negotiation: The Trump administration also wanted to negotiate Iran's ballistic missile programme as part of a new agreement.
- Breakdown of deal & return of Status quo: After pulling out of the JCPOA, the U.S. reimposed sanctions on Iran and then invited Iran for talks. Iran, on the other side, not just refused to talk with the Trump administration, but also resumed its nuclear programme.

Where do talks stand now?

- Joe Biden, during the campaign, had promised to revive the nuclear deal. After his election, he appointed a special envoy for Iran.
- Indirect talks with Iran through Europeans started immediately. But no agreement was reached after six rounds in Vienna.
- A change of Government in Iran made matters more complicated. Now, the Iranian delegation, appointed by the new Government of President Ebrahim Raisi, has come forward for talks, which has raised hopes for a breakthrough. But there still are several thorny issues.
    - Iran has substantially stepped up its nuclear activities since 2019. It has installed more than 1,000 more advanced centrifuges at its plants, which can enrich uranium more quickly.
    - Iran has also started enriching uranium to 20% purity or more, which is a technical step away from the weapons grade level.
    - In February, Iran scuttled the IAEA's oversight of its nuclear sights, but agreed to keep recording devices in place that would allow the agency to continue to monitor the plants.

	○ In recent months, Iran removed the IAEA camera from a factory in Karaj, outside Tehran, that makes equipment for centrifuges. ○ According to some reports, the advances Iran made in its nuclear programme has reduced the current breakout time (to make nuclear bomb) to as little as a month, from a year when the deal was alive. **What future prospects does the negotiations hold?** • The Biden administration has said that it was ready to take necessary steps to revive the JCPOA, including removing sanctions, but it wants Iran to return to the agreement first — which means ○ Iran should stop enriching uranium ○ Ship out the highly enriched fuel as well as the centrifuges ○ Open the nuclear sites for international inspection. • Iran also says it's ready to return to the deal but it wants the U.S. to remove all the sanctions first and give assurances to Iran that a future American leader would not go back on the promises as Mr. Trump did. • As a result, the talks have reached a stalemate. • In Vienna, the challenge is to find some common ground so that at least the process of reviving the deal can begin. Time is running out for all parties with Iran moving fast with its nuclear programme. **Connecting the dots** • US Withdrawal from Paris Accord & rejoining it • US withdrawal from Afghanistan • The Other QUAD (USA-India-Israel- UAE) • QUAD (India-Australia-Japan-USA) • AUKUS
The Golden jubilee of Bangladesh Liberation War "Operation Searchlight – The Untold Story"	March 26 marks 50 years since the start of Bangladesh's liberation war, a bloody nine-month campaign that culminated in the nation's independence on December 16, 1971. It was a violent birth, with some of its roots in the 1947 partition of India – when Pakistan was created as a separate nation. **Background** • As the British Empire left the subcontinent, an estimated 200,000 to 1.5 million people were killed in sectarian violence associated with the partition and 10 million to 15 million were forcibly displaced. • Newly independent Pakistan comprised two separate geographical areas separated by over a thousand miles of Indian terrain. While both regions included significant Muslim populations, West Pakistan was made up largely of Punjabi, Pashtuns, Sindhis, Baloch and other smaller ethnic groups. In contrast, the population of East Pakistan, which became modern-day Bangladesh, was predominantly ethnically Bengali, as the territory was formerly part of the Indian region of Bengal. • Each of these factors – particularly the differences in language and political and economic inequities – laid the groundwork for Bangladesh's independence struggle. **Challenges faced by East Pakistan** Jinnah's proclamation: Just eight months into Pakistan's existence, Jinnah had arrived in Dhaka and addressed two rallies. • He declared Urdu the state language of West and East Pakistan. He forgot that the people of East Pakistan did not speak Urdu — they spoke Bangla. The seeds of the Bangla Language Movement — as well as the Bangladesh Liberation War — could be traced to Jinnah's proclamation. • The Urdu-only policy aimed to create a single identity out of two culturally distinct regions united by a common religion – Islam. More broadly, it aimed to consolidate the national identity of the recently independent Pakistan.

- In East Pakistan, the declaration was followed by the banning of Bengali books, songs and poetry by Bengali Nobel laureate Rabindranath Tagore.
- Bangla language as the medium of education and primary mode of instruction was also banned.
- All currency and official documents, including postal stamps and railway tickets, were printed in Urdu.

A major reason for this was also significant economic disparities between the two regions.

- West Pakistan controlled the country's industry and commerce while East Pakistan was predominantly the supplier for raw materials, setting up a situation of unequal exchange.
- West Pakistan deprived and coerced East Pakistan in more areas than one.
- Jute — and other crops — cultivated in East Pakistan had their prices determined in West Pakistan; a mere half of the profits trickled back to East Pakistan.
- Apples, grapes or woollen garments produced in West Pakistan were sold at 10 times the price in East Pakistan.
- Discrimination was such that the slightest of dissent branded one an enemy of Pakistan or of Islam.
- Persecution, arrests, incarcerations were the order of the day.
- In 1959-60 the per capita income in West Pakistan was 32% higher than in East Pakistan. By 1969-70, it was 81% higher in West Pakistan.
- Investment policies including in educational infrastructure consistently favoured West Pakistan.
- East Pakistanis had little access to the Central government, which was located in the West Pakistani city of Islamabad. They were severely underrepresented in politics.
- West Pakistani political leadership did not see Bengalis as "real" Muslims. Both in political circles and socially, Bengali cultural practices were considered of a lower social status.
- The efforts to "Islamise" East Pakistanis through Urdu and "purify" Bengali culture from "Hindu influences" resulted in massive nonviolent demonstrations and strikes.

The seeds of Liberation

- Bhasha Andolon: On February 21, 1952, students and other activists launched a language movement called the "Bhasha Andolon," which demanded Bangla be recognized as the state language for East Pakistan. Thousands of school and college students protested, defying Section 144 of the Criminal Procedural Code, which prohibited assembly of five or more people and holding of public meetings. The crackdown that followed claimed several lives. From 1950 to 1969 it also galvanised a growing movement for autonomy across East Pakistan.
- 1969 uprising: A mass uprising in 1969 was brutally put down by police and led to the imposition of martial law.
- Cyclone Bhola: In 1970, a devastating cyclone called "Bhola" in East Pakistan claimed 300,000 to 500,000 lives. The indifferent response of the West Pakistan government further inflamed tensions.
- Sheikh Mujibur Rahman won national election: A big turning point came the same year when the sole majority political party in East Pakistan, led by Bengali politician Sheikh Mujibur Rahman, won a landslide victory in national elections. The Pakistani leadership was reluctant to accept the results because it did not want an East Pakistani political party heading the federal government. This resulted in the start of a civil disobedience movement in East Pakistan.
- Launch of Operation Searchlight: As the demand for Bengali autonomy grew, the Pakistani government launched Operation Searchlight, a military operation to crush the emerging movement. According to journalist Robert Payne, it killed at least 7,000 Bengali civilians – both Hindus and Muslims – in a single night.

	• On March 26, Bangladesh was declared independent and the liberation war began. **The Birth of Bangladesh** At midnight on March 25, Pakistan unleashed genocide in Bangladesh. Refugees streamed into India. On December 3, India officially entered the war on the side of Bangladesh. • As Pakistan's atrocities increased, then PM Indira Gandhi decided to take action and ordered the Indian Army to launch an offensive against Pakistan followed by a full scale war against its neighbor. • Indian Army captured around 15000 km of Pak territory with the war lasting around 13 days and ending with the fall of Dhaka and the public surrender of Pak military. • On December 16, 1971, the Pakistani military surrendered to the Indian Army, marking it as Bangladesh's Victory Day. As the genocide began on the night of March 25-26 is commemorated as the day of liberation. **Can you answer the following questions?** 1. The creation of Bangladesh in 1971 changed India's geopolitics forever. Elucidate. 2. Issues related to water resources between India and Bangadesh. 3. If Indo-Bangla relations are to move to "newer heights", then unresolved issues have to be dealt with soon. Discuss.
India-Russia military alliance	**Context**: India-Russia relations have withstood the test of time and the ever-shifting nature of national interests. Relations between the two countries have deepened with time irrespective of the challenges of realpolitik. • This exceptional resilience is built on the firm foundation of strategic national interest and the synergy of geopolitics. • In the post-Cold War era, India has emerged as an economic powerhouse and a key stakeholder in today's global debate be it climate change, international trade, or the menace of terrorism. • Russia with its global status and presence presents a **win-win situation for deeper cooperation.** This relation between both countries has evolved with time, deepening the integration and widening the breadth of the relation. **Recent Meeting of India-Russia** • At the 20th meeting of the India-Russia Inter-Governmental Commission on Military & Military Technical Cooperation held recently, the **two sides concluded four agreements, contracts and a protocol.** • While three documents were signed by the officials of the two sides, the protocol was signed by the two Defence Ministers. • This includes an agreement for **manufacture of over 6 lakh AK-203 assault rifles** through Joint venture in Amethi, UP, India **a**nd the renewal of the agreement on military cooperation till 2031. **What is the status of the defence trade between the two countries?** • **India's heavy Military dependence:** Some of the largest deliveries by Russia to India since 2000, include supply and licensed production of T-90S tanks, aircraft carrier INS Vikramaditya, Krivak class stealth frigates, licence production of Su-30MKI fighter aircraft, Smerch multiple rocket launchers and Mi-17V-5 helicopters among others. • **Moving beyond buyer-seller relations**: Russia continues to be among India's biggest defence suppliers and the two sides are now looking to move from licence manufacture to joint research and co-development of defence equipment. • **Big ticket military deals**: Russia has started deliveries of the S-400 Triumf long-range air defence systems to India. The first division will be delivered by the end of 2021. o With the $5.43 billion S-400 as well as other big ticket deals, the defence trade between India and Russia since 2018 has crossed $15 billion. Russia's sales with India is about 25% of the total arms exports. • **Indigenisation plans in future deals:** 21 Mig-29s and 12 Su-30MKI fighters, Igla-S short-range air defence systems and the long-delayed deal for manufacture of 200 K-226T

	utility helicopters in India are some of deals in negotiations where issues surrounding the indigenisation plan are yet to be resolved. **What are the other avenues of cooperation other than defence sales?** • **Logistics Exchange Agreement:** On a broader military cooperation, a bilateral logistics support agreement, Reciprocal Exchange of Logistics Agreement (RELOS), as well as a Navy to Navy cooperation MoU are at advanced stages of conclusion. • **Access to Arctic:** The RELOS gives India access to Russian facilities in the Arctic region which is seeing increased global activity as new shipping routes open up and in the backdrop, India's own investments in the Russian Far East. • **Expanding Bilateral Military Exercises:** The two sides are now looking at expanding format of bilateral exercises to make them more complex, more sophisticated for exchange of experiences with regard to real time combat situations, instant exercises, the impact of cyber & drone technology on modern warfare. • In addition, the two countries are also looking at ideas for expanding India-Russia cooperation in Central Asia and possibility of supplementing bilateral exercises with trilateral and multilateral ones. **What is the future trajectory of the defence cooperation?** • **Setting joint venture to speed up services:** Timely supply of spares and support to the large inventory of Russian hardware in service with Indian military has been a major issue from India. To address this, Russia has made legislative changes allowing its companies to set up joint ventures in India to address it following an Inter-Governmental Agreement signed in 2019. This is in the process of being implemented. • **Competition forcing timely deliveries:** With increased competition from the U.S., France, Israel and others who have bagged major deals in recent years, Russia is also focusing on timely deliveries and lifetime support. • **Co-production to realign with Atmanirbhar Bharat:** In line with India's quest for self sufficiency, the partnership is reorienting presently to joint research and development, co-development and joint production of advanced defence technology and systems. ○ Today Russia & India are conducting joint research work on more than 100 promising topics, laying the huge groundwork for the development of high-tech industry in both countries in the future. • **Coproduction for Export:** In line with above objectives, the two countries have been discussing how they can cooperate in using India as a production base for exporting to third countries Russian-origin equipment and services. **Way Forward for Indo-Russian ties** • **Explore Trilateral Framework**: India and Russia need to work together in a trilateral manner or using other flexible frameworks, particularly in Southeast Asia and Central Asia. Their growing collaboration can be a force of stability and will bring more diversity to the region while strengthening multilateralism. • **Leverage Public Diplomacy:** Second, the two countries also need to look at peoples' power — youth exchanges as well as deeper links in various fields including sport, culture, spiritual and religious studies. **Tap into Cultural Congruence:** Finally, Buddhism can be an area where both countries can expand their interaction, where peace and sustainability can act as a balm in this turbulent world.
World Inequality Report: The Rich-Poor Gap in India	**In News:** According to the World Inequality Report 2022, India stands out as **a "poor and very unequal country, with an affluent elite",** where the top 10% holds 57% of the total national income, including 22% held by the top 1%, while the **bottom 50% holds just 13%** in 2021. **Key findings for India** • **Poor Middle Class Wealth**: It says India's middle class is relatively poor with an average wealth of Rs 7,23,930, or 29.5% of the total national income, compared with

	the top 10% who own 65% (Rs 63,54,070) and top 1% who own 33% (Rs 3,24,49,360) of total national income. ● **Disparity in Average Income**: The average annual national income of the Indian adult population is Rs 2,04,200 in 2021. The bottom 50% earned Rs 53,610, while the top 10% earned over 20 times more (Rs 11,66,520) ● **Disparity in Average Household Wealth**: The average household wealth is Rs 9,83,010, of which the bottom 50% owns Rs 66,280, a mere 6%. ● **Multidimensional Poverty**: As per the recent Multi-dimensional Poverty Index prepared by Niti Aayog, one in every four people in India was multi-dimensionally poor. Bihar has the highest such proportion (51.91%), followed by Jharkhand (42.16%) and Uttar Pradesh (37.79%). ● **Poor Data from government sources:** The quality of inequality data released by the government has seriously deteriorated, making it particularly difficult to assess recent inequality changes, the report says. **What is the Pandemic impact?** ● **Drop in Income**: The impact of the pandemic was reflected in a drop in global income, which was impacted significantly due to India. ● **Wealth in Private Hands:** Also, even as countries have become richer over the last 40 years, their governments have become significantly poorer, a trend magnified due to the pandemic. The share of wealth held by public actors is close to zero or negative in rich countries, meaning that the totality of wealth is in private hands. ● **Increased Government Borrowing:** The trend of concentration of wealth in private sector has been magnified by the Covid crisis, during which governments borrowed the equivalent of 10-20 per cent of GDP, essentially from the private sector. ● **Global Inequality in Wealth Distribution**: The rise in private wealth has also been unequal within countries and at world levels. Since the mid-1990s, the top 1% globally took 38% of all additional wealth accumulated, whereas the bottom 50 per cent captured just 2%. ● The wealth of the richest individuals on earth has grown at 6 to 9% per year since 1995, whereas average wealth has grown at 3.2% per year. This increase was **exacerbated during the COVID pandemic.** **Global, regional trends** ● The **poorest half of the global population "barely owns any wealth**" at just 2% of the total, whereas the richest 10% owns 76%, the report says. The richest 10% currently takes 52% of global income, and the poorest earns just 8%. ● **The Middle East and North Africa (MENA)** are the most unequal regions in the world, whereas Europe has the lowest inequality levels, the report says. In Europe, the top 10%'s income share is around 36%, and in MENA, it is 58%; in East Asia, it is 43%, and in Latin America, 55%. ● Global wealth was equal to around 510 trillion euros in 2020, or about 600% of national income. The ratio of total wealth to total income rose from around 450% in the early 1990s to about 600% today. ● In high-income countries, in 1970, private wealth–national income ratios ranged between 200-400%. By 2008, when the global financial crisis began, these ratios averaged 550%. ● Large emerging economies such as China and India experienced faster increases than wealthy countries after they transitioned away from communism (in China and Russia) or from a highly regulated economic system (in India). **In India, private wealth increased from 290% in 1980 to 560% in 2020.**

	• Wealth inequalities are also tightly connected to ecological inequalities. The top 10% of emitters is responsible for close to 50% of all emissions, while the bottom 50% contributes 12%. • Global inequalities seem to be about as great today as they were at the peak of Western imperialism in the early 20th century, the report said. **If the rich were taxed?** • The report has suggested levying a modest progressive wealth tax on multimillionaires. • In 2021, there were 62.2 million people owning more than $1 million (measured at market exchange rates). Their average wealth was $2.8 million, a **total of $174 trillion.** • More than 1.8 million individuals (top 0.04%) own over $10 million, 76,500 (0.001%) own over $100 million, and 2,750 (0.00005%) own more than a billion dollars. The billionaires own more than $13 trillion, or 3.5% of global wealth. A global **effective wealth tax rate of 1.2% for wealth over $1 million** could generate **revenues of 2.1% of global income.**
Europe's Global Gateway	**Context**: Recently, European Commission launched the Global Gateway initiative **What is Global Gateway initiative of EU?** • It is a new European Strategy to boost smart, clean and secure links in digital, energy and transport and strengthen health, education and research systems across the world. • It is essentially an umbrella strategy to synchronize already existing EU and member states global infrastructure investment programs. • Global Gateway aims to mobilize 300 billion euros (around $337 billion) over a five-year period to invest in digital and transport infrastructure, energy generation and transmission, and health projects. • In addition to smaller EU grants, Global Gateway taps into national and EU resources from financial institutions and development banks, in the hope that institutional spending will unlock significant private capital, too. **Merits of Global Gateway** • **Challenger to China's BRI:** Observers and officials were quick to frame the GG as a European challenge to China's BRI — itself launched in 2013 to fund infrastructure development projects mostly in developing and middle-income countries in Asia and around the globe. • **Strengthen EU ties with world:** EU investments have made tangible differences on the ground in much of the developing world as well as in middle-income countries. This strengthens ties with Asia, Africa, and, importantly, the Western Balkan region, and it raises environmental, democracy, and human rights standards. • **The European model** is about investing in both hard and soft infrastructure, in sustainable investments in digital, climate and energy, transport, health, education and research, as well as in an enabling environment guaranteeing a level playing field. • **Value Driven Model**: The EU will offer not only solid financial conditions for partners, bringing grants, favourable loans, and budgetary guarantees to improve debt sustainability – but also promote the highest environmental, social and strategic management standards • **Complements US initiative:** This is Europe's contribution to narrowing the global investment gap. Also, Global Gateway and the US initiative Build Back Better World will mutually reinforce each other. **Criticisms/challenges of Global Gateway** • **Repacking of Existing Projects**: Global Gateway is mostly repackaging existing programs (InvestEU, our research programme, Horizon Europe and the Connecting Europe Facility) and also that the investment sum remains a fraction of what China is mobilizing.

	• **Geopolitical Influence:** Overseas infrastructure investments are always partly geopolitical, seeking to increase the investing country's own influence while trying to minimize space for others. The EU is no different and naturally seeks to advance its interests and competitiveness. • **China factor is exaggerated**: Not China but Japan is the largest infrastructure investor, silently and seamlessly implementing affordable good quality projects, especially in Southeast Asia. • **Value Driven Agenda of EU:** While Europe meets high standards and enjoys great credibility and reputation, the assumption that China does not is flawed. Many middle- and low-income countries are demanding China's investment that doesn't come with value-driven agendas unlike that of Western investment which is invariably attached to Democracy & Human rights. • **China adapting to criticisms**: BRI is now approaching a decade of experience, and China, though relatively new to global investment projects, has learned important lessons from the first phase of BRI (2013-2017). Beijing is also increasingly showing greater empathy for the local economy and sensitivities, and the BRI is moving into new areas of sustainable growth and health where there is great demand. • **Scope for complementary multi-source investment:** Asian Development Bank estimates Asia's needs to be $26 trillion through 2030. In other words, even if China were to double the BRI's investment volume, would still be room for 10 Global Gateways. • **Challenges in mobilising Private Capital:** While the BRI mobilizes state-owned commercial and policy banks, it is unclear whether the EU will indeed be able to tap into private capital. Infrastructure projects are costly and yield uncertain returns. **Conclusion** • Not everything needs to be seen through the lens of binary competition, and not everything Beijing does is ipso facto bad simply because Beijing does it. • Global Gateway is an excellent and meaningful strategy. But instead of trying to outcompete China and lamenting low standards, the EU could make a difference by setting examples, gradually raising the bar for all. • Europe should find ways to coordinate and synergize various national and supra-national projects and share best practices and information. It can also prioritize areas less penetrated by the BRI, especially India and Eastern Europe. **Connecting the dots** • G-7 Build Back Better World • China's Belt & Road Initiative • Asia-Africa Growth Corridor
Russia-Ukraine Tension	**In News:** Russia has been building up its military forces close to the Ukrainian border. As per reports, Russia has amassed more than 92,000 troops around 300 km from the Russian border with eastern Ukraine. • This territory is a conflict zone where Ukraine has been battling Russia-backed separatists. • While Ukraine and the West have accused Russia of preparing for an invasion, Russia has, in turn, accused the West of 'anti-Russia' agenda. **Why the Russian military build-up?** • While the exact reasons remain open to interpretation, most strategic experts believe that an actual invasion is unlikely. • Rather, the move seems aimed at signaling serious intent to impose costs on Ukraine if certain 'red lines' regarding Moscow's security concerns are crossed. • The background to Russia's recent escalation vis-à-vis Ukraine is its discomfort with the **steady eastward expansion of the U.S.-led North Atlantic Organisation (NATO)**.

	● With even former constituents of the erstwhile Soviet Union such as Latvia, Lithuania, and Estonia becoming NATO members, **Russia is determined to protect its domain of influence** in the case of larger neighbours such as Belarus and Ukraine. ● While Belarus has a pro-Russia regime, Ukraine has been courting – and courted by -- NATO. ● Russia is alarmed by the gradual expansion of **military aid pouring into Ukraine from NATO** member countries, which is allegedly being used in its war against Russia-backed separatists in the Donbas region (Eastern Ukraine). ● In this context, the troop build-up could be interpreted as a **stern warning** against any plans to escalate NATO activities or presence in Ukraine. **How has Ukraine responded to Russia's mobilisation?** ● Ukrainian President Volodymyr Zelensky claimed that a coup plot has been hatched to depose him. Without saying so in as many words, he has hinted that Russia was behind the plot. ● Russia has denied any role in the alleged coup attempt. ● Ever since **Russia seized Crimea from Ukraine in March 2014** and war broke out in eastern Ukraine a month after, relations between the two countries have been fraught. ● **Russia annexed Crimea to protect its naval base** in the Crimean capital of Sevastopol, which was necessary to retain its dominance of the strategically critical **Black Sea,** which is otherwise surrounded by NATO states (Turkey, Bulgaria, and Romania, with Georgia and Ukraine being aspiring members whose induction has been stalled only by Russian opposition). **Does the Minsk Protocol have any bearing on the current scenario?** ● The Minsk Protocol was an agreement signed by representatives of Ukraine, Russia, OSCE (Organization for Security and Co-operation), and the then heads of the two separatist groups to end the war in the Donbas region. ● It enjoins **Ukraine to devolve more powers to the local governments** – likely controlled by the separatist groups -- in the Donbas region. ● Ukraine, which has made no move to implement the agreement, believes that doing so would give Russia too much say in its internal matters. ● Russia, on the other hand, believes the Minsk Protocol to be the basis for lasting peace. **What are the larger geo-political ramifications?** ● With the end of the Cold War, the dissolution of the Warsaw Pact, and the collapse of the Soviet Union, NATO's original objective – to thwart an invasion of Western Europe from the east – had been achieved. ● But NATO, rather than disbanding, reinvented itself as a **vehicle of American strategic dominance.** It began to expand, acquiring new members at a fast clip. ● Recently, with the U.S. viewing China rather than Russia as its primary security threat, American strategic focus has been shifting to the Asia-Pacific theatre. ● Some analysts believe that Russian President Vladimir Putin might have decided that it was a good time to **test NATO's (and the U.S.'s) strategic will** to get involved in case things escalate in Ukraine. **What next?** ● In the event of Russia actually invading Ukraine, it is **doubtful if NATO would intervene militarily** to protect Ukraine, which is not currently a member. At the same time, it would not want to be seen as ineffective. ● At the very least, Russia, which already faces an array of economic sanctions sparked by the Crimea invasion, might end up with more painful ones, including possibly against the Nord Steam-2 pipeline, which delivers Russian gas directly to Germany.
RCEP & Victory for the dairy sector	**Context**: The Comprehensive Economic Cooperation Agreement (CECA) between India and Australia is expected to face rough weather with the Government committing to open the dairy sector which is being opposed by the farmers' organisations.

- The Bharatiya Kisan Union said it was against Regional Comprehensive Economic Partnership negotiations because of dairy commitments and will oppose the India-Australia CECA because of the same factors.
- India's withdrawal from the Regional Comprehensive Economic Partnership (RCEP) is a major victory for the farmer's organisations, trade unions, associations of small and medium industrial producers and civil society groups, which had organised widespread agitations against the free trade agreement. The Indian government has bowed to their demands and refused to join RCEP.

Why joining the RCEP would have proven suicidal for India's dairy sector?

1. Fear of Tariffs

- The key fear of the dairy sector was that tariff clauses for agriculture in the RCEP are much more severe compared to the existing World Trade Organization (WTO) agreement.
- While the WTO allows a country to fix tariffs up to a certain maximum, or bound tariff, for a given commodity line, the RCEP binds countries to **reduce that level to zero within the next 15 years.**
- Currently, India's average bound tariff for dairy products is about 63.8% while its **average applied tariff is 34.8%.**

2. A self-sufficient sector

- India's dairy sector provides livelihood to about **70 million households.**
- A key feature of India's dairy sector is the predominance of small producers. In 2017, if the **average herd size in a dairy farm** was 191 in the U.S., 355 in Oceania, 148 in the U.K. and 160 in Denmark, it was **just 2 in India**.
- Yet, due to Operation Flood after the 1960s, **India's contribution to world milk production** rose from 5% in 1970 **to 20% in 2018.** Today, India is largely self-sufficient in milk production. It does not import or export milk in any significant quantity.
- If we consider global milk trade, developed countries account for 79% of the total world export of milk. Major players are the U.S., the EU, Australia and New Zealand.
    - A country like New Zealand exports 93% of its milk production.
- On the other hand, developing countries account for 80% of the world's total milk imports.
    - Though India is self-sufficient in milk production, China imports about 30% of its milk requirement.
- Thus, some of the major players in the global milk trade are in the RCEP region. About 51% of the global trade of milk, 45% of the global trade of skimmed milk powder (SMP), 38% of the global trade of butter oil, 35% of the global trade of cheese and 31% of the global trade of butter takes place in the RCEP region.
- This is why **Australia and New Zealand, deprived of the lucrative markets in the U.S.** after the demise of the Trans Pacific Partnership (TPP), have had a deep interest in the RCEP agreement.

3. Growth of MNCs

- Over the last 25 years, Indian policy has consciously encouraged the growth of private milk companies. Milk cooperatives, which played a major role during Operation Flood, are no more seen as engines of growth.
- Policy has also **favoured the entry of multinational dairy corporations** into the Indian dairy sector, through joint ventures, mergers and acquisitions.
- **Multinational milk firms have opened shop in India** in the hope that the Indian dairy sector would soon be opened up.
    - For instance, the Swiss firm Nestlé was the largest private purchaser of milk in India in 2019. The French milk firm Lactalis entered India in 2014 and has taken over Tirumala Milk Products in Hyderabad, Anik Industries in Indore, and Prabhat Dairy.

- Another French firm, Danone, has invested ₹182 crore in the yoghurt brand Epigamia. New Zealand's Fonterra Dairy has a 50:50 joint venture with Kishore Biyani's Future Consumer products.

- In other words, multinational dairy firms had been building a strong presence in India even prior to the RCEP talks. At present, these firms are **forced to buy milk from Indian farmers.**
- The reason is that the applied tariff for dairy products in India is about 35%. The bound tariff would have fallen to zero if the RCEP had come into effect. It would have then been far more profitable for firms to import milk from New Zealand or Australia rather than buy it from Indian farmers. The sale price of milk received by Indian farmers would have fallen sharply.
- The export price of SMP from New Zealand is about ₹150 per kg. The domestic price of SMP in India is about ₹300 per kg.
- An average dairy farmer in India receives ₹30 per litre of milk. According to estimations made by Amul, if free imports of SMP from New Zealand are permitted, the average price for milk received by an Indian dairy farmer would fall to ₹19 per L.

4. False arguments

Two arguments were raised in favour of India signing the RCEP.

- First, it was argued that **India would soon become a milk-deficient country** and be forced to import milk. Hence, it would be better if India enters the RCEP today rather than later.
    - Forecasts from Niti Aayog show that this **argument is wrong**. In 2033, India's milk production would rise to 330 MMT while its milk demand would be 292 MMT. Thus, India is likely to be a milk-surplus country by 2033.
- Second, it was argued that the quantity of milk imports from New Zealand to India are unlikely to exceed 5% of their total exports. As a result, its **impact on Indian prices would be insignificant**. This too is a false argument.
    - As data put together by Amul show, 5% of New Zealand's exports in this sector is enough to flood India's domestic market. It is enough to account for 30% of the Indian market for milk powders, 40% of the Indian market for cheese, and 21% of the Indian market for butter oil. These numbers are significant, and enough to ensure that Indian dairy prices plummet.
- If there are 70 million households dependent on dairy in India, the corresponding number is just 10,000 in New Zealand and 6,300 in Australia. Reasoned analysis shows the socio-economic costs of India becoming a party to the RCEP agreement.

How come milk price from New Zealand and Australia is so low?

- The unit cost of milk production is relatively low in countries like New Zealand because of extensive grazing lands (which reduce feed costs), mechanised operations and the advantages of economies of large-scale production, and the high productivity of milch animals (about 30 L/day).
- In addition, New Zealand government policy has consciously helped its major company, Fonterra, to become the dairy giant that it is.
- **Fonterra, which controls 90% of the New Zealand milk market and one-third of world trade in milk**, is feared even by large American and European dairy firms.
- A key demand of American dairy firms during the TPP negotiations was that New Zealand should break up and end the monopoly of Fonterra.

Conclusion

India's farmer's organisations did well to keep the government on a short leash this time. On its side, the government would do well to be guarded against the temptations of joining such free trade agreements in the future. It should also begin work on correcting the imbalances of existing free trade agreements.

Q.1) Consider the following statements

1. After notifying the rules of Citizenship Amendment Act, 2019, nearly 1 lakh people have renounced citizenship & returned to their home countries.
2. According to a Global Wealth Migration Review report, in 2019, India came second only to China when it came to high net worth individuals (HNIs) leaving the country.

Which of the above statements is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.2) Consider the following statements

1. India is the largest consumer of vegetable oil in the world.
2. India's Palm oil imports are almost 60% of its total vegetable oil imports.
3. Government has launched National Mission on Edible Oils - Oil Palm (NMEO-OP) with the aim to promote the cultivation of oil palm and also expand the cultivation of other traditional oilseed crops.

Which of the above statements is/are correct?

a) 1 and 2 only
b) 2 and 3 only
c) 1 and 3 only
d) 1,2 and 3

Q.3) Natanz and Fordow often seen in the news are associated with which of the following Country?

a) Pakistan
b) Afghanistan
c) North Korea
d) Iran

Q.4) Consider the following statements regarding G20

1. Troika refers to the top grouping within the G20 that consists of three largest economies of G20.
2. India will assume the G20 presidency on December 1, 2022 from Indonesia, and will convene the G20 Leaders' Summit for the first time in India in 2023.

Which of the above statements is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.5) Consider the following statements regarding Global Fuel Economy Initiative (GFEI)

1. It is a collaboration between the International Energy Agency and NITI Aayog
2. The objective of the GFEI is to help stabilize greenhouse gas emissions from the global light duty vehicle fleet through a 50% improvement of vehicle fuel efficiency worldwide by 2050.

Which of the above statements is/are correct?

a) 1 and 2 only
b) 2 only
c) 1 and 3 only
d) 1,2 and 3

Q.6) Pragyata guidelines recently seen in the news are associated with which of the following areas?

a) Federal Cooperation on Water
b) Health
c) Digital Education
d) Police reforms

Q.7) Consider the following statements about Khadi & Village Industries Commission (KVIC)

1. It is a statutory body formed in April 1957 by the Government of India, under the Act of Parliament, 'Khadi and Village Industries Commission Act of 1956'.
2. It is an apex organisation under the Ministry of Micro, Small and Medium Enterprises.

Which of the above statement(s) is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.8) Consider the following statements about Food Fortification

1. It has minimal effects on taste and cooking properties while at the same time adding multiple nutrients to cure multiple deficiencies.
2. Rice is the fifth item to get the government's fortification push after salt, edible oil, milk and wheat.

Which of the above statement(s) is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.9) Chendamangalam Handloom is associated with which of the following state of India?

a) Tamil Nadu
b) Kerala
c) Andhra Pradesh
d) Karnataka

Q.10) Which of the following are the largest brackish water bodies of India?

a) Chilika Lake
b) Kutch Salt Marsh
c) Pulicat Lake
d) Kerala Backwaters

Q.11) Which of the following is not true regarding AFSPA?

a) Section (3) of AFSPA specifies that If the governor of a state issues an official notification in The Gazette of India then the Central government has the authority to deploy armed forces for assisting the civilian authorities.
b) Section (4) of the Act gives Special powers to army officers in disturbed areas to shoot any individual who violates law or is suspected to violate law.
c) Security forces can arrest anybody even without a warrant, and carry out searches without consent.
d) Prosecution of the officer on duty for alleged violation of human rights requires the prior permission of the Governor of that particular state.

Q.12) Consider the following statements

1. The Compensatory Afforestation Fund Management and Planning Authority is an independent authority established under Compensatory Afforestation Fund (CAF) Act 2016.
2. The rules governing the management of the fund specify that the funds can be used for payment of salary, travelling allowances as well.

Select the correct answer from the following codes:

a) Only 1
b) Only 2
c) Both 1 and 2
d) Neither 1 nor 2

Q.13) The Konyaks are one of the major ethnic groups of which of the following states of India?

a) Chhattisgarh
b) Assam
c) Odisha
d) Nagaland

Q.14) Which of the following is not a member country of BIMSTEC?

a) South Africa
b) Bangladesh
c) Bhutan
d) India

Q.15) Which of the following fort was known to early Europeans as the 'Gibraltar of the East'?

a) Raigad fort
b) Amber fort
c) Jaisalmer fort
d) Red fort

Q.16) Ken river flows through which of the following states of India?

a) Madhya pradesh, Chhattisgarh and Uttar pradesh
b) Madhya pradesh and Uttar pradesh
c) Madhya pradesh, Gujarat and Rajasthan
d) Madhya pradesh and Maharashtra

Q.17) Which of the following is *not* true regarding the Law Commission of India?

a) It is an executive body established by an order of the Government of India.
b) It is usually headed by a former Supreme Court judge or a former Chief Justice of a High Court.
c) Its Tenure is 3 Years

d) Recommendations are binding on the government

Q.18) Consider the following statements regarding the Chief of Defence Staff (CDS):

1. CDS is the permanent Chairman of the Chiefs of Staff Committee which has the three service chiefs as members
2. He is also the head of the Department of Military Affairs (DMA).

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.19) The calm area at the centre of the cyclone is referred to as?

a) Epicentre
b) Focus
c) Landfall
d) Eye

Q.20) Which of the following benefits are enjoyed by the Institute of National Importance??

a) Functional autonomy
b) Increased funding.
c) Minimal interference from the political executive.
d) All of the above

Q.21) Consider the following statements regarding the PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) Scheme:

1. It is a micro-credit facility that provides street vendors a collateral-free loan of Rs 10,000 with low rates of interest for a period of one year.
2. The scheme is a part of the AtmaNirbhar Bharat package.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.22) Bitcoin is an example of which of the following?

a) Plastic money
b) Fiat currency
c) Non-fiat cryptocurrency
d) fiat cryptocurrency

Q.23) Which is a nodal ministry for Beti Bachao Beti Padhao (BBBP) scheme? answer choices

a) Ministry of home affairs
b) Ministry of Women and Child Development
c) Ministry of Health and Family Welfare
d) Niti Aayog

Q.24) Consider the following statements regarding the Stubble burning:

1) Stubble burning is the act of setting fire to crop residue to remove them from the field to sow the next crop
2) It is a traditional practice in Southern Inida to clean off the rice chaff to prepare the fields for winter sowing

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.25) Section 124A of IPC deals with which of the following?

a) Sedition
b) Child marriage
c) Triple talaq
d) Money laundering

Q.26) Which of the following is *not* a part of G7?

a) USA
b) UK
c) Russia
d) Japan

Q.27) Consider the following statements regarding the Difference between UCBs and Commercial Banks

1) In a commercial bank, there is a clear distinction between its shareholders and its borrowers whereas in a UCB, borrowers can even double up as shareholders.
2) Banking operations of the UCBs are regulated by the RBI, but 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.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.28) Finn's weaver bird was recently uplisted to which of the following categories by IUCN?

a) Vulnerable
b) Extinct
c) Endangered
d) Critically endangered

Q.29) Which of the following is not a Central Asian nation?

a) Turkmenistan
b) Afghanistan
c) Uzabekistaan
d) Kyrgyzstan

Q.30) Consider the following statements regarding the Lokpal and Lokayuktas Act, 2013:

1) The Lokpal Act envisages establishment of the anti-graft body Lokpal at the Centre and Lokayuktas in states to look into cases of corruption against certain categories of public servants.
2) The Lokpal selection committee is headed by the Prime Minister and consists of the Lok Sabha Speaker, leader of the opposition in the lower house, the Chief Justice of India or a judge of the apex court nominated by him, and an eminent jurist who could be nominated by the President or any other member.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.31) Which of the following is the 1st festival in Asia to achieve recognition as UNESCO ICH of Humanity?

a) Taiwan Lantern Festival
b) Phi Ta Khon
c) Ice And Snow Festival
d) Durga Puja

Q.32) Consider the following statements:

1. Its northern boundary runs along the international border with Bhutan.
2. It represents the highly endemic Indo-Malayan region.
3. The forest of the reserve is classified as the Moist Tropical forest.
4. Rajabhatkhawa Vulture Breeding Center for the breeding and conservation of endangered Indian vultures was established as the second such center in India.

Which of the following tiger reserve is being described above?

a) Namdapha Tiger reserve
b) Manas Tiger reserve
c) Buxa Tiger reserve
d) Valmiki Tiger reserve

Q.33) Sixth schedule deals with which of the following?

a) List of states and union territories and their territories
b) Provisions as to the allocation of seats in the Council of States.
c) Provisions as to the Administration and Control of Scheduled Areas and Scheduled Tribes.
d) Provisions as to the Administration of Tribal Areas in the States of Assam, Meghalaya, Tripura and Mizoram.

Q.34) Vanniyars are one of the largest and most consolidated backward communities of which of the following states of India?

a) Tamil Nadu
b) Andhra Pradesh
c) Kerala
d) Karnataka

Q.35) Consider the following statements:

1. Typhoon and hurricane are two of the regionally specific names for strong tropical cyclones
2. In the North Atlantic, central North Pacific, and eastern North Pacific, tropical cyclones are called typhoons.

Which of the following is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.36) Consider the following statements.

1. When a virus does not change it is called a mutation.
2. A virus with one or more new mutations is known as a "variant" of the original virus.

Which of the following is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.37) Consider the following statements regarding Competition Commission of India (CCI):

1. It is a Constitutional body
2. It is responsible for enforcing The Competition Act, 2002 throughout India.
3. It is composed of A Chairperson and 6 Members appointed by the President of India.

Which of the above is or are correct?

a) 1 and 2 only
b) 2 only
c) 1 and 3 only
d) 1, 2 and 3

Q.38) Covovax vaccine was recently granted emergency approval by WHO. It is manufactured by which of the following country?

a) USA
b) UK
c) India
d) China

Q.39) Consider the following statements on Kalanamak rice

1. This variety has been in cultivation since the Buddhist period (600 BC).
2. It is quite popular in Himalayan Tarai of Nepal and eastern Uttar Pradesh of India, and is also known as the scented black pearl of Uttar Pradesh.

Which of the above statement(s) is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.40) Operation Vijay is associated with which of the following?

a) Liberation of Goa, Daman and Diu
b) Operation against Naxalites
c) To help fleeing Hindus and Sikhs from Afghanistan
d) Flushing out militants from Kashmir

Q.41) Baby Friendly Hospital Initiative (BFHI) is a worldwide programme of which of the following?

a) WHO
b) UNICEF
c) ASEAN
d) Both (a) and (b)

Q.42) Visakhapatnam, Mormugao, Imphal and Surat indigenous stealth guided missile destroyers belong to which of the following class?

a) Project 15B
b) Project 75 submarine
c) Project 18
d) Project 15A

Q.43) Fugitive economic offender (FEO) is defined as an individual who:

1. who has committed offences involving an amount of 10 crore rupees or more
2. has run away from India to avoid criminal prosecution.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.44) Which of the following is the administrative Ministry of the Election Commission?

a) Ministry of Home Affairs
b) Ministry of Law
c) Ministry of Social Justice
d) None of the above

Q.45) 'Mission Kakatiya' in Telangana is associated with which of the following class?

a) Abolition of Child labour
b) Mitigating Pollution
c) Employment
d) Rainwater harvesting

Q.46) Consider the following statements regarding 'Standing' committees:

1. It is a temporary and regular committee which is constituted according to the provisions of an Act of Parliament.
2. Financial committees and departmentally-related standing committees (DRSCs) are types of standing committees.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.47) Chillai kalan is associated with Which of the following?

a) Rice sowing season
b) Harshest winter spell of Kashmir
c) Mourning month of Shia community
d) None of the above

Q.48) Which of the following are possible uses of drones in Agriculture

a) It can be used in many areas of the agriculture sector such as monitoring crop stress, plant growth, predicting yields, and delivering props.
b) Drones can be used for assessing the health of any vegetation or crop, field areas inflicted by weeds.
c) Drones can be used to shoot pods which increases consistency and efficiency of crop management.
d) All of the above

Q.49) Consider the following statements regarding Albino Indian Flapshell Turtle

1. It is a freshwater species of turtle found in South Asia.
2. Its IUCN status is critically endangered.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.50) The Central Reserve Police Force (CRPF) comes under Which of the following ministry?

a) Ministry of Defence
b) Ministry of Law and Justice
c) Ministry of Home affairs
d) None of the above

Q.51) The authority of adjournment sine die lies with which of the following?

a) President
b) Leader of Opposition
c) The presiding officer of the House
d) Prime Minister

Q.52) Consider the following statements regarding Olive Ridleys:

1. It is the smallest sea turtle.
2. The olive ridley is mostly carnivorous.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.53) Biligiri Rangaswamy Temple (BRT) Tiger Reserve is located in Which of the following state?

a) Tamil Nadu
b) Andhra Pradesh
c) Telangana
d) Karnataka

Q.54) ASIGMA, recently seen in news, is associated with Which of the following?

a) Indian Army's messaging application
b) Newly discovered dwarf planet
c) Indigenous drones for agricultural productivity
d) None of the above

Q.55) Consider the following statements regarding Essential Commodities (EC) Act, 1955:

1. It was established to prevent hoarding of the essential commodities and to ensure their timely delivery so that normal life does not get affected.
2. This includes foodstuff only.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.56) Which of the following is *not* true about the Tribal Cooperative Marketing Development Federation of India (TRIFED)

a) It is a statutory body
b) It is administered by the Ministry of Commerce.
c) It works for the social and economic development of the tribal people of the country

d) It has been registered as a National Level Cooperative body by the Government of the country

Q.57) Swachh Bharat Mission-Urban 2.0 comes under which of the following Ministry?

a) Ministry of Drinking water and sanitation
b) Ministry of Home Affairs
c) Ministry of urban affairs
d) Ministry of Social justice

Q.58) The World's longest Highway tunnel – Atal Tunnel is located in?

a) Himachal Pradesh
b) Ladakh
c) Shimla
d) Both (a) and (b)

Q.59) Which of the following is *incorrect* about Anti-dumping Duty?

a) An anti-dumping duty is a protectionist tariff that a domestic government imposes on foreign imports that it believes are dumped.
b) The imposition of anti-dumping duty is impermissible under the World Trade Organization regime.
c) It is aimed at ensuring fair trading practices
d) These tariffs can also lead to higher prices for domestic consumers.

Q.60) Mission SAGAR is associated with which of the following?

a) withdrawal of AFSPA
b) Indian assistance to Indian Ocean nations
c) Killing off insurgents in J&K
d) All women naval fleet

Consider the following statements regarding Counter Terrorism Committee of UNSC:

1. India will chair the Counter-Terrorism Committee of United Nations Security Council (UNSC) in January 2022 after 10 years.
2. The Counter-Terrorism Committee was established by Security Council resolution 1373 adopted unanimously on 28 September 2001 in the wake of the 9/11 terror attacks in the US.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.62) Which of the following is *incorrect* about flex-fuel engines?

a) It is an internal combustion engine that can run on more than one type of fuel and also a mixture.
b) Typically, a blend of petrol and ethanol or methanol is used
c) The engine is capable of automatically adjusting for any ratio.
d) Flex-fuel engines are still in the experimental stage and are not available in any country.

Q.63) Foreign Contribution Regulation Act (FCRA) comes under which of the following Ministry?

a) Ministry of External affairs
b) Ministry of Home affairs
c) Ministry of Finance
d) Ministry of Commerce

Q.64) Consider the following statements regarding Vaccines recently approved in India:

1. Corbevax, to be made by Hyderabad-based Biological E, is a nanoparticle-based vaccine.
2. Covovax, to be manufactured by the Serum Institute of India, Pune, is a protein subunit vaccine.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.65) Which of the following is the function of SEBI?

a) Drafting regulations
b) Passing rulings and orders
c) Conducting investigation and enforcement action
d) All of the above

Q.66) e-shram portal comes under which of the following Ministry?

a) Ministry of Labour & Employment
b) Ministry of Home affairs
c) Ministry of Finance
d) Ministry of Commerce

Q.67) Consider the following statements regarding Indian SARS-CoV-2 Genomic Consortia (INSACOG):

1. It is coordinated by Department of Biotechnology (DBT) along with MoH&FW, ICMR, and CSIR
2. The aim is To monitor the genomic variations in the SARS-CoV-2 on a regular basis through a multi-laboratory network.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.68) New Development Bank is Component of financial architecture of Which of the following?

a) BRICS
b) ASEAN
c) BIMSTEC
d) None of the above

Q.69) Atal Rankings of Institutions on Innovation Achievements (ARIIA) is an initiative of which of the following?

a) NITI Aayog
b) Ministry of Education
c) All India Council for Technical Education (AICTE)
d) University Grants Commission (UGC)

Q.70) Consider the following statements regarding Sahitya Akademi award:

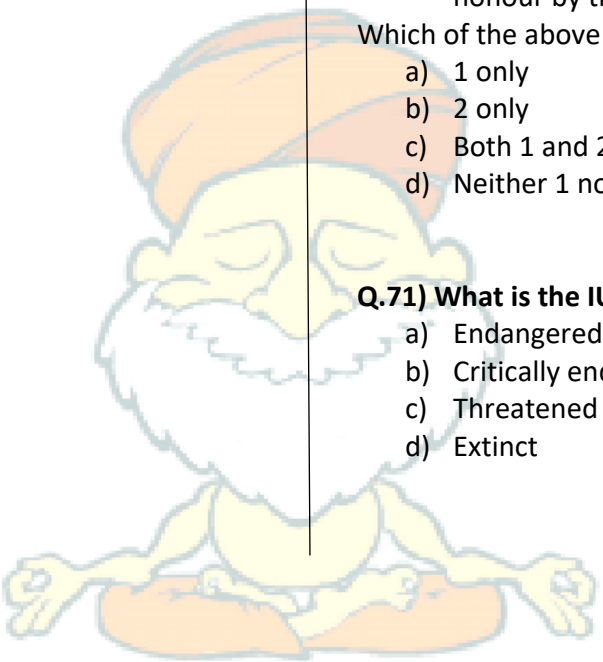
1. Award is presented to the most outstanding books of literary merit published in any of the twenty-four major Indian languages recognized by the Akademi.
2. Sahitya Akademi award is the highest literary honour by the Government of India.

Which of the above is or are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.71) What is the IUCN status of Indian Pangolin?

a) Endangered
b) Critically endangered
c) Threatened
d) Extinct



ANSWER KEY

1. B
2. D
3. D
4. B
5. B
6. C
7. C
8. C
9. B
10. A
11. D
12. A
13. D
14. A
15. A
16. B
17. D
18. C
19. D
20. D
21. C
22. C
23. B
24. A
25. A
26. C
27. C
28. C
29. B
30. C
31. D
32. C
33. D
34. A
35. A
36. B
37. B
38. C
39. C
40. A
41. D
42. A
43. B
44. B
45. D
46. C
47. B
48. D
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50. C
51. C
52. C
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55. A
56. B
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58. D
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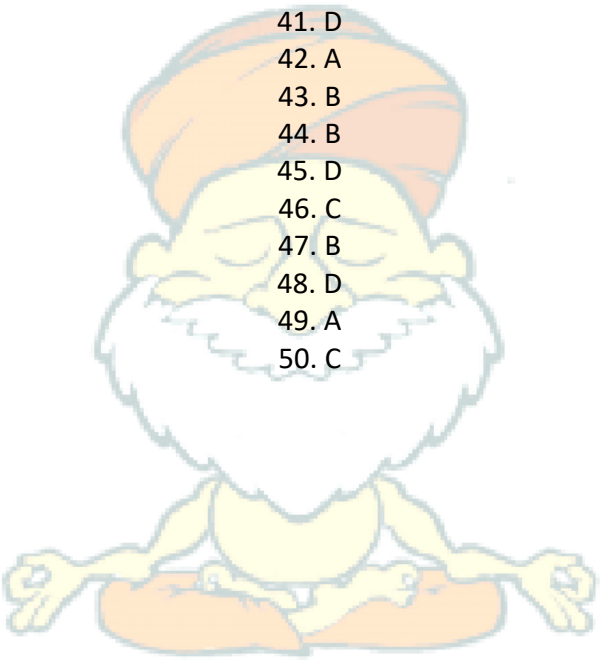
67. C
68. A
69. B
70. A
71. A



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