

CONTENT

1. POLITY & GOVERNANCE

- Preamble of the Indian Constitution
- PM Surya Ghar Muft Bijli Yojana
- Electoral Bonds
- Model Code of Conduct
- Section 125 of CrPC
- Bharatiya Bhasha Samiti
- National Council For Transgender Person
- Supreme Court Collegium
- IEDSS
- Law commission of India
- GHAR Portal
- Codex Committee
- Whip
- Directorate of GST Intelligence
- Vidyanjali Scholarship Programme
- AISHE REPORT
- PM CARES FUND
- SUPREME COURT OF INDIA

2. INTERNATIONAL RELATIONS

- World Govt Summits – 2024
- Interpol's Red Corner Notice
- Munich Security Conference
- ASEAN
- IBSA-Fund
- UNESCO- Asia and the Pacific
- Raisina Dialogue
- G-33
- CRISIS IN RED SEA
- INTERNATIONAL COURT OF JUSTICE
- FREE MOVEMENT REGIME

3. ECONOMY

- Build-Operate-Transfer(BOT) Model
- DigiReady Certification
- Sovereign Gold Bond (SGB) Scheme
- Fund of Funds Scheme
- UPI
- Market Capitalisation
- CRR
- Disinflation
- Fair and Remunerative Price
- Smishing
- Payments Bank
- Tax Buoyancy
- Rights Issue

- PLI Scheme for White Goods
- SAMARTH centres
- K-SHAPED RECOVERY
- DIRECTORATE OF REVENUE INTELLIGENCE
- CORRUPTION PERCEPTION INDEX

4. INTERNAL SECURITY

- ABHYAS
- INDUS - X
- Mission Aspides
- Exercise Dosti
- Exercise Dharma Guardian 2024
- Sub-national Climate fund
- Exercise Vayu-Shakti-24.
- BRAHMOS MISSILE
- ARMADO
- SECURITY COVER
- ECOWAS
- H-1B VISA
- EXERCISE SADA TANSEEQ
- INS SUMITRA

5. ENVIRONMENT

- Key Facts about Gomti River
- SARTHI Portal
- Char Area
- Aral-Sea
- Kalasa-Banduri Project
- Papua New Guinea
- Vaitarni River
- Biodiversity Heritage Site
- Great Backyard Bird Count
- GROW Portal
- Convention on the Conservation of Migratory Species
- Baltic Sea
- UN- World Restoration Flagships
- Kosi River
- Shahpur Kandi Dam Project
- Sudarshan Setu Bridge
- Ramsar Site
- Green Roofs
- Mekong River
- Corbett Tiger Reserve
- Nagoya Protocol
- Black Necked Crane
- Himalayan Griffon

- Sepahijala WLS
- World Sustainable Development Summit 2024
- NILGIRI BIOSPHERE RESERVE
- KINNOW FARMING
- FUTALA LAKE
- RATLE HYDRO ELECTRIC PROJECT
- ERAVIKULAM NATIONAL PARK
- SNOW LEOPARD

6. SCIENCE & TECH

- Flue Gas De-Sulphurisation (FGD)
- SWATI-Portal
- Bubonic Plaque
- Kaji Nemu
- YUVIKA
- Diptheria
- National Science Day 2024
- Rhodamine-B
- Garbhini – GA2
- Bluetongue disease
- Tidal Disruption Event
- Magsafe Charger
- Nano DAP
- Wheat Blast
- Candida Auris
- InTranSE Program
- Coronal Mass Ejections (CMES)
- NEGLECTED TROPICAL DISEASES
- CHRONIC OBSTRUCTIVE PULMONARY DISEASE
- NITROGEN HYPOXIA
- GENERATIVE AI
- ALZHEIMERS DISEASE

7. SOCIAL ISSUES

- Nazool land
- One Stop Centre Schemes
- Animal Husbandry Infrastructure Development Fund
- Kilkari Program
- SSPCA Initiative
- PM YASASVI

- SAHELI

8. ART & CULTURE

- Aadi Mahotsav
- BAPS
- Sangeet Natak Akademi
- Hastal Minar
- Pallava Dynasty
- Neolithic Period
- Nihang Sikhs
- Rani Chennamma
- Paruveta Festival
- Mohd Quli Qutb Shah's tomb
- Lord Mahavir
- Morodharo
- Shompen Tribe
- Martand Sun Temple
- Mesolithic Period
- Subika Painting
- Mera GAon Mera Dharohar
- Ajanta & Ellora Caves
- HAZRAT NIZAMUDDIN AULIYA DARGAH
- DOGRI FOLK DANCE
- SHUMANG LEELA

9. SCHEMES

- PM-MKSSY
- PMKSY
- Rashtriya Udyamitra Vikas Pariyojana
- Navigate Bharat Portal

10. AWARDS & HONOURS

- National Creators Awards
- Blavatnik Awards
- Sportstar Aces Award 2024
- Bharat Ratna
- Lakshminarayana Award
- Jnanpith Award
- France highest civilian award

POLITY & GOVERNANCE**1. Preamble of the Indian Constitution**

Overview:

The Supreme Court of India recently agreed to examine whether the words "socialist" and "secular" can be removed from the Preamble of the Indian Constitution.

About Preamble of the Indian Constitution

- The preamble of the Indian Constitution serves as a brief introductory statement of the Constitution that sets out the guiding purpose, principles, and philosophy of the Indian Constitution.
- The Preamble is based on the Objectives Resolution', drafted and moved by Jawaharlal Nehru and adopted by the Constituent Assembly on January 22, 1947.
- The Preamble reveals four ingredients or components:
 - Source of authority of the Constitution: It is indicated by the Preamble that the source of authority of the Constitution lies with the people of India.
 - Nature of the Indian State: It declares India to be a sovereign, socialist, secular, and democratic republic.
 - Objectives of the Constitution: The objectives stated by the Preamble are to secure justice, liberty, and equality to all citizens and promote fraternity to maintain unity and integrity of the nation.
 - Date of adoption of the Constitution: It stipulates November 26, 1949, as the date.
- Amendments: By the 42nd Amendment of 1976, the words "Socialist" and "Secular" were inserted; the Preamble now reads "Sovereign Socialist Secular Democratic Republic".
- Interpretation by the Supreme Court:
 - Berubari Union case: In this case, it was held by the Supreme Court that the Preamble is part of the Constitution. However, it recognised that the Preamble could be used as a guiding principle if a term in any article of the Constitution is ambiguous or has more than one meaning.
 - Keshvananda Bharti v. State of Kerala: In this case, the Supreme Court overturned its earlier decision and held that the Preamble is a part of the Constitution and can be amended under Article 368 of the Constitution.
- Again, in the LIC of India case, the Supreme Court held that the Preamble is a part of the Constitution.

Q1) What is the Constituent Assembly of India?

The Indian Constitution was made by the Constituent Assembly, which came into existence as per the provisions of the Cabinet Mission of May 1946. Its task was to formulate a Constitution for facilitating the appropriate transfer of sovereign power from British authorities to Indian hands. It comprised members who were partly elected and partly nominated. The elected members were indirectly elected by members of the provincial legislative Assembly, who were elected on the limited franchise.

2. PM Surya Ghar Muft Bijli Yojana

Overview:

Prime Minister of India launched PM Surya Ghar Muft Bijli Yojana to provide free electricity to its beneficiaries.

About PM Surya Ghar Muft Bijli Yojana

- In this scheme, the central government will provide 300 units of free electricity per month to its beneficiaries by investing worth ₹75,000 crores.
- The free electricity scheme was earlier announced by the Finance Minister in an interim budget speech.
- Target: It aims to light up 1 crore households.

- Under the scheme Urban Local Bodies and Panchayats shall be incentivised to promote rooftop solar systems in their jurisdictions.
- The Central Government will guarantee no financial burden on the people by providing significant subsidies directly to their bank accounts and offering highly concessional bank loans.
- Expected benefits:
 - Savings up to fifteen to eighteen thousand rupees annually for households from free solar electricity and selling the surplus to the distribution companies;
 - Charging of electric vehicles;
 - Entrepreneurship opportunities for a large number of vendors for supply and installation;
 - Employment opportunities for the youth with technical skills in manufacturing, installation and maintenance.

Q1) What is Solar Energy Corporation of India?

It is the primary implementing agency of the Ministry of New and Renewable for Renewable Energy schemes/projects. It was established in the year 2011. It has awarded Renewable Energy (RE) project capacities of over 56 GW.

3. Electoral Bonds**Why in News?**

The Supreme Court dismissed a plea by the State Bank of India (SBI) to extend the deadline for providing details of electoral bonds purchased anonymously and their encashment by political parties to June 30, 2024. A five-judge Bench (headed by the CJI) gave the bank 24 hours to provide the details to the Election Commission of India (ECI).

Background of the Issue

- The petition was filed in the aftermath of the SC's verdict striking down the electoral bonds scheme (EBS), where the Court had directed the SBI to furnish details of the bonds to the ECI by March 6, 2024.
- These details were to include the date of purchase of each bond, the name of the purchaser of the bond and the denomination of the bond purchased.
- The ECI was subsequently ordered to publish all such information shared by the SBI on its official website by March 13, 2024.
- The court was also hearing a contempt plea filed by NGOs (ADR and Common Cause) against the SBI Chairman.
 - The plea contends that the bank was deliberately trying to ensure that details were not disclosed to the public before the Lok Sabha elections due in April-May.
 - Analysis reveals that the BJP was the scheme's greatest beneficiary.

Why did SBI Seek more Time to Comply?

- The bank said that the information and documents were scattered across its various branches and decoding them was a "time-consuming exercise."
- The data related to the issuance of the bond and data related to the redemption of the bond were recorded "in two different silos."
 - This was done to ensure that donors' anonymity was protected.
- The Court was also informed that donor information was kept in a sealed cover at the selected branches and thereafter deposited in the organisation's main branch in Mumbai.
- It can thus be noted that both sets of information were being stored independently of each other.
 - Thus, to re-match them would be a task requiring a significant amount of effort.
- The SBI added that -
 - While some details such as the number of bonds issued are stored digitally,
 - Others such as the names of the purchasers and KYC documentation are stored physically in its various branches to "achieve the object of the scheme."

What did the Contempt Plea Stipulate?

- All electoral bond-related work was overseen by a specific team of the SBI called the Transaction Banking Unit (TBU) to ensure that the government can access crucial information on a short notice.
- The petitioners claimed that the SBI maintains a secret number-based record of donors who buy bonds and the political parties to which they donate.
- Additionally, each electoral bond also possessed a unique number making it easier to trace it.
- A simple query on the database can generate a report in a particular format which does not require any manual verification.
- The petitioners pointed out that the SBI had enough manpower to retrieve the information within the stipulated deadline.
- Even the EBS makes it mandatory to disclose information furnished by a buyer when demanded by a competent court.

What did the Top Court Say?

- The CJI pointed out that the judgement had not asked the bank to “match” information to ascertain who contributed to which parties and only wanted a “plain disclosure”.
 - He asserted that the SBI in its own application said that such information was “readily available”.
- The Bench stated that it did not wish to initiate contempt proceedings against the SBI, but it was putting the bank on notice and would take action if the SBI failed to comply.

Q1) Why did the SC strike down the electoral bonds scheme (EBS)?

In the Association for Democratic Reforms v Union of India (2024), the Supreme Court held that the Electoral Bond Scheme was unconstitutional for violating the right to information of voters.

About Electoral Bonds (EBs)

- Electoral bonds are interest-free bearer bonds or money instruments that can be purchased by companies and individuals in India from authorised branches of the State Bank of India (SBI).
- The bonds are similar to bank notes that are payable to the bearer on demand and are free of interest.
- These bonds are sold in multiples of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh, and Rs 1 crore.
- They can be purchased through a KYC-compliant account to make donations to a political party.
- EBs have a life of only 15 days during which it can be used for making donations to political parties.
- The name and other information of the donor are not entered on the instrument and thus electoral bonds are said to be anonymous.
- There is no cap on the number of electoral bonds that a person or company can purchase.
- Under the Income Tax act, one's electoral bond donations are considered tax-exempt under Section 80 GG and Section 80 GGB.
- Who can receive funding via electoral bonds?
 - Only political parties registered under Section 29A of the Representation of the People Act, 1951 and which secured not less than 1% of votes polled in the last general election to the House of the People or the Legislative Assembly of the State, are eligible to receive electoral bonds.
 - The political parties have to encash them within a stipulated time.
 - The bond can be encashed by an eligible political party only through a designated bank account with the authorized bank.
 - The political parties have to disclose the amount to the Election Commission.

4. What is the Model Code of Conduct (MCC)?

Overview:

An Indian delegation is set to leave for London in an effort to seal the free trade agreement with the UK, as dates for the general elections are expected to be announced in less than a month, which will trigger the Model Code of Conduct (MCC).

About Model Code of Conduct (MCC)

- MCC is a set of guidelines intended to regulate political parties and candidates during elections to ensure that the conduct of polls by the Election Commission of India (ECI) is free and fair.
- This is something political parties and candidates voluntarily agree to.
- Divided into eight parts, the guidelines cover dos and don'ts for electioneering as well as on publication of advertisements at the cost of the exchequer, among other things.
- The ECI ensures observance of the MCC by a political party in power and contesting candidates for conducting free and fair elections under Article 324 of the Constitution of India.
- The salient features of the Model Code of Conduct lay down how political parties, contesting candidates and party(s) in power should conduct themselves during the process of elections i.e. on their general conduct during electioneering, holding meetings and processions, poll day activities and functioning of the party in power etc.
- MCC also ensures that official machinery for electoral purposes is not misused. Further, it is also ensured that electoral offenses, malpractices, and corrupt practices are prevented by all means. In case of violation, appropriate measures are taken.
- The code comes into effect from the time the EC announces the schedule of elections and will be in force till the results are announced.
- Applicability:
 - During general elections to the Lok Sabha, the code is applicable throughout the country.
 - During general elections to the Legislative Assembly of the state, the code is applicable in the entire State.
 - During bye-elections, the MCC would be applicable in the area of the concerned Constituency only.
- Is MCC Legally Enforceable?
- The MCC by itself is not legally enforceable but certain provisions of the MCC may be enforced through invoking corresponding provisions in other statutes such as the Representation of the People Act, 1951, IPC and CrPC.

Q1) What is the Election Commission of India (ECI)?

ECI is an autonomous constitutional authority responsible for administering Union and State election processes in India. The body administers elections to the Lok Sabha, Rajya Sabha, State Legislative Assemblies in India, and the offices of the President and Vice President in the country.

5. What is Section 125 of the Criminal Procedure Code (CrPC)?

Overview:

The Supreme Court recently decided to examine a plea on whether a divorced Muslim woman can seek maintenance under Section 125 of the Criminal Procedure Code.

About Section 125 of the Criminal Procedure Code (CrPC)

- It deals with the maintenance of wives, children, and parents.
- It is a legal provision that allows certain categories of individuals to claim financial support from their spouses or children, as the case may be, in the event they are unable to maintain themselves.
- Who Can Claim Maintenance?
 - **Wife:** A wife who is unable to maintain herself can claim maintenance from her husband. The wife is entitled to maintenance if she is unable to support herself. The word "wife" refers to a woman who has been divorced or sought divorce from her spouse and has not remarried.

- **Children:** Children, whether legitimate or illegitimate, who are unable to maintain themselves and are below a certain age or mentally/physically disabled can claim maintenance from their parents.
- **Arents:** Under this, both father and mother are entitled to be maintained equally by son and daughter, but the court must be satisfied that the daughter has the means to support herself. Parents also include “Adoptive father” and “Adoptive mother.”
- To successfully claim maintenance under Section 125 CrPC, certain conditions must be met:
 - Neglect or Refusal: The person seeking maintenance must demonstrate that the respondent (the person from whom maintenance is sought) has neglected or refused to provide financial support.
 - Dependency: The claimant must establish their inability to maintain themselves and their dependency on the respondent for financial assistance.
 - Sufficient Means: The person from whom maintenance is claimed must have sufficient means to maintain the person claiming.
- Quantum of Maintenance: The court will determine the amount of maintenance based on various factors like the income and financial capacity of the person liable to pay, the needs of the claimant, and other relevant circumstances. The objective is to ensure that the claimant gets a reasonable and fair amount for their maintenance.
- Duration: Maintenance can be awarded on a monthly basis, and the court can specify a duration for which it should be paid. It can be a temporary or permanent arrangement, depending on the circumstances.
- Enforcement: If the person ordered to pay maintenance does not comply with the court's order, the person seeking maintenance can file an application for the enforcement of the order. The defaulter may face legal consequences for non-compliance.
- The wife is not entitled to receive an allowance from her husband in three cases,
 - if she is living in adultery
 - if she refuses to live with her husband and without any sufficient cause
 - if they are living separately by mutual consent

6. Bharatiya Bhasha Samiti

Overview:

Recently, the Chairman of Bharatiya Bhasha Samiti advocated for the promotion of Indian languages in education and stated that textbooks will soon be available in Indian languages on digital platforms.

About Bharatiya Bhasha Samiti

- It is a High Powered Committee for Promotion of Indian Languages.
- It has been constituted by the Ministry of Education, Government of India in 2021.
- Mandate: The mandate of this committee would be to explore and recommend pathways of the holistic and multi-disciplinary growth of Indian languages as envisaged in the National Education Policy-2020.
- It has also been entrusted to advise the Ministry on all matters pertaining to revitalization of existing language teaching and research and its extension in various institutions in the country.
- To perform the tasks assigned to it, the High Powered Committee may appoint sub-committees/study groups.
- The committee may organize seminars, workshops, conferences, and webinars to highlight the need for the promotion of Indian languages.
- It may also interact and coordinate with any institution of the Central/State Government dealing with teaching, research, and extension/promotion of languages.
- Shri Lal Bahadur Shastri National Sanskrit University (SLBSNSU), New Delhi would provide secretarial assistance and space to house the High Powered Committee and meet the related expenditure as per the Government of India rules, regulations and instructions from time to time.

- The SLBSNSU has been also entrusted to appoint consultants and experts/scholars/officials/young professionals on short-term basis and to conduct seminars, workshops, webinars, etc. as per the recommendations of the Committee.
- Necessary finance towards the same would be provided by the Ministry of Education (MoE) to the University under relevant budget heads.

Q1) What is language?

A language is a system of conventional spoken, manual (signed), or written symbols by means of which beings express themselves. The typical functions of language include communication, the expression of identity, play, imaginative expression, and emotional release.

7. National Council for Transgender Persons

Overview:

Recently, the National Council for Transgender Persons (NCTP) convened its pivotal meeting under the Chairmanship of Secretary, Ministry of Social Justice and Empowerment.

About National Council for Transgender Persons

- It is a statutory body constituted under the Transgender Persons (Protection of Rights) Act 2019 to safeguard the rights of transgender persons in India.
- It is responsible for monitoring and evaluating the implementation of the provisions of the Transgender Persons (Protection of Rights) Act, 2019 and making recommendations to the government on measures to promote and protect the rights of transgender persons.
- Aims
 - To focus on livelihood issues as well as to raise awareness about the trans community for achieving the goal of social justice so that transpersons are accepted within families and in the larger society.
 - To ensure to set up of transgender welfare boards in all states and also ensure that essential needs of the transgender community, like housing, food, healthcare, and education are met.
- Composition
 - The Union Minister of Social Justice & Empowerment is the Chairperson (ex-officio).
 - The Union Minister of State for Social Justice & Empowerment is the Vice-Chairperson (ex-officio) of the council.
 - The other members of the Council include representatives of various Ministries/Departments
 - Five representatives of the transgender community.
 - Representatives of the National Human Rights Commission (NHRC) and the National Commission for Women (NCW), representatives of State Governments and UTs, and experts representing NGOs.
- Functions:
 - It advises the Central Government on the formulation of policies, programmes, legislation and projects with respect to transgender persons.
 - It Monitors and evaluates the impact of policies and programmes designed for achieving equality and full participation of transgender persons.
 - It reviews and coordinates the activities of all the departments of Government and other Governmental and non-Governmental Organisations which are dealing with matters relating to transgender persons.
 - It redresses the grievances of transgender persons.
 - Performs such other functions as may be prescribed by the Central Government.

Q1) Who is a transgender?

A person as one whose gender does not match the gender assigned at birth. It includes trans-men and trans-women, persons with intersex variations, gender-queers, and persons with socio-cultural identities, such as kinnar and hijra.

8. Supreme Court Collegium

Overview:

The Supreme Court recently quashed an **Andhra Pradesh High Court** order that voiced strong disapproval over the **apex court Collegium** transferring two Chief Justices and castigated the Andhra Pradesh Chief Minister for his apparent attempts to undermine it.

About Supreme Court Collegium

- It is a system under which **appointments and transfers of judges** are decided by a forum of the Chief Justice of India and the four senior-most judges of the Supreme Court (SC).
- It has **no place in the Indian Constitution**.
- **What does the Constitution actually prescribe?**
 - **Article 124** deals with the appointment of SC judges. It says the appointment should be made by the **President after consultation with such judges** of the High Courts and the Supreme Court as the President may deem necessary. **The CJI is to be consulted** in all appointments, except his or her own.
 - **Article 217** deals with the appointment of High Court judges. It says a judge should be appointed by **the President after consultation** with the CJI and the Governor of the state. **The Chief Justice of the High Court** concerned too should be consulted.
- **Evolution of the Collegium System:**
 - Since the Constitution mandates consultation with the **CJI is necessary** for appointments to the judiciary, the collegium model evolved.
 - It has its genesis in a series of **three judgments** that are now clubbed together as the Three Judges Cases.

First Judges Case (1982):

- The SC held that **"consultation"** of judges does not mean **concurrence**.
- Hence, it gave primacy in the appointment of judges to the Executive.

Second Judges Case (1993):

- The court reversed its earlier ruling by changing the meaning of **"consultation" to concurrence**.
- With this, the **advice tendered by CJI became binding**. However, the CJI would have to take into account the views of **two of his senior most colleagues**.

Third Judges Case (1998):

- The court gave **primacy to the opinion of CJI** in the matter of the appointment of Judges.
- However, the **CJI must consult four seniormost judges of SC**.
- **Opinion** of all members of the collegium should be in **writing**.
- In case of **difference of opinion, the majority view will prevail**.
- **Even if two judges** in the collegium give an **adverse opinion** of a person for appointment as the SC judge, the **CJI should not send the recommendation** to the government.
- These three cases established that the collegium headed by the Chief Justice of India will have primacy in the appointment of judges to the higher judiciary.
- This collegium makes recommendations to the government for appointment of judges to the SC and of Chief Justices of High Courts, and the transfers of HC judges.

Executive role:

- Judges of the higher judiciary are thus appointed only through the collegium system, and the government has a role only after names have been decided by the collegiums.
- The government's role is limited to getting an inquiry conducted by the Intelligence Bureau (IB) if a lawyer is to be elevated as a judge in a High Court or the Supreme Court.

- The government can also raise objections and seek clarifications regarding the collegium's choices, but if the collegium reiterates the same names, the government is bound to appoint them.

9. GHAR Portal:

Overview:

GHAR - GO Home and Re-Unite Portal have been developed and launched by the National Commission for Protection of Child Rights (NCPCR).

About GHAR Portal:

- It is a portal to **digitally monitor and track the restoration and repatriation of children** according to the protocols under the Juvenile Justice (Care and Protection of Children) Act, 2015, and Rules thereof.
- It has been **developed and launched by the** National Commission for Protection of Child Rights (**NCPCR**).
- The following are the **salient features** of the portal:
 - Digital **tracking and monitoring of children** who are **in the Juvenile Justice system** and have **to be repatriated to another Country/State/District**.
 - **Digital transfer of cases** of children to the concerned Juvenile Justice Board/Child Welfare Committee of the State. It will help in the speedy repatriation of children.
 - Where there is a requirement of a translator/interpreter/expert, request will be made to the concerned State Government.
 - Child Welfare Committees and District Child Protection Officers can ensure proper restoration and rehabilitation of children by **digitally monitoring the progress of the case**.
 - A checklist format will be provided in the forms so that the **children who are being hard to repatriate** or children who are **not getting their entitled compensation** or other monetary benefits **can be identified**.
 - **List of Government implemented schemes will be provided**, so that at the time of restoration, the Child Welfare Committees can link the child with the schemes to strengthen the family and ensure that the child remains with his/her family.

Key Facts about NCPCR:

- It has **been constituted** by the Government of India **under the Commission for Protection of Child Rights (CPCR) Act, 2005**, and is mandated to function **for the protection and promotion of child rights**.
- It has the **following functions**:
 - **Examine and review existing safeguards** for the protection of child rights and **recommend measures** for their effective implementation.
 - **Report annually** and at other intervals **to the central government** on the effectiveness of these safeguards.
 - **Investigate violations of child rights and recommend legal proceedings** in appropriate cases.
 - **Review existing policies, programs**, and activities **related to child rights and make recommendations** for their improvement.
 - **Promote research** in the field of child rights.
 - **Raise awareness** of child rights and available safeguards through various means, such as publications, media, and seminars.
 - **Inspect institutions where children are detained or reside**, including juvenile homes, and **recommend remedial action** if necessary.
 - **Investigate complaints and take suo-motu notice of issues related to the deprivation and violation of child rights** and the non-implementation of laws protecting and developing children.
- The Commission, while investigating, shall have all the **powers of a civil court**.
- The Commission is **further mandated to monitor** the proper and effective **implementation of**
 - Protection of Children from Sexual Offences (**POCSO**) **Act, 2012**.
 - **Juvenile Justice** (Care and Protection of Children) **Act, 2015**.

- Right to Free and Compulsory Education (**RTE**) Act, 2009.

10. Law Commission of India

Overview:

The 22nd Law Commission of India led by **Justice Ritu Raj Awasthi** has recommended that the offence of criminal defamation should be retained in the new criminal laws.

About Law Commission of India:

- It is a **non-statutory body** and is constituted by a notification of the Government of India, Ministry of Law & Justice.
- It is constituted with definite **terms of reference** to carry out research in the field of law and the Commission makes recommendations to the Government (in the form of Reports) as per its terms of reference.
- It functions to the Ministry of Law and Justice as an **advisory body**.
- **History of Law Commission of India**
 - The first **pre-independence** law commission was established in 1834 by the British Government in India.
 - It was established by the **Charter Act of 1833** and was chaired by **Lord Macaulay**.
 - The **first Law Commission** of independent India was established in **1955** under the chairmanship of the former Attorney General for India **M. C. Setalvad**.
 - This Commission was created for a period of three years and this practice has persisted ever since then, resulting in the reconstitution of Law Commissions every three years via executive orders.
- The **executive orders** that constitute the Law Commissions also **specify their scope and purpose**, and thus these fluctuate periodically.
- Since then, twenty one more Law Commissions have been constituted, each with a three-year term and with certain terms of reference.
- The Law Commission has taken up various subjects on references made by the Department of Legal Affairs, Supreme Court and High Courts.
- The **Twenty Second Law Commission** has been notified with effect from 21st February, **2020 for a term of 3 years**.

11. Inclusive Education for Disabled at Secondary Stage (IEDSS) scheme:

Overview:

The Karnataka government recently suspended five officers for dereliction of duty in the implementation of the Inclusive Education for Disabled at Secondary Stage (IEDSS) scheme.

About Inclusive Education for Disabled at Secondary Stage (IEDSS) scheme:

- IEDSS has been **launched from the year 2009-10**. This Scheme replaces the earlier scheme of Integrated Education for Disabled Children (IEDC).
- The aim of this scheme is to **enable all students with disabilities to pursue four years of secondary education** in an inclusive and enabling environment, **after completing eight years of elementary schooling**.
- It **provides assistance for** the inclusive education of **disabled children in classes IX-XII**.
- The scheme **covers all children** studying **at the secondary stage in Government, local body and Government-aided schools, with one or more disabilities** as defined under the Persons with Disabilities Act (1995) and the National Trust Act (1999) in the class IX to XII, namely blindness, low vision, leprosy cured, hearing impairment, locomotory disabilities, mental retardation, mental illness, autism, and cerebral palsy, and may eventually cover speech impairment, learning disabilities, etc.
- **Girls with the disabilities receive special focus** to help them gain access to secondary schools, as also to information and guidance for developing their potential.
- **Setting up of Model inclusive schools in every State** is envisaged under the scheme.
- **Components:**
 - **Student-oriented components**, such as **medical and educational assessment, books and stationery, uniforms, transport allowance, reader allowance, stipend for girls,**

- support services, **assistive devices**, boarding the **lodging facility**, **therapeutic services**, teaching learning materials, etc.
- Other components include appointment of **special education teachers**, **allowances for general teachers** for teaching such children, **teacher training**, orientation of school administrators, **establishment of resource room**, providing **barrier free environment**, etc.
- **Implementing Agency:**
 - The **School Education Department of the State Governments/Union Territory (UT)** Administrations are the implementing agencies.
 - **They may involve NGOs** having experience in the field of education of the disabled in the implementation of the scheme.
- **Financial Assistance:**
 - **Central assistance** for all items covered in the scheme **is on 100 percent basis**.
 - The **State governments** are **only required to make provisions for scholarship of Rs. 600/- per disabled child per annum**.

This scheme **now subsumed under Rashtriya Madhyamik Shiksha Abhiyan (RMSA)** from 2013.

12. Codex Committee on Spices and Culinary Herbs

Overview:

The 7th session of the Codex Committee on Spices and Culinary Herbs (CCSCH) was held from 29th January 2024 to 2nd February 2024 at Kochi.

About Codex Committee on Spices and Culinary Herbs

- It was established as one of the Commodity Committees under the Codex Alimentarius Commission (CAC) in 2013.
- India has hosted this prestigious Committee since the beginning and Spices Board India serves as the **secretariat organization** which organizes the Committee's sessions.
- In CCSCH 7th session quality standards for 5 spices, namely small cardamom, turmeric, juniper berry, allpice and star anise were finalised.

Codex Alimentarius Commission

- It was jointly established by **FAO and WHO**.
- It is an international, intergovernmental body which is **based in Rome**.
- **Members:** It consists of 189 member countries.
- Membership of the Commission is open to all Member Nations and Associate Members of FAO and WHO which are interested in international food standards.
- The Commission meets in regular sessions once a year, alternating between Geneva and Rome.
- **Funding:** The programme of work of the Commission is funded through the regular budgets of WHO and FAO, with all work subject to the approval of the two governing bodies of the parent organisations.
- The Commission works in the **six official languages** of the UN.
- The standards of CAC are recognized by the WTO as international reference points for the resolution of trade disputes concerning food safety and consumer protection.
- The standards developed by the Committees under the CAC, including the CCSCH, are voluntary in nature, which the member countries of the CAC adopt and use as reference standards to align their national standards.
- The works of CAC contribute to harmonization of food standards across the globe, facilitate fair global trade in food, and enhance food safety to safeguard the health of global consumers.

Q1: What is the Food and Agriculture Organization?

It is of the United Nations is a specialized agency of the United Nations that leads international efforts to defeat hunger and improve nutrition and food security. It was founded on 16 October 1945.

13. Directorate General of GST Intelligence

Overview:

The Directorate General of GST Intelligence (DGGI) is investigating Mahadev Online Book, an allegedly illegal betting application, and its promoters for suspected violation of GST rules and non-payment of tax.

About Directorate General of GST Intelligence:

- The Directorate General of Central Excise Intelligence (DGCEI) now renamed as Directorate General of GST Intelligence (DGGI).
- It is an **apex intelligence organization** functioning under the Central Board of Indirect Taxes & Customs, Department of Revenue, **and Ministry of Finance**.
- It is entrusted with the task of **collection, collation, and dissemination** of intelligence relating to the **evasion of Goods and Services Tax (GST)** and the duties of Central Excise and Service Tax on an all India basis.
- **Functions of DGGI**
- **Intelligence gathering:** It is responsible for gathering intelligence about **potential violations of the GST law**. This includes collecting information from various sources, such as GST returns, financial statements, and other documents.
- It **develops intelligence**, especially in new areas of tax evasion through its intelligence network across the country and disseminates such information, by issuing Modus Operandi Circulars and Alert Circulars to sensitize the field formations about the latest trends in duty evasion.
- **Investigation:** It has the power to conduct investigations into suspected cases of GST evasion or non-compliance. This may involve summoning persons, examining records, and carrying out searches and seizures.
- **Enforcement:** It is responsible for enforcing the provisions of the GST law. This includes taking legal action against offenders, imposing penalties, and recovering any taxes or duties due.

14. Whip

Overview:

Major political party issued a three-line whip to its Lok Sabha MPs asking them to be present in the House tomorrow as the Prime Minister of India will reply to the Motion of Thanks on the Presidential address delivered recently.

About Whip:

- A whip in parliamentary parlance **is a written order** that party members be present for an **important vote**, or that they vote only in a particular way.
- The term is derived from the old British practice of “whipping in” lawmakers to follow the party line.
- The importance of a whip can be inferred from the **number of times an order is underlined**.
- **Appointment:**
 - In India all parties can issue a **whip to their members**.
 - Parties appoint a **senior member** from among their House contingents to issue whips — this member is **called a Chief Whip**, and he/she is assisted by additional Whips.
- **Types of whips:**
 - **One-line whip:** A one-line whip, **underlined once**, is usually issued to **inform party members of a vote**, and allows them to abstain in case they decide not to follow the party line.
 - **Two-line whip:** A two-line whip directs them to be present during the vote.

- o **Three-line whip:** A three-line whip is the strongest, employed on important occasions such as the second reading of a Bill or a no-confidence motion, **and places an obligation on members to toe the party line.**
- **Defiance of whip**
 - o In India, rebelling against a three-line whip can put a lawmaker's membership of the House at risk.
 - o The **anti-defection law allows** the Speaker/Chairperson to **disqualify such a member**; the only exception is when more than a third of legislators vote against a directive, effectively splitting the party.

Q1: What is Anti-defection law?

It was introduced in India in 1985 through the 52nd amendment to the Constitution of India. This amendment added the Tenth Schedule to the Constitution, which lists out the provisions related to defection. It lays down the process by which legislators may be disqualified on grounds of defection by the Presiding Officer of a legislature based on a petition by any other member of the House

15. Vidyanjali Scholarship Programme

Overview:

Union Minister of Education and Skill Development & Entrepreneurship recently launched the EdCIL Vidyanjali Scholarship Programme.

About Vidyanjali Scholarship Programme:

- This initiative guarantees access to high-quality learning systems by **facilitating a seamless transition from secondary to higher education** and **extending financial support for the meritorious Navodaya Vidyalaya students who lack means.**
- It symbolises a whole-of-society approach to empowerment through access to and opportunities for education, **particularly to students belonging to economically disadvantaged sections.**
- The Vidyanjali programme **intends to garner assistance and funding from nongovernment partners and private sources** such as CSR grants, national and **international donors**, and impact investors.
- **The beneficiaries of the Vidyanjali programme in its initial phase will be students of grades XI and XII studying in Navodaya Vidyalayas** across the country.
- **A fintech platform** has been specifically **curated under Vidyanjali**, and the **sponsorship will be disbursed to students through this platform as Direct Benefit Transfer (DBT).**
- **This platform will be instrumental in capturing data, receiving, hosting, and viewing student applications, tracking student progress, tracking grant disbursement, monitoring fund utilisation, generating impact reports towards SDG realisation, individual mentions of notable student achievement, and publicly acknowledging the support of the funders,** among other platform utilities.

What is EdCIL?

- **Educational Consultants India Limited (EdCIL)** is the **only Public Sector Undertaking under the Ministry of Education**, Government of India.
- It was incorporated **under the Companies Act**, 1956, on June 17, 1981.
- It is categorized as a **'Mini Ratna Organisation'** by the Government of India.
- It **offers consultancy and technical services in different areas of Education** and Human Resource Development **not only within the country but also on a global basis.**
- **Clients of EdCIL include most State and Central Govt. Departments** including MHRD, PSUs, and autonomous bodies including **IITs, IIMs, IIITs, Kendriya Vidyalaya**, and Navodaya Vidyalaya.

Q1: What are Navodaya Vidyalayas?

Navodaya Vidyalayas are affiliated to CBSE and offer free education to talented children from Class-VI to XII. Each Navodaya Vidyalaya is a co-educational residential institution providing

free boarding and lodging, free school uniforms, text books, stationery, and to and fro rail and bus fare to students. These are managed and run by the Navodaya Vidyalaya Samiti, an autonomous organization under the Ministry of Human Resource Development (HRD).

16. In Past 8 Years, More Women Enrolled in Higher Studies Than Men

Why in News?

- In the last eight years, more women have enrolled in higher education compared to men, according to the 2021-22 **All India Survey on Higher Education (AISHE)** released recently.

About All India Survey on Higher Education (AISHE) Report

- The All-India Survey on Higher Education is the **main source of comprehensive statistics on the Higher Education** scenario in the country.
- It is published by the **Ministry of Education**. The Ministry has been conducting All India Survey on Higher Education since 2011.
- The survey covers **all higher educational institutions** located in Indian Territory and imparting higher education in the country.
- The survey collects detailed information on different parameters such as **student enrollment, teacher's data, infrastructural information, financial information** etc.

Key Highlights of the AISHE Report 2021-22

- The AISHE report 2021-22 was conducted with reference period as academic session 2021-22.
- A total of **1,168 Universities/University level Institutions, 45,473 Colleges and 12,002 Stand Alone Institutions** were registered in AISHE 2021-22.
- Of them, 1,162 Universities, 42,825 colleges and 10,576 Stand Alone Institutions have responded in the survey.
- Number of Institutions:**
 - In all, 341 Universities/University level institutions have been established since 2014-15.
 - Out of 1168 Universities registered, 685 are Government managed (Central Govt. 240, State Govt. 445), 10 are Private Deemed (Aided) and 473 are Private (Un-aided).
 - There are **17 Universities exclusively for Women**. It was 11 in 2014-15.
 - In 2021-22, there are 18 Open universities (1 Central University, 16 State Universities and 1 State Private University).
- Student Enrolment in Higher Education:**
 - Total enrolment in higher education has increased to nearly **4.33 crore in 2021-22** from 3.42 crores in 2014-15.
 - Female enrolment** in Higher Education increases to **2.07 crore (32% increase since 2014-15)**.
 - The total number of **pass-outs has increased to 1.07 Crore in 2021-22** as against 95.4 Lakh in 2020-21.
- Caste-wise enrolment**
 - Caste breakdown of the total enrolled students in 2021-22:
 - 15.3% belong to Scheduled Caste,
 - 6.3% belong to Scheduled Tribe,
 - 37.8% are from Other Backward Class and
 - Remaining 40.6% students are from other communities.
 - Enrolment of **Scheduled Caste** students has **increased** to 66.23 lakh in 2021-22 from 58.95 lakh in 2020-21.
 - In case of **Scheduled Tribe** students, the enrolment has increased to 27.1 lakh in 2021-22 from 24.12 lakh in 2020-21.
 - The enrolment of **Scheduled Tribe Female students has increased** to 13.46 lakh in 2021-22 from 12.21 lakh in 2020-21.

- The **Minority enrolment has increased to 30.1 lakh** in 2021-22 from 21.8 lakh in 2014-15.
- **State-wise enrolment**
 - The **top 6 States** in terms of Student Enrolment are **Uttar Pradesh, Maharashtra, Tamil Nadu, Madhya Pradesh, West Bengal and Rajasthan**.
 - They constitute **53.3%** of the total Student Enrolment.
 - Number of **foreign students**
 - Total number of foreign students enrolled in higher education is **46,878**. In 2021-22, highest share of foreign students is from Nepal (28%), followed by Afghanistan (6.7%), United States (6.2%), Bangladesh (5.6%), UAE (4.9%), and Bhutan (3.3%).
 - Teaching Staff in Higher Education:
 - **The total number of faculty/teachers in 2021-22 are 15.98 lakh, of which about 56.6% are male and 43.4% are female.**
 - Number of teachers has increased by 46,618 in 2021-22 over 2020-21

17. PM CARES Fund

Overview:

The Delhi High Court recently set aside an order of the Central Information Commission (CIC) directing the Income Tax (IT) department to provide details regarding the tax exemption granted to the PM Cares Fund under the Right to Information Act, 2005.

About PM CARES Fund:

- It was created on March 28, 2020, following the COVID-19 pandemic in India.
- It was set up to have a **dedicated national fund to deal with any emergency and provide relief** to the distressed.
- **Fund Constitution:**
 - It has been registered as a **Public Charitable Trust**.
 - **The Prime Minister is the ex-officio Chairman** of the PM CARES Fund, and the **Minister of Defence, Minister of Home Affairs, and Minister of Finance** of the Government of India **are ex-officio Trustees** of the Fund.
 - The Chairperson of the Board of Trustees (**Prime Minister**) shall **have the power to nominate three trustees** to the Board of Trustees who shall be eminent persons in the fields of research, health, science, social work, law, public administration, and philanthropy.
 - Any person appointed a Trustee shall act in a pro bono capacity.

Objectives:

- To undertake and **support relief or assistance** of any kind relating to a **public health emergency** or any other kind of emergency, **calamity, or distress**, either **man-made or natural**, including the **creation or upgradation of healthcare** or pharmaceutical facilities, **other necessary infrastructure, funding relevant research**, or any other type of support.
- To render **financial assistance, provide grants** of payments of money, or take such other steps as may be deemed necessary by the Board of Trustees for the affected population.
- To undertake any other activity which is not inconsistent with the above objectives.

Fund Finance:

- The fund consists **entirely of voluntary contributions** from individuals/organizations and **does not receive any budgetary support**.
- Donations to PM CARES Fund would **qualify for 80G benefits for 100% exemption under the Income Tax Act, 1961**.
- Donations to the PM CARES Fund will also **qualify to be counted as Corporate Social Responsibility (CSR) expenditure** under the Companies Act, 2013

- PM CARES Fund has also **got an exemption under the Foreign Contribution Regulation Act (FCRA)**, and a separate account **for receiving foreign donations** has been opened.
- This enables the CARES Fund to accept donations and contributions from individuals and organizations based in foreign countries.

18. Key Facts about Supreme Court of India (SC)

Overview:

The Prime Minister recently inaugurated the Diamond Jubilee celebration of the Supreme Court.

About Supreme Court of India (SC):

History:

- The Supreme Court of India is the **apex judicial body** under the Constitution of India.
- **Article 124** of the Constitution **states that "There shall be a Supreme Court of India."**
- The Supreme Court **came into existence on January 26, 1950**, with the coming into force of the Constitution.
- **On January, 28, 1950**, two days after India became a Sovereign Democratic Republic, **the Supreme Court was inaugurated.**
- The Supreme Court **initially functioned from the old Parliament House** till it **moved to the present building located on Tilak Marg, New Delhi, in 1958.**
- The **first President of India, Dr. Rajendra Prasad, inaugurated the present building** of the Supreme Court of India on August 4, 1958.
- **Number of Judges:**
 - The **original Constitution** of 1950 **envisaged** a Supreme Court with a **Chief Justice and 7 puisne Judges**, leaving it to Parliament to increase this number.
 - Considering the increase in workload, **Parliament increased the number** of Judges from 8 in 1950 to 11 in 1956, 14 in 1960, 18 in 1978, 26 in 1986, 31 in 2009, and **34 in 2019 (current strength).**
- Today, the **judges sit in benches of two and three and come together in larger benches** of 5 and more (**Constitution Bench**) to **decide any conflicting decisions** between benches of the Supreme Court or **any substantial questions concerning the interpretation of the Constitution.**
- The **proceedings** of the Supreme Court are **conducted in English.**
- **Powers and Functions:**
 - The Supreme Court has **original, appellate, and advisory jurisdiction.**
 - It serves both as the **final court of appeals** and the **final interpreter of the Constitution.**
 - Its **exclusive original jurisdiction** extends to **any dispute between the Government of India and one or more States** or between the Government of India and any State or States on one side and one or more States on the other, or **between two or more States**, if and insofar as the **dispute involves any question (whether of law or fact) on which the existence or extent of a legal right depends.**
 - In addition, **Article 32** of the Constitution **gives extensive original jurisdiction** to the Supreme Court **for the enforcement of Fundamental Rights.**
- It is **empowered to issue directions, orders, or writs**, including writs in the nature of habeas corpus, mandamus, prohibition, quo warranto, and certiorari, **to enforce them.**
 - The Supreme Court has been conferred **with the power to direct the transfer of any civil or criminal case from one High Court to another High Court or from a Court subordinate to another High Court.**
 - Under the Arbitration and Conciliation Act, 1996, **International Commercial Arbitration can also be initiated** in the Supreme Court.
 - The **appellate jurisdiction** of the Supreme Court **can be invoked by a certificate granted by the High Court** concerned under Article 132(1), 133(1) or 134 of the Constitution in respect of **any judgement, decree, or final order** of a High Court in **both civil and criminal cases, involving substantial question of law** as to the interpretation of the Constitution.

- **Appeals also lie** to the Supreme Court in civil matters **if the High Court concerned certifies:**
- That the case involves a substantial question of law of general importance, and
- That, in the opinion of the High Court, the said question needs to be decided by the Supreme Court.
 - **In criminal cases, an appeal lies** to the Supreme Court **if the High Court**
- **Has on appeal reversed an order of acquittal** of an accused person **and sentenced him to death or to imprisonment** for life or for a period **of not less than 10 years**, or
- **Has withdrawn for trial before itself any case from any Court subordinate** to its authority and has in such trial convicted the accused **and sentenced him to death** or to imprisonment for life or for a period of not less than 10 years, or
- **Certified that the case is a fit one for appeal** to the Supreme Court.
 - **Parliament is authorised to confer** on the Supreme Court **any further powers to entertain and hear appeals** from any judgement, final order or sentence in a criminal proceeding of a High Court.
 - The Supreme Court also has a **very wide appellate jurisdiction over all Courts and Tribunals in India** in as much as it may, in its discretion, **grant special leave to appeal under Article 136** of the Constitution **from any judgment, decree, determination, sentence or order in any cause or matter passed or made by any Court or Tribunal** in the territory of India.
 - The Supreme Court has **special advisory jurisdiction in matters** which may specifically be **referred to it by the President of India under Article 143** of the Constitution.
 - **Election Petitions** under Part III of the **Presidential and Vice-Presidential Elections Act, 1952**, are also **filed directly in the Supreme Court**.
 - Under Articles 129 and 142 of the Constitution, the Supreme Court has been vested with **power to punish for contempt of Court**, including the power to punish for contempt of itself.
 - The Supreme **Court can reconsider its final judgment** or order **by way of a curative petition** on limited grounds after the dismissal of the review petition.
 - As the highest court in India, the Supreme Court's **judgments are binding on all other courts** in the country.

INTERNATIONAL RELATIONS

1. World Government Summit (WGS) 2024

Overview:

The Indian Prime Minister will attend the World Government Summit 2024 as a guest of honour in UAE.

About World Government Summit (WGS)

- It is an annual global gathering that brings together world leaders, policymakers, experts, and thought leaders from various fields to discuss and address pressing global issues.
- It was established in 2013 under the leadership of the Vice President and Prime Minister of the UAE.
- It is annually held in Dubai, UAE.
- The Summit, in its various activities, explores the agenda of the next generation of governments, focusing on harnessing innovation and technology to solve universal challenges facing humanity.
- Since its inception, the Summit has championed the mission of shaping future governments and creating a better future for humanity.
- World Government Summit (WGS) 2024:
 - Theme: "Shaping Future Governments"
 - It will focus on six main themes:
- Government Acceleration and Transformation

- Artificial Intelligence and The Next Frontiers
- Reimagining Development and Future Economies
- Future Societies and Education
- Sustainability and The New Global Shifts
- Urbanization and Global Health Priorities

Q1) Which countries border the United Arab Emirates (UAE)?

It is bordered by Saudi Arabia to the west and south and by Oman to the east and northeast. It also has maritime borders in the Persian Gulf with Qatar and Iran.

2. What is Interpol's Red Corner Notice?

Overview:

The Central Bureau of Investigation (CBI) recently said it has brought back an absconding life convict, against whom there was a Red Corner Notice (RCN) in a murder case.

About Interpol's Red Corner Notice

- Criminals or suspects often flee a country to evade facing justice.
- A Red Corner Notice also called a Red Notice (RN), is a request to law enforcements worldwide to locate and provisionally arrest such fugitives.
- It alerts the police forces across the world about these fugitives who are wanted internationally.
- A RN contains information that helps identify the wanted person, including name, date of birth, nationality, physical attributes like colour of hair, eyes, etc., along with pictures and biometric information.
- It also includes information about the crimes that they are wanted for.
- Interpol issues a RN at the request of a member country.
- The country which issues the request need not be the home country of the fugitive.
- Interpol acts at the request of the country where the alleged crime is committed.
- A RN request can also be raised by International Criminal courts and Tribunals.
- It is not an international arrest warrant. It is a request to locate and provisionally arrest a person pending extradition, surrender, or similar legal action.
- Interpol cannot compel the law enforcements authorities in any of the countries to arrest someone who has a RN issued. Each member country determines on the legal value it gives to a RN.

Key Facts about Interpol

- The International Criminal Police Organization (ICPO), commonly known as Interpol, is an inter-governmental organization that facilitates international police cooperation to control crime.
- It has 195 member countries, with its headquarters in Lyon, France.
- Each of the member countries has an Interpol National Central Bureau (NCB).
 - They facilitate the respective country's national law enforcement with other countries and with the General Secretariat, which is Interpol's body that coordinates its policing and administrative activities.
 - CBI represents Interpol in India as the country's NCB.'
- Interpol helps coordinate police networks & experts in different crime areas to control crime.
- All the member countries are connected through Interpol's communication system, called I-24/7.
 - This secure network is used by member countries to contact each other and allows them to access Interpol's databases.
- Interpol manages 19 databases, which include information on varied crimes and criminals and are available real-time to countries.
- It offers investigative support, including forensic analysis, locating fugitives across the world, etc.

Q1) What is the Central Bureau of Investigation (CBI)?

It is the premier investigative agency in India, with a dual responsibility to investigate grievous cases and provide leadership and direction in fighting corruption to the police force across the country. The establishment of the CBI was recommended by the Santhanam Committee on Prevention of Corruption (1962–1964). It is not a statutory body, as it was set up by a resolution (1963) of the Ministry of Home Affairs. It derives its powers from the Delhi Special Police Establishment Act, 1946. It is also the nodal police agency in India that coordinates investigations on behalf of Interpol member countries.

3. What is the Munich Security Conference (MSC)?

Overview:

World leaders gather for the sixtieth Munich Security Conference with growing concerns about a continued war in Ukraine and threats to North Atlantic Treaty Organization (NATO) cohesion.

About Munich Security Conference (MSC)

- It is the world's leading forum for debating international security policy.
- Objective: To build trust and contribute to the peaceful resolution of conflicts by sustaining a continuous, curated, and informal dialogue within the international security community.
- It has been held in Munich, Bavaria, Germany, since 1963.
- The conference is held annually in February. The venue is the Hotel Bayerischer Hof in Munich, Bavaria, Germany.
- It is a venue for diplomatic initiatives to address the world's most pressing security concerns.
- It brings together security experts, and politicians, military leaders, and the defense industry from around the world.
- MSC regularly convenes high-profile events on particular topics and regions and publishes the Munich Security Report, an annual digest of relevant figures, maps, and research on crucial security challenges.

Key Facts about North Atlantic Treaty Organization (NATO)?

- It is a transatlantic security alliance of 31 like-minded North American and European countries.
- It was established by the North Atlantic Treaty (also called the Washington Treaty) on April 4, 1949.
- Aim: To protect peace and to guarantee the territorial integrity, political independence, and security of the member states.
- Article Five of the treaty: If an armed attack occurs against one of the member states, it should be considered an attack against all members, and other members shall assist the attacked member, with armed forces if necessary.
 - This article forms the core of the Alliance, a promise of collective defense.
- Headquarters: Brussels, Belgium.

Q1) What is the North Atlantic Treaty?

The North Atlantic Treaty is the treaty that forms the legal basis of, and is implemented by, the North Atlantic Treaty Organization (NATO). The treaty was signed in Washington, D.C., on 4 April 1949. NATO states are committed to sharing the risks and responsibilities as well as the benefits of collective security.

4. ASEAN-India Trade in Goods Agreement

Overview:

The 3rd meeting of AITIGA Joint Committee for undertaking the review of ASEAN-India Trade in Goods Agreement (AITIGA) was hosted by India in Vanijya Bhawan, New Delhi from 16-19 February 2024.

About ASEAN-India Trade in Goods Agreement

- It is a trade deal between the ten member states of ASEAN and India.
- This agreement was signed at the 7th ASEAN Economic Ministers-India Consultations in Bangkok, Thailand in 2009.
- The agreement, which came into effect in 2010, is sometimes referred to as the ASEAN-India Free Trade Agreement.
- The Agreement covers trade in physical goods and products; it does not apply to trade in services.
- ASEAN and India signed a separate ASEAN-India Trade in Services Agreement in 2014.

What is ASEAN?

- It is a group of the Association of Southeast Asian Nations, which was established in 1967 with the signing of the Bangkok declaration.
- Founding members: Indonesia, Malaysia, Philippines, Singapore and Thailand.
- Presently ASEAN comprises 10 member states namely Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Laos, Myanmar, Cambodia and Vietnam.
- It promotes intergovernmental cooperation and facilitates economic, political, security, military, educational, and socio cultural integration between its members and other countries in Asia.

Q1) What is Free Trade Agreement?

These are arrangements between two or more countries or trading blocs that primarily agree to reduce or eliminate customs tariff and non tariff barriers on substantial trade between them.

5. United Nations Economic and Social Commission for Asia and the Pacific

Overview:

According to a new report by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), at the current pace of growth, the region will not attain the 17 Sustainable Development Goals (SDGs) until 2062 or will be 32 years behind schedule.

About United Nations Economic and Social Commission for Asia and the Pacific

- It is the most inclusive intergovernmental platform in the Asia-Pacific region.
- It was established in 1947.
- Mandate: To promote economic and social development in the Asian and Pacific region by fostering cooperation between its members and associate members.
- The Commission promotes cooperation among its 53 member States and 9 associate members in pursuit of solutions to sustainable development challenges.
- It is one of the five regional commissions of the United Nations.
- It carries out work in the areas like Macroeconomic Policy, Poverty Reduction and Financing for Development, Trade, Investment and Innovation, Transport, Environment and Development, Information and Communications Technology and Disaster Risk Reduction and Social Development etc.
- Head quarters: Bangkok, Thailand

What are Sustainable Development Goals?

- These were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.
- The SDGs framework sets targets for 231 unique indicators across 17 SDG goals related to economic development, social welfare, and environmental sustainability, to be met by 2030.
- The 17 SDGs are integrated; they recognise that action in one area will affect outcomes in others, and that development must balance social, economic, and environmental sustainability.

Q1) What is the United Nations?

It is an intergovernmental organization whose stated purposes are to maintain international peace and security, develop friendly relations among nations, achieve international cooperation, and serve as a centre for harmonizing the actions of nations.

6. What is the IBSA Fund?

Overview:

Recently, India has contributed USD 1 million to a fund established by India, Brazil and South Africa.

About IBSA Fund

- It was established in 2004 and became operational in 2006.
- The IBSA countries - India, Brazil and South Africa - each contribute one million dollars annually to the Fund in a spirit of partnership and support for Southern-led, demand-driven, transformational projects in developing countries.
- The purpose of the fund is to identify replicable and scalable projects that can be disseminated to developing countries on a demand-driven basis.
- IBSA Fund-supported projects help partner countries in the Global South to achieve their national priorities, as well as all other internationally agreed development goals.
- Objectives: It includes promoting food security, and addressing HIV/AIDS, to extending access to safe drinking water all to contribute to the achievement of the Sustainable Development Goals, the release said.
- The IBSA Fund has allocated USD 50.6 million to date, supporting 45 projects across 37 countries of the global South.
- The UN Office for South-South Cooperation (UNOSSC) serves as the Fund Manager and Secretariat of the IBSA Fund.

What is IBSA?

- It is a unique Forum which brings together India, Brazil and South Africa, three large democracies and major economies from three different continents, facing similar challenges.
- The grouping was formalized and named the IBSA Dialogue Forum when the Foreign Ministers of the three countries met in Brasilia on 6 June 2003 and issued the Brasilia Declaration.
- Five IBSA Leadership Summits have been held so far.
- The 5th IBSA Summit was held in Pretoria on 18 October 2011.
- India was the IBSA Chair under the theme “Democracy for Demography and Development” in 2021.
- Brazil assumed on March 2, 2023, the rotating presidency of the India, Brazil, South Africa Dialogue Forum - IBSA.

Q1) What is the United Nations Office for South-South Cooperation (UNOSSC)?

It is a knowledge hub providing advisory and consulting services to all stakeholders on South-South and triangular cooperation. It enables developing countries to effectively face their development challenges and harness opportunities to address them.

7. Raisina Dialogue

Overview:

The ninth edition of the Raisina Dialogue will be held from February 21 to 23rd in New Delhi.

About Raisina Dialogue

- It is an annual conference on geopolitics and geoeconomics, which aims to address the most challenging issues faced by the world.
- It is held annually since 2016 in New Delhi.
- The conference is attended by people from political, business, media, and civil society backgrounds.

- The Dialogue is structured as a multi-stakeholder, cross-sectoral discussion, involving heads of state, cabinet ministers and local government officials, who are joined by thought leaders from the private sector, media and academia.
- It is organized by the Observer Research Foundation (ORF) in partnership with the Ministry of External Affairs, Government of India.
- The theme of the 2024 edition is “Chaturanga: Conflict, Contest, Cooperate, Create,”
- During the three-day conference, the participants will engage with each other over six “thematic pillars”. These include:
 - Tech Frontiers: Regulations & Realities
 - Peace with the Planet: Invest & Innovate
 - War & Peace: Armouries & Asymmetries
 - Decolonising Multilateralism: Institutions & Inclusion
 - The Post 2030 Agenda: People & Progress
 - Defending Democracy: Society & Sovereignty,

8. What is G-33?

Overview:

Ahead of the 13th ministerial conference of the World Trade Organization (WTO), a majority of the G-33 countries have called for a permanent solution to public stockholding for food security.

About G-33

- The G33 (or the Friends of Special Products in agriculture) is a coalition of developing and least developed countries.
- Despite the name, there are currently 47 member nations. Some of the main countries include India, China, Indonesia, Pakistan, Nigeria, Philippines, Turkey, Tanzania, Kenya, and South Korea.
- It was established prior to the 2003 Cancun ministerial conference that have coordinated during the Doha Round of World Trade Organization (WTO) negotiations, specifically in regard to agriculture.
- Dominated by India, the group has "defensive" concerns regarding agriculture in relation to WTO negotiations, and seeks to limit the degree of market opening required of developing countries.
- The group has advocated the creation of a "special products" exemption, which would allow developing countries to exempt certain products from tariff exemptions, and also a "special safeguard mechanism" which would permit tariff increases in response to import surges.

Key Facts about World Trade Organization (WTO)

- Created in 1995, it is an international institution that oversees the rules for global trade among nations.
- It superseded the 1947 General Agreement on Tariffs and Trade (GATT), created in the wake of World War II.
- It is the only global international organization dealing with the rules of trade between nations.
- The primary purpose of the WTO is to open trade for the benefit of all.
- The WTO has many roles: it operates a global system of trade rules, it acts as a forum for negotiating trade agreements, it settles trade disputes between its members and it supports the needs of developing countries.
- Structure:
 - The WTO's top-level decision-making body is the Ministerial Conference, which usually meets every two years.
 - Below this is the General Council (normally ambassadors and heads of delegation in Geneva, and sometimes officials sent from members' capitals), which meets several times a year in the Geneva headquarters.
 - The General Council also meets as the Trade Policy Review Body and the Dispute Settlement Body.

- At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments.

9. What is a Volt Typhoon?

Overview:

The **United States government** recently shut down a **major China-backed hacking group** dubbed "**Volt Typhoon**" that attacked hundreds of routers and had been working to compromise U.S. cyber infrastructure.

About Volt Typhoon

- It is a **state-sponsored hacking group based in China** that has been active since at least 2021.
- The group typically focuses on **espionage and information gathering**.
- It has targeted critical infrastructure organizations in the US, including **Guam**.
- To achieve their objective, the threat actor puts **strong emphasis on stealth**, relying almost exclusively on living-off-the-land techniques and hands-on-keyboard activity.
- The **recurring attack pattern of Volt Typhoon** begins with initial access via exploitation of public-facing devices or services.
- Volt Typhoon employs the comparatively uncommon practice of leveraging **preinstalled** utilities for most of their victim interactions.
- Compromised **small office/home office (SOHO) devices** are used by the attackers to proxy communications to and from the affected networks.
- They issue commands via the command line to (1) collect data, including credentials from local and network systems; (2) put the data into an archive file to stage it for exfiltration; and then (3) use the stolen valid credentials to maintain persistence.
- Volt Typhoon was a particularly quiet operator that hid its traffic by routing it through hacked network equipment, like home routers, and carefully expunging evidence of intrusions from the victim's logs.
- This combination of behaviors makes detection especially difficult, as defenders must be able to differentiate between attacker activities and those of power users or administrative staff.

10. Crisis in Red Sea

Why in news?

- In the latest in a series of attacks on commercial vessels in the western Arabian Sea by the Houthi rebels, a **Marshall Islands-flagged oil tanker Marlin Luanda** came under a missile attack.
 - The vessel had 22 Indian and one Bangladeshi crew members on board.
 - While the ship was learnt to have caught fire and reported damage, no casualty or injury was reported at the time.
- It prompted a quick response from the Indian Navy's guided missile destroyer **INS Visakhapatnam**, which was deployed in the Gulf of Aden.

What is Red Sea?

- **About:**
 - Red Sea is narrow strip of water extending **southeastward from Suez, Egypt, to the Bab el-Mandeb Strait**.
 - **Bab-el-Mandeb Strait connects the Mediterranean Sea to the Arabian Sea via the Red Sea and the Suez Canal.**
 - Basically, it is a narrow inland sea between the Arabian Peninsula and Africa.
 - **The Red Sea separates the coasts of Egypt, Sudan, and Eritrea from those of Saudi Arabia and Yemen.**
 - **The Gulf of Aqaba**, a northeastern extension of the sea, reaches southern Israel and southwestern Jordan.
- **Significance**

- The Red Sea contains some of the **world's hottest and saltiest seawater**.
- It is one of the most **heavily travelled waterways** in the world, carrying maritime traffic between Europe and Asia.
- **Significance for India**
 - Freight rates for Indian shipments headed to **Europe and Africa** could surge as much as **25-30 per cent** if there is disruption along this route.
 - **For India**, the Red Sea trade route is the **shortest trade route** for ships moving from **Asia to Europe**.
 - India is heavily reliant on the **Bab-el-Mandeb Strait for its crude oil**, LNG imports and trade with parts of West Asia, Africa, and Europe.
 - This route is vital for **30 per cent** of global container traffic.

Who are Houthis?

Overview:

Yemen's Iran-aligned Houthis have stepped up their attacks on commercial vessels transiting the Red Sea.

About Houthi

- The Houthis, officially known as **Ansar Allah (Partisans of God)**, are an armed religious and political movement in **Yemen**.
- Houthis are **Zaydi Shiites**, or Zaydiyyah. **Shiite Muslims are the minority community** in the Islamic world, and **Zaydis are a minority of Shiites**, significantly different in doctrine and beliefs from the Shiites who dominate in **Iran, Iraq**, and elsewhere.
- They are a **minority in Yemen**, which is predominantly **Sunni Muslim**, but they are a significant one, numbering in the hundreds of thousands and making up as much as a third of the overall population.
- Its members advocate regional autonomy for **Zaidis** in northern Yemen.
- They have been fighting Yemen's Sunni-majority government since **2004**.
- The Houthis took over the **Yemeni capital Sanaa in September 2014** and seized control over much of north Yemen by 2016.
- The Houthi movement began as an effort to maintain tribal autonomy in northern Yemen and protest Western influence in the Middle East.
- Today, the Houthis seek a greater role in the Yemeni government and continue to advocate for Zaidi minority interests.
- The movement is known for its virulently **anti-American and anti-Semitic rhetoric**.
- Several of the group's leaders have been designated as terrorists by the United States.

Q1) Which countries border the Red Sea?

Yemen and Saudi Arabia border the Red Sea to the east. It is bordered by Egypt to the north and west and by Sudan, Eritrea, and Djibouti to the west.

Trouble in Red Sea and Impact on India

- **Trouble in Red Sea**
 - Attacks on cargo ships in the Red Sea since November 2023 by the Houthi militia of Yemen have increased.
 - It has turned the quickest marine route linking Asia with Europe through the Suez Canal unsafe.
 - It has forced freighters to take a longer transit around the Cape of Good Hope in Africa's southern tip, making shipments both dearer and longer to deliver.
- **Status**
 - Almost 90% of western hemisphere cargo, both inbound or shipped from India, that used to go through the Red Sea is now getting re-routed through the Cape of Good Hope.
 - The remaining 10% of Indian import or export cargo is either not moving or using a transit facility.

- Container Corporation of India said that about 25% of its containers are being held back by Indian exporters as everybody is hoping the situation will normalise shortly.
- **Impact on India**
 - Besides the extra time taken on account of the longer route, the developments could make **imports costlier and call for better inventory management**.
 - The Red Sea crisis could come in the way of any plans to reduce pump prices of petrol and diesel.
 - Freight rates for impacted routes have increased.
 - War risk premiums in the Red Sea have been partially contributing to the freight-rate increases for the relevant routes.
 - Commodities are the worst affected whether it be chemicals, plastic, petrochemicals, because margins are not there to absorb the hike in freight.

11. International Court of Justice

Overview:

The International Court of Justice recently ruled that it will not throw away the genocide case against Israel.

About International Court of Justice (ICJ):

- The ICJ, also known as the **World Court**, is the **principal judicial organ of the United Nations (UN)**.
- It was **established in June 1945 by the Charter of the UN** and began work in April 1946.
- **The seat of the Court is at the Peace Palace in The Hague (Netherlands).**
- **Of the six principal organs of the UN, it is the only one not located in New York, United States.**
- **The hearings of the ICJ are always public.**
- **Official Languages: French and English**
- **Powers and Functions:** The Court may entertain **two types of cases:**
 - First, it can **act as a dispute settlement body between two member States** in what are called **"contentious cases."** Such disputes may concern, in particular, land frontiers, maritime boundaries, territorial sovereignty, the non-use of force, violation of international humanitarian law, non-interference in the internal affairs of States and diplomatic relations.
 - Second, it can accept requests to **issue an advisory opinion on a legal question referred to it by a UN body or specialized agency.** These opinions can clarify the ways in which such organizations may lawfully function or strengthen their authority in relation to their member States.
 - The court's **judgments in contentious cases are final and binding** on the parties to a case, and **without appeal.**
 - Unlike the Court's judgments, **advisory opinions are not binding.**
 - The ICJ **decides disputes in accordance with international law** as reflected in international conventions, international custom, general principles of law recognized by civilized nations, judicial decisions, and the writings of the most highly qualified experts on international law.

Composition:

- It consists of **15 judges, all from different countries**, who are **elected to nine-year terms by majority votes in the UN General Assembly and the Security Council.**
- The judges, **one-third of whom are elected every three years**, are **eligible for reelection.**
- Once elected, a member of the Court **is a delegate neither of the government of his own country nor of any other State.**
- In addition, the ICJ Statute **allows a state party to a case before it which does not have a judge of its nationality on the bench to appoint a person to sit as judge ad hoc in that specific case.**
- The Court is assisted by a Registry, its permanent administrative secretariat, which is independent of the United Nations Secretariat.

12. Free Movement Regime

Overview:

The Home Minister recently said the Free Movement Regime (FMR) agreement with Myanmar would be reconsidered to stop border residents from moving into each other's country without any paperwork.

About Free Movement Regime (FMR):

- Under the FMR, all the hill tribes, whether they are **citizens of India or Myanmar, can travel within 16 km on either side of the Indo-Myanmar Border (IMB)**.
- They can cross the border **by producing a border pass** with a **one-year validity** issued by the competent authority and **can stay up to two weeks per visit**.
- The FMR was **implemented in 2018 as part of** the Central government's **Act East policy**.
- FMR is implemented by both governments **for the people living along the IMB**.
- This helps locals get more culturally assimilated with trans-border villages through weddings, celebrating common festivals together, and trans-border trade.
- It is a reflection of the physical, ethnic, linguistic, cultural, and fraternal linkages among the trans-border villagers.

Key Facts about Indo-Myanmar Border (IMB):

- It runs for **1,643 km** in the four states of **Mizoram, Manipur, Nagaland, and Arunachal Pradesh**.
- It runs **from the tripoint with China** in the north **to the tripoint with Bangladesh** in the south.
- **Assam Rifles** is tasked with **guarding the IMB**.

Q1: What is Assam Rifles?

The Assam Rifles, one of the central armed police forces, is the leading counter-insurgency force in the Northeast. It is the oldest paramilitary force in India. It is tasked with the maintenance of law and order in the North East along with the Indian Army and also guards the Indo-Myanmar border in the region. It is the only paramilitary force with a dual control

ECONOMICS

structure. While the administrative control of the force is with the Ministry of Home Affairs, its operational control is with the Indian Army, which is under the Ministry of Defence.

1. What is build-operate-transfer (BOT) Model?

Overview:

The National Highways Authority of India (NHAI) has come up with a list of high-traffic density corridors for private developers to build and operate under the build-operate-transfer (BOT) model.

About build-operate-transfer (BOT) Model

- It is a type of agreement often used in infrastructure projects, particularly in the construction and operation of public facilities or utilities.
- It is a conventional public-private partnership (PPP) model in which a private entity (usually a company or consortium) is granted the rights and responsibilities to design, finance, construct, operate, and maintain a specific project or facility for a defined period of time.
- The private entity, known as the "concessionaire" or "developer," bears the financial and operational risks associated with the project during the contract period.
- The typical lifecycle of a BOT contract involves three phases:
 - **Build:** The concessionaire is responsible for financing, designing, and constructing the infrastructure project. This phase usually includes obtaining the necessary permits and approvals.

- Operate: After the construction is completed, the concessionaire operates and maintains the facility for a specified duration. This can involve providing services, managing operations, and generating revenue from the facility (e.g., tolls, fees, or user charges).
- Transfer: At the end of the contract period, the ownership and control of the facility are transferred back to the government or public authority, which may have been the original owner. The transfer is often accompanied by a predetermined valuation or compensation mechanism.
- The private company gains revenue during the concession period, while the government benefits from infrastructure development without upfront investment.
- However, the specifics of the financial arrangements and incentives vary depending on the individual BOT contract.
- BOT is particularly well-suited for greenfield projects (new projects without prior work) and large-scale, capital-intensive projects.

Key Facts about National Highways Authority of India (NHAI)

- NHAI is India's premier highway infrastructure creator, entrusted with developing, maintaining, and managing National Highways.
- It is a statutory body under the administrative control of the Ministry of Road Transport and Highways.
- It was constituted under the National Highways Authority of India Act, 1998, and made operational in February 1995.
- Composition: It consists of a full-time Chairman, and not more than five full time Members and four part-time members who are appointed by the Central Government.
- NHAI has technical, Finance, Administrative and Vigilance Wings at its Headquarters.

2. DigiReady Certification

Overview:

Recently, the Quality Council of India (QCI) and Open Network for Digital Commerce (ONDC) announced the launch of the DigiReady Certification (DRC) portal.

About DigiReady Certification

- In this initiative, QCI, in conjunction with ONDC, aims to assess and certify digital readiness of Micro, Small, and Medium Enterprises (MSME) entities.
- By leveraging this online self-assessment tool, MSMEs can evaluate their preparedness to seamlessly onboard as sellers on the ONDC platform, thereby expanding their digital capabilities and business potential.
- The portal is meticulously designed to facilitate a streamlined seller journey, ensuring that MSMEs and small retailers can integrate seamlessly into existing digitized workflows.
- The certification process evaluates various aspects of digital readiness, including the presence of necessary documentation for online operations, proficiency in using software and technology, integration with existing digitized workflows, and efficient management of orders and catalogue offerings.
- Significance: This initiative presents additional business prospects for sellers, allowing them to become integral to the digital ecosystem.

Key points about Quality Council of India

- It was established in 1997 jointly by the Department for Promotion of Industry & Internal Trade (DPIIT), the Ministry of Commerce & Industry, and the Indian industry.
- It is registered as a non-profit organization under the Societies Registration Act XXI of 1860.
- It is operated through the constituent Boards of QCI, primarily the National Accreditation Board for Certification Bodies (NABCB), and the National Accreditation Board for Testing & Calibration Laboratories (NABL),
- Composition
 - It is governed by a Council of 38 members with equal representations of government, industry and consumers.

- The Chairman of QCI is appointed by the Prime Minister on the recommendation of the industry to the government.

3. What is Sovereign Gold Bond (SGB) Scheme?

Overview:

The issue price of the next tranche of Sovereign Gold Bond has been fixed at Rs 6,263 per gram, the Reserve Bank said in a statement recently.

About Sovereign Gold Bond (SGB) Scheme

- SGBs are government securities denominated in grams of gold.
- The SGB Scheme was first launched by the Government of India (GOI) on October 30, 2015.
- They are substitutes for holding physical gold. Investors have to pay the issue price, and the bonds will be redeemed upon maturity.
- The bond is issued by Reserve Bank on behalf of the GOI.
- Who is eligible to invest in the SGBs? The bonds will be restricted for sale to resident Indian entities, including individuals (in their capacity as individuals, or on behalf of minor child, or jointly with any other individual), Hindu Undivided Family (HUF), Trusts, Universities and Charitable Institutions.
- What are the minimum and maximum limits for investment?
 - The bonds are issued in denominations of one gram of gold and in multiples thereof.
 - The minimum investment in the bond shall be one gram, with a maximum subscription limit of 4 kg for individuals, 4 kg for HUFs, and 20 kg for trusts and similar entities notified by the government from time to time per fiscal year.
 - In case of joint holding, the investment limit of 4 KG will be applied to the first applicant only.
- Tenor: The tenor of the bond will be for a period of 8 years, with an exit option in the 5th, 6th, and 7th years, to be exercised on the interest payment dates.
- Who are the authorized agencies selling the SGBs? Bonds are sold through offices or branches of Nationalised Banks, Scheduled Private Banks, Scheduled Foreign Banks, designated Post Offices, Stock Holding Corporation of India Ltd. (SHCIL), and the authorised stock exchanges either directly or through their agents.
- Other Features:
 - Payment for the Bonds will be through cash payment (up to a maximum of Rs. 20,000/), or demand draft, or cheque, or electronic banking.
 - Investors are assured of the market value of gold at the time of maturity and periodical interest.
 - These securities are eligible to be used as collateral for loans from banks, financial Institutions, and Non-Banking Financial Companies (NBFCs).
 - Bonds will be tradable on stock exchanges within a fortnight of the issuance on a date as notified by the RBI.
 - The bonds can also be sold and transferred as per the provisions of Government Securities Act, 2006.
 - Interest on the bonds will be taxable as per the provisions of the Income-tax Act, 1961.
 - The capital gains tax arising on the redemption of SGB to an individual has been exempted.

Q1) What is a Non-Banking Financial Company (NBFC)?

An NBFC is a company registered under the Companies Act 1956 engaged in the business of loans and advances, acquisition of shares/stocks/bonds/debentures/securities issued by the Government or local authority or other marketable securities of a like nature. They offer various banking services but do not have a banking license. They provide banking services like loans, credit facilities, TFCs, retirement planning, investing and stocking in the money market. Generally, these institutions are not allowed to take traditional demand deposits—readily available funds, such as those in checking or savings accounts—from the public. NBFCs are regulated by the Reserve Bank of India (RBI).

4. Fund of Funds Scheme

Overview:

According to a Crisil assessment called Prabhaav, the Fund of Funds for Startups (FFS) scheme has enabled investments to the tune of around 4x of the amount drawn with Rs 17,534 crore invested in 938 startups.

About Fund of Funds Scheme

- The Fund of Funds for Startups (FFS) Scheme was approved and established in 2016 with a corpus of Rs 10,000 crore,
- Funding to start ups: Under FFS, the Scheme does not directly invest in startups, instead provides capital to SEBI-registered AIFs, known as daughter funds, who in turn invest money in growing Indian startups through equity and equity-linked instruments.
- Small Industries Development Bank of India (SIDBI) has been given the mandate of operating this Fund through selection of suitable daughter funds and overseeing the disbursement of committed capital.
- AIFs supported under FFS are required to invest at least 2 times of the amount committed under FFS in startups.

Key facts about Small Industries Development Bank of India (SIDBI)

- It was established under an Act of Parliament in 1990.
- It is the Principal Financial Institution engaged in the promotion, financing & development of the Micro, Small and Medium Enterprises (MSMEs) sector and the coordination of the functions of the various institutions engaged in similar activities.
- Objective: To offer loans (both direct and indirect) to MSMEs to help in addressing the development and financial gaps in the ecosystem of MSMEs.
- It helps MSMEs in acquiring the funds they require to grow the market, develop and commercialize their technologies and innovative products.
- It was made responsible for administering the Small Industries Development Fund and National Equity Fund.

Q1) What is Startup India Scheme?

It is an initiative launched by the Indian Government in January 2016 to promote entrepreneurship and startups in India. The scheme is designed to create a favorable environment for startup businesses to grow and thrive in the country.

5. What is Unified Payments Interface (UPI)?

Overview:

India's Unified Payment Interface (UPI) services will be rolled out in Sri Lanka and Mauritius at a virtual ceremony.

About Unified Payments Interface (UPI)

- The UPI is a digital and real-time payment system developed by the National Payments Corporation of India (NPCI) and regulated by the Reserve Bank of India (RBI).
- It was launched on April 11, 2016.
- It is designed to enable peer-to-peer inter-bank transfers through a single two-click factor authentication process.
- Features:
 - Unlike traditional methods, UPI simplifies transfers using the recipient's UPI ID, be it a mobile number, QR code, or Virtual Payment Address, eliminating account numbers.
 - It eliminates the need to enter bank details or other sensitive information each time a customer initiates a transaction.
 - A consistent UPI transaction PIN across apps enhances cross-operability, enabling 24/7 transactions.
 - UPI operates as a digital public infrastructure, allowing seamless interactions for all players, including merchants and customers, without transaction costs.

- PI uses technologies like the Immediate Payment Service (IMPS) and the Aadhaar-Enabled Payment System (AEPS) to ensure that payments between accounts go smoothly.
- It facilitates push (pay) and pull (receive) transactions and even works for over-the-counter or barcode payments, as well as for multiple recurring payments such as utility bills, school fees, and other subscriptions.
- It also works with "Peer-to-Peer" requests, which can be scheduled and paid for based on need and convenience.

What is the National Payments Corporation of India (NPCI)?

- NPCI is an umbrella organisation for operating retail payments and settlement systems in India.
- It is an initiative of the RBI and the Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, to create a robust Payment & Settlement Infrastructure in India.
- The ten main promoter banks of NPCI are Punjab National Bank, State Bank of India, Canara Bank, Union Bank of India, Bank of Baroda, ICICI Bank Limited, Bank of India, HSBC, Citibank, and HDFC Bank Limited.
- It has been incorporated as a Not-for-Profit Company with an intention to provide infrastructure to the entire banking system in India for physical as well as electronic payment and settlement systems.
- NPCI is focused on bringing innovations to retail payment systems through the use of technology to achieve greater efficiency in operations and widen the reach of payment.
- The regulatory board of the NPCI, headquartered in Mumbai, includes nominees from the RBI along with nominees from ten core promoter banks.

Q1) What is the Immediate Payment Service (IMPS)?

Immediate Payment Service (IMPS) is a mode of money transfer from one bank account to another in the Indian banking system. The system enabled 24x7x365 real-time, interbank, electronic money transfers when there was only NEFT and RTGS facilities available in India. Citizens could access the facility through multiple channels, such as mobile phone, ATM, the internet, and SMS.

6. What is Market Capitalisation?

Overview:

Reliance Industries Limited (RIL) recently became the first Indian company to surpass Rs 20 lakh crore in market capitalisation.

About Market Capitalisation

- Market Capitalization, or Market Cap, is a term used to represent the market value of a company based on its current share price and the total number of its outstanding shares.
- It can be calculated by multiplying the number of outstanding shares of a company by the current price of its shares.
- It represents the market's perception of a company's worth and indicates its size and significance in the financial markets.
- On the basis of market cap, companies may be classified as large-cap, mid-cap, or small-cap companies.
 - Large-cap companies are usually stable, reputable, and well-established businesses that have a significant market share. They have market caps of INR 20,000 crore or more.
 - Mid-cap companies have a market cap ranging from INR 5,000 crore to INR 20,000 crore.
 - Small-cap companies operate at a smaller scale than large-cap and mid-cap companies. Consequently, their market cap is also lower (less than INR 5,000 crore).
- Why is market capitalization important?

- It allows potential investors to understand the true value of companies and the size of one company in relation to another.
- It helps investors predict the future performance of the stock of a company because it reflects what the market is willing to pay for the stock.

What is Free float market capitalisation?

- While calculating the total market capitalization of a company, all the shares, including the ones publicly traded as well as those held by promoters, government, or other private parties, are multiplied with the stock price.
- But in the free-float market capitalization, we exclude shares held by private parties like promoters, trusts, or the government.
- We only consider shares held and traded by the public and multiply them with share price to arrive at the free-float market capitalization of a company.

Q1) What are Shares?

The capital of a company is divided into shares. Each share forms a unit of ownership of a company and is offered for sale so as to raise capital for the company.

7. What is Cash Reserve Ratio (CRR)?

Overview:

The State Bank of India (SBI) has requested the Reserve Bank of India (RBI) for a lower cash reserve ratio (CRR) on green deposits raised from customers.

About Cash Reserve Ratio (CRR)

- Under CRR, commercial banks have to hold a certain minimum amount of deposit as reserves with the RBI.
- The percentage of cash required to be kept in reserves as against the bank's total deposits is called the CRR.
- The RBI decides the amount, and is kept with them for financial security.
- The bank cannot use this amount for lending and investment purposes and does not get any interest from the RBI.
- The CRR applies to scheduled commercial banks, while regional rural banks and NBFCs are excluded.
- Following are the critical objectives of the CRR:
 - CRR helps control inflation. In a high inflation environment, the RBI can increase CRR to prevent banks from lending more.
 - CRR also ensures banks have a minimum amount of funds readily available to customers, even during huge demand.
 - CRR serves as the reference rate for loans. Also known as the base rate for loans, banks cannot offer loans below this rate.
 - Since CRR regulates the money supply, it boosts the economy whenever required by lowering the CRR.
- How is the CRR Calculated?
 - There is no CRR formula. In technical terms, CRR is calculated as a percentage of Net Demand and Time Liabilities (NDTL).
 - NDTL for banking refers to the aggregate savings account, current account, and fixed deposit balances held by a bank.
 - In case a bank fails to maintain its CRR, it will have to pay fines to the RBI because of that default. The fine is charged for the shortfall.

Q1) What are Green Deposits?

In general terms, a green deposit is a fixed-term deposit for those who want to invest in environmentally friendly projects. Just like a regular Fixed Deposit scheme, the green deposit pays interest to its investors and has a fixed term. The proceeds that a bank gets from deposit holders get earmarked for allocation to green finance.

8. What is Disinflation?

Overview:

Reserve Bank of India (RBI) governor recently said recurring food price shocks and renewed flash points on the geo-political front pose a challenge to the ongoing disinflation process.

About Disinflation

- Disinflation is a decrease in inflation rates.
- In simple terms, a decline in the rate of increase in the general price level of goods and services in the gross domestic product (GDP) of a country over time is called disinflation.
- Unlike inflation and deflation, which refer to the direction of prices, disinflation refers to the rate of change in the rate of inflation.
- Disinflation is not considered problematic because prices do not actually drop, and disinflation does not usually signal the onset of a slowing economy.
- A healthy amount of disinflation is necessary since it represents economic contraction and prevents the economy from overheating.
- Disinflation is considered the opposite of reflation, which occurs when a government stimulates an economy by increasing the money supply.
- Causes of Disinflation:
 - Many reasons can cause disinflation in an economy.
 - If a central bank wants to enforce a tighter monetary policy and the government starts selling off some of its assets, the supply of money in the economy could be limited, causing a disinflationary effect.
 - Similarly, disinflation can also be caused by a contraction in the business cycle of recession. For instance, companies may choose not to raise prices to gain more significant market share, leading to disinflation.

9. What is Fair and Remunerative Price?

Overview:

Recently, the Cabinet Committee on Economic Affairs approved ₹340/quintal as the Fair and Remunerative Price (FRP) of sugarcane for sugar season 2024-25 at sugar recovery rate of 10.25%.

About Fair and Remunerative Price

- It is the price declared by the government, which mills are legally bound to pay to farmers for the cane procured from them.
- Who determines it? The FRP is fixed by the Union government (Cabinet Committee on Economic Affairs (CCEA)) on the basis of recommendations of the Commission for Agricultural Costs and Prices (CACP).
- The payment of FRP across the country is governed by the Sugarcane Control order, 1966 which mandates payment within 14 days of the date of delivery of the cane.
- Mills have the option of signing an agreement with farmers, which would allow them to pay the FRP in installments.
- Delays in payment can attract an interest up to 15 per cent per annum, and the sugar commissioner can recover unpaid FRP as dues in revenue recovery by attaching properties of the mills.
- The amended provisions of the Sugarcane (Control) Order, 1966 provides for fixation of FRP of sugarcane having regard to the following factors:-
 - cost of production of sugarcane
 - return to the growers from alternative crops and the general trend of prices of agricultural commodities
 - availability of sugar to consumers at a fair price
 - price at which sugar produced from sugarcane is sold by sugar producers;
 - recovery of sugar from sugarcane;
 - the realization made from sale of by-products viz. molasses, bagasse and press mud or their imputed value
 - reasonable margins for the growers of sugarcane on account of risk and profits

Q1) What is Minimum Support Price (MSP) ?

It is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices. The minimum support prices are announced by the Government of India at the beginning of the sowing season for certain crops on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP).

10. What is Smishing?

Overview:

In today's digital age, where smartphones are practically an extension of ourselves, smishing poses a real and growing threat.

About Smishing

- It is a form of phishing that targets individuals through text messages or SMS.
- It is just like phishing emails, smishing messages aim to trick you into divulging personal information or downloading malware onto your device.
- It is done in through following ways
 - Fake alerts and warnings: Scammers send texts pretending to be from legitimate institutions like banks, government agencies, or delivery services. They'll claim there's a problem with your account or a package delivery, prompting you to click on a link for more information.
 - Urgent requests: Smishers play on your emotions by creating a sense of urgency. They might promise prizes, warn of impending legal action, or claim your account is compromised, pressuring you to act quickly without thinking.
 - Exploiting current events: During tax season, scammers might pose as the IRS, offering tax refunds or threatening penalties if you don't respond immediately. Similarly, they might capitalise on natural disasters or health crises to solicit donations or spread misinformation.
- How to identify and stay safe from smishing?
 - Poor grammar and spelling: Many smishing messages contain grammatical errors or spelling mistakes, indicating that they may not be from a legitimate source.
 - Unsolicited requests for personal information: Be wary of messages that request sensitive information like passwords, Social Security numbers, or banking details. Legitimate organisations typically won't ask for this information via text message.
 - Suspicious links: Hover over any links in the message (without clicking them) to see the URL. If it looks suspicious or doesn't match the purported sender, it's likely a smishing attempt.
 - Verify the sender: Before clicking on any links or providing sensitive information, verify the sender's identity. Contact the institution directly using official contact information to confirm the legitimacy of the message.
 - Keep software updated: Ensure your smartphone's operating system and security software are up to date to protect against malware and other threats. Consider installing reputable antivirus apps for an added layer of protection.

Q1) What is Phishing?

It refers to an attempt to steal sensitive information, typically in the form of usernames, passwords, credit card numbers, bank account information or other important data in order to utilize or sell the stolen information.

11. What is a Payments Bank?

Overview:

The **Reserve Bank of India (RBI)** recently imposed restrictions on **Paytm Payments Bank Ltd (PPBL)**, following a **system audit report** and subsequent compliance validation report of external auditors.

About Payments Bank

- A Payments bank is **like any other bank** but operates on a **smaller scale without involving any credit risk**.
- It was set up based on the recommendations of the **Nachiket Mor Committee**.
- **Objective:** To **advance financial inclusion by offering banking and financial services** to the unbanked and underbanked areas, helping the migrant labour force, low-income households, small entrepreneurs, etc.
- It is registered as a **public limited company** under the **Companies Act 2013** and licensed under Section 22 of the Banking Regulation Act 1949.
- It is governed by a host of legislation, such as the
Banking Regulation Act, 1949;
RBI Act, 1934;
Foreign Exchange Management Act, 1999, etc.
- **Features:**
 - They are differentiated, and **not universal banks**.
 - These operate on a **smaller scale**.
 - The minimum **paid-up equity capital** for payments banks shall be **Rs. 100 crores**.
 - The minimum **initial contribution** of the promoter to the Payment Bank to the paid-up equity capital shall be **at least 40% for the first five years** from the commencement of its business.
- Activities that can be performed:
 - It can **take deposits up to Rs. 2,00,000**. It can accept **demand deposits** in the form of savings and current accounts.
 - The money received as deposits can be invested in secure government securities only in the form of **Statutory Liquidity Ratio (SLR)**. This must amount to **75% of the demand deposit balance**.
 - The remaining **25% is to be placed as time deposits** with other scheduled commercial banks.
 - It can offer **remittance services, mobile payments/transfers/purchases, and other banking services like ATM/debit cards, net banking, and third-party fund transfers**.
 - It can become a banking correspondent (BC) of another bank for credit and other services which it cannot offer.
- Activities that **cannot** be performed:
 - **It cannot issue loans and credit cards**.
 - **It cannot accept time deposits or NRI deposits**.
 - **It cannot set up subsidiaries** to undertake **non-banking financial activities**.

Q1) What is Statutory Liquidity Ratio (SLR)?

Statutory Liquidity Ratio or SLR is a minimum percentage of deposits that a commercial bank has to maintain in the form of liquid cash, gold or other securities. It is basically the reserve requirement that banks are expected to keep before offering credit to customers. These are not reserved with the Reserve Bank of India (RBI), but with banks themselves. The SLR is fixed by the RBI.

12. Tax Buoyancy

Overview:

Finance Minister recently presented fiscal consolidation projections that surpass expectations for the current financial year and Budget Estimates (BE) for the next year, despite the conservative tax buoyancy in the estimates.

About Tax Buoyancy

- Tax buoyancy explains **the relationship between the changes in the government's tax revenue growth and the changes in Gross domestic product (GDP)**.
 - There is a **strong connection** between the government's tax revenue earnings and economic growth.

- As the **economy achieves faster growth**, the **tax revenue of the government also goes up**. Tax buoyancy explains this relationship.
- It refers to the **responsiveness of tax revenue growth to changes in GDP**.
- When a tax is buoyant, its revenue increases without increasing the tax rate.
- **It depends upon:**
 - The size of the tax base;
 - The friendliness of the tax administration;
 - The rationality and simplicity of tax rates;
- Tax buoyancy will be highest for direct taxes. Generally, direct taxes are more sensitive to the GDP growth rate.

What is tax elasticity?

- A similar looking concept is tax elasticity. **It refers to changes in tax revenue in response to changes in the tax rate.**
- For example, how tax revenue changes if the government reduces corporate income tax from 30 percent to 25 percent indicate **tax elasticity**.

What is Laffer Curve?

- It is an economic theory pioneered by economist **Arthur Laffer**.
- Created in 1974, it visually **shows the relationship between tax rates and the amount of tax revenue collected by governments**.
- It suggests that tax rates above a certain threshold reduce tax revenue since they incentivize people not to work.
- It suggests there is an optimum tax rate which maximises total tax revenue.

13. What is Rights Issue?

Overview:

Indiabulls Housing Finance plans to raise ₹3,693 crore through rights issue.

About Rights Issue:

- A rights issue is an **offering of rights to the existing shareholders** of a company that gives them an opportunity **to buy additional shares directly from the company at a discounted price** rather than buying them in the secondary market.
- It gives preferential treatment to existing shareholders, where they are **given the right (not obligation) to purchase shares** at a lower price **on or before a specified date**.
- **The number of additional shares** that can be bought **depends on the existing holdings** of the shareowners.
- **Until the date** at which the new shares can be purchased, **shareholders may trade the rights on the market the same way** that they would **trade ordinary shares**.
- Existing shareholders **can also choose to ignore the rights**; however, if they do not purchase additional shares, **then their existing shareholding will be diluted post-issue of additional shares**.
- **Dilution occurs because a rights offering spreads a company's net profit over a larger number of shares**. Thus, the company's **earnings per share, or EPS, decreases** as the allocated earnings result in share dilution.

Why issue a Rights Offering?

- Companies most commonly issue a rights offering to **raise additional capital**. A company may need extra capital to meet its current financial obligations.
- Troubled companies typically use rights issues **to pay down debt**, especially when they are unable to borrow more money.

Q1: What is earnings per share?

Earnings per share or EPS is an important financial measure, which indicates the profitability of a company. It is calculated by dividing the company's net income with its total number of

outstanding shares. It is a tool that market participants use frequently to gauge the profitability of a company before buying its shares.

14. PLI scheme for White Goods

Overview:

An official statement said that applications of certain companies for claiming incentives under the production linked incentive (PLI) scheme for the white goods (Air Conditioners and LED Lights) are under examination and there is no delay in disbursement.

PLI scheme for White Goods

- It is designed to create a complete component ecosystem for Air Conditioners and LED Lights Industry in India and make India an integral part of the global supply chains.
- The scheme was notified by the Department for Promotion of Industry and Internal Trade (DPIIT) in 2021.
- The scheme will be implemented as a pan India scheme and is not specific to any location, area or segment of population.
- Objectives: It proposes a financial incentive to boost domestic manufacturing and attract large investments in the White Goods manufacturing value chain. Its prime objectives include removing sectoral disabilities, creating economies of scale, enhancing exports, creating a robust component ecosystem and employment generation.
- Incentives: The scheme will extend an incentive of 4-6% on incremental turnover over base year (2019-20) of goods sold in India and exported to global markets, to eligible companies for a period of 5 years.
- Eligibility
 - Applicant can be any company that should be incorporated in India under the provisions of the Company Act, 2013.
 - Eligibility shall be subject to the achievement of thresholds of net incremental sales of Eligible Products for the respective financial year over the base year and cumulative incremental investment in the preceding financial year.
 - Any entity availing benefits under any other PLI Scheme of Govt. of India will not be eligible under this scheme for same products.
- Time period: It is to be implemented over FY 2021-22 to FY 2028-29.

Q1) What is the purpose of the PLI Schemes?

It is to attract investments in key sectors and cutting-edge technology; ensure efficiency and bring economies of size and scale in the manufacturing sector and make Indian companies and manufacturers globally competitive.

15. SAMARTH Centres

Overview:

Recently, the Minister of State for Heavy Industries informed the Lok Sabha about SAMARTH Centres.

About SAMARTH Centres:

- The **Smart Advanced Manufacturing and Rapid Transformation Hub** (SAMARTH) centres are set up under the Scheme for “Enhancement of Competitiveness in the Indian Capital Goods Sector.
- These centres have been **providing assistance to the MSMEs** to train the workforce and make them aware about Industry 4.0 technologies in the following ways:
- Organizing Seminars/ Workshops and knowledge sharing events on Industry 4.0;
- Training industries to create awareness about **Industry 4.0**;
- Providing **consultancy** (in areas such as IOT Hardware, Software development, data analytics) and **incubation support** to start-ups including MSMEs.

Key facts about the Enhancement of Competitiveness in the Indian Capital Goods Sector scheme

- It has been launched by the Ministry of **Heavy Industries** to address the technological obsolescence, limited access to quality industrial infrastructure and common facilities.
- In order to **address the skill gaps and infrastructure development** and technology needs for the Capital Goods Sector, **Phase I** of the Capital Goods scheme was rolled out in November **2014**.
- Phase I of the scheme fostered partnerships between Academia and Industry for engendering technology development with Government support.
- The objective of **Phase II** (on January 25, 2022) is to expand and enlarge the impact created by Phase I pilot scheme, thereby providing greater impetus through creation of a strong and globally competitive capital goods sector that contributes at least 25% to the manufacturing sector.

Components of the Scheme

- **Identification of Technologies** through Technology Innovation Portals
- Setting up of four **New Advanced Centres** of Excellence and augmentation of Existing Centres of Excellence
- **Promotion of skilling** in Capital Goods Sector—creation of Qualification packages for skill levels 6 and above
- Setting up of four **Common Engineering Facility Centres** (CEFCs) and augmentation of existing CEFCs
- Augmentation of Existing Testing and Certification Centres
- Setting up of ten Industry Accelerators for Technology Development

Q1: What is Industry 4.0 ?

It can be defined as the integration of intelligent digital technologies into manufacturing and industrial processes. It encompasses a set of technologies that include industrial IoT networks, AI, Big Data, robotics, and automation.

16. K-Shaped Recovery**Overview:**

Finance Minister recently rejected the theory that India's ongoing recovery is 'K-shaped'.

About K-Shaped Recovery:

- A K-shaped recovery **occurs when, following a recession, different parts of the economy recover at different rates**, times, or magnitudes.
- It leads to changes in the structure of the economy or the broader society as economic outcomes and relations are fundamentally changed before and after the recession.
- This type of recovery is called K-shaped because the **paths of different parts of the economy, when charted together, may diverge, resembling** the two arms of the Roman letter "K."
- The portion of the economy that recovers quickly is represented by the upper part of the K, while the lower part represents those groups that recover more slowly.
- **Reasons:**
 - K-shaped recoveries are generally caused by **disparities that existed before the recession** or by a recession that **impacts populations and groups differently**.
 - It is possible due to the **creative destruction of old industries** due to the **development of new industries** and technologies during the recession.
 - **Government strategies** like monetary and fiscal policies used to combat the recession can lead to a K-shaped recovery. Due to the nature of the economic policies, **certain industries will benefit more than others**.
 - **Due to the nature of the recession**, it can exert a **unique impact on different parts of the economy**, especially when a recession is coupled with a negative real economic shock that results in a lasting negative impact on certain parts of the economy.

- **Example:** During the COVID-19 pandemic, North America saw a K-shaped recovery where the richer individuals and industries recovered faster compared to the poor.

17. Directorate of Revenue Intelligence

Overview:

The Directorate of Revenue Intelligence (DRI) officers developed an intelligence and intercepted seven consignments which had arrived from Hong Kong at the Foreign Post Office in New Delhi recently.

About Directorate of Revenue Intelligence (DRI):

- It is the **premier intelligence and enforcement agency** of the Government of India on **anti-smuggling matters**.
- It works **under the Central Board of Indirect Taxes and Customs, Ministry of Finance**, Government of India.
- It came into existence on December 4, 1957.
- **Functions:**
 - **Collection of intelligence about smuggling** of contraband goods, narcotics, under-invoicing, etc. **through sources in India and abroad**, including secret sources.
 - **Analysis and dissemination of such intelligence to the field formations for action** and working on such intelligence, where necessary.
 - **Keeping watch over important seizures and investigation cases.** Associating with or **taking over the investigations** which warrant specialized handling by the Directorate.
 - **Guiding important investigation/prosecution cases.** Keeping liaison with foreign countries, Indian Missions, and Enforcement agencies abroad on anti-smuggling matters.
 - To **keep in liaison with C.B.I. and** through them with the **INTERPOL**. To **refer cases** registered under the **Customs Act to the Income Tax Department for action** under the Income Tax Act.
 - To **keep statistics of seizures, and prices/rates etc.** for watching trends of smuggling and supply required material to the Ministry of Finance and other Ministries.
 - To **study and suggest remedies for loopholes in law** and procedures to combat smuggling.
 - The DRI, with its **Headquarters in New Delhi**, has 12 zonal units, 35 regional units, and 15 sub-regional units.

18. Corruption Perception Index

Overview:

*India's rank in the Corruption Perception Index (CPI) 2023 has slipped to **93 out of 180** countries, with a score of 39.*

About Corruption Perception Index (CPI)

- It is an annual index released by **Transparency International**, a global civil society organization.
- Since its inception in 1995, the Corruption Perceptions Index has become the leading global indicator of public sector corruption.
- The CPI ranks 180 countries and territories by their perceived levels of public sector corruption on a scale of **zero (highly corrupt) to 100 (very clean)**.
 - It uses data from 13 external sources, including the World Bank, World Economic Forum, private risk and consulting companies, think tanks and others.
 - **The scores reflect the views of experts and business people, not the public.**

Highlights of Corruption Perception Index 2023

- CPI-2023 results show that most countries have made little to no progress in tackling public sector corruption.
- CPI global average score remains unchanged at 43 for the twelfth year in a row.
- **Denmark topped** the index for the sixth consecutive year.
- **Somalia was ranked last**, other countries occupying the bottom spots included: Venezuela, Syria, South Sudan and Yemen.
- **India has tied with Maldives, Kazakhstan, and Lesotho to rank at 93 out of 180 countries. In 2022, India was ranked at 85.**
- **Pakistan** scored 29 with a rank of **133** and **China**, scored 42 occupying rank **76**.

INTERNAL SECURITY

1. What is ABHYAS?

Overview:

The Defence Research and Development Organisation (DRDO) successfully conducted four flight trials of the high-speed expendable aerial target 'ABHYAS' recently.

About ABHYAS:

- It is a **high-speed expendable aerial target (HEAT)**.
- It is **designed by** the **DRDO's Aeronautical Development Establishment (ADE)**.
- ABHYAS **offers a realistic threat scenario for the practice of weapon systems**.
- It is the ideal platform for the validation of Armed Forces equipment slated for induction (only those that require aerial engagement).

Features:

- It is **designed for autonomous flying** with the **help of an autopilot** indigenously made by the ADE.
- It has a **radar cross-section** and a **visual and infrared augmentation system** required for **weapon practice**.
- The target drone has a **laptop-based Ground Control System** with which the aircraft can be integrated and **pre-flight checks, data recording** during the flight, replays after the flight and **post-flight analysis** can be carried out.

Key Facts about DRDO:

- It is the **R&D wing of the Ministry of Defence**, Govt. of India, with a vision to empower India with cutting-edge defence technologies and a mission to achieve self-reliance in critical defence technologies and systems.
- It is **India's largest research organisation**.
- **Formation:** The organisation was formed in 1958 from the amalgamation of the then-existing Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development and Production (DTDP) with the Defence Science Organisation (DSO).
- **Headquarters: New Delhi.**

It has a **network of laboratories** engaged in **developing defence technologies** covering various fields, like aeronautics, armaments, electronics, land combat engineering, life sciences, materials, missiles, and naval systems.

2. What is Exercise Dosti?

Overview:

Indian and Sri Lankan coast guard ships reached the Maldives recently to take part in the trilateral coast guard exercise Dosti 16.

About Exercise Dosti

- It is a trilateral coast guard exercise between India, Sri Lanka, and the Maldives.
- It is a biennial exercise.

- It was first conducted in 1991 between the Indian and Maldives Coast Guards.
- Sri Lanka joined the exercise for the first time in 2012. Dosti was last conducted in 2021.
- The exercises have focused on exercises and drills on providing assistance in sea accidents, eliminating sea pollution, and the coast guard's procedures and conduct during situations such as oil spills.
- The aim of the exercise is to further fortify the friendship, enhance mutual operational capability, exercise interoperability and build cooperation between the Coast Guards of India, Sri Lanka, and the Maldives.
- Dosti 16:
 - It is the 16th edition of the exercise.
 - The Coast Guards of the Maldives, India, and Sri Lanka, along with observers from Bangladesh, is participating in Dosti 16 to enhance collaboration between the forces.
 - India is sending ICGS Samarth (with integral helo), ICGS Abhinav, and ICG Dornier for the exercise.

Q1) What is the Indian Coast Guard?

It is an armed force that protects India's maritime interests and enforces maritime law, with jurisdiction over the territorial waters of India, including its contiguous zone and exclusive economic zone. It was formally established in 1978 by the Coast Guard Act, 1978 as an independent Armed force of India. It operates under the Ministry of Defence.

3. What is the U.S.-India Defense Accelerator Ecosystem (INDUS-X)?

Overview:

The defence ministry said the 'INDUS-X' summit in Delhi marks a "significant milestone" in the collaborative efforts between the two countries.

About U.S.-India Defense Accelerator Ecosystem (INDUS-X)

- It was launched in June 2023 during the state visit of the Prime Minister of India to the US.
- Objective: To expand strategic technology partnerships and defense industrial cooperation between governments, businesses, and academic institutions in India and the US.
- INDUS X will be a defence innovation bridge, which will inter-alia, include Joint Challenges, Joint Innovation Fund, Academia engagement, Industry-startup connect, investment by private entities in defence projects, mentoring by experts and niche technology projects etc.
- It will focus on advancing high-tech cooperation and fostering joint research, development, and production opportunities in the defence sector.
- The initiative aims to explore possibilities for co-producing jet engines, long-range artillery, and infantry vehicles.
- India's Innovations for Defense Excellence (iDEX) and the Office of the Secretary of Defense (OSD), US, are leading INDUS-X activities.

What is Innovations for Defense Excellence (iDEX)?

- It is the flagship scheme of the Ministry of Defence, Govt of India, launched in 2018.
- The objective of the scheme is to cultivate an innovation ecosystem in the Defence and Aerospace sector by collaborating with startups, innovators, MSMEs, incubators, and academia.
- iDEX offers grants and support for R&D with significant potential for future adoption in Indian defence and aerospace.
- It is currently engaged with around 400+ Startups and MSMEs.
- It is recognized as a game-changer in the defence ecosystem, iDEX has received the PM Award for Innovation in the defence sector.
- Funding: It will be funded and managed by a 'Defence Innovation Organization (DIO)' which has been formed as a 'not for profit' company as per the Companies Act 2013 for this purpose, by the two founder members i.e., Defence Public Sector Undertakings (DPSUs): HAL and BEL.

- iDEX will function as the executive arm of DIO, carrying out all the required activities, while DIO will provide high level policy guidance to iDEX.

Q1) What is the Technology Development Fund (TDF) Scheme?

TDF Scheme has been established to promote self-reliance in defense technology as a part of the 'Make in India' initiative. It is a programme of MoD (Ministry of Defence) executed by the Defence Research and Development Organisation (DRDO) meeting the requirements of Tri-Services, Defence Production and DRDO. The scheme encourages participation of public/private industries especially MSMEs to create an ecosystem for enhancing cutting edge technology capability for defence application. It supports indigenous development of components, products, systems and technologies by MSMEs and start-ups.

4. What is Mission Aspidos?

Overview:

The European Union recently launched Mission Aspidos to protect commercial vessels in the Red Sea from attacks by Iran-backed Houthi rebels.

About Mission Aspidos

- It is a European Union (EU) naval mission to protect cargo ships in the Red Sea from attacks from Yemen's Houthi rebels.
- It will send European warships and airborne early warning systems to the Red Sea, Gulf of Aden and surrounding waters.
- So far, France, Germany, Italy and Belgium have said they plan to contribute ships.
- Aspidos vessels, whose operational command centre will be in the Greek city of Larissa, will have orders to fire on the Houthis only if they attack first and will not be authorised to shoot pre-emptively.
- The mission is planned for one year but may be renewed.

Key Facts about Red Sea

- It is a semi-enclosed inlet (or extension) of the Indian Ocean between the continents of Africa and Asia. It is one of the world's warmest seas.
- It is connected to the Arabian Sea and the Indian Ocean to the south through the Gulf of Aden and the narrow strait of Bab El-Mandeb.
- The northern portion of the Red Sea is bifurcated by the Sinai Peninsula into the Gulf of Aqaba and the Gulf of Suez, where it is connected to the Mediterranean Sea via the famous Suez Canal.
- Bordering Countries:
 - Yemen and Saudi Arabia border the Red Sea to the east.
 - It is bordered by Egypt to the north and west and by Sudan, Eritrea, and Djibouti to the west.
- This sea has a surface area of roughly 438,000 km² and is about 2,250 km in length.
- The maximum width of the sea is 355 km, and the sea's deepest point is 3,040 m at the central Suakin Trough, with the sea's estimated average depth being 490 m.
- Islands: Some well-known islands include Tiran Island, which is located near the mouth of the Gulf of Aqaba, and Shadwan Island, which is located at the entrance of the Gulf of Suez.

Q1) What is the European Union (EU)?

The European Union (EU) is a political and economic union of 27 member states located primarily in Europe. The EU was established by the Maastricht Treaty, which entered into force on November 1, 1993. The main goal of the EU is to promote cooperation and integration among its member states in order to enhance economic and political stability in Europe. The EU has its own currency, the Euro, which is used by 19 of the member states. It has a single market where goods, services, and capital can move freely.

5. Exercise Dharma Guardian 2024

Overview:

Recently, India and Japan kicked-off a two-week military exercise 'Dharma Guardian' in Rajasthan's Mahajan field firing range to foster deeper cooperation in confronting common security challenges.

About Exercise Dharma Guardian

- It is an annual exercise and conducted alternatively in India and Japan.
- It is the 5th edition of joint military exercise between the Indian Army and the Japan
- Aim of the Exercise is to foster Military Cooperation and enhance combined capabilities to execute joint operations in semi-urban environments under Chapter VII of United Nations Charter.
- The Exercise would focus on a high degree of physical fitness, joint planning, joint tactical drills and basics of special arms skills.
- Significance
 - It will enable the two sides to share their best practices in Tactics, Techniques and Procedures of conducting tactical operations.
 - The Exercise will also facilitate developing inter-operability, bonhomie and camaraderie between troops of both the sides.
 - This will enhance the level of defence cooperation, further fostering bilateral relations between the two friendly nations.

What are Other Exercises between India and Japan?

- Malabar: It is a multinational naval exercise in which India, Japan, United States and Australia participates.
- JIMEX (naval)
- SHINYUU Maitri (Air Force)

Q1) What is Exercise Shinyuu Maitri?

It is a bilateral military exercise between Indian Air Force (IAF) and Japan Air Self Defence Force (JASDF). The exercise is being organized on the sidelines of the Indo-Japan Joint Army Exercise, Dharma Guardian.

6. Sub-national Climate Fund

Overview:

A delegation from the World Bank has arrived in Goa for talks with the state govt to set up the first sub-national climate resilient green fund.

About Sub-national Climate Fund

- It is a global blended finance initiative to develop mid-size climate resilient infrastructure & nature-based solutions.
- Mission: To invest in subnational climate-smart infrastructure and nature-based solutions delivering measurable and certified climate and sustainable development impact at the local level.
- The model is designed to attract public and private investment and to deliver certified climate and Sustainable Development impacts and Nature-based Solutions.
- Structure:
 - Fund Manager: It is managed by Pegasus Capital.
 - Technical assistance: International Union for Conservation of Nature (IUCN) is responsible for the Technical Assistance component of SCF.
 - Anchor Investor of Concessional Capital: The Green Climate Fund (GCF)
- Governance
 - Governance of the Subnational Climate Fund (SCF) includes a High-level Advisory Committee.
 - The role of the committee is to advise the SCF Consortium on best opportunities to invest in regard to SCF mission, and more widely on the theory of change encompassed by SCF.

- This Committee is composed of well-known experts in their field of expertise in climate science, finance/economies, sector/technical, biodiversity/nature-based solutions, and environmental/social management systems (ESMS).

7. Exercise Vayu Shakti-24

Overview:

The Indian Air Force will be conducting Exercise Vayu Shakti-24 on 17 February 2024 at the Pokhran Air to Ground Range, near Jaisalmer.

About Exercise Vayu Shakti-24:

- The Indian Air Force is slated to carry out three large scale war games on February 17, namely, **Vayu Shakti, Gagan Shakti and Tarang Shakti**.
- It will be a riveting demonstration of the **offensive and defensive capabilities** of the IAF, spanning across day and night.
- The exercise will also showcase **joint operations with the Indian Army**.
- **Exercise Vayu Shakti**
 - The IAF will first undertake the major "Vayu Shakti" firepower demonstration, which is held once **every three years**, with 135 fighters, aircraft, helicopters and drones at the Pokhran field firing ranges.
- **Gagan Shakti'**
 - The second mega exercise will be '**Gagan Shakti**'.
 - In this, almost the entire air fleet race would be activated from north to south, and from west to east to test integrated war fighting strategies and tactics with the other two forces and other stakeholders.
 - All the potent weapon systems like the Rafale fighter aircraft and the S-400 air defense systems would be participating in the 'Gagan Shakti' exercise.
 - The exercise, which is held **once in five years**, is also going to be the biggest ever of the series with active participation from other two services.
- **Tarang Shakti**
 - The third major exercise, **Tarang Shakti**, would be the first ever **multinational exercise** to be held in the country.
 - This will see aircraft from friendly air forces like the US, Germany, France, Australia and neighbouring and other friendly countries taking part in it.

8. What is BrahMos?

India is all set to begin the export of ground systems for the BrahMos supersonic cruise missiles to the Philippines.

About BrahMos

- It is a **supersonic cruise missile** that can be launched from land, sea, and air.
- It has been developed by **Brahmos Aerospace**, a joint venture of India and Russia.
- It is named after the **rivers Brahmaputra (India) and Moskva (Russia)**.
- Features:
 - It is a **two-stage missile** with a solid propellant **booster engine** as its first stage, which brings it to supersonic speed and then gets separated. **The liquid ramjet, or second stage** then takes the missile closer to 3 Mach speed in the cruise phase.
 - It is one of **the fastest cruise missiles** currently operationally deployed, with a speed of Mach 2.8, which is nearly **three times more than the speed of sound**.
 - It has a **launch weight of 2,200-3,000 kg**.
 - The extended-range variant of the missile can strike land and sea targets at a **maximum range of 400 to 500 kilometers with supersonic speed** all throughout the flight.
 - It operates on the "**Fire and Forgets**" principle, adopting varieties of flights on its way to the target.

- Its cruising altitude could be up to **15 km**, and its terminal altitude is as low as 10 meters.
- It carries a conventional warhead weighing **200 to 300 kg**.
- It is equipped with stealth technology designed to make it less visible to radar and other detection methods.
- It has an inertial navigation system (INS) for use against ship targets, and an INS/Global Positioning System for use against land targets.

9. Armado

Overview:

The new **Mahindra Armado** recently made its first appearance at the Republic Day Parade.

About Armado

- It is **India's first Armoured Light Specialist Vehicle (ALSV)**.
- It is a **fully indigenous** vehicle designed and built by the **Mahindra Defence Systems (MDS)** for the Indian armed forces.
- It can be used in **counter-terrorist and special forces operations**. It can also be used by quick reaction teams, as a reconnaissance vehicle and for **patrolling the borders**.
- **Features:**
 - It has a seating capacity of **six passengers**, including the driver, and can be configured to seat up to eight.
 - Above the standard **1,000 kg load capacity**, the ALSV can carry **another 400 kg**.
 - It gets **ballistic protection up to the B7 level and STANAG level-2**. This means that its armour offers protection against **armour-piercing rifles**.
 - Also, the ALSV gets protection on all sides (front, side and rear) from ballistics and explosives.
 - Powering the 4-wheeler is a **3.2-litre multi-fuel diesel engine** that **generates 216 hp** of maximum power.
 - Armado takes just **12 seconds to accelerate from 0 to 60 kmph**, and runs at a speed of more than 120 kmph.
 - It also gets a self-cleaning-type exhaust scavenging and air filtration system for extreme dusty climate, like deserts.

10. Different Types of Security Cover in India

Why in news?

- Union Home Ministry has extended **Z+ Security cover of CRPF to Governor of Kerala**.
- MHA took a decision on this after the Kerala Governor held a sit-in in front of a roadside shop in Kollam district after Students' Federation of India (SFI) activists allegedly tried to hit his vehicle.

What is Central Reserve Police Force (CRPF)?

- **About**
 - CRPF is one of the oldest **Central para military forces** (now termed as Central Armed Police Force) and **it comes under the Ministry of Home Affairs**.
 - CRPF came into existence as **Crown Representative's Police** on 27th July 1939.
 - It became the Central Reserve Police Force on enactment of the CRPF Act in December 1949.
 - It is **All India** in character, both in deployment and in its composition.
 - CRPF has, over the years, acquired the distinction of being perhaps the most acceptable Force, by the people and the State administrations.
 - This is due to its unique capability to quickly adapt to various situations, and also, to work in perfect harmony with the State Police.
- **Duties performed by the CRPF**
 - **Crowd & Riot control**
 - **Counter Militancy / Insurgency operations/Dealing with Left Wing Extremism**

- Overall **co-ordination of large-scale security arrangement** especially with regard to elections in disturbed areas.
- **Protection of VIPs** and vital installations.
- Checking environmental **de-gradation and protection of local Flora and Fauna**
- **Fighting aggression during War time**
- Participating in **UN Peace Keeping Mission**
- Rescue and Relief operations at the time of **Natural Calamities**.

Security Category in India

- In India, security is provided to **high-risk individuals** by the police and local government.
- Ministers get Central Security cover due to their position in the government.
 - On the other hand, a call on such security to private individuals is taken by the **Home Ministry based on inputs from intelligence agencies**.
- However, since these agencies do not report to any statutory body, VIP security has sometimes been alleged to be a political decision.

Security Forces Responsible for VIP Protection

- Typically, the agencies responsible for providing securities to **VVIPs/VIPs /high-profile celebrities** include:
 - The **Special Protection Group (SPG), National Security Guards (NSG), Indo-Tibetan Border Police (ITBP), Central Reserve Police Force (CRPF) and Central Industrial Security Force (CISF)**.

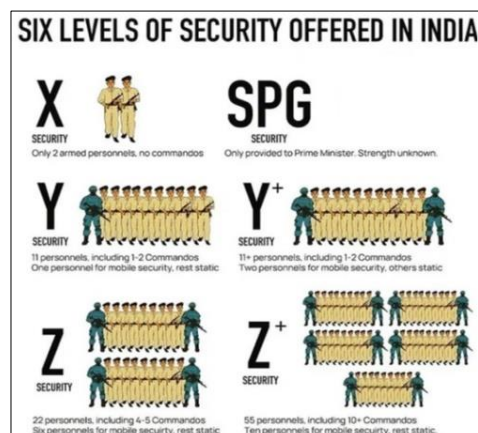
Different Types of Security Cover

There are six kinds of security covers:

- **X:** It has a security cover of **2 personnel** (No Commando, Only Armed Police Personnel)
- **Y:** It has a security cover of **11 personnel** (Including 1 or 2 Commando) + (Police Personnel). Only one personnel for mobile security.
- **Y Plus:** It has a security cover of **11+ personnel** (Including 1 or 2 Commando) + (Police Personnel). Two personnel for mobile security.
- **Z:** It has a security cover of **22 personnel** (Including 4 or 5 NSG Commando) + (Police Personnel)
- **Z plus**
 - It has a security cover of **55 personnel** (Including 10+ NSG Commando) + (Police Personnel).
 - Protectees under this category get a **bullet proof car**, escort in three shifts and additional security when required.
- **Special Protection Group (SPG)** – SPG protects only the **Prime Minister**.

News Summary: Union Home Ministry extends Z+ security to Kerala Governor

- Kerala Governor Arif Mohammed Khan has been given Z+ security by Centre after a faceoff with student activists.
- Earlier, Governor Khan confronted members of the CPI(M)-linked Students Federation of India (SFI) in Kollam district as they staged a black flag protest against him.
- The Governor's actions led to a two-hour standoff, during which he sat on the roadside, expressing his dissatisfaction with the response of the authorities.
- The Governor has accused Chief Minister Pinarayi Vijayan of "promoting lawlessness in the state" and demanded action against the protestors.



11. Economic Community of West African States (ECOWAS)

Overview:

Recently, the military regimes in Burkina Faso, Mali and Niger announced their immediate withdrawal from the West African bloc ECOWAS.

About Economic Community of West African States:

- It is also known as CEDEAO in French.
- It is the regional group which was established in 1975 through **the Lagos Treaty**.
- **Mandate:** Promoting economic integration among its members.
- The vision of ECOWAS is the creation of a “**borderless region**” that is well-integrated and governed in accordance with the principles of democracy, rule of law and good governance.
- **Members:** Benin, Cape Verde, Cote d’Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Nigeria, Sierra Leone, Senegal and Togo.
- ECOWAS’ larger aims are to have a **single common currency** and create a **single, large trading bloc in areas of industry**, transport, telecommunications, energy, financial issues, and social and cultural matters.
- Along with the goals of economic cooperation, it has attempted to quell military conflicts in the region.
- It also operated a **regional peacekeeping operation** known as **ECOMOG**, led by Nigeria in the 1990s and early 2000s.
- **Headquarter:** Abuja, Nigeria.

12. H-1B Visa

Overview:

The U.S. State Department recently launched a program to renew the much sought-after H-1B foreign work visas domestically.

About H-1B Visa

- It is a **non-immigrant visa that allows US companies to employ foreign workers in specialty occupations that require theoretical or technical expertise for a specified period**.
 - A **specialty occupation** is one that requires the application of a body of highly **specialized knowledge** and the attainment of **at least a bachelor’s degree** or its equivalent.
- The intent of the H-1B provisions is **to help employers who cannot otherwise obtain needed business skills and abilities from the U.S. workforce** by authorizing the temporary employment of qualified individuals who are not otherwise authorized to work in the United States.
- Occupations that qualify for the H-1B visa are typically in fields such as **technology, finance, engineering, architecture, or more**.
- **Eligibility:** In order to be eligible for the H1B visa, you will need:
 - A **valid job offer from a U.S. employer** for a role that requires specialty knowledge
 - **Proof of a bachelor’s degree** or equivalent experience in that field
 - The US employer must show that **there is a lack of qualified U.S. applicants** for the role.
- **Cap:**
 - The annual H-1B visa limit is **85,000**. There are **65,000 regular H-1B** visas each year, and an additional **20,000 visas are reserved for applicants** with advanced degrees.
 - Some **exceptions** to the H-1B visa cap include people entering the U.S. to work in higher education or affiliated research/non-profit organizations.
 - Applicants are selected for **adjudication via lottery system**.
- **Features:**
 - The H-1B visa is valid **for three years** and **can be extended** one time for an additional three years. In general, the H-1B is **valid for a maximum of six years**.

- There is **no limit to the number of H1-B Visas that an individual can have in his or her lifetime.**
- H1-B holders can seek **Green Card or Lawful Permanent Residency** for themselves and their family.
- If the H1-B holder is changing jobs, he or she must reapply for a new visa.

Q1) What is a US L1 Visa?

L1 Visa is an **Intra-Company Transferee Visa**. It allows large multinationals (need not be a US company) - with operations across various countries - to shift employees in specialized positions on a temporary basis to the US. There are two types of **L1 visas - L1A and L1B. Managers and executives** come under the category of **L1As** while **L1Bs encompass workers** with specialized knowledge. There is no education requirement for the L1 visa. L-1A visa holders are allowed a maximum stay of seven years in the U.S while L-1B visa holders are allowed a maximum stay of five years.

13. Exercise -Sada Tanseeq**Overview:**

In a major boost of ties the militaries of India and Saudi Arabia are conducting their first Joint Military Exercise named as Sada Tanseeq.

About Exercise Sada Tanseeq:

- It is the inaugural edition of **India-Saudi Arabia Joint Military Exercise 'SADA TANSEEQ'** commenced at Mahajan, Rajasthan.
- The Exercise is scheduled to be conducted from 29th January to 10th February 2024.
- Aim of the Exercise is to train troops of both sides for Joint Operations in Semi Desert terrain under **Chapter VII of the United Nations Charter.**
- The Exercise will enable both the sides to share their best practices in the tactics, techniques and procedures of conducting operations in sub-conventional domain.
- It will facilitate developing interoperability, bonhomie and camaraderie between troops from both sides.
- The Exercise will involve Establishment of Mobile Vehicle Check Post, Cordon & Search Operation, House Intervention Drill, Reflex Shooting, Slithering and Sniper Firing.
- The Exercise will provide an opportunity to both the contingents to strengthen their bond.

14. About INS Sumitra:

- It is the fourth and **last Saryu-class patrol vessel** of the Indian Navy.
- It is based on an **indigenous design** and **constructed by Goa Shipyard Limited.**
- It was commissioned in 2014 and is **based in Chennai** under the **Eastern Naval Command.**
- The **primary role** of the ship is to undertake **surveillance** of the country's **exclusive economic zone (EEZ)** besides other operational tasks such as **anti-piracy patrols, fleet support operations**, maritime security of offshore assets, and escort operations.

Features:

- Measuring about 105 metres in length, 13 metres in breadth, and displacing 2,200 tonnes, the ship can achieve a speed of 25 knots.
- The ship has a **range of 6,500 nautical miles.**
- It is **propelled by two diesel engines.**
- The ship's weapon and sensor outfits include a 76.2 mm gun (super rapid gun mount), close-in weapon systems, and the latest navigational and early warning radars.
- It is **capable of embarking one Dhruv/Chetak helicopter.**
- It is also equipped with two rigid inflatable fast-motor boats.

Key Facts about Gulf of Aden:

- It is an **extension of the Indian Ocean**, tucked **between the Arabian Peninsula and the African continent.**

- The gulf is **named after “Aden,” a port city on Yemen’s coast.**
- **Borders:** It is bounded to the south by **Somalia** and the **Socotra Islands (part of Yemen)**, to the north by **Yemen**, to the east by the **Arabian Sea**, and to the west by **Djibouti**.
- The gulf is **connected to the Somali Sea** to the south **by the Guardafui Channel** and to **the Red Sea** on the west **by the Strait of Bab el Mandeb**.
- The dominant relief feature of the gulf’s terrain is the **Sheba Ridge**, an **extension of the Indian Ocean ridge system**, which extends along the middle of the gulf.
- It is also a critical **part of the Suez Canal shipping route**, which connects the Red Sea and the Mediterranean Sea.

ENVIRONMENT

1. Key Facts about Gomti River

Overview:

Over 600 turtles seized from smugglers were released into the Gomti River recently.

About Gomti River

- It is a tributary of the Ganges River.
- Course:
 - Origin: It is an alluvial river that originates from the Gomat Taal, otherwise called Fulhaar Jheel, found near the Madho Tanda in Pilibhit district in Uttar Pradesh, India.
 - After flowing through an incised valley southwards through the districts of Sitapur, Lucknow, Barabanki, Sultanpur, and Jaunpur, it joins River Ganga near Varanasi.
 - The river extends to about 900 km.
- The total drainage area of the river is 30,437 sq. km.
- The characteristic of the river is perennial. The river is characterized by sluggish flow throughout the year, except during the monsoon season, when heavy rainfall causes a manifold increase in the runoff.
- Major Cities: There are various cities that are situated on the banks of the River Gomti, such as Sultanpur, Lucknow, Jaunpur, and Lakhimpur Kheri.
- Tributaries: Kathina, Bhainsi, Sarayan, Gon, Reth, Sai, Pili, and Kalyani.

Q1) Which are the major tributaries of the Ganges River?

Tributaries of Ganga include Ramganga, Gomti, Ghaghara, Gandak, Kosi and Mahananda from the left bank and Yamuna, Tamsa, Son and Punpun from the right bank.

2. SARTHI Portal

Overview:

Recently, the union Minister of Agriculture and Farmers Welfare launched the Agri-Insurance Sandbox Framework Platform SARTHI and Learning Management System (LMS) Platform for the farming community under the Pradhan Mantri Fasal Bima Yojana (PMFBY) in Delhi.

About SARTHI Portal

- Sandbox for Agricultural and Rural Security, Technology and Insurance (SARTHI) is the comprehensive digital insurance platform launched in collaboration with United Nations Development Programme (UNDP) India.
- It extends coverage to health, life, home, shop, agriculture implements, motor, and parametric products.
- It can be accessed via the AIDE app available on Android App Store.
- This ambitious endeavour, aligned with the Sustainable Development Goals, not only aims to safeguard farmers' livelihoods but also to fortify the resilience of the agricultural sector as a whole.

- Significance
 - It marks a significant advancement beyond traditional crop insurance, offering a diverse array of products tailored to farmers' needs.
 - By expanding insurance coverage to include vital assets like tractor machinery, SARTHI empowers farmers to comprehensively mitigate risks, securing their livelihoods and fostering long-term sustainability in agriculture.

Other initiatives

- Learning Management System (LMS)
 - It is developed in collaboration with the National E-Governance Division (NeGD).
 - Its primary goal is to provide stakeholders, including farmers, insurance companies, Government officials, state Government representatives, and participants in the Pradhan Mantri Fasal Bima Yojana (PMFBY), with the essential skills and knowledge needed for efficient crop insurance and agricultural credit.
 - The LMS will facilitate training and knowledge sharing through interactive modules, personalized training programs, and accessible resources. Stakeholders can deepen their understanding of agricultural practices, crop insurance protocols, and financial mechanisms.

Q1) What is the United Nations Development Programme?

It is present in about 170 countries and territories, working to eradicate poverty while protecting the planet. UNDP helps countries to develop strong policies, skills, partnerships and institutions so they can sustain their progress.

3. Sunabeda Wildlife Sanctuary

Overview:

An exchange of fire took place between Maoists and security forces in the Sunabeda wildlife sanctuary recently.

About Sunabeda Wildlife Sanctuary

- Location: It is located in the Nuapada district of Odisha, adjoining Chhattisgarh.
- It is spread over a sprawling area of 600 sq kms. It was declared a sanctuary in the year 1983.
- It adjoins the Sitanadi and Udanti sanctuaries of Chhattisgarh.
- The sanctuary harbors a great diversity of wildlife habitats, with a vast plateau, canyons, and 11 waterfalls.
- It also forms the catchment area of the Jonk River (tributary of Mahanadi River), over which a dam has been constructed to facilitate irrigation.
- Vegetation: The important vegetation of this sanctuary comprises dry deciduous tropical forests.
- Flora: Bija, Teak, Sisoo, Asan, Dharua, Mahul, Char, Sandal wood, Sidha, etc.
- Fauna:
 - It is an ideal habitat for the Barasingha (swamp deer).
 - Other important animals found are tigers, Leopards, hyenas, Barking Deer, Chital, Gaur, Sambar, Sloth Bear, Hill Myna, etc.
 - It also works as a migration link for rare wild Buffaloes between the states of Orissa and Chhattisgarh.

Q1) Which are the main tributaries of Mahanadi River?

Mahanadi river rises from Raipur district of Chhattisgarh and flows for about 851 km before its outfall into the Bay of Bengal. Its main tributaries are Seonath, Jonk, Hasdeo, Mand, Ib, Ong, and Tel.

4. Aral Sea

Overview:

Recently, NASA's Earth Observatory posted a detailed analysis of the reason behind Aral Sea's disappearance.

About Aral Sea

- It stands at the boundary between Kazakhstan to the north and Uzbekistan to the south.
- It was once a large saltwater lake of Central Asia and the world's fourth largest body of inland water.
- The remnants of it nestle in the climatically inhospitable heart of Central Asia, to the east of the Caspian Sea.
- The Aral Sea depression was formed toward the end of the Neogene Period (which lasted from about 23 to 2.6 million years ago).
- It was made by waters from the Syr Darya and the Amu Darya rivers that were dependent on glacial melt.
- It drains Uzbekistan and portions of Kazakhstan, Tajikistan, Afghanistan, Turkmenistan, Iran, and Kyrgyzstan.
- Climate: The Aral Sea is located within the harsh climate region of Central Asia. The area experiences a desert-continental climate, characterized by hot summers, cold winters, and varying diurnal air temperature.
- Reason for its disappearance
- According to the space agency, in 1960 the Soviet Union undertook a major water diversion project where they diverted the Syr Darya and the Amu Darya rivers for irrigation projects.
- Though the project made the desert region surrounding the sea bloom, it had a devastating impact on the Aral Sea.
- The waterbody slowly started drying up and today it is on the verge of complete disappearance.

Q1) What is Evaporation?

Evaporation is the process by which a liquid turns into a gas. It is also one of the three main steps in the global water cycle.

5. Kalasa-Banduri Project

Overview:

The National Board for Wildlife (NBWL) recently deferred the decision on diverting forest land from the Kali and Sahyadri tiger reserves for the construction of a part of the Karnataka government's Kalasa-Banduri Project.

About Kalasa-Banduri Project

- The project involves the construction of dams and a canal system to divert water from the Mahadayi River, located in Goa, to the Malaprabha River (a tributary of the Krishna River) basin in Karnataka.
- The main goal of the project is to meet the drinking water needs of the districts of Belagavi, Dharwad, Bagalkot, and Gadag in Karnataka.
- Though the project was first proposed in the early 1980s, it has remained on paper owing to a dispute between Karnataka, Goa, and Maharashtra.
- As per plans, barrages are to be built against Kalasa and Banduri streams — tributaries of Mahadayi — and water diverted towards Karnataka's parched districts.

Key facts about Mahadayi River

- Origin: It rises in the Western Ghats from the Bhimgad Wildlife Sanctuary in Khanapur taluk of Karnataka's Belagavi district.
- The river travels 35 km in Karnataka, 82 km in Goa before joining the Arabian Sea at Panji (North-Goa).
- Also called Mandovi in Goa, Mahadayi is a rain-fed river that is shared between Karnataka and Goa for their water needs.
- The Salim Ali Bird Sanctuary is located on the island of Chorao in the Mandovi River.

- Major Tributaries: Kalasa Nala, Banduri Nala, Surla Nala, Haltar Nala, Poti Nala, Mahadayi Nala, Pansheer Nala, Bail Nala and Andher Nala.

Q1) What is the National Board for Wildlife (NBWL)?

NBWL is a statutory body as it has been constituted under Section 5 A the Wildlife Protection Act, 1972. It is the apex body to review all wildlife-related matters and approve projects in and around national parks and sanctuaries i.e. Protected Areas. It is a 47-member board (including the chairman) which usually meets once a year. It is chaired by the Prime minister.

6. Key Facts about Papua New Guinea

Overview:

Dozens of men have been killed in a fresh outbreak of tribal violence in the remote highlands of Papua New Guinea recently.

About Papua New Guinea

- Location: It is an island country that lies in the south-western Pacific.
- It includes the eastern half of New Guinea (the world's second largest island) and many small offshore islands.
- Neighbours: Indonesia to the west, Australia to the south, and the Solomon Islands to the south-east.
- Capital: Port Moresby
- Terrain: It is mainly mountainous but has low-lying plains in southern New Guinea.
- The islands that constitute Papua New Guinea were settled over a period of 40,000 years by a mixture of peoples who are generally referred to as Melanesians.
- Language:
 - English is the main language of government and commerce. In most everyday contexts, the most widely spoken language is Tok Pisin.
 - Linguistically, it is the world's most diverse country, with more than 800 languages.
- Religion: The majority of Papua New Guinea's people are at least nominally Christian.
- Government:
 - Papua New Guinea became self-governing on December 1, 1973, and achieved independence on September 16, 1975.
 - The country is a constitutional monarchy and a member of the Commonwealth.
 - The British monarch, represented by a governor-general, is head of state, and the Prime Minister is head of government.

Q1) What is a constitutional monarchy?

It is a system of government in which a monarch shares power with a constitutionally organized government. The monarch may be the de facto head of state or a purely ceremonial leader. The constitution allocates the rest of the government's power to the legislature and judiciary. Britain became a constitutional monarchy under the Whigs. Other constitutional monarchies include Belgium, Cambodia, Jordan, the Netherlands, Norway, Spain, Sweden, and Thailand.

7. What is the Char Area?

Overview:

Recently, the Chief Minister of Assam said his government would undertake a mission to reclaim the chars from encroachers to safeguard the "ecological integrity" of the Brahmaputra Valley.

About Char Area

- The riverine areas (island) of the river Brahmaputra, locally known as "Char/ Chapori"
- The chars follow a peculiar pattern of migration.
- They are subjected to erosion on their upstream and deposition on the downstream, due to which they migrate downstream.
- This affects the geometry and location of the chars during floods almost every year.

- Issues with Char area
 - The physical, sociological and institutional constraints on development of Char Areas are many and complex.
 - Such as virtual absence of all weather communication with the main banks, reliable means of intra and inter char mobility, inadequate growth of transport and basic infrastructure like surface roads, health and drinking water, delivery systems for farm inputs, marketing, agro-services electricity and education.
 - The problems in the Char Areas are unique in nature, due to constant threat from flood and erosion during the rainy season.
 - The land mass is segregated and cut off from each other, making it very difficult for taking any major scheme for road communication, irrigation, Power supply or setting of educational institutions.
-

Q1) What is erosion?

It is the process where rocks are broken down by natural forces such as wind or water. There are two main types of erosion: chemical and physical. Chemical erosion occurs when a rock's chemical composition changes, such as when iron rusts or when limestone dissolves due to carbonation.

8. Vaitarna River

Overview:

Recently, the bull shark attacked a fisherman in Vaitarna river at Dongripada in Maharashtra's Palghar district was the first sighting of a bull shark 40km upstream in the river.

About Vaitarna River

- It is one of the west flowing rivers in the region North of Mumbai and South of the Tapi River.
- It originates in the Trimbakeshwar Hills of Nasik district of Maharashtra.
- It receives most of the rainfall from the South West monsoon during June to October. Almost 98% of the annual rainfall of the basin is received during this period.
- Tributaries: The main tributaries are Pinjal, Ganjai, Surya, Daharji and Tansa.
- The catchment area of Vaitarna basin completely lies in Thane and Nasik districts of Maharashtra.
- It drains an area of 2019 sq km before it falls in Gulf of Khambhat.

Key facts about Bull Shark

- They're known to be aggressive towards humans and are thought to be one of the most dangerous shark species in the world.
- Habitat: These are frequently spotted in tropical coastal areas worldwide, including shallower waters along coastlines.
- Bull sharks have a unique ability to tolerate freshwater and saltwater habitats, meaning they can sometimes be found venturing into rivers and traveling great distances upstream.
- It reproduces through viviparity, the process in which the embryo develops within the mother's body, leading to live birth.
- Conservation status
 - IUCN: Vulnerable

9. Biodiversity Heritage Site

Overview:

Recently, the Odisha government has declared the Gupteswar forest in Koraput district as its fourth Biodiversity Heritage Site (BHS).

About Biodiversity Heritage Site

- These are areas that are unique, ecologically fragile ecosystems having rich biodiversity comprising of any one or more of the components such as;

- Species richness, high endemism, presence of rare, endemic and threatened species, keystone species, species of evolutionary significance, wild ancestors of domestic/cultivated species or land races or their varieties, past pre-eminence of biological components represented by fossil beds and having cultural or aesthetic values.

Who can declare BHS?

- Under section 37 of the Biological Diversity Act, the State Governments are empowered to notify in the official gazette, in consultation with 'local bodies', areas of biodiversity importance as Biodiversity Heritage Sites.
- Under sub section (2) of Section 37 of the BD Act, the State Government in consultation with the Central Government may frame rules for the management and conservation of BHS.
- Under sub section (3) of Section 37 of the BD Act, the State Governments are empowered to frame schemes for compensating or rehabilitating any person or section of people economically affected by such notification.
- Importance of Biological Diversity Heritage Sites: Biodiversity is closely linked to ecological security. Loss of biodiversity and bioresources show an increasing trend mainly due to human activities. Therefore, it is necessary to instil and nurture conservation ethics in the community.

Q1) What are keystone species?

It is an organism that helps define an entire ecosystem. Without its keystone species, the ecosystem would be dramatically different or cease to exist altogether. Keystone species have low functional redundancy. This means that if the species were to disappear from the ecosystem, no other species would be able to fill its ecological niche.

10. Great Backyard Bird Count (GBBC)

Overview:

In a remarkable display of citizen science and enthusiasm for birdwatching, India emerged as a key participant in the annual Great Backyard Bird Count (GBBC).

About Great Backyard Bird Count (GBBC)

- It is an annual, four-day event that engages bird enthusiasts of all ages around the world in counting birds to create a real-time snapshot of where the birds are.
- It was launched in 1998 by the Cornell Lab of Ornithology and the National Audubon Society.
- It was established to help researchers learn more about how birds are doing and how to protect them and the environment.
- How is it done? Participants count birds for as little as 15 minutes (or as long as they wish) on one or more days of the four-day event and report their sightings online.
- Who can participate? Anyone can take part in the Great Backyard Bird Count, from beginning bird watchers to experts. One can participate from his/her backyard, or anywhere in the world.
- Significance: Each checklist submitted during the GBBC helps researchers at the Cornell Lab of Ornithology and the National Audubon Society learn more about how birds are distributed across the country and how they are affected by changes in habitat and weather.
- India and GBBC:
 - Indian birders have participated in the GBBC since 2013.
 - In India, GBBC is coordinated by the Bird Count India (BCI) collective, a coming-together of a number of groups and organisations that are interested in birds, nature, and conservation.

Q1) What is BirdLife International?

BirdLife International is a global Partnership of over 100 national conservation organisations with a focus on birds and working together on shared priorities, policies and programmes of conservation exchanging skills, achievements and information, and so growing in ability, authority and influence. Each Partner represents a unique geographical area or territory (usually a country).

11. GROW Portal

Overview:

Recently, GROW report and portal was launched by a Member of NITI Aayog.

About GROW Portal

- The "Greening and Restoration of Wasteland with Agroforestry (GROW)-Suitability Mapping" portal allows universal access to state and district-level data.
- It is hosted on Bhuvan website.
- The GROW initiative aligns with national commitments, aiming to restore 26 million hectares of degraded land by 2030 and create an additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent.
- The initiative, led by NITI Aayog, involved a collaborative effort from multiple institutions and employed advanced technologies such as remote sensing and GIS to assess agroforestry suitability across all districts in India.
- Utilizing thematic datasets, the project resulted in the creation of an Agroforestry Suitability Index (ASI). This index enables national-level prioritization for greening and restoration projects.
- This project on prioritization of wasteland areas suitable for greening is based on the analysis of five remote sensing derived thematic layers viz. land use, wasteland, slope, water proximity and soil organic content.
- These parameters were selected as a result of expert consultations and considered to be the most critical layers in identifying area that are amenable for interventions with agroforestry. Highest weightages was given to wastelands.
- The developed system provides information on area suitable for agroforestry across India.
- The areas available in the system are classified as highly suitable, moderately suitable, less suitable for agroforestry.
- The key features of the system:
 - Generates district level information of wasteland area suitable for agroforestry
 - Generates area prioritization regime i.e highly suitable area, moderate and less suitable for agroforestry
 - Generates live maps
 - Generates area analysis-statistic report
 - Offer an interactive mode/tool that provides flexibility in handling the weightages as per local conditions/need

12. Convention on the Conservation of Migratory Species

Overview:

The Fourteenth Meeting of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (COP14) will be hosted by the Government of Uzbekistan, in Samarkand from 12-17 February 2024.

About Convention on the Conservation of Migratory Species

- It is also known as the Bonn Convention, is an environmental treaty under the aegis of the United Nations Environment Programme.
- It provides a global platform for the conservation and sustainable use of migratory animals and their habitats.
- It was signed in Bonn, Germany, on 23 June 1979.
- It is the only global and UN-based intergovernmental organisation established exclusively for the conservation and management of terrestrial, aquatic and avian migratory species throughout their range.

- The parties to the convention acknowledge the importance of conserving migratory species, and the need to pay special attention to species whose conservation status is unfavourable.
- Activities by CMS Parties may range from legally binding treaties (called Agreements) to less formal instruments, such as Memoranda of Understanding.
- The Conference of Parties (COP) is the decision-making organ of this convention.
- It has two Appendices.
 - Appendix I lists endangered migratory species and includes prohibitions regarding the take of these species.
 - Appendix II lists species that have an 'unfavourable conservation status' (as per the conditions set out in the Convention) and encourages range states to draft range-wide agreements for conservation and management of these species.

Q1) What is the United Nations Environment Programme ?

It is responsible for coordinating responses to environmental issues within the United Nations system. It was established by Maurice Strong, its first director, after the United Nations Conference on the Human Environment in Stockholm in June 1972.

13. Key Facts about Baltic Sea

Overview:

A Stone Age wall has been discovered beneath the Baltic Sea in Germany, believed to be the oldest megastructure built by humans in Europe.

About Baltic Sea

- It is a semi-enclosed inland sea located in Northern Europe.
- It is an arm of the North Atlantic Ocean, extending northward from the latitude of southern Denmark almost to the Arctic Circle and separating the Scandinavian Peninsula from the rest of continental Europe.
- It has a coastline of approximately 8,000 km, shared by several countries, including Sweden, Poland, Lithuania, Latvia, Finland, Estonia, Germany, Denmark, and Russia.
- It covers an area of approximately 377,000 sq.km. The sea is approximately 1,600 km long and 193 km wide.
- It is connected to the White Sea via the White Sea Canal and to the North Sea's German Bight via the Kiel Canal.
- It connects to the Atlantic Ocean through the Danish Straits.
- The Baltic Sea contains three major gulfs: the Gulf of Bothnia to the north, the Gulf of Finland to the east, and the Gulf of Riga slightly to the south of that.
- It is often cited as the world's largest brackish inland water body.
- Its water salinity levels are lower than that of the World Oceans due to the inflow of fresh water from the surrounding land and the sea's shallowness.
- More than 250 rivers and streams empty their waters into the Baltic Sea. Neva is the largest river that drains into the Baltic Sea.
- Islands: It is home to over 20 islands and archipelagos. Gotland, located off the coast of Sweden, is the largest island in the Baltic Sea.

Q1) What are the Baltic Nations?

These are three countries of north-eastern Europe, on the eastern shore of the Baltic Sea. The Baltic Nations are Estonia, Latvia and Lithuania. They are bounded on the west and north by the Baltic Sea, on the east by Russia, on the southeast by Belarus, and on the southwest by Poland and an exclave of Russia.

14. UN World Restoration Flagships

Overview:

The United Nations named seven initiatives from across Africa, Latin America, the Mediterranean and Southeast Asia as the intergovernmental organisation's World Restoration Flagships.

About UN World Restoration Flagships

- The World Restoration Flagship is part of the UN Decade on Ecosystem Restoration – led by the UN Environment Programme (UNEP) and the Food and Agriculture Organization.
- It aims to prevent, halt, and reverse the degradation of ecosystems on every continent and in every ocean.
- The award conferred by the UNEP and FAO of the UN makes the initiatives eligible for technical and financial support from the organisation.
- The awards track notable initiatives that provide support to global commitments in order to restore one billion hectares.
- The seven initiatives are
 - The Restoring Mediterranean Forests Initiative: It involves the countries of Lebanon, Morocco, Tunisia and Türkiye.
 - It consists of a novel approach said to have protected and restored natural habitats and vulnerable ecosystems. It is also said to have led to around two million hectares of forests restored across the region since 2017.
 - The Living Indus initiative received approval from the Pakistan parliament in the wake of the devastating 2022 climate change-induced floods.
 - Its official launch took place at the 27th Conference of Parties to the UN Framework Convention on Climate Change in Sharm el-Sheikh.
 - It designates the Indus River as a living entity with rights — a measure taken to protect rivers elsewhere as well.
 - The Acción Andina social movement led by Peruvian conservation non-profit ECOAN aims to protect and restore a forest area of one million hectares.
 - The Sri Lanka Mangrove Regeneration initiative: It is a science-driven programme co-led by local communities. It focuses on the restoration of natural balance in the ecosystem
 - The Terai Arc Landscape initiative: It is aimed to restore the forests of critical corridors of the Terai Arc Landscape in collaboration with local communities working as citizen scientists, community-based anti-poaching units, forest guards, among others.
 - “It also supported the tiger population in the landscape shared by India and Nepal, which increased today to 1,174.
 - Regreening Africa’s agriculture: It is expected to benefit over 6,00,000 households.
 - Growing forests in Africa’s drylands initiative: It aims to expand from 41,000 restored hectares today to 229,000 hectares by 2030.

Q1) What is the Food and Agriculture Organization (FAO)?

It is a specialized agency of the United Nations that leads international efforts to defeat hunger and improve nutrition and food security. Its goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.

15. Key Facts about Kosi River

Overview:

At least 100 people living in miserable conditions within Kosi River embankments walked 250 kilometres in 12 days to reach Patna to press for their long-standing demand for rehabilitation.

About Kosi River

- It is a transboundary river which flows through China, Nepal, and India.
- It is a prominent tributary of the Ganges.
- Origin: The river Kosi is formed by the confluence of three streams, namely the Sun Kosi, the Arun Kosi, and the Tamur Kosi, all of which have their origin in the Himalayan region of Nepal and Tibet.
- Course:
 - About 30 miles (48 km) north of the Indian-Nepalese frontier, the Kosi is joined by several major tributaries and breaks southward through the Siwalik Hills at the narrow Chatra Gorge.

- The river then emerges on the great plain of northern India in Bihar state on its way to the Ganges River, which it enters south of Purnea after a course of about 450 miles (724 km).
- The Kosi drains an area of 74,500 sq.km, of which only 11,070 sq.km lie within Indian Territory.
- The Kosi River valley is bounded by steep margins that disconnect it from the Yarlung Zangbo River to the north, the Mahananda River to the east, the Gandaki to the west, and the Ganga to the south.
- It is well known for its tendency to change course generally in westward direction. During the last 200 years, the river has shifted westwards for a distance of about 112 km and has laid waste large tracks of agricultural land.
- Kosi is known as the "sorrow of Bihar", as it has caused widespread human suffering in the past due to flooding and very frequent changes in course, when it flows from Nepal to Bihar.
- Tributaries: It has seven major tributaries: Sun Koshi, Tama Koshi or Tamba Koshi, Dudh Koshi, Indravati, Likhu, Arun, and Tamore or Tamar.

Q1) Which are the major tributaries of the Ganges?

A large number of tributaries like Alaknanda, Ramganga, Kali, Yamuna, Gomti, Ghagra, Gandak, Kosi and Sone, draining 11 states of the country join River Ganga at different confluence points during its journey.

16. Shahpur Kandi Dam Project

Overview:

In a significant development, the completion of the Shahpur Kandi barrage, situated at the Punjab-Jammu and Kashmir border, has effectively halted the flow of water from the River Ravi to Pakistan.

About Shahpur Kandi Dam Project

- It is located on the Ravi River in Pathankot district, Punjab, downstream from the existing Ranjit Sagar Dam.
- The water released by Ranjit Sagar Dam is utilized for generating power from this project.
- The main purpose behind the construction of this dam is power generation and irrigation in Punjab and J&K States.
- It is constructed by the irrigation department of the Government of Punjab.
- The project consists of a 55.5 m high concrete gravity dam, a 7.70 km long hydel channel, two head regulators, and two powerhouses.
- The total output capacity of the project is 206 MW.

Key Facts about Ravi River

- It is a trans-boundary river of India and Pakistan.
- It is one of the five tributaries of the Indus River that give the Punjab (meaning "Five Rivers") its name.
- Origin: It originates in the western Himalayas in the Multhan tehsil of the Kangra district of Himachal Pradesh.
- It then flows through the Indian state of Punjab and enters Pakistan, where it eventually joins the Chenab River in the province of Punjab.
- Length: The total length of the Ravi River is approximately 720 kilometers (447 miles). Around 158 kilometers (98 miles) of the river's course lie in India, and the remaining 562 kilometers (349 miles) flow through Pakistan.
- It is also called 'The River of Lahore' since that city is situated on its eastern bank.
- Tributaries: The Ravi River is fed by several tributaries, including the Bhadal, the Ujh, the Tarnah, and the Basantar rivers in India, and the Aik, the Bara, and the Beas rivers in Pakistan.
- Indus Water Treaty of Ravi River: The water of the rivers Ravi, Beas, and Sutlej is allocated to India under the Indus Water Treaty between India and Pakistan.

Q1) What is the Indus Water Treaty?

It was signed in September 1960 between India and Pakistan. The treaty was brokered by the World Bank, which, too, is a signatory to the treaty. The treaty fixed and delimited the rights and obligations of both countries concerning the use of the waters of the Indus River system. It gives control over the waters of the three "eastern rivers" -- the Beas, Ravi, and Sutlej -- to India, while control over the waters of the three "western rivers" -- the Indus, Chenab, and Jhelum -- to Pakistan.

17. 'Sudarshan Setu' Bridge

Overview:

Prime Minister Narendra Modi recently inaugurated the 'Sudarshan Setu' bridge connecting Beyt Dwarka island to mainland Okha in Gujarat's Devbhumi Dwarka district.

About 'Sudarshan Setu' Bridge

- It is India's longest cable-stayed bridge, at 2.32 km, on the Arabian Sea, connecting Beyt Dwarka island to mainland Okha in Gujarat's Devbhumi Dwarka district.
- It boasts a unique design, featuring a footpath adorned with verses from the Bhagavad Gita and images of Lord Krishna on both sides.
- It also has solar panels installed on the upper portions of the footpath, generating one megawatt of electricity.
- The 2.32 km bridge, including 900 metres of a central double-span cable-stayed portion and a 2.45 km long approach road, has been constructed at a cost of Rs 979 crore.

Key Facts about Beyt Dwarka

- Beyt Island (also called Bet Dwarka or Shankodhar) is a small island off the coast of Dwarka, Gujarat.
- Located at the mouth of the Gulf of Kutch, the island is enclosed by a few temples, white sand beaches, and coral reefs.
- History:
 - It is believed to be the home of Lord Krishna when he was the king of Dwarka.
 - It derives its name from the word 'bet', which translates to 'gift', and it is believed that Lord Krishna received it from his friend Sudama.
 - Explorations and excavations carried out under the sea have revealed the presence of settlements whose age can be traced back to the era of the Harappan civilisation and that of the Mauryan rule.
 - In the later years, the region was under the administration of the Gaekwad clan of the state of Baroda.
- Sri Keshavraj Ji Temple:
 - It is a Lord Krishna temple located on the island. It is an important site of Hindu pilgrimage.
 - The temple is 500 years old and was built by Vallabhacharya.

18. New Ramsar site

Overview:

Recently, the union Environment Minister said that **five more Indian wetlands** have been added to the global list of wetlands of international importance under the Ramsar Convention.

About New Ramsar site

- Of the five wetlands added to the Ramsar list, **Magadi Kere Conservation Reserve, Ankasamudra Bird Conservation Reserve, and Aghanashini Estuary are in Karnataka and Karaivetti Bird Sanctuary and Longwood Shola Reserve Forest are in Tamil Nadu.**
- **Ankasamudra Bird Conservation Reserve**
 - It is a human made Village Irrigation Tank built centuries back.
 - It is an ecologically important wetland and rich in biodiversity.

- It supports more than 1% of the biogeographic population of Painted Stork and Black-headed Ibis.
- **Aghanashini Estuary**
 - It is formed at the confluence of Aghanashini River with the Arabian Sea.
 - The brackish water of the Estuary provides diverse ecosystem services including flood and erosion risk mitigation, biodiversity conservation and livelihood support.
 - The wetland helps in traditional fish farming in the estuarine rice fields (locally known as Gazni rice fields), bivalve shell collection and salt production.
- **Magadi Kere Conservation Reserve**
 - It is a human-made wetland which was constructed to store rainwater for irrigation purposes.
 - The wetland harbours two vulnerable species, namely Common pochard and River tern and four near-threatened species, namely Oriental Darter Black-headed Ibis Woolly-necked Stork and Painted Stork
 - It is also one of the largest wintering grounds for the Bar-headed goose.
- **Karaivetti Bird Sanctuary**
 - It is one of the largest inland wetlands of Tamil Nadu, and is a significant source of groundwater recharge for the area.
- **The Longwood Shola Reserve Forest**
 - It derives its name from the Tamil word, "Solai", which means a 'tropical rain forest'.
 - The 'Sholas' are found in the upper reaches of the Nilgiris, Anamalais, Palni hills, Kalakadu, Mundanthurai and Kanyakumari in Tamil Nadu.
 - These forested wetlands serve as habitats for the globally endangered Black-chinned Nilgiri Laughing thrush and Nilgiri Blue Robin and vulnerable Nilgiri Wood-pigeon.

Q1) What is the Ramsar Convention?

It is an international treaty for the conservation and sustainable use of Ramsar sites. It is also known as the Convention on Wetlands. It is named after the city of Ramsar in Iran, where the convention was signed in 1971.

19. Green Roofs

Overview:

*According to recent research, green roofs treated with **mycorrhizal fungi** foster a more diverse soil community that is more likely to support long-term green roof sustainability.*

About Green Roofs

- Green roofs, also known as '**vegetated roofs**' or '**living roofs**' — are ballasted roofs consisting of a **waterproofing membrane, growing medium (soil), and vegetation (plants) overlying a traditional roof**.
- The layers of green roof systems must, like any roof, accommodate **drainage, stormwater management, and protect the building from the elements with a waterproof membrane**.
- But they also must create a growing area and potentially provide support, irrigation, and root protection barriers while staying as light as possible.
- Two types of green roofs exist: intensive and extensive.
 - **Intensive green roofs** are essentially elevated parks. They can sustain shrubs, trees, walkways and benches with their complex structural support, irrigation, drainage, and root protection layers.
 - **Extensive green roofs** are relatively light. They support hearty native ground cover that requires little maintenance. Extensive green roofs usually exist solely for their environmental benefits and don't function as accessible rooftop gardens.
- **Benefits:**
 - Green roofs **last longer than** conventional roofs, reduce energy costs with natural insulation, create peaceful retreats for people and animals, and absorb storm water, potentially lessening the need for complex and expensive drainage systems.

On a wider scale, green roofs improve air quality and help reduce the Urban Heat Island Effect, a condition in which city and suburban developments absorb and trap heat.

20. Key Facts about Mekong River

Overview:

A multibillion-dollar dam project underway across the Mekong River in Laos has prompted concerns that it could result in Luang Prabang city losing its UNESCO World Heritage Site status.

About Mekong River:

- It is the **longest river in Southeast Asia**, the 7th longest in Asia, and the **12th longest in the world**.
- It has a length of about 2,700 miles (**4,350 km**).
- **Course:**
 - o It **risers in** southeastern **Qinghai province, China**.
 - o It **originates from** the **Sanjianyuang in the Tibetan Plateau**, with the area designated a national nature reserve to protect the headwaters of the Yangtze, Yellow, and Mekong Rivers.
 - o The river drains approximately 795,000 square kilometers and **flows through six Asian countries: China, Vietnam, Laos, Myanmar, Thailand, and Cambodia**, where it is referred to by different names.
- **Vientiane** (Viangchan), the **capital of Laos**, and **Phnom Penh**, the **capital of Cambodia**, both **stand on its banks**.
- The river **drains into the South China Sea south of Ho Chi Minh City** (Vietnam).
- **Tributaries:** The **left-bank tributaries** (draining **high rainfall areas**) include **Nam Ou, Tha, and Nam Khan**, while the **right-bank tributaries** (draining the **lower relief region**) are **Ruak, Kok, Tonle Sap, and Mun**.
- **Its biodiversity is only second to the Amazon River Basin** and contains about 20,000 plant species, 1,200 birds, 430 mammals, 800 amphibians and reptiles, and 850 fish species.
- It is the **river with the most large fish species**, including giant freshwater stingrays, giant pangasius, Mekong giant catfish, and giant barb.
- The Mekong **creates a huge delta**, or triangular piece of land, **in southern Vietnam**. The delta has rich soil and is **one of the world's great producers of rice**.

21. Corbett Tiger Reserve

Overview:

Five people have been killed near Uttarakhand's Corbett Tiger Reserve in the past two months.

About Corbett Tiger Reserve:

- **Location:**
 - o It is located on the **foothills of the Himalayas in Uttarakhand**.
 - o By and large, the reserve is spread **over the Bhabar and lower Shivalik regions** with a deep water table.
- **Corbett is the first national park of India**, established in 1936. It was named Hailey National Park then. In 1957, the park was rechristened Corbett National Park in memory of the late Jim Corbett, a great naturalist and eminent conservationist.
- Today, after the addition of areas to the originally declared National Park, the total area of Tiger Reserve extends to 1288.31 sq. km.
- **Vegetation:** In general, the vegetation comprises of **sal and mixed forests, interspersed with grasslands and riparian vegetation**.
- The **terrain is undulating, with several valleys**. The rivers **Ramganga, Pallaen, and Sonanadi** flow through the valleys.
- The habitat is characterized by **open meadows (chaurs)** interspersed with sal and moist, mixed deciduous forests.

- o The **grasslands are locally known as 'Chaur'**, which are an **outcome of abandoned settlements** or past clearings.
- **Flora:** It consists of **evergreen Sal** and its combined trees, the Sheesham, and the Kanju found extensively **on the ridges**.
- **Fauna: Tiger and elephant** are the charismatic mammals, besides a large array of co-predators (leopard, small carnivores), ungulates (**sambar, hog deer**, spotted deer), birds, reptiles (**gharial, crocodile**) and fishes.

Q1: What is Bhabar?

The Bhabar region is a narrow strip of land located in the Northern Plains of India. As the rivers originating from the mountains flow down, they deposit pebbles in this region. It runs parallel to the slopes of the Shiwaliks and has a width of around 8 to 16 kilometers.

22. What is Nagoya Protocol?

Overview:

Cameroon recently adopted the Nagoya Protocol on Access and Benefit Sharing.

About Nagoya Protocol:

- The Nagoya Protocol **on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits** Arising from their Utilization (the Protocol) is a **legally binding global agreement** that **implements the access and benefit-sharing obligations of the Convention on Biological Diversity (CBD)**.
- It was **adopted by the CBD in Nagoya, Japan, in October 2010** and entered into force on October 12, 2014, 90 days after the deposit of the fiftieth instrument of ratification.
- It provides a transparent legal framework for the effective implementation of one of the three objectives of the CBD: the fair and equitable sharing of benefits arising out of the utilization of genetic resources.

What are the benefits?

- It establishes a framework that **helps researchers access genetic resources** for biotechnology research, development, and other activities, **in return for a fair share of any benefits from their use**.
- This provides the research and development sector with the certainty they need to invest in biodiversity-based research.
- **Indigenous and local communities may receive benefits** through a legal framework that **respects the value of traditional knowledge** associated with genetic resources.

What does the Nagoya Protocol cover?

- It applies to **genetic resources** that are **covered by the CBD, and to the benefits arising from their utilization**.
- It **also covers traditional knowledge (TK)** associated with genetic resources that are covered by the CBD and the benefits arising from their utilization.

Key Facts about Convention on Biological Diversity (CBD):

- CBD, with currently 196 contracting parties, is the **most comprehensive binding international agreement in the field of nature conservation** and the **sustainable use of natural resources**.
- It was **opened for signing at the UN Conference on Environment and Development in Rio de Janeiro in 1992**.

It has three overarching objectives:

- The **conservation of biological diversity** (genetic diversity, species diversity, and habitat diversity).
- The **sustainable use of biological diversity**.
- The **fair and equitable sharing of the benefits** arising out of the utilisation of genetic resources.
- It **covers biodiversity at all levels**: ecosystems, species, and genetic resources.

- The **Conference of the Parties (COP)** is the highest political decision-making body of the Convention.
- The **Secretariat** is based in **Montreal, Canada**.
- **To support implementation** of the CBD objectives, **two internationally binding agreements were adopted** within the framework of the Convention on Biological Diversity.
- The **Cartagena Protocol**, which was adopted in 2000 and entered into force in 2003, **regulates the transboundary movement of living modified organisms (LMOs)**.
- The **Nagoya Protocol**, adopted in 2010, establishes a legally binding framework for access to genetic resources and the fair and equitable sharing of the benefits arising from their use.

Q1: What are living modified organisms (LMOs)?

"Living modified organism" means any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology. LMOs are also commonly referred to as genetically modified organisms (GMOs).

23. Black-necked Crane

Overview:

Recently, the union Minister of State for Environment, Forest and Climate Change informed the Lok Sabha about the important steps taken to protect Black-necked Crane by the government.

About Black-necked Crane:

- The Black-Necked Crane (*Grus nigricollis*) is classed as a medium-sized member of the crane family.
- **Habitat:** The high altitude wetlands in the **Tibetan plateau** are the main breeding ground of the species. These wetlands with small mounds provide an excellent habitat to the birds for breeding.
- **Distribution:** This species is **found in India, China and Bhutan** and breeds in high altitude wetlands in the Tibetan plateau at elevations of 2950-4900 m above mean sea level.
- **Threats:** Habitat loss and degradation related to climate change, changes in agriculture practices, pollution and environmental contamination.
- **Conservation status**
 - **IUCN: Near Threatened**
 - **The Wild Life (Protection) Act, 1972:** Schedule I
 - **CITES:** Appendix I
- The important steps taken by government of India to protect bird species include:
 - The important habitats of Black-necked Crane have been notified as Protected Areas, for example, Changthang Sanctuary, Ladakh.
 - The **Tso Kar Wetlands Complex**, an important foraging and breeding ground for Black-necked Crane, has been designated as a **Ramsar Site** in December 2020.
 - The **National Wildlife Action Plan (2017-2031)** released by the Ministry in October 2017 provides for specific Chapters and priority actions on various aspects of wildlife conservation.
 - The Central Government provides financial assistance to State/Union Territory Governments under the Centrally Sponsored Schemes '**Development of Wildlife Habitats**' for management of wildlife and its habitat in the country.

The Government of India has initiated **Mission LIFE** (Lifestyle for Environment) programme, that aims to generate public awareness about the environment, and conservation.

24. Himalayan griffon

Overview:

In the first-ever tri-State synchronised vulture survey 320 individual vultures were counted in the seven-protected areas spread over Kerala, Karnataka and Tamil Nadu and Himalayan griffon is only reported from Wayanad Wildlife Sanctuary.

About Himalayan griffon:

- It is an Old World vulture in the family **Accipitridae**.
- It is one of the two largest Old World vultures and true raptors.
- These are **monogamous** and pairs return to the same nesting and roosting sites from year to year.
- These are diurnal and mostly solitary species.
- **Distribution:**
 - It is found along the **Himalayas** and the adjoining **Tibetan region** and is also found in the Central Asian mountains.
 - Occasionally it migrates to northern India but migration usually only occurs altitudinally.
- **Conservation status**
 - **IUCN:** Near Threatened

Key facts about Wayanad Wildlife sanctuary

- It is located in **Kerala** and is an integral part of the **Nilgiri Biosphere Reserve**.
- It is contiguous to the tiger reserves of Nagarhole and Bandipur of Karnataka and Madhumalai of Tamil Nadu.
- The **Kabini river** which is a tributary of the Kaveri River **flows through the sanctuary**.
- **Vegetation:** It includes moist deciduous forests and West coast semi-evergreen forests
- **Flora:** It consists of plantations of teak, eucalyptus and Grewelia.
- **Fauna:** Elephant, Gaur, Tiger, Panther, Sambar, Spotted deer, Barking deer, Wild boar, Sloth bear, Nilgiri langur etc.

25. Sepahijala Wildlife Sanctuary (SWL)

Overview:

The Sepahijala Wildlife Sanctuary of Tripura recently welcomed a new batch of animals, which include two Royal Bengal tigers, two leopards, four golden pigeons, a silver pigeon, two peafowls, and four hill mynas.

About Sepahijala Wildlife Sanctuary (SWL):

- **Location:** It is located around 25 km from Agartala, **Tripura**.
- **History:**
 - To conserve and propagate the biodiversity of the area, the Sepahijala bio-complex came into existence in 1972.
 - With the addition of a botanical garden, a deer park, and a zoo, the bio-complex was subsequently attributed the status of Sepahijala Wildlife Sanctuary in early 1987.
 - It is spread over 18.5 sq. km and is home to migratory birds and animals.
 - The wildlife sanctuary is **divided into five sections**, basically to **segregate the different types of animals** living here. They are the carnivore section, primate section, ungulate section, reptile section, and aviary section.
 - It also has **two natural lakes**, namely **Abasarika and Amrit Sagar**.
 - **Clouded Leopard National Park**, established in 2007, **is a part of SWL**.
- **Vegetation:** Moist deciduous forest
- **Flora:** The sanctuary has no less than 456 plant species; **many kinds of bamboo** and a variety of **grasses** and **medicinal plants** also grow in the sanctuary.
- **Fauna:**
 - It is the habitat of different species of **primates like Rhesus macaque, Pigtailed macaque**, Capped langur, Spectacled monkey, Slow loris and several other wild animals like **Leopard, Clouded leopard**, Jungle fowl, **Civets**, Barking, Deer, Wild pig, etc.
 - The **crab-eating mongoose** (which was **last seen in the 1930s**) has also been **revived here**.

The avian population of the sanctuary is also rich, with a variety of winged stork, Whistling teal, and the White ibis.

26. World Sustainable Development Summit (WSDS) 2024

Overview:

The Vice-President inaugurated the World Sustainable Development Summit in New Delhi recently.

About World Sustainable Development (WSDS) Summit

- It is the annual flagship event of The Energy and Resources Institute (TERI).
- Instituted in 2001, the Summit series has a legacy of over two decades of making 'sustainable development' a globally shared goal.
- It is the only independently convened international summit on sustainable development and environment, based in the Global South.
- WSDS strives to provide long-term solutions for the benefit of global communities by assembling the world's most enlightened leaders and thinkers on a single platform.
- WSDS 2024 is the 23rd edition of the summit.
- WSDS 2024 will take place on the theme 'Leadership for the Sustainable Development and Climate Justice'.

Key Facts about The Energy and Resources Institute (TERI)

- TERI is a leading think tank dedicated to conducting research for sustainable development of India and the Global South.
- It is an independent, multi-dimensional organization, with capabilities in research, policy, consultancy, and implementation.
- History:
 - TERI was established in 1974 as an information centre on energy issues.
 - Research activities, initiated towards the end of 1982, were rooted in TERI's firm conviction that efficient utilization of energy and sustainable use of natural resources would propel the process of development.
- It's work across sectors is focused on
 - Promoting efficient use of resources
 - Increasing access to and uptake of sustainable inputs and practices
 - Reducing the impact on environment and climate
- It is headquartered in New Delhi.

Q1) What are Sustainable Development Goals (SDG's)?

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. The 17 SDGs are integrated—they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability.

27. Nilgiri Biosphere Reserve

Overview:

*More than **300 vultures** were recorded in the recently completed synchronous vulture survey in the Nilgiri Biosphere Reserve (NBR).*

About Nilgiri Biosphere Reserve (NBR)

- **Location:**
 - It is located in the Nilgiri Mountains of the Western Ghats.
 - It encompasses parts of Tamil Nadu, Kerala, and Karnataka.
- It was the **first biosphere reserve in India**, established in 1986.
- The total area of the reserve is **5,520 sq. km**. It is **the largest protected forest area in India**.
- The **Mudumalai Wildlife Sanctuary, Wyanaad Wildlife Sanctuary, Bandipur National Park, Nagarhole National Park, Mukurthi National Park, and Silent Valley** are the protected areas present within this reserve.

- **Vegetation:** It harbours a wide spectrum of ecosystem types, such as tropical evergreen forests, Montane sholas and grasslands, semi-evergreen forests, moist deciduous forests, dry deciduous forests, and thorn forests.
- **Climate:** The annual rainfall of the reserve ranges from 500 mm to 7000 mm, with temperatures ranging from 0°C during the winter to 41°C during the summer.
- **Tribal Population:** Tribal groups like the Todas, Kotas, Irullas, Kurumbas, Paniyas, Adiyans, Edanadan Chettis, Cholanaickens, Allar, Malayan, etc., are native to the reserve.
- It is India's first biosphere reserve under UNESCO's Man and the Biosphere Programme.
- **Flora:**
 - About 3,300 species of flowering plants can be seen here. Of the 3,300 species, 132 are endemic to the NBR.
 - Some of the plants entirely restricted to the NBR include species of Adenoon, Calacanthus, Baeolepis, Frerea, Jarodina, Wagatea, Poeciloneuron, etc.
- **Fauna:**
 - It includes the largest known population of two endangered animal species, namely the Nilgiri Tahr and the Lion-tailed macaque and the largest South Indian population of elephant, tiger, gaur, sambar, and chital.

28. Kinnow Farming

Overview:

Kinnow growers in Punjab are apprehending losses this season as nearly half of the 13 lakh tonnes of the crop are yet to be harvested even as the season will end in less than two months.

About Kinnow Farming:

- Kinnow / Mandarin, commonly pronounced as Kinoo or Kinu is a **citrus fruit**.
- It is a largely cultivated fruit of **North India**, and **Punjab holds the major share** of Kinnow/ Mandarin producing area of the country, with other states including Rajasthan, Haryana, Madhya Pradesh, Himachal Pradesh, Jammu, and Kashmir.
- It is a **hybrid of two varieties viz. Citrus nobilis and Citrus deliciosa**.
- It is commonly confused with Oranges, due to the similarity in their appearances, seasonal availability and nutritional benefits offered by both the fruits.
- It comprises a high amount of juice content, making them ideal for extracting juice and pulp.
- **Climatic conditions**
 - **Temperature:** It can be grown successfully in a temperature range of 10-35°C.
 - It has the ability to withstand soaring temperatures as high as 40°C during summer and 0°C during winter.
 - **Soil:** Sites having well drained clay-loam soils with 6.0-7.5 pH are ideal for its cultivation.
 - **Rain:** 300-400mm

Key facts about citrus fruit

- Citrus originates in **South East Asia**.
- It comprises Kinnow, Oranges, Lime and Lemon
- In India, Citrus is the third largest fruit crop after Banana and Mango. Citrus fruits are an important source of Vitamin C.

29. Futala Lake

Overview:

The Supreme Court recently asked the Maharashtra government and its metro rail corporation not to carry out any construction activity at the famous Futala Lake in Nagpur.

About Futala Lake:

- Futala Lake, also known as **Telankhedi Lake**, is located in the western part of **Nagpur, Maharashtra**.
- It is believed to be more than **200 years old**.

- It is spread over **60 acres**.
- **Built by the Bhonsle kings of Nagpur**, this lake is known for its colorful fountains.
- The lake is surrounded on three sides by forest and a landscaped beach on the fourth side.

Key Facts about Bhonsle Dynasty:

- The Bhonsle or Bhonsale (pronounced Bhoslay) were a **prominent Maratha clan** who served as rulers of several states in India.
- **Raghuji Bhonsle of Berar founded the dynasty** in 1730.
- The most **prominent member** of the clan was **Shivaji**, the **founder of the Maratha empire**.
- His **successors ruled as maharajas from their capital at Satara**, although "de facto" rule of the empire passed to the Peshwas, the Marathas' hereditary chief ministers, during the reign of Shahu I.
- In addition to the Bhonsle Maharajas of Satara, rulers of the **Bhonsle clan established themselves at Thanjavur** in Tamil Nadu in the 17th century, **and at Nagpur and Kolhapur** in modern-day Maharashtra in the 18th century.
- The Bhonsle of Thanjavur were descendants of Sivaji's halfbrother Venkaji, while the Bhonsle of Nagpur and Kolhapur were descended from Sivaji's sons, Sambhaji and Rajara.
- **After the British defeat of the Marathas** in the Third AngloMaratha War in 1818, the Marathas were **forced to accept British rule**.
- The four **Bhonsle dynasties continued as rulers** of their princely states, **acknowledging British sovereignty** while retaining local autonomy.

The **states of Nagpur, Thanjavur, and Sataracame under direct British rule** in the mid-nineteenth century **when their rulers died without male heirs; Kolhapur continued as a princely state until India's independence** in 1947, when the rulers acceded to the Indian government.

30. Ratle Hydro Electric Project

Overview:

The government recently announced diversion of Chenab river water through diversion tunnels to expedite the 850-MW Ratle Hydro Electric Project in Jammu & Kashmir.

About Ratle Hydro Electric Project:

- It is an **850 MW run-of-river hydroelectric power project** being **built on the Chenab River** in the Kishtwar District of **Jammu and Kashmir**.
- The project is being **developed by Ratle Hydroelectric Power Corporation (RHPC)**, which was formed as a **joint venture (JV) between Jammu & Kashmir State Power Development Corporation (JKSPDC) and India's state-owned National Hydroelectric Power Corporation (NHPC)**.
- The **project comprises a 133-meter-tall and 194.8-meter-long concrete gravity dam**, a diversion dam, and an underground powerhouse on the right bank of the river.

Key Facts about Chenab River:

- It is a **major river of India and Pakistan**.
- **Origin:** It is formed by the **confluence of two streams, Chandra and Bhaga**, at Tandi in the **upper Himalayas** in the Lahaul and Spiti Districts of **Himachal Pradesh**.
- In its upper reaches, it is also **known as the Chandrabhaga**.
- It is a **tributary of the Indus River**.
- **Course:**
 - It **flows west through Jammu and Kashmir** union territory, **between** the steep cliffs of the **Siwalik Range** (south) **and the Lesser Himalayas** (north).
 - **Turning southwest**, it **continues into Pakistan**, descending from the uplands into the broad alluvial lowlands of Punjab province.
 - After **receiving the Jhelum River** near Trimmu, the Chenab **empties into the Sutlej River**, a tributary of the Indus River.
- Its total length is about 605 miles (974 km), and it feeds several irrigation canals.

- **Tributaries:** The tributaries of the Chenab River include **Miyar Nalla, Sohal, Thiroth, Bhut Nalla, Marusudar**, and Lidrari.

31. Eravikulam National Park

Overview:

Eravikulam National Park (ENP), the natural habitat of the Nilgiri tahr, will soon be closed for the calving season of the species.

About Eravikulam National Park

- **Location:** It is located along the Western Ghats in the Idukki district of Kerala.
- It was declared as **National Park in 1978**.
- The Park covers an area of **97 sq.km**.
- **The highest peak south of the Himalayas, the Anamudi (2695 meters), is situated on the southern side of the park.**
- This is also the land of **"Neelakurinji"**, the **flower that blooms once every twelve years**.
- **Climate:** The park receives heavy showers during the southwest (June/July) and retreating (October/November) monsoons and is one of the wettest areas of the world.
- **Vegetation:** The major part of the park is covered with rolling grasslands, but several patches of shola forests are also found in the upper part of the valley.
- **Flora:**
 - Important flora includes *Actinodaphne bourdillonii*, *Microtropis ramiflora*, *Pittosporum tetraspermium*, *Syzygium aronottianum*, *Chrysopogon Zelanicus*, etc.
 - The shola grasslands are exceptionally rich in balsams and orchids, including the long thought extinct variety *Brachycorythis wightii*.
- **Fauna:**
 - The Nilgiri Tahr, Gaur, Sloth Bear, Nilgiri Langur, Tiger, Leopard, Giant Squirrel, and wild dog are the common species.
 - Half the world population of the endangered Nilgiri Tahr lives here.
 - The Atlas moth, the largest of its kind in the world, is seen in this park.
 - 140 species of birds, of which 10 are unique to the Western Ghats. More than 100 varieties of butterflies have been recorded here.

Key Facts about Nilgiri tahr

- It is **an endangered mountain ungulate endemic** to the southern part of the Western Ghats.
- **Scientific Name:** *Nilgiritragus hylocrius*
- Locally, the animal is called **'Varayaadu'**.
- They are known for their **gravity-defying skills** in climbing steep cliffs, earning them the nickname Mountain Monarch.
- **It is the state animal of Tamil Nadu.**
- **Distribution:**
 - Their present distribution is limited to approximately 5% of the Western Ghats in southern India (Kerala and Tamil Nadu).
 - Eravikulam National Park in Kerala has the highest density and largest surviving population of Nilgiri tahr.
- **Habitat:** They inhabit the open montane grassland habitats at elevations from 1200 to 2600 m of the South Western Ghats.
- **Features:**
 - It has a stocky body with short, coarse fur and a bristly mane.
 - Both sexes have curved horns, which are larger in the males, reaching up to 40 cm in males and 30 cm in females.
 - Adult males develop a light grey area or 'saddle' on their backs and are hence called 'saddlebacks'.
 - It has a short grey-brown or dark coat.
- **Conservation Status:**
 - IUCN Red List: Endangered

- Wildlife (Protection) Act of India, 1972: Schedule I

32. Snow Leopard

Overview:

The first scientific survey of the snow leopard in India shows the country is home to 718 of the elusive cats, the government said recently.

About Snow Leopard

- It is a large, long-haired Asian cat, classified as either **Panthera uncia** or **Uncia uncia** in the family Felidae.
- **Geographic Range:**
 - Snow leopards live across a vast area in **northern and central** [Asia's high mountains, including the Himalayan region.]
 - In the Himalayas, they live in high alpine areas, mostly above the tree line and up to 18,000 feet in elevation.
 - They are found in **12 countries**, including China, Bhutan, Nepal, India, Pakistan, Russia, and Mongolia.
 - In India, it is seen in **Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh.**
- **Features:**
 - Measuring from nose to tail, **the length** of an average adult is **1000 to 1300 mm.**
 - They have **thick grey and yellow-tinged fur**, with solid spots on their head, neck, and lower limbs and rosettes over the rest of the body.
 - They also have **very long, thick tails** that they use for **balancing on rocks** and wrapping around their bodies for **protection from the cold.**
 - Their short forelimbs and long hind limbs make them very agile, and they can jump as much as **50 feet in length.**
 - They **are solitary**, and the only prolonged social contact occurs while females are raising their cubs.
- **Conservation status:**
 - IUCN Red List: Vulnerable
 - CITES: Appendix I
 - Wildlife (Protection) Act 1972: Schedule I

SCIENCE & TECH

1. What is Flue Gas De-sulphurisation (FGD)?

Overview:

The Union Minister for Power and New & Renewable Energy recently informed about the installation of Flue Gas De-sulphurisation (FGD) equipment in thermal power plants.

About Flue Gas De-sulphurisation (FGD)

- It is a technology to eliminate sulfur dioxide (SO₂) from exhaust emissions.
- Where does Sulfur Dioxide come from?
 - Fossil fuels such as coal and oil often contain high amounts of sulfur, and when these fuels are burned, around 95% or more of the sulfur is converted to sulfur dioxide (SO₂), which is emitted as flue gas.
 - Sulfur dioxide in itself is a major air pollutant which impacts all life. It is also a precursor of acid rain, which has significant adverse impacts on forests, freshwaters, and soils, in turn killing insect and aquatic life forms, causing paint to peel, corrosion of steel structures such as bridges, and weathering of stone buildings and statues.
 - The removal of sulfur dioxide is critical to establishing a safe and clean environment where toxic emissions are kept to a safe level.
- FGD Process:

- FGD is done through the addition of absorbents, which can remove up to 95% of the sulphur dioxide from the flue gas.
- Substances such as ammonia or sodium sulphite are used as absorbents; however, the use of lime or limestone slurry (wet limestone scrubbing) is also widespread.

The uncleaned flue gas is sprayed in a scrubber tower (absorber tower) with a mixture of water and limestone (scrubbing slurry), whereby most of the sulphur dioxide is bonded by chemical reaction.

2. SWATI Portal

Overview:

Principal Scientific Advisor to the Government of India launched “Science for Women-A Technology & Innovation (SWATI)” Portal.

About SWATI Portal

- It is aimed at creating a single online portal representing Indian Women and Girls in STEMM (Science, Technology, Engineering, Mathematics & Medicine).
- The database of SWATI Portal will serve in policy making to address the challenges of Gender-gap.
- The Portal is a complete interactive database; and the first-of-its-kind in India which is developed, hosted and maintained by the National Institute of Plant Genome Research (NIPGR), New Delhi.
- Objectives
 - To scale up the effort exponentially to include each and every Indian woman in science, across all career stages and subjects, spanning both Academia and the Industry enabling reliable and statistically significant long term research on the issues of equality, diversity and inclusivity in India;
 - Inclusion of each and every Indian WiS, career stages, subjects, spanning both Academia and the Industry; Enabling reliable and statistically significant long term research on the issues of equality, diversity and inclusivity in India, developing active search engine and searchable database (Name, Affiliation, Area of Interest).
- The various Sections in the portal include Icons - Awardees (Padma / Shanti Swarup Bhatnagar / Stree Shakti Science Samman) & Directors, Secretaries Academy Presidents; Faculty- Indian Universities, Autonomous organizations including S&T Ministry/ CSIR/ DBT/ DST/ CSIR/ MHRD/ UGC/ GATI/ KIRAN;

Q1) What is the Council of Scientific and Industrial Research (CSIR)?

It is a cutting edge R&D organisation dealing in diverse fields of science and technology. - It has a dynamic network of 37 national laboratories, 39 outreach centres, 1 Innovation knowledge base and three units with a pan-India presence.

3. What is a Bubonic Plague?

Overview:

Officials in the US state of Oregon recently said they are dealing with a rare human case of bubonic plague that was likely transmitted by a pet cat.

About Bubonic Plague

- Plague is an infectious disease caused by a specific type of bacterium called *Yersinia pestis*, a zoonotic bacterium usually found in small mammals and their fleas.
- *Y. pestis* can affect humans and animals and is spread mainly by fleas.
- Bubonic plague is one type of plague. It gets its name from the swollen lymph nodes (buboes) caused by the disease.
 - Called the Black Death, it killed millions of Europeans during the Middle Ages.
- The other types of plague are:
 - Septicemic plague, which happens when the infection goes all through the body.
 - Pneumonic plague, which happens when the lungs are infected.

- Plague can be a very severe disease in people, with a case-fatality ratio of 30% to 60% for the bubonic type, and is always fatal for the pneumonic kind when left untreated.
 - Symptoms: Bubonic plague symptoms include
 - Sudden high fever and chills.
 - Pains in the areas of the abdomen, arms, and legs.
 - Headaches.
 - Large and swollen lumps in the lymph nodes (buboes) that develop and leak pus.
 - Transmission:
 - *Y. pestis* is spread mostly by fleas on rodents and other animals.
 - It is transmitted between animals and humans by the bite of infected fleas, direct contact with infected tissues, and inhalation of infected respiratory droplets.
 - The incubation period of bubonic plague is usually 2 to 8 days.
 - Treatment:
 - It can be treated and cured with antibiotics.
 - Antibiotics that treat bubonic plague include Ciprofloxacin, levofloxacin, moxifloxacin, Gentamicin and Doxycycline.
 - It can be fatal if it's not treated.
-

Q1) What are antibiotics?

Antibiotics are medicines that fight bacterial infections in people and animals. They work by killing the bacteria or by making it hard for the bacteria to grow and multiply.

4. Kaji Nemu

Overview:

Recently, the Assam government declared the GI-tagged 'Kaji Nemu' (Citrus Limon) as the State Fruit.

About Kaji Nemu

- It is elongated and oblong compared to other lemon varieties.
 - It is popular for its unique aroma and health benefits. It has been traditionally associated with Assamese cuisines.
 - The fruit had been exported to several countries, including to the Middle East..
 - With its unique aroma and antioxidant properties, the Assam lemon enriched the local cuisines.
 - The oval-shaped Kaji Nemu is a lot juicier than other lemon varieties. Kaji Nemu is majorly used in culinary and commercial purposes, and it is extensively used for its medicinal properties.
 - Cultivation: It is grown in almost all the districts of the state, and is available throughout the year.
 - The fruit is a powerhouse of nutrients, boosting health
 - Assam has as many as 16 species and 52 varieties hybrids of citrus.
 - 'Kaji Nemu' (Citrus Limon) bears GI Geography Indication tag in 2019, is linked to Assamese food.
-

Q1) What are Antioxidants?

These are man-made or natural substances that may prevent or delay some types of cell damage. Antioxidants are found in many foods, including fruits and vegetables. They are also available as dietary supplements.

5. What is the Young Scientist Programme (YUVIKA)?

Overview:

The Indian Space Research Organisation (ISRO) is set to conduct its special 'Young Scientist Programme' or 'YUVIKA' for school children.

About Young Scientist Programme (YUVIKA)

- "Young Scientist Programme", or "YUva Vigyani KARYakram" YUVIKA, is a learning and awareness creating programme of the ISRO to impart basic knowledge on Space Technology, Space Science, and Space Applications to younger students with a preference to rural areas.
- The programme is aimed at creating awareness about the emerging trends in science and technology amongst the youngsters, who are the future building blocks of our nation. ISRO has chalked out this programme to "Catch them young".
- The programme is also expected to encourage more students to pursue Science, Technology, Engineering and Mathematics (STEM) based research / career.
- Eligibility:
 - Those who have finished class 8 and are currently studying in class 9 can apply for the programme.
 - Three students from each state/Union Territory will participate in this programme every year, covering CBSE, ICSE, and state-board syllabus.
 - The selection is based on 8th Standard academic performance and extracurricular activities.
 - Students belonging to the rural area have been given special weightage in the selection criteria.
 - In case there is a tie between the selected candidates, the younger candidates will be given priority.
- What is being offered?
 - It is a two-week residential programme offered by ISRO.
 - It will include invited talks, experience sharing by eminent scientists, facility and lab visits, exclusive sessions for discussions with experts and practical and feedback sessions.
 - A minimum participation will be ensured from each State / UT.

Q1) What is the Indian Space Research Organisation (ISRO)?

ISRO is the space agency of India, responsible for the planning and execution of space-related activities in the country. ISRO is one of the most prominent and successful space agencies in the world, known for its cost-effective and efficient space missions. ISRO operates under the Department of Space, which reports directly to the Prime Minister of India. The department primarily executes the Indian Space Programme through various ISRO Centres.

6. Diphtheria

Overview:

Recently, the World Health Organization (WHO) on Wednesday published the guidelines on the clinical management of diphtheria.

About Diphtheria

- It is a serious contagious bacterial infection of the nose and throat.
- Cause: It is caused by strains of bacteria called *Corynebacterium diphtheriae* that make a toxin.
- Transmission:
 - It can spread from person to person, usually through respiratory droplets, like from coughing or sneezing.
 - People can also get sick from touching infected open sores or ulcers.
- The bacteria can also infect the skin, causing open sores or ulcers. However, diphtheria skin infections rarely result in severe disease.
- Although diphtheria can be treated with medications, in advanced stages, the bacterial infection can damage the heart, kidneys and nervous system.
- Symptoms: A thick, gray membrane covering the throat and tonsils, sore throat and hoarseness, swollen glands (enlarged lymph nodes) in the neck and difficulty breathing etc.
- The current treatments include:
 - neutralization of unbound toxin with Diphtheria Antitoxin (DAT)
 - antibiotics to prevent further bacterial growth;

- monitoring and supportive care to prevent and treat complications, e.g. airway obstruction, myocarditis.

What are the new recommendations of WHO?

- In patients with suspected or confirmed diphtheria, WHO recommends using macrolide antibiotics (azithromycin, erythromycin) in preference to penicillin antibiotics.
- In patients with suspected or confirmed diphtheria, WHO recommends not to perform routine sensitivity testing prior to administration of diphtheria antitoxin (DAT).
- In patients with suspected or confirmed symptomatic diphtheria, WHO suggests an escalating dosing regimen for diphtheria antitoxin (DAT) which is based on disease severity and time since symptom onset, in comparison with a fixed dose for all patients.

Q1) What is Bacteria?

These are small single-celled organisms. Bacteria are found almost everywhere on Earth and are vital to the planet's ecosystems.

7. National Science Day 2024

Overview:

Union Minister of State (Independent Charge) Science & Technology recently released the theme for the "National Science Day 2024", titled "Indigenous Technologies for Viksit Bharat".

About National Science Day (NSD)

- It is celebrated every year on February 28 to mark the contributions of scientists towards the development of the country.
- On this day, in 1928, Indian Physicists Sir CV Raman made an important discovery in the field of spectroscopy, which was later named after him: the Raman Effect.
 - For this discovery, he was also awarded the Nobel Prize in Physics in 1930.
- History:
 - The National Council for Science and Technology Communication (NCSTC), in 1986, asked the Government of India to announce February 28 as National Science Day.
 - The government accepted and declared the day National Science Day.
 - The first National Science Day was celebrated on February 28, 1987.

What is the Raman Effect?

- The Raman effect is a change in the wavelength of light that occurs when a light beam is deflected by molecules.
- When a beam of light traverses a dust-free, transparent sample of a chemical compound, a small fraction of the light emerges in directions other than those of the incident (incoming) beam.
- Most of this scattered light is of an unchanged wavelength. A small part, however, has wavelengths different from that of the incident light; its presence is a result of the Raman Effect.

Q1) What is the National Council for Science and Technology Communication (NCSTC)?

The National Council for Science and Technology Communication (NCSTC) is mandated to communicate Science and Technology to masses, stimulate scientific and technological temper and coordinate and orchestrate such efforts throughout the country. The programmes of NCSTC aims at building capacity for informed decision making in the community and promote scientific thinking. It is devoted towards societal upliftment through the dissemination of scientific knowledge in an informed manner and builds programmes with the help of different media which percolate down to every nook and corner of the society.

8. Rhodamine-B

Overview:

Recently, the Tamil Nadu government banned the sale and production of cotton candy in the state after it was found that the chemical Rhodamine-B was being used for making it.

About Rhodamine-B

- It is a water-soluble chemical compound.
- While it appears green in powder form, it turns vivid fluorescent pink when it comes in contact with water.
- It is a chemical commonly used for dyeing in the textile, paper, leather, and paints industry as a coloring agent that helps in attaining the red and pink spectrum.
- "As per the Food Safety Standards Act, 2006, preparation, packaging, importing, selling and serving food items with Rhodamine-B in wedding ceremonies and other public events is a punishable offence.
- It is an industrial dye which is not allowed in food anywhere in the world as it is toxic.

Why is it harmful?

- Researchers have identified that if food containing this chemical is consumed regularly, it can cause damage to the cerebellum tissue in the brain and to the brainstem that connects the brain to the spinal cord.
- These damages can lead to functional abnormalities and can hinder humans' motor functioning.
- The chemical is toxic for humans and can cause oxidative stress on cells and tissues if ingested.
- It becomes particularly hazardous when it is mixed with food products, leading to cancer and tumour over time.

Q1) What is dyeing?

A dyeing process is the interaction between a dye and a fibre, as well as the movement of dye into the internal part of the fibre. Generally, a dyeing process involves adsorption (transfer of dyes from the aqueous solution onto the fibre surface) and diffusion (dyes diffused into the fibre).

9. What is Garbhini-GA2?

Overview:

Researchers recently developed Garbhini-GA2, an India-specific artificial intelligence model to precisely determine the gestational age of a foetus.

About Garbhini-GA2

- It is the first India-specific artificial intelligence (AI) model to precisely determine the age of a foetus in a pregnant woman in the second and third trimesters.
- It has been designed by researchers at the Indian Institute of Technology Madras and the Translational Health Science and Technology Institute (THSTI), Faridabad.
- It is part of an interdisciplinary group for advanced research on birth outcomes – the Department of Biotechnology (DBT) India initiative (GARBH-Ini) programme.
- It is the first late-trimester GA estimation model to be developed and validated using Indian population data.
- The Garbhini-GA2 accurately estimates the foetus' age, reducing error by almost three times.
- Accurate 'Gestational Age' (GA) is necessary for the appropriate care of pregnant women and for determining precise delivery dates.
- Once validated in pan-India cohorts, Garbhini-GA2 holds the potential to be widely deployed in clinics across the country, contributing to improved maternal and infant healthcare outcomes and reducing mortality rates.

Key Facts about Translational Health Science and Technology Institute (THSTI)

- It is an autonomous institute of Biotechnology under the Ministry of Science and Technology, with the prime ideology of contributing most of its work beyond discovery and research.
- It was established in 2009 in Faridabad, Haryana.

- It integrates multidisciplinary teams from the fields of medicine, science, and technology to harness translational knowledge for clinical research.
- It also facilitates social Innovation and entrepreneurship in the field of maternal and child healthcare.

10. Bluetongue disease (BT)

Overview:

China has banned the direct and indirect import of ruminants and its related products from Iraq due to an outbreak of bluetongue disease.

About Bluetongue disease (BT)

- It is a **non-contagious, viral disease** affecting domestic and wild ruminants (primarily sheep and including cattle, goats, buffalo, antelope, deer, elk and camels).
- It is transmitted by insects, particularly biting midges of the **Culicoides species**.
- The **virus which causes BT** is identified as a member of the **Reoviridae family**.
- **Twenty-four (24) different serotypes** have been identified and the ability of each strain to cause disease varies considerably.
- **Symptoms:** The severity of disease varies among different species with symptoms being most severe in sheep resulting in deaths, weight loss and disruption in wool growth.
- **Geographical distribution**
 - It has a significant global distribution in regions where the insect vector is present, including Africa, Asia, Australia, Europe, North America and several islands in the tropics and subtropics.
 - The virus is maintained in areas where the climate will allow biting midges to survive over winter.
- **Transmission and spread**
 - The insect vector is the key to transmission of BT virus between animals.
 - Vectors are infected with BT virus after ingesting blood from infected animals.
 - Without the vector, the disease cannot spread from animal to animal.
 - BT virus transmission can occur throughout the year, particularly during rainy periods.

11. MagSafe

Overview:

There are a variety of power banks that are available online, but since the launch of MagSafe chargers from Apple, the industry has evolved.

About MagSafe

- MagSafe charger is a **wireless charger/power bank** that connects to the back of your wireless-compatible mobile phone to charge your phone in the easiest of ways.
- It is equipped with either **a 5,000 or a 10,000 mAh battery** pack on the inside, which can be used as a power backup.
- This type of charger uses the **magnetic current present** at the back of your mobile phone and the magnets on the MagSafe charger.
- A good MagSafe charger is just like any other **wireless power bank** that attaches to your mobile phone and works as a power bank.
- As with any other power bank, a MagSafe charger also needs to be charged.
- **Working**
 - It is a type of power bank that is **only compatible** with devices that support wireless charging.
 - The MagSafe chargers, after **you fix them directly** on the back of your mobile phone, connect to the magnets on the charger that complete the circuit.
 - The complete circuit allows the current to flow from the power bank to the device, which allows the charger to charge your mobile phone.

12. Nano DAP

Overview:

Recently, the Finance Minister of India, presenting the interim budget announced the expansion of the application of Nano DAP on various crops in all agro climatic zones.

About Nano DAP:

- It is a **unique liquid fertilizer** product that contains nanoparticles of Diammonium Phosphate (DAP).
- It is a **source of nitrogen and phosphorus** – 2 key primary nutrients essential for the growth of crops.
- It contains 8% Nitrogen and 16% Phosphorus by volume.
- Unlike conventional DAP, which comes in granular form, IFFCO's **Nano DAP is in liquid form.**
- It has an advantage in terms of surface area to volume, as its particle size is less than 100 Nanometre (nm)."

Advantages of NANO DAP

- **Higher Crop Yield:** Due to small size and more surface area to volume ratio; seed treatment and foliar application of Nano DAP at critical growth stages enhances nutrient availability to crops. Hence, Crop yield increases due to increase in leaf chlorophyll, photosynthesis, root biomass, number of effective tillers and branches.
- **Quality Food:** Nutritional quality of harvested food produce was found to be better in terms of protein and nutrient content.
- **Reduction in Chemical Fertilizer Usage:** Enhanced use efficiency of one bottle (500 ml) of Nano DAP can potentially replace the phosphorus requirement met by conventional DAP by 50%.
- **Environment Friendly:** Production of Nano DAP is energy and resource friendly. Precision and targeted application of this to crops therefore leads to agriculture sustainability and safety of the environment by reducing soil, air and water pollution.
- It is more pocket-friendly than its conventional counterpart. A 500 ml bottle of Nano DAP, equivalent to a 50-kg bag of conventional DAP
- It is set to significantly **reduce this import burden.**

What is DAP?

- DAP, or **di-ammonium phosphate**, is the second most commonly used fertilizers in India after urea.
- It is **high in phosphorus (P)** that stimulates root establishment and development — without which plants cannot grow to their normal size, or will take too long to mature.

13. Wheat Blast:

Overview:

Researchers who have modeled for the first time how wheat blast will spread in the future found the fungal disease could reduce global wheat production by 13% until 2050.

About Wheat Blast:

- Wheat blast, **caused by** the plant fungus **Magnaporthe oryzae**, is a fast-acting, **severe disease of wheat** that **causes bleaching of the heads.**
- **Magnaporthe oryzae can infect many grasses**, including barley, lolium, rice, and wheat, **but specific isolates** of this pathogen **generally infect limited species**; that is, **wheat isolates infect preferably wheat plants** but can use several more cereal and grass species as alternate hosts.
- It **spreads through infected seeds, crop residues, and spores** that can travel long distances in the air.
- It **thrives in warm and humid conditions**, making regions with such climates particularly susceptible.
- The pathogen is also **resistant to fungicides.**

- The seriousness of the disease is indicated by the fact that **crops are burnt to avoid this disease.**
 - **Effects:**
 - It causes progressive **bleaching of the heads, lower yields, and poor seed quality.**
 - **Stems and leaves are discoloured**, with dark brown, eye-shaped lesions on leaves.
 - Sometimes **dark grey spores** can be seen.
 - It can **shriveled and deform the grain** in less than a week from the first symptoms.
 - **History of the Outbreak:**
 - **First found in Brazil in 1985**, it spread quickly through South America, infecting around three million hectares of wheat within a decade.
- In 2016, it made it across to Bangladesh, and in 2020, it was confirmed in Africa**, in crops in Zambia.

14. What is Candida auris (C. auris)?

Overview:

A deadly fungal infection called Candida auris has been spreading rapidly in the United States recently.

About Candida auris (C. auris):

- It is an emerging **multidrug-resistant yeast** (fungus) that represents a global health threat.
- It is capable of **causing invasive infections** in the human body. It can cause severe illness **in people with weakened immune systems.**
- Scientists first discovered C. auris in Japan in 2009. Since then, it has spread quickly to other countries.
- **Transmission:**
 - It is **primarily contracted in healthcare settings**, such as hospitals and nursing homes.
 - It **can also live on** the skin or **other body parts without making a person sick.** This is called **being "colonized."**
 - The fungus **can either colonize a specific region** of the body, such as the skin, rectum, or mouth, **without causing symptoms** or it can **cause severe invasive infections by entering the bloodstream** or wounds.
 - It can be spread **through contact with contaminated surfaces or equipment**, or from **physical contact** with a person who is infected or colonized.
- **Symptoms:**
 - It can **cause infections in different parts** of the body, such as the bloodstream, open wounds, and ears.
 - The symptoms **depend on the location and severity** of the C. auris infection.
 - Symptoms may be **similar to those of an infection caused by bacteria.** There is not a common set of symptoms specific to C. auris infections.
 - **A high fever with chills** that does not get better after taking antibiotics **may be a sign of a C. auris infection.**
- **Treatment:**
 - Most C. auris infections are treatable with **antifungal drugs.**
 - However, **some C. auris infections have been resistant to** all three main classes of **antifungal medications**, making them **more difficult to treat** and often **requires the use of combination therapies**

15. InTranSE Program

Overview:

During the launch event of " Digital India FutureLABS Summit 2024" held at IIIT- Delhi, three Indigenous Technologies - Thermal camera, CMOS camera and Fleet Management System designed and developed by CDAC Thiruvananthapuram under InTranSE Program of MeitY were transferred to 12 Industries.

About InTranSE Program:

- The **Intelligent Transportation System Endeavor (InTranSE)** is a revolutionary collaborative research and development programme.
- It is an initiative of **the Ministry of Electronics & IT.**
- **Purpose:** To **synergize the transformation** in Intelligent Transportation System the Ministry of Electronics & IT took early steps by bringing together premier academic institutes like Indian Institute of Technology (IIT), Indian Institute of Science (IISc), Indian Institute of Management (IIM) etc. and Premier R&D Centre like C-DAC under one umbrella.
- This initiative formulated the Collaborative Intelligent Transportation Systems Endeavor for Indian Cities (InTranSE) during the year **2009-2012 (Phase-I)** that witnessed IIT Bombay, IIT Madras, IIM Calcutta and C-DAC Thiruvananthapuram collaboratively developing, implementing, demonstrating and knowledge **transfer of ITS products and solutions.**
- The InTranSE **Phase-II program (2019-2021)** is aiming at undertaking R&D projects collaboratively with IIT Bombay, IIT Madras, IISc Bangalore and C-DAC Thiruvananthapuram
- **Significance:** It will achieve traffic efficiency by **minimizing traffic problems**, prompting efficient infrastructure usage, enriching users with prior information about traffic and reducing travel time as well as enhancing safety and comfort of commuters.

Q1: What is Centre for Development of Advanced Computing (C-DAC):

It is the apex research and development wing of the Ministry of Electronics and Information Technology. It was established in the year 1988. Its main purpose was to carry out research and development in Electronics, IT and other associated areas.

16. What are Coronal Mass Ejections (CMEs)?

Overview:

An Indian Institute of Astrophysics (IIA) team along with their international collaborators recently developed a new model of the internal thermal evolution of coronal mass ejections (CMEs), as they travel from the sun toward the earth.

About Coronal Mass Ejections (CMEs):

- CMEs are **large expulsions of plasma and magnetic field from the sun's** atmosphere—the **corona, that propagate outward** into interplanetary space.
- During a CME, the sun **releases a colossal amount of material, including electrons, protons, and heavier ions, as well as magnetic fields.**

How are they formed?

- They form **similarly to solar flares—a result of the twisting and realignment of the sun's magnetic field**, known as **magnetic reconnection.**
- When magnetic field lines "tangle" they **produce strong localized magnetic fields which can break through the surface** of the sun at active regions, **subsequently generating CMEs.**
- CMEs **usually take place around sunspot groups** and are **often accompanied by a solar flare**, though the two **don't always occur in tandem.**
- CMEs **travel outward from the sun** at speeds ranging from slower than 250 kilometers per second (km/s) to as fast as 3000 km/s.
- The fastest Earth-directed CMEs **can reach our planet in as little as 15-18 hours.**
- **They expand in size as they propagate away** from the Sun, and larger CMEs can reach a size comprising nearly a quarter of the space between Earth and the Sun by the time they reach our planet.
- CMEs, like solar flares, are **most common during the solar maximum**, a period in the sun's 11-year cycle of activity when the star is at its most active.

Impact on Earth:

- **Geomagnetic Storms:** The interaction between the CME's magnetic fields and Earth's magnetosphere can lead to geomagnetic storms. These can disrupt satellite communications, navigation systems, and even power grids.
- **Auroras:** CMEs can cause spectacular displays of the Northern and Southern Lights, also known as auroras, by energizing particles in Earth's atmosphere.
- **Radiation Hazards:** Astronauts in space or passengers on high-altitude flights can be exposed to elevated levels of radiation during a CME event.

Key Facts about Solar Flare:

- It is an **intense burst of radiation** coming from the release of magnetic energy associated with sunspots.
- Flares are our **solar system's largest explosive events**.
- They are **seen as bright areas on the sun**, and they can **last from minutes to hours**.
- In a matter of just a few minutes, they **heat the material to many millions of degrees** and **produce a burst of radiation** across the electromagnetic spectrum, including **from radio waves to x-rays and gamma rays**.
- Although solar flares can be visible in white light, they are often more readily noticed via their bright X-ray and ultraviolet emissions.

Effect of Solar Flare on Earth:

- The intense radiation emitted during a solar flare can **affect satellite communications, disrupt radio signals**, and even pose a **risk to astronauts** in space.
- Additionally, the increased solar radiation can lead to **geomagnetic storms**, which may **impact power grids** and **cause auroras** (northern and southern lights) at lower latitudes.

Q1: What are Sunspots?

Sunspots are dark, planet-size regions of strong magnetic fields on the surface of the sun. They can spawn eruptive disturbances such as solar flares and coronal mass ejections (CMEs). These regions of the sun appear darker because they are cooler than their surroundings.

17. Neglected Tropical Diseases**Overview:**

*World Neglected Tropical Diseases Day is observed every year on **January 30**.*

About Neglected Tropical Diseases (NTDs)

- NTDs are a diverse group of **20 conditions/diseases** that are mainly prevalent in **tropical areas**, where they thrive among people living in impoverished communities.
- They are caused by a **variety of pathogens** (including viruses, bacteria, parasites, fungi, and toxins) and are associated with **devastating health**, social, and economic consequences.
- These include **Guinea worm, Chikungunya, Dengue, Kala Azar (Visceral Leishmaniasis), and Elephantiasis (Lymphatic Filariasis)**, among others, and India is home to about 12 NTDs.
- The World Health Organization (**WHO**) estimates that NTDs affect more than **1 billion** people, while the number of people requiring NTD interventions (both preventive and curative) is 1.6 billion.
- The epidemiology of NTDs is complex and **often related to environmental conditions**. Many of them are vector-borne, have animal reservoirs, and are associated with complex life cycles. All these factors make their public-health control challenging.
- **Global Initiative to end NTDs:** The WHO's new road map for **2021–2030 calls for three** strategic shifts to end NTDs:
 - From measuring process to measuring impact.
 - From disease-specific planning and programming to collaborative work across sectors.

- From externally driven agendas reliant on programmes that are country-owned and country-financed.

18. Chronic Obstructive Pulmonary Disease (COPD):

Overview:

Health experts list the causes of Chronic Obstructive Pulmonary Disease beyond smoking, including environmental toxins, genetic predispositions, and occupational hazards.

About Chronic Obstructive Pulmonary Disease (COPD):

- It is a **chronic inflammatory lung disease** that causes **obstructed airflow from the lungs**.
- There are **two main forms** of COPD:
 - **Chronic bronchitis**, which involves a **long-term cough with mucus**.
 - **Emphysema**, which involves **damage to the lungs over time**.
- Most people with COPD have a combination of both conditions.
- **Causes:**
 - It's typically **caused by long-term exposure to irritating gases** or particulate matter, most **often from cigarette smoke**.
 - **Tobacco smoking accounts for over 70% of COPD cases in high-income countries. In low- and middle-income countries (LMIC), tobacco smoking accounts for 30–40% of COPD cases**, and household air pollution is a major risk factor.

Signs and symptoms:

- The most common symptoms of COPD are **difficulty breathing, chronic cough** (sometimes with phlegm) and **feeling tired**.
- COPD symptoms can **get worse quickly**. These are **called flare-ups**. These **usually last for a few days** and often require additional medicine.
- People with COPD are at **increased risk of developing heart disease, lung cancer**, and a variety of other conditions.
- **Treatment:**
 - COPD **isn't curable**, but it **can get better by not smoking, avoiding air pollution**, and getting vaccines.
 - It can be **treated with medicines**, oxygen, and pulmonary rehabilitation.

19. Nitrogen hypoxia:

Overview:

Recently, Alabama successfully executed a man who spent decades on death row using a new method called nitrogen hypoxia.

About Nitrogen hypoxia:

- Hypoxia is a medical term for a state of **insufficient oxygen** in the body.
- **Nitrogen hypoxia** is a process where **pure nitrogen gas**, or nitrogen gas at concentrations high enough to be lethal, is inhaled to the point of **causing asphyxiation**.
- It is a relatively new alternative to more common forms of **capital punishment**, like lethal injection and electrocution
- In this method of execution, a respirator mask is placed over the inmate's face, pure nitrogen is pumped into the person's lungs instead of oxygen.
- It leads to unconsciousness and then death from lack of oxygen.

Key facts about Nitrogen

- It appears as a **colorless odorless gas**.
- It makes up the major portion of the atmosphere.
- It is important for **plant growth** and can be 'fixed' by lightning or added to soils in fertilisers.
- It is important to the **chemical industry**. It is used to make fertilisers, nitric acid, nylon, dyes and explosives.

- Nitrogen gas is also used to provide an **unreactive atmosphere**. It is used in this way to preserve foods and in the electronics industry during the production of transistors and diodes.
- Large quantities of nitrogen are used in **annealing stainless steel** and other steel mill products. Annealing is a heat treatment that **makes steel easier to work**.
- Liquid nitrogen is often used as a **refrigerant**. It is also used to rapidly freeze foods, helping them to maintain moisture, colour, flavour and texture.

20. Generative AI

Overview:

A new report predicts that Generative AI (genAI) is poised to become a \$100 billion industry by 2026.

About Generative AI:

- Generative AI, or generative artificial intelligence, is a form of artificial intelligence (AI) in which **algorithms automatically produce content in the form of text, images, audio, and video**.
- Unlike traditional AI systems that are designed to recognize patterns and make predictions, generative AI **creates new content**.
- Generative AI is **powered by foundation models (large AI models) that can multi-task** and perform out-of-the-box tasks, including summarization, Q&A, classification, and more.
- These systems have been **trained on massive amounts of data**.
- It **works by using a Machine Learning (ML) model to learn the patterns and relationships in a dataset of human-created content**. It then **uses the learned patterns to generate new content**.
- Typically, it **starts with a simple text input, called a prompt**, in which the user describes the output they want. Then, **various algorithms generate new content according to what the prompt is asking for**.
- **Popular Generative AI Tools:**
 - **Chat GPT:** Chat GPT is an **AI-powered chatbot developed by Open AI**, with a unique ability to not only generate written content but also converse with users fluently.
 - **Bard:** Bard is a generative AI **chatbot created by Google**, based on LaMDA language model technology. It can answer questions asked by users or create new content from text or image prompts.

What is Machine Learning (ML)?

- It is defined as a **discipline of artificial intelligence (AI) that provides machines with the ability to automatically learn from data and past experiences to identify patterns and make predictions** with minimal human intervention.
- Machine learning methods **enable computers to operate autonomously** without explicit programming.
- **ML applications are fed with new data** and they can **independently learn, grow, develop, and adapt**.
- ML algorithms **use computation methods to learn directly from data** instead of relying on any predetermined equation that may serve as a model.

21. Alzheimer's Disease

Overview:

As per a recent study, rare medical accidents can lead to the transmission of Alzheimer's from one human to another.

About Alzheimer's Disease

- It is a brain condition that causes a progressive decline in memory, thinking, learning, and organizing skills.
- It is the most common type of dementia, accounting for 60-80% of all dementia cases.

- It involves parts of the brain that control thought, memory, and language.
- It can seriously affect a person's ability to carry out daily activities.
- The condition usually affects people aged 65 years and over, with only 10% of cases occurring in people younger than this.
- **Cause:** The exact cause of Alzheimer's disease is **not fully understood**, but it is believed to be influenced by a **combination of genetic, environmental, and lifestyle** factors.
- **Symptoms:**
 - The early signs of the disease include **forgetting recent events** or conversations.
 - Over time, it progresses to **serious memory problems** and loss of the ability to perform everyday tasks.
- **Treatment:** There's no cure for Alzheimer's, but certain medications and therapies can help manage symptoms temporarily.

What is Dementia?

- **Dementia is not a specific disease but is rather a general term for the impaired ability to remember, think, or make decisions that interferes with doing everyday activities.**
- Alzheimer's disease is the most common type of dementia. However, there are several other types of dementia, each with its own underlying causes. Some of the common types of dementia include: Vascular Dementia, Lewy Body Dementia, Frontotemporal Dementia, and Mixed Dementia.
- Though dementia mostly affects older adults, it is not a part of normal aging.

SOCIAL ISSUES

1. What is Nazool Land?

Overview:

Violence erupted in Uttarakhand recently after a mosque and a madrasa standing on Nazool land were demolished.

About Nazool Land

- Nazool land is owned by the government but is most often not directly administered as state property.
- The state generally allots such land to any entity on lease for a fixed period, generally between 15 and 99 years.
- In case the lease term is expiring, one can approach the authority to renew the lease by submitting a written application to the Revenue Department of the local development authority.
- The government is free to either renew the lease or cancel it, taking back Nazool land.
- In almost all major cities in India, Nazool land has been allotted to different entities for a variety of different purposes.
- How did Nazool Land emerge?
 - During British rule, kings and kingdoms which opposed the British frequently revolted against them, leading to several battles between them and the British Army.
 - Upon defeating these kings in battle, the British would often take their land away from them.
 - After India got Independence, the British vacated these lands.
 - But with kings and royals often lacking proper documentation to prove prior ownership, these lands were marked as Nazool land—to be owned by the respective state governments.
- How does the government use Nazool land?
 - The government generally uses Nazool land for public purposes like building schools, hospitals, Gram Panchayat buildings, etc.
 - Several cities in India have also seen large tracts of land denoted as Nazool land used for housing societies, generally on lease.

- How is Nazool land governed?
 - While several states have brought in government orders for the purpose of framing rules for Nazool land, The Nazool Lands (Transfer) Rules, 1956, is the law mostly used for Nazool land adjudication.

Q1) What is a Lease?

A lease is a contract outlining the terms under which one party agrees to rent an asset—in this case, property—owned by another party. It guarantees the lessee, also known as the tenant, use of the property and guarantees the lessor (the property owner or landlord) regular payments for a specified period in exchange. Both the lessee and the lessor face consequences if they fail to uphold the terms of the contract.

2. One Stop Centre scheme

Overview:

Recently, the union Minister for Women and Child Development said that One Stop Centres to help women who have faced violence have been established in over 700 districts across the country.

About One Stop Centre scheme

- It is a **Centrally Sponsored Scheme** formulated under the union Ministry of Women and Child Development (MWCD).
- **Objectives**
 - **To provide integrated support and assistance to women affected by violence**, both in **private and public spaces** under one roof.
 - **To facilitate immediate, emergency and non-emergency access to a range of services** including medical, legal, psychological and counselling support under one roof to fight against any forms of violence against women.
- **Target group**
 - It supports all women including **girls below 18 years of age** affected by violence, irrespective of caste, class, religion, region, sexual orientation or marital status.
 - For girls below 18 years of age, institutions and authorities established under Juvenile Justice (Care and Protection of Children) Act, 2000 and the Protection of Children from Sexual Offences Act, 2012 linked with the OSC
- **Funding:** The Scheme will be funded through Nirbhaya Fund. The Central Government will provide 100% financial assistance under the Scheme.
- **Administration:** The day to day implementation and administrative matters would be the responsibility of the District Collector/District Magistrate.
- The OSC will facilitate access to: Emergency Response and Rescue Services, Medical assistance, assistance to women in lodging FIR/ NCR/DIR, psycho-social support/ counseling, legal aid and counseling, shelter and Video Conferencing Facility.

Q1) What is the Nirbhaya Fund' ?

The Government of India had set up a dedicated fund called 'Nirbhaya Fund' for implementation of initiatives aimed at enhancing the safety and security for women in the country. Under the Nirbhaya Fund, one of the schemes namely "One Stop Centre (OSC) Scheme" has been implemented across the country since 1st April 2015.

3. Animal Husbandry Infrastructure Development Fund

Overview:

The Union Cabinet chaired by the Prime Minister of India approved the continuation of the Animal Husbandry Infrastructure Development Fund (AHIDF) to be implemented under the Infrastructure Development Fund (IDF) for another three years up to 2025-26.

About Animal Husbandry Infrastructure Development Fund

- It is a **Central Sector Scheme**.

- It has been approved for **incentivizing investments** by individual **entrepreneurs, private companies, MSME, Farmers Producers Organizations (FPOs)** and Section 8 companies to establish
 - The dairy processing and value addition infrastructure
 - Meat processing and value addition infrastructure and
 - Animal Feed Plant.
- **Objectives**
 - **To help increasing of milk and meat processing** capacity and product diversification thereby providing greater access for unorganized rural milk and meat producers to organized milk and meat market.
 - To make **available increased price realization** for the producer.
 - To make **available quality milk and meat products** for the domestic consumer.
 - **To promote exports** and increase the export contribution in the milk and meat sector.
 - To make **available quality concentrated animals** feed to the cattle, buffalo, sheep, goat, pig and poultry to provide balanced ration at affordable prices.
- Government of India will provide **3% interest subvention** for 8 years including two years of moratorium for loan up to **90% from the scheduled bank and National Cooperative Development Corporation (NCDC), NABARD and NDDB.**
- Under this government entities and cooperatives are not eligible to get benefit of this scheme

Q1) What is the function of National Cooperative Development Corporation (NCDC)?

It was established by an Act of Parliament in 1963 as a statutory Corporation under the Ministry of Cooperation. It functions in planning, promoting and financing programmes for production, processing, marketing, storage, export and import of agricultural produce, food stuffs, certain other notified commodities e.g. fertilisers, insecticides, agricultural machinery,

4. Kilkari programme

Overview:

Recently the union Ministers of State for Health and Family Welfare virtually launched the Kilkari programme, a Mobile Health (m-health) initiative for beneficiaries in local content in Gujarat and Maharashtra.

About Kilkari programme

- **‘Kilkari’ (meaning ‘a baby’s gurgle’), is a centralized interactive voice response (IVR) based mobile health service.**
- **Features**
 - It delivers free, weekly, time-appropriate 72 audio messages about pregnancy, childbirth, and childcare directly to families’ mobile phones from the second trimester of pregnancy until the child is one year old.
 - Women who are registered in Reproductive Child Health (RCH) portal based on the woman’s LMP (last menstrual period) or the child’s DoB (Date of Birth), receive a weekly call with pre-recorded audio content directly to the mobile phones of pregnant women and mothers with children under the age of one year.
 - Kilkari audio messages are present in the form of the voice of a fictitious doctor character called Dr. Anita.
- **It is centrally hosted by the Ministry of Health and Family Welfare (MoHFW) for all the States/UTs and no further investment in the technology, telephony infrastructure or operational costs is required to be borne by States/UTs.**
- **This service is FREE of cost for States/UTs and beneficiaries.**
- **The programme is integrated with the centralized Reproductive Child Health (RCH) portal of MoHFW’s and is the single source of information for this mHealth service.**
- **Currently Kilkari is under implementation in 18 States / UTs of India.**

What is Mobile Academy?

- It is a free audio training course designed to expand and refresh the knowledge of Accredited Social Health Activists (ASHAs) and improve their communication skills via their mobile phones, which is both cost-effective and efficient.
- It is an anytime, anywhere training course that can train thousands of ASHAs simultaneously via mobile phone.
- It is operational in 17 States/UTs except Chandigarh with six languages viz. Hindi, Bhojpuri, Oriya, Assamese, Bengali & Telugu versions.

5. Support to Students for Participating in Competitions Abroad (SSPCA) Initiative

Overview:

The All India Council for Technical Education (AICTE) recently introduced a scheme named 'Support to Students for Participating in Competitions Abroad' (SSPCA).

About Support to Students for Participating in Competitions Abroad (SSPCA) Initiative

- It is an initiative of the All India Council for Technical Education (AICTE) aimed at bolstering the global competitiveness of Indian students in technical education.
- It is designed to financially support students aspiring to compete in international scientific events.
- Financial Assistance and Mentorship:
 - Under the SSPCA scheme, individual students or student teams are eligible to receive travel grants to partake in international competitions.
 - The assistance encompasses financial aid, mentorship, logistical support, and networking opportunities, enabling students to represent India on a global platform effectively.
 - Financial aid provided by the AICTE scheme reaches up to Rs 2 lakh per student, covering various expenses like international and domestic travel, registration fees, visa applications, accommodation, airport taxes, travel insurance, and equipment costs related to the competition.
- Eligibility:
 - Eligibility extends to students enrolled in diploma, BE/BTech, integrated MTech, and ME/MTech programs in AICTE-approved institutions.
 - Each team of students is eligible for financial support under the scheme once during their course of study.

What is All India Council for Technical Education (AICTE)?

- It is the statutory body and the national-level council for technical education in the country.
- It was set up in 1945 as an advisory body and later, in 1987, given statutory status by an Act of Parliament.
- Functions:
 - It grants approval for starting new technical institutions, for the introduction of new courses, and for variations in intake capacity in technical institutions.
 - The AICTE has delegated to the concerned state governments powers to process and grant approval for new institutions, starting new courses and variations in the intake capacity for diploma-level technical institutions.
 - It also lays down norms and standards for such institutions.
 - It also ensures the quality development of technical education through the accreditation of technical institutions or programmes.
 - In addition to its regulatory role, the AICTE also has a promotional role, which it implements through schemes for promoting technical education for women, handicapped, and weaker sections of society promoting innovations, faculty, research and development, and giving grants to technical institutions.
- The technical institutions under the AICTE include post-graduate, under-graduate, and diploma programs in the whole spectrum of technical education, covering

engineering/technology, pharmacy, architecture, hotel management and catering technology, management studies, computer applications, and applied arts and crafts.

- The AICTE has its headquarters in New Delhi.

6. PM Young Achievers Scholarship Award Scheme (PM YASASVI)

Overview:

A total of ₹32.44 Crore has been released for Pre-matric Scholarships and ₹387.27 Crore for Post-Matric Scholarships to States/Union Territories (UTs) under the PM YASASVI scheme in 2023.

About PM Young Achievers Scholarship Award Scheme (PM YASASVI)

- It is a scholarship scheme for Other Backward Class (OBCs), Economically Backward Class (EBC), and Denotified Nomadic Tribes (DNT) students.
- Under this scheme, students can avail of Pre-Matric Scholarships from Classes 9 to 10 and Post-Matric Scholarships for their higher education at the post-matriculation or post-secondary level.
- Exceptional students also have the opportunity to receive scholarships for top-tier schools and colleges.
- Additionally, hostel facilities are provided for OBC students through a construction scheme.
- Eligibility:
 - Other Backward Class (OBC), Economically Backward Classes (EBC), and Denotified, Nomadic, and Semi-Nomadic Tribes (DNT)
 - Parents or guardians annual income is not more than Rs. 2.50 Lakhs.
 - Studying in a Top Class School in Class 9 or 11.
- These scholarships shall be available for studies in India only and will be awarded by the Government of State/Union Territory to which the applicant actually belongs, i.e., permanently settled.
- Entitlement: Upto Rs. 75,000 p.a. for Class 9/10, Rs. 1,25,000 p.a. for Class 11/12, covering the school tuition fee/hostel fee.
- Implementing Agency: Department of Social Justice and Empowerment, Ministry of Social Justice and Empowerment.

7. What is Saheli?

Overview:

Dr Nitya Anand, who discovered India's first oral contraceptive pill, 'Saheli', passed away recently.

About Saheli:

- Saheli is the **world's first and only oral non-steroidal contraceptive pill**.
- 'Saheli', aka **Centchroman** (ormeloxifene 30mg), is the **only non-steroidal pill with zero side effects** available in the world.
- The pill, **launched by HLL in 1991**, is free from side effects like weight gain, nausea, vomiting and headaches as it contains the **molecule Centchroman (ormeloxifene) as the active ingredient**.
- All **common brands of oral contraceptive pills contain hormones like oestrogen or progesterone**, or a combination of both; only **Saheli is free of these steroids** and hence has no side effects.
- This drug was **included in the National Family Welfare Programme in 1995**.

Oestrogen and Progesterone:

- Oestrogen (also called 'estrogen') and progesterone **are hormones** that are important **for sexual and reproductive development in women**.
- **Production:**
 - **The ovaries** are a pair of ova-producing organs (that is, they produce egg cells) that maintain the health of the female reproductive system.
 - In addition to their role in producing ova, **the ovaries** also have the distinction of **being an endocrine gland** because they **secrete hormones—primarily estrogen and progesterone**.
- They are both **important for the menstrual cycle and maintenance of pregnancy** in females and are combinedly **prescribed in birth control pills and hormone replacement therapy** for menopause.

While they are often thought of as 'female hormones', oestrogen and progesterone **are also found in men**.

ART & CULTURE

1. Bochasanwasi Akshar Purushottam Swaminarayan Sanstha (BAPS)

Overview:

Prime Minister will inaugurate the Bochasanwasi Akshar Purushottam Swaminarayan Sanstha BAPS Mandir, the first Hindu temple in Abu Dhabi.

About Bochasanwasi Akshar Purushottam Swaminarayan Sanstha (BAPS)

- BAPS is a socio-spiritual Hindu faith with its roots in the Vedas.
- It is based on the Vedic teachings propagated by Bhagwan Swaminarayan (1781-1830 CE).
- It was formally established in 1907 CE by Brahmaswarup Shastriji Maharaj.
- Founded on the pillars of practical spirituality, the BAPS reaches out far and wide to address spiritual, moral and social challenges and issues.
- No Alcohol, No Addictions, No Adultery, No Meat, No Impurity of body and mind are the five lifetime vows of BAPS followers.
- Its global network of mandirs and centres hosts many moral, social, cultural, and spiritual activities.
- Education and women development are other focus areas, with many schools, hostels, and community development activities targeted at women being managed by BAPS.
- It is also engaged in a variety of humanitarian activities that include services in times of natural calamities, primary schools, students' hostels, hospitals, diagnostic camps, anti-addiction drives, environment-awareness programs, tribal uplift, and literacy campaigns.
- BAPS is an NGO with a Consultative Status with the Economic and Social Council of the United Nations.

Q1) What is the Economic and Social Council of the United Nations?

It is one of the six principal organs of the UN, which was established by the UN Charter (1945). It is responsible for the direction and coordination of the economic, social, humanitarian, and cultural activities carried out by the UN. Decisions are taken by a simple majority vote. The presidency of ECOSOC changes annually.

2. Aadi Mahotsav

Overview:

The President of India will inaugurate the Aadi Mahotsav 2024, an annual National Tribal Festival at Major Dhyan Chand National Stadium in New Delhi in February.

About Aadi Mahotsav

- It is organized by Tribal Cooperative Marketing Development Federation of India Limited (TRIFED) under the aegis of the Ministry of Tribal Affairs, will showcase the rich diversity of India's tribal heritage.

- It is not only a platform to exhibit the extraordinary talent and craftsmanship of tribal artisans but also an opportunity to interact, learn, and contribute to the empowerment of tribal communities.
- The festival will feature an expanded showcase with over 300 stalls, offering varied display of Tribal art, handicrafts, natural produce, and delectable tribal cuisine.

What is TRIFED?

- It is a national-level organisation under the Ministry of Tribal Affairs.
- It is primarily engaged in the development and marketing of tribal handicrafts and natural products.
- It came into existence in 1987 and got registered under the Multi-State Cooperative Societies Act, 1984 (now the Multi-State Cooperative Societies Act, 2002).
- Mandate: Capability enhancement for Tribals, promotion of tribal products, and creation of marketing opportunities for the Tribals with a view to ensuring remunerative prices for their products and augmenting their income on a sustainable basis.
- It has been entrusted by the Government of India to implement its proposed Minimum Support Price Scheme for Minor Forest Produce.
- Head Office: New Delhi

3. Sangeet Natak Akademi

Overview:

Former vice-president of India and Union Minister for Culture, Tourism and Development of the Northeast Region will be inaugurating the Sangeet Natak Akademi's 'Dakshin Bharat Sanskritik Kendra' in Hyderabad.

About Sangeet Natak Akademi

- It is India's national academy of music, dance and drama.
- It was created by a resolution of the Ministry of Education, with P.V. Rajamannar as its first Chairman.
- It was set up in 1953 for the preservation and promotion of the vast intangible heritage of India's diverse culture expressed in forms of music, dance and drama.
- Presently, it is an Autonomous Body of the Ministry of Culture.
- The Chairman of the Akademi is appointed by the President of India for a term of five years.
- It is fully funded by the Government for the implementation of its schemes and programmes.
- Aims and objectives
 - To co-ordinate the activities of regional or State Akademies of dance, drama and music;
 - To promote research in the fields of Indian dance, drama and music and for this purpose, to establish a library and museum, etc.;
 - To co-operate with such similar akademies as there may be and other institutions and associations for the furtherance of its objects and for the enrichment of Indian culture as a whole;
 - To encourage the exchange of ideas and enrichment of techniques between the different regions in regard to the arts of dance, drama and music;
 - To encourage, where necessary, the establishment of theatre centres, on the basis of regional languages, and co-operation among different theatre centres;
- The Sangeet Natak Akademi Awards are the highest national recognition conferred on practising artists.
- The Akademi also confers Fellowships on eminent artists and scholars of music, dance and drama; and has in 2006 instituted annual awards to young artists – the Ustad Bismillah Khan Yuva Puraskar.

Q1) What is Ustad Bismillah Khan Yuva Puraskar?

It is an annual Indian award given by the Sangeet Natak Akademi to outstanding artists under 40 who have demonstrated talent in the fields of music, dance and drama. The award is intended to provide national recognition to the artists in the early years of their careers.

4. Hastal Minar

Overview:

In an era where heritage preservation is paramount, efforts are being made to unravel the mysteries surrounding the Hastal Minar.

About Hastal Minar

- Location: It is located in a small village of western Delhi.
- Construction of the minar (or tower) was finished in 1634 during the reign of Mughal emperor Shah Jahan.
- It is also known as Mini Qutab Minar.
- Among the locals, it is also known as Hastal Ki Laat and Kaushal Minar.
- Architecture
 - It was constructed using lakhori bricks and clad with red sandstone.
 - The minar is 17 metres (five storeys) tall, standing on a square platform and with an octagonal body.
 - A staircase inside the five-storey tower led to the domed Chhatra pavilion at the top.
 - It has three storeys, each with a reducing diameter, and is accessible through a narrow staircase
- Shah Jahan utilised Hastal as one of his hunting lodges during the 17th century.
- Present condition:
 - In 2018, the minaret was deemed as Grade A in heritage value and was given the permission to be conserved under Phase IV of Delhi government's project to protect lesser-known monuments in the capital.

5. What is Neolithic Period?

Overview:

Researchers recently unearthed an ancient burial site of a child with a pot beside it likely dating back to the neolithic period, at Chettimedu Pathur near Chennai.

About Neolithic Period

- The Neolithic Period, also called the New Stone Age, is the final stage of cultural evolution or technological development among prehistoric humans.
- The term Neolithic is most frequently used in connection with agriculture, which is the time when cereal cultivation and animal domestication were introduced.
- It is characterized by the beginning of a settled human lifestyle.
- The Neolithic stage of development was attained during the Holocene Epoch (the last 11,700 years of Earth's history).
- The starting point of the Neolithic is generally thought to have occurred sometime around 10,000 BCE.
- The Neolithic followed the Paleolithic Period, or the age of chipped-stone tools, and preceded the Bronze Age, or the early period of metal tools.
- The Neolithic Revolution started in the Fertile Crescent, a region of the Middle East, where humans first took up farming.
- Features of the Neolithic Age:
 - It was characterized by stone tools shaped by polishing or grinding, dependence on domesticated plants or animals, settlement in permanent villages, and the appearance of such crafts as pottery and weaving.
 - The houses were built of mud and reed in rectangular or circular shapes.
 - Alcohol was first produced during this period, and architecture, as well as its interior and exterior decoration, first appeared.
 - Status objects like elaborate pottery and carved jades were placed in tombs during the Neolithic period. This practice suggests two things: Neolithic people's belief in the afterlife and the emergence of social classes. Only important and wealthy individuals had the privilege of being buried with these precious objects
- End of the Neolithic Age:

- Towards the end of the Neolithic era, copper metallurgy is introduced, which marks a transition period to the Bronze Age, sometimes referred to as the Chalcolithic or Eneolithic Era.
- In time, bronze became the primary material for tools and weapons, and a good part of the stone technology became obsolete, signalling the end of the Neolithic and thus of the Stone Age.
- Some of the important Neolithic sites in India include Burzahom in Kashmir, Chiron in Bihar and Uttar in Andhra Pradesh, and Edakkal caves in Kerala.

6. Rani Chennamma

Overview:

Recently, several social groups across the country organized a national campaign Naanoo Rani Chennamma (I am Rani Chennamma too) to commemorate 200 years of Rani Chennamma's rebellion against the British East India Company.

About Rani Chennamma

- Chennamma was born in Kakati, a small village in today's Belagavi district of Karnataka.
- She became queen of Kitturu (now in Karnataka) when she married Raja Mallasarja of the Desai family.
- After Mallasarja's death in 1816, his eldest son, Shivalingarudra Sarja, ascended the throne.
- Before his death in 1824, Shivalingarudra adopted a child, Shivalingappa, as the successor.
- However, the British East India Company refused to recognise Shivalingappa as the successor of the kingdom under the 'doctrine of lapse'.
- Key facts about the Kittur Rebellion
 - John Thackeray, the British official at Dharwad, launched an attack on Kittur in October 1824.
 - In this first battle British forces lost heavily and the Collector and political agent, St. John Thackeray was killed by the Kitturu forces.
 - Two British officers, Sir Walter Elliot and Mr. Stevenson, were also taken as hostages.
 - However, the British army again attacked the Kittur Fort and captured it.
 - Rani Chennamma and her family were imprisoned and jailed at the fort in Bailhongal, where she died in 1829.

What was the doctrine of Lapse?

- Under the doctrine of Lapse, any princely state without a natural heir would collapse and would be annexed by the Company.
- The princely state of Kitturu was taken over by the British East India Company in 1824 by imposing the 'doctrine of lapse', even before it was officially articulated by Lord Dalhousie, Governor General for the British East India Company, between 1848 and 1856.

7. Who are Nihang Sikhs?

Overview:

Amid the recent standoff between the protesting farmers and the government, Nihang Sikh warriors have joined the protest, extending support to farmers facing off with security forces.

About Nihang Sikhs

- Nihangs, or Nihang Singhs, originally known as Akalis or Akali Nihangs, are a distinct warrior order within the Sikh community, known for their martial traditions, unique attire, and adherence to a specific code of conduct.
- They have a rich history dating back to the times of Guru Gobind Singh, the 10th Sikh Guru.
- They are easily recognizable by their distinctive blue attire, which includes blue robes, high turbans adorned with steel quoits (chakrams), and they often carry traditional weapons like swords, spears, and daggers.

- They are highly skilled in Gatka martial arts and have historically served as a dedicated and elite force to protect Sikh shrines and communities.
- Nihangs had a major role in defending the Sikh Panth after the fall of the first Sikh rule (1710-15), when Mughal governors were killing Sikhs, and during the onslaught of Afghan invader Ahmed Shah Durrani (1748-65).
- Current Status:
 - Nihangs are today divided into several groups, each with its own “chhaoni” (cantonment), but are loosely organised into two “dals” (forces)—Buddha Dal and Taruna Dal, names initially given to the two sections into which the ‘Khalsa’ army was divided in 1733.
 - The Buddha Dal has its headquarters at Talvandi Sabo, in Bathinda district, while the principal cantonment of the Taruna Dal Nihangs is at Baba Bakala in Amritsar district.
 - Anandpur Sahib, the birthplace of the Khalsa, remains the main centre of Nihang gatherings.
 - They assemble there in the thousands in March every year to celebrate Hola Mahalla, a Sikh festival introduced by Guru Gobind Singh.
 - On that occasion, they hold tournaments of military skills, including mock battles.

8. What is the Paruveta Festival?

Overview:

The Indian National Trust for Art and Cultural Heritage (INTACH) is making efforts to secure UNESCO recognition for the annual 'Paruveta' festival.

About Paruveta Festival

- The festival, also known as the ‘mock hunting festival’, is celebrated at the Sri Narasimha Swamy temple in the town of Ahobilam, Andhra Pradesh.
- It is celebrated by all sections of people, irrespective of their caste.
- It is a festival of communal harmony, as devotees from other religious communities like muslims also offer prayers to the Lord.
- Origin:
 - According to folklore, Lord Vishnu, upon his incarnation as a man-lion (Narasimha) in Ahobilam, married Maha Lakshmi, born as a tribal girl Chenchulakshmi.
 - The Kurnool District Gazetteers, published by Government Press in 1881, record several beliefs of the Chenchu tribes, including their reverence for Ahobila Narasimha as their brother-in-law and inviting him home for Makara Sankranti.
- While Paruveta rituals are commonly observed in many temples during Vijayadasami or Sankranti, at Ahobilam, it is conducted for a ‘mandala’ (forty days).
- Activities:
 - During the festival, the deity from the temple's inner sanctum is taken to the 32 Chenchu tribal villages surrounding Ahobilam town for a duration of 40 days.
 - The spiritual sojourn starts with the tribals aiming their bow and shooting two arrows at the palanquin, not only as a mark of reverence but also to show that the deity is under their protective cover.
 - Chenchus take ‘Narasimha Deeksha’ by wearing yellow robes and ‘Tulasi Mala’ and observe celibacy during this period.
 - The temple staff stay in these hamlets for the entire period, indicating the presence of a casteless society in the past with no hint of untouchability.

Key Facts about Chenchu Tribes

- They live in the hills of southern India, primarily in the state of Andhra Pradesh.
- Other Chenchu communities can be found in the states of Tamil Nadu, Karnataka, and Orissa.
- Their native language (also called Chenchu) belongs to the Dravidian language family. Many also speak Telugu, the language of their Hindu neighbors.
- Many Chenchu have been forced out of their traditional wandering, food-gathering lives by the growing number of peasant farmers. They now work as farmers or forest laborers.

- They live in hive-shaped houses made of wattle thatch (poles intertwined with twigs, reeds, or branches).
- Chenchu society consists of clans (extended family units), local groups, and families.
- They are exogamous, which means that they do not allow marriage within the same clan.
- They are also patrilineal, tracing the line of descent through the males.
- Due to increasing exposure to the plains peoples, the Chenchu have adopted the Hindu deities of the neighboring Telugu tribe.

Q1) What is the Indian National Trust for Art and Cultural Heritage (INTACH)?

INTACH is an autonomous non-governmental Indian non-profit society that seeks to preserve Indian culture and heritage. It was founded in 1984 with the vision to spearhead heritage awareness and conservation in India.

9. Key Facts about Pallava Dynasty

Overview:

Archaeologists recently discovered an eighth-century Kotravai sculpture, an artifact that dates back to the Pallava period, near Ulundurpet, Tamil Nadu.

About Pallava Dynasty

- The Pallava Dynasty was a famous power in South India that existed between the 3rd and 9th Centuries.
- They ruled the northern parts of Tamil Nadu, parts of Karnataka, Andhra Pradesh, and Telangana, with Kanchipuram as their capital.
- The Pallavas supported Buddhism, Jainism, and the Brahminical faith and were patrons of music, painting, and literature.
- Origin:
 - Pallava Dynasty was earlier feudatories of Andhra Satavahanas. Pallavas grew to be autonomous subsequent to their decline at Amaravati.
 - They progressively moved southward and instituted their capital at Kanchipuram in the 4th century CE.
 - The rule of Mahendravarman I (571 - 630 CE) and Narasimhavarman I (630 - 668 CE) witnessed the augment in the wealth and vigour of the Pallava realm.
- Chinese traveller Hiuen Tsang, who visited Kanchipuram during the Pallava statute and adorned their benevolent decree, depicts Bodhidharma, the initiator of the Chan (Zen) school of Buddhism in China, as a prince of the Pallava empire.
- Architecture:
 - The Pallava Dynasty was typically distinguished for their benefaction of Dravidian architecture.
 - They were the most noted for temple architecture. They were instrumental in the transition from rock-cut architecture to stone temples.
 - The most noted architectural accomplishments of the Pallavas are at Mahabalipuram, which, under the Pallava reign, became an important centre of art, architecture, and literature.
 - The Kailasanatha Temple in Kanchipuram and the Shore Temple were built by Narasimhavarman II.
 - Of all the temples, Kailasanatha and Vaikuntaperumal are best known for their architectural virtues.
- The Vaikuntaperumal shrine is a multi-storied temple built in the 8th century A.D and is acknowledged for the sculptures illustrating the history of the Pallavas.
- Religion: They adopted the local religion Shaivism, and became Dravidians.
- Combats of the Pallava Dynasty:
 - Throughout their supremacy, they were in steady conflict with both the Chalukya Dynasty in the north and the Tamil kingdoms of Chola and Pandyas in the south.
 - The Pallavas were occupied in continuous combat with the Chalukyas of Badami and lastly concealed by the Chola kings in the 8th century CE.
- Decline:

- The rise of Rashtrakutas had seen the decline of the Pallava Dynasty.
- Vijayalaya, the Chola King, completely overpowered Aparajitavarman, the last Pallava King, in 897 AD.

Q1) Who were Satavahanas?

The Satavahana Dynasty was established in the 1st century BC in the western Deccan Plateau. Satavahana Rulers had emerged from the Andhra region or the delta areas of the Krishna River and Godavari River. The dynasty was built upon the ruins of the Maurya Empire. Simuka was the founder of the Satavahana Dynasty, and he is believed to have destroyed the Sunga Power. The dynasty reached its zenith under the rule of Gautamiputra Satakarni and his successor Vasisthiputra Pulamavi. The dynasty had different capital cities at different times, including Pratishthana (Paithan) and Amaravati (Dharanikota).

10. Mohammed Quli Qutb Shah's tomb

Overview:

Recently, Reality tech firm unveils digital twin of Mohammed Quli Qutb Shah's tomb in Hyderabad.

About Mohammed Quli Qutb Shah's tomb

- It is one of the grandest monuments in the Qutb Shah's tombs complex at the foothill of Golconda, Hyderabad.
- The majestic tomb built in 1602, is one of the largest tombs at the Qutb Shahi heritage park complex reaching a total height of 60 m.

Who is Mohammed Quli Qutb Shah?

- He was the fifth king of the Qutb Shahi dynasty who laid the foundation of Hyderabad.
- Shah who wrote in Persian, Telugu, and Deccani—a variant of Urdu—is justifiably the first poet in Deccani Urdu with at least fifty thousand shers to his credit.
- He wrote on a variety of issues concerning communal life and the sentiments of the common man, their festivals and faiths, love and the pleasures of union, in a frank and disarming manner.
- A contemporary of Tulsidas, he blended the best traditions of the two streams of thought and life to impart a new halo to his poetry.

Key facts about Qutub Shahi Tombs

- These are erected in the memory of the departed kings of Golconda.
- They are located one kilometer north of Golconda Fort's called Banjara Darwaza.
- Built by the Qutub Shahis, these tombs are considered to be among the oldest historical monuments of Hyderabad.
- These tombs are present in a large group on a raised platform.
- Architectural style: They resemble Persian, Pathan and Hindu architectural styles that make use of grey granite, with stucco ornamentation and is a one-of-its-kind place in the world where the whole dynasty is buried at a single spot.

What is a digital twin?

- It is a digital model of an object, system or a process that acts the same as its real world counterpart.
- It helps companies and organisations to understand a physical object or a process well.

Q1) What is the Deccani language?

It is a variety of Hindustani spoken in the Deccan region of India and the native language of the Deccani people. Commonly associated with Urdu, the historical dialect sparked the development of Urdu literature during the late-Mughal period, and was a predecessor to and later influenced modern standard Hindi.

11. Who is Lord Mahavir?

Overview:

Archaeology students and professors in Tamil Nadu recently unearthed a rare 1000-year-old stone statue of Mahavir, the 24th Tirthankara of Jainism.

About Lord Mahavir

- He was the twenty-fourth and the last Tirthankara of the Jain religion.
- Mahavir was born in 599 B.C. as a prince in Bihar. At the age of 30, he left his family and royal household, gave up his worldly possessions, including clothing, and became a monk.
- He followed an extreme ascetic life, attaining kevala, the stage of omniscience or highest perception.
- Teaching a doctrine of austerity, Mahavira advocated nonviolence (ahimsa) in all circumstances and the acceptance of the mahavratas, the five “great vows” of renunciation.
- At the heart of right conduct for Jains lie the five great vows:
 - Nonviolence (Ahimsa): not to cause harm to any living beings
 - Truthfulness (Satya): to speak the harmless truth only
 - Non-stealing (Asteya): not to take anything not properly given
 - Chastity (Brahmacharya): not to indulge in sensual pleasure
 - Non-possession/Non-attachment (Aparigraha): complete detachment from people, places, and material things.
- Mahavir’s Teachings:
- He organized his followers into a fourfold order, namely monk (Sadhu), nun (Sadhvi), layman (Shravak), and laywoman (Shravika). Later on, they are known as Jains.
- The ultimate objective of his teaching is how one can attain total freedom from the cycle of birth, life, pain, misery, and death, and achieve the permanent blissful state of one's self. This is also known as liberation, nirvana, absolute freedom, or Moksha.
- He preached that right faith (samyak-darshana), right knowledge (samyak-jnana), and right conduct (samyak-charitra) together will help attain the liberation of one's self.
- Mahavir's message of nonviolence (Ahimsa), truth (Satya), non-stealing (Achaurya), celibacy (Brahma charya), and non-possession (Aparigraha) is full of universal compassion.
- Mahavir rejected the concept of God as a creator, a protector, and a destroyer of the universe. He also denounced the worshiping of gods and goddesses as a means of material gains and personal benefits.

Who are Tirthankaras?

- Tirthankaras are also known as Arihants or Jinas.
- Arihant: One who destroys his inner enemies like anger, greed, passion, ego, etc.
- Jina: One who conquers his inner enemies like anger, greed, passion, ego, etc. The followers of Jina are known as Jains.
- Tirthankara: Those Jinas who establishes the four-fold order (Monk, Nun, Layman, and Laywoman) of religion.
- According to Jain philosophy, all Tirthankaras were human beings but they have attained a state of perfection or enlightenment through meditation and self-realization.
- They are the Gods of Jains.

Q1) What is Jainism?

Jainism is one of the three most ancient religions of India, with roots that go back to at least the mid-first century B.C.E. Today, it is still an integral part of Indian culture. Jainism teaches that the path to enlightenment is through nonviolence and reducing harm to living things (including plants and animals) as much as possible.

12. Morodharo**Overview:**

Archaeologists recently discovered a Harappan-era fortified settlement named Morodharo.

About Morodharo

- It is a fortified settlement dating back to the Harappan-era.

- Location: Kutch District, Gujarat
- Features:
 - The settlement looks mature (2,600-1,900BCE) to late (1,900-1,300 BCE) Harappan.
 - The fortification measures 102 m east to the west and 58 m north to the south.
 - The thickness of the wall is an average of 3.3 m.
 - It has a 10x10 m platform on the south-west side and a well on the north-east.
 - Burial cairns, which are mounds of stones to demarcate a boundary, are also found here.
 - Harappan pottery with perforated jar sherds, reserved slipware, and terracotta cakes were unearthed. All these items have a striking resemblance to those found in Dholavira.

Key Facts about Harappan Civilization

- The Indus Valley/Harappan civilisation was the first urban civilisation in South Asia, coexisting with Mesopotamia and Egypt.
- The Harappan civilisation occupied the largest area (approximately 8,00,000 sq km) among the three civilisations.
- Harappa (Punjab, Pakistan), Mohenjo-Daro (Sindh, Pakistan), Dholavira, Lothal, and Surkotada (Gujarat, India), Kalibangan and Banawali (Rajasthan, India), and Rakhigarhi (Haryana, India) are the major cities in the Harappan period.
- The features of town planning of Harappan civilisation included:
 - Rectangular grid pattern: The Harappan cities were designed on a grid pattern, with streets running in a north-south and east-west direction, forming a well-organized layout. Streets and lanes were cutting across one another almost at right angles, thus dividing the city into several rectangular blocks.
 - Planned streets and alleyways: The streets and alleyways of Harappan cities were planned and constructed with precision. They were wide enough to allow the movement of carts and pedestrians, and some streets had covered drains running alongside them.
 - Fortification: The cities were surrounded by fortified walls made of mud bricks, providing protection against robbers, cattle raiders, and floods.
 - Division of cities: The city was divided into two parts: an upraised citadel and the lower part of the city.
 - Upper part: An upraised citadel in the western part was used for constructing buildings of large dimensions, such as granaries, administrative buildings, pillared halls, and courtyards.
 - Lower part: Below the citadel in each city lay a lower town containing brick houses, which were inhabited by the common people.
 - Material used: They used burnt bricks on a large scale in almost all kinds of constructions, and there was the absence of stone buildings during Harappan culture.
 - Residential areas: The cities were divided into distinct residential areas. Houses were made of baked bricks, often with multiple stories, indicating a well-developed urban society. The houses were generally built around courtyards, and some had private wells and properly ventilated bathrooms. No window faced the streets, and the houses had tiled bathrooms.
 - Sophisticated drainage systems: The drainage system of the Harappans was elaborate and well laid out. Every house had drains, which opened into the street drains. Drains were made of mortar, lime, and gypsum.
 - Granaries and storage facilities: The cities had well-planned granaries and storage facilities to store surplus agricultural produce.

Q1) What is Mesopotamia?

Mesopotamia (from the Greek, meaning 'between two rivers') was an ancient region located in the eastern Mediterranean bounded in the northeast by the Zagros Mountains and in the southeast by the Arabian Plateau, corresponding to modern-day Iraq and parts of Iran, Syria, Kuwait, and Turkey and known as the Fertile Crescent and the cradle of civilization.

13. Shompen Tribe

Overview:

India's president recently made a whistle stop tour of an island earmarked for multi-billion-dollar development that experts warn could wipe out the indigenous Shompen tribe, which calls it home.

About Shompen Tribe

- The Shompen are one of the most isolated tribes on Earth.
- They reside in the dense tropical rain forest of the Great Nicobar Island of Andaman and Nicobar group of Islands.
- They are one of the least studied Particularly Vulnerable Tribal Groups (PVTGs) in India.
- Though according to the Census (2011), the estimated population of Shompen is 229, the exact population of Shompen is unknown till today.
- Most of them are uncontacted, refusing all interactions with outsiders.
- They live in small groups, whose territories are identified by the rivers that criss-cross the rainforest.
- They are semi-nomadic hunter-gatherers, and their main sources of livelihood are hunting, gathering, fishing, and a little bit of horticultural activities in a rudimentary form.
 - Primarily, they used to hunt wild pig, python, monitor lizard, crocodile, sea turtle etc.
 - They collect a wide variety of forest plants, but their staple food is the pandanus fruit, which they call larop.
- Shompen speak their own language, which has many dialects. Members of one band do not understand the dialect of the other.
- They are of short to medium stature, have a round or nearly broad head shape, narrow nose, a broad facial profile, and distinctly exhibit Mongoloid features such as light brown to yellow brown skin and oblique eye features.
- Shompen have nuclear families comprising husband, wife, and their unmarried children.
 - A Shompen family is controlled by the eldest male member, who controls all activities of the women and kids.
 - Monogamy is the general rule, although polygamy is allowed too.

Q1) What are Particularly Vulnerable Tribal Groups (PVTGs)?

PVTGs are a more vulnerable group among tribal groups in India. These groups have primitive traits, geographical isolation, low literacy, zero to negative population growth rate and backwardness. Moreover, they are largely dependent on hunting for food and a pre-agriculture level of technology. Currently, there are 2.8 million PVTGs belonging to 75 tribes across 22,544 villages in 220 districts across 18 states and Union Territories in India. According to the 2011 Census, Odisha has the largest population of PVTGs at 866,000.

14. Martand Sun Temple

Overview:

Members of a little-known Hindutva group forced their way into the Archaeological Survey of India (ASI)-protected Martand sun temple recently.

About Martand Sun Temple

- It is a Hindu temple located near the **city of Anantnag in the Kashmir Valley** of Jammu and Kashmir.
- It is dedicated to the **Sun God. Martand** is another Sanskrit synonym for **Surya**.
- It was built by **King Lalitaditya Muktapida** around the 8th Century CE. Lalitaditya Muktapida was the third ruler of the **Karkota Dynasty**.
- **Features:**
 - It has a unique architecture where local Kashmiri style is blended with the architectural styles of Gupta, Chinese, Gandhara, Roman, and Greek.
 - The temple is located on top of a plateau and has been constructed entirely out of stone.
 - It covers an area of 32,000 square feet.

- It stands in the middle of a large courtyard with 86 fluted columns. The courtyard is connected to the main shrine, where Sun God's idol was installed.
- The construction of the main shrine was such that during most of the days' time, especially during sunrise and sunset, the rays would directly fall on the idol.
- The central shrine, or vimana, stands tall at around 60 feet. It features intricate carvings and sculptures that depict various Hindu gods and goddesses.
- There are 84 smaller shrines around the main Sun Temple. They are lined along the perimeter of the complex.
- The temple is believed to have been demolished by Sultan Sikandar Shah Miri, who ruled Kashmir from 1389 to 1413.

15. Mesolithic Period

Overview:

Mesolithic era rock paintings have been recently discovered at Sitamma Loddi, Gattusingaram, in Peddapalli district, Telangana.

About Mesolithic Period

- Mesolithic, also called Middle Stone Age, is an ancient cultural stage which existed between the Paleolithic (Old Stone Age) and the Neolithic (New Stone Age).
- **Timeframe:** This period is generally considered to have occurred between approximately 12,000-10,000 years ago.
- Some of the defining characteristics of the Mesolithic Age are as follows:
 - People transitioned from using large chipped stone tools to using smaller chipped stone tools (microliths).
- Microliths were probably stuck onto **handles of bone or wood** to make tools such as saws and sickles.
- At the same time, older varieties of **tools** continued to be in use.
 - People transitioned from hunting large herds animals in groups to a more hunter-gatherer lifestyle.
 - Towards the end of the Mesolithic Age, people began growing crops and practising animal husbandry, which is the controlled cultivation, management, and production of domestic animals.
 - It was during the Mesolithic Age that the dog was domesticated.
 - The permanent settlements in the Mesolithic Age varied from villages of huts to walled cities.
 - During the Mesolithic Age, the climate was warming after the last ice age, which occurred at the end of the Palaeolithic period.
 - The art created in the Mesolithic Age is highly reflective of the change in climate that was happening at the time.
 - During the Mesolithic period, humans developed cave paintings, engravings, and ceramics to reflect their daily lives.
 - In certain areas of the world, a range of pottery was made during the Mesolithic Age.
- Mesolithic Sites in India: Bagor in Rajasthan, Sarai Nahar Rai in Allahabad, Jharkhand, Chhota Nagpur plateau. In Orissa Mayarbbhanj, Keonjhar, Sundugarh are major Mesolithic sites in India. In south India, Godavari bases are rich in microliths.

16. Subika Paintings

Overview:

Manipur boasts a rich cultural heritage but some of its invaluable art forms like Subika Paintings are on the brink of extinction due to neglect.

About Subika Paintings

- It is a style of painting which is intricately linked to the **Meitei community's** cultural history.
- It is surviving through its **six manuscripts — Subika, Subika Achouba, Subika Laishaba, Subika Choudit, Subika Cheithil and Thengrakhel Subika.**
- Although the royal chronicle, Cheitharol Kumbaba, doesn't mention a specific founder, there is a possibility that this art form existed when the writing tradition was introduced in the state.
- Experts estimate the use of Subika paintings since the **18th or 19th century.**

Key points about Subika Laisaba

- The painting of **Subika Laisaba** is a composition of cultural motifs made by pre-existing features and other influences stimulated from their cultural worldviews.
- Among the six manuscripts, Subika Laishaba represents a direct and authentic continuation of the **Meitei cultural tradition depicted through visual images.**
- The illustrations of Subika Laishaba have visual language from the elements such as lines, shapes, forms, colours, and patterns.
- These visual images become Meitei's cultural motif, a structure to create visual effects as well as express cultural significance, meaning and values.
- The visual images found in this manuscript are painted on handmade paper.
- It is also found that materials of manuscript are prepared indigenously either handmade paper or barks of tree.

Q1) Who are the Meitei Community?

The Meitei people, also known as the Manipuri people, are the predominant ethnic group of Manipur State. They speak the Meitei language (officially called Manipuri), one of the 22 official languages of India and the sole official language of Manipur State.

17. Mera Gaon Mera Dharohar programme

Overview:

Recently, the Union Minister for Culture, Tourism And Development of North Eastern Region informed the Lok Sabha about the Mera Gaon Mera Dharohar programme.

About Mera Gaon Mera Dharohar programme:

- It is a pan-India initiative of the Ministry of Culture under **National Mission on Cultural Mapping** and was launched on 27th July 2023.
- It seeks to compile comprehensive information detailing the life, history, and ethos of Indian villages and to make the same available to virtual and real-time visitors.

Under the MGMD, information is collected under seven broad categories as given below-

- Arts and Crafts Village
- Ecologically Oriented Village
- Scholastic Village linked with Textual and Scriptural Traditions of India
- Epic Village linked with Ramayana, Mahabharata and/or Puranic legends and oral epics
- Historical Village linked with Local and National History
- Architectural Heritage Village
- Any other characteristic that may need highlighting such as fishing village, horticulture village, shepherding village etc.

Objective:

- The main objective of the project is **to culturally map** India's 6.5 lakh villages, spanning 29 States and 7 Union Territories, on a comprehensive virtual platform.
- Through MGMD, people will get an opportunity to immerse themselves in the diverse and vibrant cultural heritage of India.

- The core idea behind this project is to encourage appreciation for India's culture and traditions, paving way for economic growth, social harmony, and artistic development in rural communities.
- Financial outlay of Rs.353.46 Crore is approved under the scheme of **Financial Assistance for Promotion of Art and Culture** consisting 08 scheme components namely;
 - Financial Assistance to Cultural organizations with National Presence
 - Cultural Function & Production Grant (CFPG);
 - Financial Assistance for the Preservation & Development of Cultural Heritage of the Himalayas;
 - Financial Assistance for the Preservation & Development of Buddhist/Tibetan Organization
 - Financial Assistance for Building Grants including Studio Theatres
 - Financial Assistance For Allied Cultural Activities
 - Scheme for Safeguarding the Intangible Cultural Heritage

Q1: What is the National Mission for Cultural Mapping?

It was launched in 2017 by the Union Ministry of Culture with a aim to develop a comprehensive database of art forms, artists and other resources across the country. The government has identified and documented distinctive features of more than one lakh villages across the country.

18. Ajanta and Ellora Caves

Overview:

The Ministry of Tourism recently included the UNESCO World Heritage sites of Ajanta and Ellora caves in Chhatrapati Sambhajanagar in its Swadesh Darshan Scheme II.

About Ajanta and Ellora Caves

- Ajanta and Ellora caves, considered to be one of the finest examples of ancient rock-cut caves, are located near Aurangabad in Maharashtra.
- The Ajanta and Ellora cave complex is adorned with beautiful sculptures, paintings, and frescoes and includes Buddhist monasteries, Hindu and Jain temples.
- The Ajanta caves are 29 in number and were built between the 2nd century BC and the 6th century AD, whereas the Ellora caves are more spread out and 34 in number and date to the period between the 6th and 11th Centuries AD.
- Ajanta Caves are mostly Buddhist sites and were used as a retreat by Buddhist monks.
 - The caves consisted of cells for meditation, assembly halls for discussions, and stupas for rituals.
- Ellora has a better mix of Hindu, Jain, and Buddhist structures.
- The caves are adorned with sculptures that reflect the spiritual beliefs of the time.
 - The sculptures range from depictions of deities, celestial beings, and mythological scenes to portraits of royalty and everyday life.
- The Kailash Temple in Ellora is an architectural marvel. It is one of the largest monolithic structures in the world.
 - The structure is carved vertically from a single rock. It took 18 years to carve out the temple.
- They are designated as UNESCO World Heritage Sites.

Key Facts about Swadesh Darshan Scheme

- It was launched in 2015 by the Ministry of Tourism, Government of India, to develop sustainable and responsible tourism destinations in the country.
- It is 100% centrally funded scheme.
- Under the scheme, the Ministry of Tourism provides financial assistance to State governments, Union Territory Administrations, or Central Agencies for development of tourism infrastructure in the country.
- Operation & Maintenance (O&M) of the projects sanctioned under the Swadesh Darshan Scheme is the responsibility of the respective State Government/UT Administration.

- Swadesh Darshan 2.0:
 - The Ministry of Tourism has revamped its Swadesh Darshan scheme as Swadesh Darshan 2.0 (SD2.0) for the development of sustainable and responsible tourist destinations, covering tourism and allied infrastructure, tourism services, human capital development, destination management, and promotion, backed by policy and institutional reforms.
 - The objective of the Swadesh Darshan 2.0 scheme envisages increase in private sector investment in tourism and hospitality.
 - It may help in increasing Public Private Partnerships (PPP) in the field of tourism and operation and maintenance of the assets created under the scheme.

Q1) What are UNESCO World Heritage Sites?

A World Heritage Site (WHS) is a landmark or area with legal protection by an international convention administered by UNESCO under the UNESCO World Heritage Convention, established in 1972. These sites are designated by UNESCO for having cultural, historical, scientific or other forms of significance.

19. Hazrat Nizamuddin Aulia Dargah

Overview:

French President recently visited the Hazrat Nizamuddin Aulia Dargah in south Delhi.

About Hazrat Nizamuddin Aulia Dargah:

- It is located **in Delhi's** Nizamuddin West area.
- It is the **mausoleum of the famous Sufi saint, Nizamuddin Auliya** (1238-1325 CE).
- It was **built in the 14th Century C.E.**
- **Features:**
 - It consists of a **square chamber surrounded by verandahs**, which are pierced by arched openings, while its **roof is surmounted by a dome** pringing from an octagonal drum.
 - The **dome is ornamented by vertical stripes of black marble** and is crowned by a lotus-cresting.
 - Inside the dargah complex, one can find the **tombs of Nizamuddin Auliya's saints: Jahanara Begum, Shah Jahan's favorite daughter, and poet Amir Khusru.**
 - Towards the north side of Dargah, there is a **stepwell.**
 - On the north-eastern side, there is a **16th-century tomb of Atgah Khan**, who was a powerful minister in Emperor Akbar's court.
 - The site is also known for its **evening qawwali devotional music sessions.**

Who was Nizamuddin Auliya?

- Syed Muhammad Nizamuddin Auliya was one of the most famous **Sufi saints** from the Indian subcontinent region.
- Also known as **Hazrat Nizamuddin** and Mahbub-e-Ilahi (Beloved of God), he was a **Sunni Muslim scholar and Sufi saint of the Chishti Order.**
- Like most of the Chishti Sufi saints, Nizamuddin Auliya **stressed love as a means of realising God.** He believed the love of God implied a love of humanity.

Some of the **famous disciples** of Nizamuddin include **Shaikh Nasiruddin Chirag Delhavi, Amir Khusro**, and the royal poet of the Delhi Sultanate.

Q1: What is Sufism?

Sufism represents the inward-looking, mystical dimension of Islam. Often thought erroneously to be its own sect or denomination – such as Sunni Islam – Sufism is better understood as an approach that mixes mainstream religious observances, such as prescribed daily prayers, with a range of supplementary spiritual practices, such as the ritual chanting of God's attributes (zikr) or the veneration of saints.

20. Dogri folk dance

Overview:

Recently, the union government of India conferred Padma Shri award to Jammu's Dogri folk dancer Romalo Ram.

About Dogri folk dance:

- It is a dance performed in **Duggar region of Jammu.**
- It is generally **performed by a group of artists** whose main leader sings the song as well as dances while others are in the sitting position providing beats of **Drums and Chimta.**
- It is performed in **functions and social gatherings.**
- There are other varieties of this dance with the **men and women or only women** performing dance in groups to the music of some famous folk song in colourful traditional dresses.
- Dogra folk-dances have an important role as a part of worship, ceremonies and a pastime but the main force behind the folk-dances is the celebratory mood.
- **Other dance forms of Jammu region:** Dheku, Phummani, jagarana, Ckauki, Chhajja, Kuddha, Hirana etc. are main dances. Bhagtan, Raas, Chandraul, etc. are main folk-drama styles.

21. Shumang Leela**Overview:**

The artists of Shumang Leela bear the brunt of the enduring ethnic violence in Manipur which is also jeopardizing the vibrant cultural fabric of the state.

About Shumang Leela

- It is a traditional form of theatre in Manipur.
- In this the roles of female artists are all played by male actors and male characters are played by female artists in case of female theatre groups.
- It was started as a comic genre for royalty and has evolved into a powerful medium for mass education, entertainment, and relaxation.
- In this, the roles of women are all played by men, called Nupi Shabis.
- The female roles are taken up by transgender actors.
- The tradition is believed to be descended from Lai Haraoba, a ritual of the Meitei community of Manipur.
- Purpose: The plays provide a vehicle for educating the public about social, political, and economic issues.
- Types - Shumang Leela is of two types
 - Nupa Shumang Leela – It is Performed only by men
 - Nupi Shumang Leela – It is Performed only by women

What is Lai Haraoba?

- Lai Haraoba is a religious festival celebrated by the Meitei people who are largely settled in and around Manipur.
- It is held at neighborhood shrines dedicated to the local umanglai deities.

It is observed in the months between February and May-June.

22. Bharat 5G Portal**Overview:**

Recently, the Secretary, Department of Telecommunications (DoT), Ministry of Communications (MoC), launched the "Bharat 5G Portal- an integrated portal" on the sidelines of 'Bharat Telecom 2024'.

About Bharat 5G Portal

- It is a comprehensive platform serving the interests of startups, industry and academia in quantum, 6G, IPR and 5G domains.

- It also features the Future Tech-Experts registration portal in collaboration with PANIIT USA, aimed to help and advise the Indian Telecom ecosystem to advance the goal of Atmanirbhar Bharat.
- It acts as a one-stop solution for all quantum, IPR, PoCs/Pilot, 5G and 6G-related works, capturing academic R&D developments, industry standards, OEMs, startups/MSMEs, and subject matter experts.
- It aims to propel India's 5G capabilities, foster innovation, collaboration, and knowledge-sharing within the telecom sector.

Other 5G related initiatives in India

- Prime Minister of India in the India Mobile Congress, awarded 100 “5G Use Case Labs” to educational institutions across the countries to build competencies and engagement in 5G technologies for students & start-up communities.
- All the 100+ Labs/institutions are connected through a dedicated portal (Digital network of 100 5G Labs).
- It acts as a knowledge dissemination platform for the institutions/students/start-ups wherein 5G use cases are being tested/developed.
- Telecommunications Consultants India Limited (TCIL) is an implementation agency for installation of 100 Labs and portal development.

SCHEMES

1. Rashtriya Udyamita Vikas Pariyojana

Overview:

Recently, the union Minister of Education and Skill Development & Entrepreneurship inaugurated the Rashtriya Udyamita Vikas Pariyojana, in Sambalpur, Odisha.

About Rashtriya Udyamita Vikas Pariyojana

- It is tailored specifically for beneficiaries of the PM SVANidhi scheme, this unique National Entrepreneurship Development Project underscores the government's steadfast commitment to nurturing job providers across the nation.
- Aim: It aims to equip individuals with comprehensive entrepreneurship training, creating job providers rather than job seekers.
- This initiative focuses on reskilling and upskilling employees to enhance their competitiveness and adaptability in an era of disruptive technology.
- It will offer comprehensive entrepreneurship training over a period of 22 weeks, combining theoretical knowledge with practical exposure through experiential learning.
- The training will be conducted through offline, online and hybrid modes, with certificates awarded upon completion, enhancing the course's credibility and value.
- The Government of India has partnered with Flipkart to skill street vendors and small shopkeepers.
- Under the pilot program, street vendors of 10 big cities of the country will be given a stipend along with training to expand their businesses.

Q1) What is PM SVANidhi Scheme?

The PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) was launched on June 01, 2020, for providing affordable Working Capital loans to street vendors to resume their livelihoods that have been adversely affected due to the Covid-19 lockdown.

72. NaViGate Bharat Portal

Overview:

Recently, the Ministry of Information and Broadcasting launched four portals — Press Sewa, National Register for LCOs, CBC, NaViGate Bharat.

About NaViGate Bharat Portal

- The 'National Video Gateway of Bharat (NaViGate Bharat)' is developed by the New Media Wing of the Ministry of Information and Broadcasting.
- It is a unified bilingual platform which hosts videos on the entire gamut of Government's development-related and citizen welfare-oriented measures.
- It empowers citizens by providing a single platform with an interactive user interface to search, stream, share, and download videos related to various Government schemes, initiatives, and campaigns, with filter-based advanced search option.
- The portal eliminates the hassle of searching for official and reliable information from multiple sources, providing a one-stop platform for media and the general public.

Key facts about Press Sewa Portal

- It is developed under the Press and Registration of Periodicals Act, 2023 (PRP Act, 2023) by the Press Registrar General of India (PRGI - erstwhile RNI).
- This portal aims to simplify the cumbersome registration procedures that were prevalent under the colonial PRB Act, 1867.
- Key features
 - Online Application: Publishers can file applications for title registration online, using Aadhar-based e-signatures.
 - Probability Meter: Indicates the likelihood of title availability.
 - Real-time Tracking of applications status: Accessible through an intuitively designed dashboard.
 - Dedicated DM Module: Enables District Magistrates to manage applications received from publishers in a centralized dashboard.

Other portals

- National Register for Local Cable Operators (LCOs):
 - It is the first step to bring registration of LCOs currently with Post Offices spread across the country under a Centralised Registration System.
 - A web form has been designed to collect information from local cable operators for the purpose of National Register.
- Central Bureau of Communication (CBC):
 - It is a vital unit within the Ministry of Information and Broadcasting, established on December 8, 2017, through the amalgamation of the erstwhile Directorate of Advertising and Visual Publicity (DAVP), Directorate of Field Publicity (DFP), and Song & Drama Division (S&DD).

Q1) What is Cable television?

It is generally any system that distributes television signals by means of coaxial or fibre-optic cables. The term also includes systems that distribute signals solely via satellite.

2. Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY)

Overview:

Recently, the Union Cabinet approved the Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY), a sub scheme under the Pradhan Mantri Matsya Sampada Yojana.

About Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana

- It will be implemented as a Central Sector Sub-scheme under the Central Sector Component of the PMMSY.
- Funding: Implemented at an estimated outlay of Rs.6,000 crore consisting of 50% i.e. Rs.3,000 crore public finance including the World Bank and the AFD external financing, and rest 50% i.e. Rs.3,000 crore being the anticipated investment from the beneficiaries/private sector leverage.
- Time period: It will be implemented for 4 years from FY 2023-24 to FY 2026-27 across all the States and UTs.

- Intended Beneficiaries:
 - Fishers, Fish (Aquaculture) Farmers, Fish workers, Fish Vendors or such other person directly engaged in fisheries value chain.
 - Micro and Small enterprises in the form of Proprietary Firms, Partnership Firms and Companies registered in India, Societies, Limited Liability Partnerships (LLPs), Cooperatives, Federations, Village Level Organizations like Self Help Groups (SHGs), Fish Farmers Producer Organizations (FFPOs) and Startups engaged in fisheries and aquaculture value chains.
 - FFPOs also include Farmers Producer Organizations (FPOs).
 - Any other beneficiaries that may be included by the Department of Fisheries, Govt as targeted beneficiaries.
- Aims and objectives
 - Gradual Formalization of the unorganized fisheries sector through self registration of fishers, fish farmers and supportive workers under a National Fisheries Sector Digital Platform including creation of work based digital identifies of fish workers for improved service delivery.
 - Facilitating access to institutional financing fisheries sector micro and small enterprises.
 - Providing one-time incentive to beneficiaries for purchasing aquaculture insurance.
 - Incentivizing fisheries and aquaculture microenterprises through performance grants for improving fisheries sector value-chain efficiencies including creation and maintenance of jobs.
 - Incentivising micro and small enterprises through performance grants for adoption and expansion of fish and fishery product safety and quality assurance systems including creation and maintenance of jobs.

Q1) What is a “Farmers Producer Organisation” (FPO)?

It is one type of PO where the members are farmers. Small Farmers' Agribusiness Consortium (SFAC) is providing support for promotion of FPOs. PO is a generic name for an organization of producers of any produce, e.g., agricultural, non-farm products, artisan products, etc

3. Pradhan Mantri Kisan Sampada Yojana

Overview:

Recently, the union Minister of State for Food Processing Industries informed the Rajya Sabha about the Pradhan Mantri Kisan Sampada Yojana.

About Pradhan Mantri Kisan Sampada Yojana

- The Central Sector Scheme - SAMPADA (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters) was approved by the cabinet in May 2017.
- The scheme has now been renamed as the "Pradhan Mantri Kisan Sampada Yojana (PMKSY)".
- It is a comprehensive package of component schemes, which is aimed at creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.
- It provides a boost to the growth of food processing sector in the country, helps in providing better prices to farmers, creates employment opportunities especially in the rural areas, reduces wastage of agricultural produce, increases the processing level and enhances the export of the processed foods.
- Objective: The objective of PMKSY is to supplement agriculture, modernize processing and decrease Agri-Waste.
- Components
 - Mega Food Parks,
 - Integrated Cold Chain and Value Addition Infrastructure
 - Infrastructure for Agro-Processing Clusters,
 - Creation of Backward and Forward Linkages,
 - Creation/Expansion of Food Processing & Preservation Capacities,

- Food Safety and Quality Assurance Infrastructure and
- Human Resources and Institutions
- Nodal Ministry: Ministry of Food Processing Industries

Q1) What is Agro-processing?

It refers to the sub-sector of manufacturing that beneficiates primary materials and intermediate goods from agricultural, fisheries and forestry based sectors.

AWARDS & HONOURS

1. National Creators Award

Overview:

Recently, the Prime Minister Of India hailed the initiative of national creators' award, saying it was a great opportunity for the creator community, putting the spotlight on the extraordinary talent across India.

About National Creators Award

- It is the first-of-its-kind awards will be targeted at "Gen Z", a reference to the young generation hooked to the internet and social media.
- The award aims to achieve
 - Spotlight on Changemakers: Putting change makers on center stage – recognizing and boosting digital creators that are making an impact
 - Amplify Diverse Voices: It wants to elevate the influence of digital media in social impact, creating a buzz that can't be ignored
 - Connect and Collaborate: It brings a community of creators, leaders & government on one platform to spur a social revolution, a national movement during 'Amrit Kaal'
 - Empower the Next Wave: It's a launchpad for using creativity to drive positive change.
- Eligibility Criteria
 - Age Requirement: Participants must be 18 years of age or above at the time of nomination.
 - Nationality and Residency: 19 categories are open exclusively to individuals of Indian nationality. One category is dedicated to international digital creators.
 - Platforms: Content must be published on one or more of the following digital platforms: Instagram, YouTube, Twitter, LinkedIn, or Facebook.
 - Language: Content submission can be in English or any other Indian language.
 - Nomination Limits: Creators can self-nominate in a maximum of three categories. Those nominating others can nominate in all 20 categories.

1. Three Indian Scientists To Be Honored With Prestigious UK Prize In London

- The prestigious **Blavatnik Awards** will recognize the exceptional contributions of Rahul R Nair, Mehul Malik, Tanmay Bharat, and other early career scientists at a black-tie gala in London on February 27. These awards, totaling 480,000 pounds in grants, underscore the importance of recognition and research funding in propelling scientific breakthroughs.
[Empowering Scientific Excellence](#)
- **Sir Leonard Blavatnik**, Founder of Access Industries and Head of the Blavatnik Family Foundation, emphasizes the transformative impact of early recognition and grants on scientific careers. Through the Blavatnik Awards, promising researchers like Nair, Malik, and Bharat are supported in their endeavors to advance fields such as quantum communications and structural microbiology.
[Nair's Breakthrough in Energy-Efficient Technologies](#)
- **Rahul R Nair**, a materials physicist at The University of Manchester, has been honored as the Laureate in Physical Sciences & Engineering for his pioneering work in **developing innovative membranes using two-dimensional (2D) materials**. These

membranes are poised to revolutionize energy-efficient separation and filtration technologies.

[Revolutionizing Quantum Communications](#)

- **Professor Mehul Malik**, a Quantum physicist at Heriot-Watt University, is pioneering quantum communications with his research. Malik's work harnesses **high-dimensional entanglement to create robust quantum networks**, promising secure transmission of data over long distances. His innovations exemplify the potential of early career scientists to drive technological advancements.

[Unveiling Molecular Landscapes with Cryo-electron Tomography](#)

- **Dr. Tanmay Bharat**, a structural microbiologist at the MRC Laboratory of Molecular Biology, **utilizes cryo-electron tomography to uncover atomic-level details of cell surface molecules**. His groundbreaking research sheds light on cell-to-cell interactions and biofilm communities, offering both biomedical insights and fundamental understanding of life's evolution.

[Supporting Future Discoveries](#)

- Both Bharat and Malik, along with other awardees, will receive grants to further their research. **The Blavatnik Awards, now in their seventh year**, have donated 3.3 million pounds to empower early career scientists across the UK, fostering a culture of scientific excellence and innovation.

[Knowledge Sharing at the RSA House Symposium](#)

- Following the award ceremony, honorees will present their research at a symposium hosted at the RSA House, engaging with the public and fostering dialogue. This event highlights the commitment to knowledge dissemination and collaboration, amplifying the impact of scientific discoveries beyond academic circles.

2. Sportstar Aces Awards 2024, Check Complete List of Winners

- This table summarizes the achievements and honorees of the Sportstar Aces Awards 2024, recognizing the outstanding contributions of individuals and teams in the field of sports.

Category	Winner
Sportsman of the Year (Track and Field)	Men's Relay Team
Sportswoman of the Year (Track and Field)	Parul Chaudhary
Sportsman of the Year (Team Sports)	Hardik Singh, Mohammed Shami
Sportswoman of the Year (Team Sports)	Vandana Katariya
Sportsman of the Year (Individual)	Satwiksairaj Rankireddy, Chirag Shetty
Sportswoman of the Year (Individual)	Rameshbabu Vaishali, Sift Kaur Samra
Sportsman of the Year (Parasports)	Sumit Antil
Sportswoman of the Year (Parasports)	Thulasimathi Murugesan
Coach of the Year	Rahul Dravid
Young Achiever of the Year (Male)	Prathamesh Samadhan Jawkar
Young Achiever of the Year (Female)	Tilottama Sen
Lifetime Achievement Award	Chandu Borde, Karnam Malleswari
Sportstar of the Year (Male)	Neeraj Chopra
Sportstar of the Year (Female)	Sheetal Devi
National Team of the Year	India Men's Cricket Team
Club/State Team of the Year	Saurashtra Cricket Team
Moment of the Year	Sheetal Devi Hits the Bullseye
International Icon	Muttiah Muralitharan
Best State for the Promotion of Sport	Tamil Nadu
Best PSU for the Promotion of Sport	NTPC Ltd
Best Corporate for the Promotion of Sport	Tata Steel Ltd
Best University for the Promotion of Sport	SRM Institute of Science and Technology

Sport for Social Good	Shri Mata Vaishno Devi Shrine Board
Ace of Aces Award	Rohan Bopanna

- The Sportstar Aces Awards 2024 not only celebrated the achievements of these exceptional athletes and contributors but also highlighted the unifying power of sports. Through dedication, teamwork, and an unwavering pursuit of excellence, each awardee has contributed significantly to the fabric of sports, inspiring millions around the globe. Their stories of perseverance, resilience, and triumph serve as beacons of hope and motivation, reminding us of the boundless potential of the human spirit in the realm of sports.

3. Bharat Ratna to Honour PV Narasimha Rao, Chaudhary Charan Singh, and MS Swaminathan [Bharat Ratna](#)

- India's highest civilian award, the **Bharat Ratna**, is set to honour the indelible contributions of three distinguished individuals whose efforts have significantly shaped the nation's trajectory. **Former Prime Ministers PV Narasimha Rao and Chaudhary Charan Singh, alongside renowned agricultural scientist MS Swaminathan**, are the esteemed recipients of this prestigious accolade, acknowledging their unparalleled dedication to the progress of India.

[Bharat Ratna, PV Narasimha Rao](#)

- **PV Narasimha Rao**, often hailed as the **Architect of Modern India**, played a pivotal role in ushering in economic liberalization in the early 1990s. His visionary leadership not only averted a financial crisis but also laid the groundwork for India's rapid growth and integration into the global economy. Rao's tenure as Prime Minister was marked by bold reforms that transformed the economic landscape, fostering investment, expansion of the private sector, and enhancing India's competitiveness worldwide.
- Beyond economics, Rao's impact was profoundly felt in India's foreign policy, where he redefined relationships, steering the country through the post-Cold War era with strategic finesse. His initiatives towards strengthening ties with the East, including the Look East policy, paved the way for a new era in diplomatic relations and economic partnerships.
- Rao's contributions extended into the realms of language and education, where he championed the cause of cultural diversity and literacy. His policies aimed at preserving India's rich linguistic heritage while promoting education as a means of empowerment.

[Bharat Ratna, Chaudhary Charan Singh, Champion of the Farmers](#)

- Chaudhary Charan Singh revered as a true champion of India's agrarian community dedicated his life to the welfare of the farmers. His tenure as Prime Minister, though brief, was impactful, particularly his advocacy for policies that supported the agricultural sector and upheld the rights of the farmers. Singh's legacy is a testament to his commitment to rural development and his belief in the vital role of agriculture in India's economy.
- Singh's initiatives aimed at alleviating farmer distress, improving agricultural productivity, and ensuring fair prices for crops have left an enduring mark on India's agricultural policies. His efforts to reform the agrarian landscape resonate with millions of farmers across the nation, making him a beloved figure among the rural populace.

[Bharat Ratna, MS Swaminathan, Father of the Green Revolution](#)

- **Dr. MS Swaminathan's** contributions to India's agricultural revolution are monumental. As the architect of the **Green Revolution**, Swaminathan's scientific acumen and innovative approaches to crop improvement significantly increased food production, thereby mitigating the threat of famine and ensuring food security for millions. His work not only transformed India from a food-importing country to one of self-sufficiency but also inspired agricultural reforms worldwide.
- Swaminathan's dedication to sustainable agriculture and his advocacy for the conservation of biodiversity have shaped the discourse on ecological balance and responsible farming practices. His vision extends beyond immediate agricultural gains, focusing on the long-term well-being of the planet and its inhabitants.

4. Pyarelal Sharma Honored with Lakshminarayana International Award

- **Pyarelal Sharma**, one-half of the legendary composer duo **Laxmikant-Pyarelal**, has been felicitated with the prestigious Lakshminarayana International Award. This honour was bestowed upon him as part of the Lakshminarayana Global Music Festival, acknowledging his invaluable contributions to the Indian music industry.

[Celebrating a Storied Career](#)

- **A Legendary Collaboration**

- Pyarelal Sharma, alongside Laxmikant Shantaram Kudalkar, formed the iconic music composer duo known as Laxmikant-Pyarelal. Their collaboration has been nothing short of legendary, giving the Indian cinema some of its most memorable and evergreen songs. From “Dosti” to “Ram Lakhan,” their compositions span across genres, moods, styles, and situations, leaving an indelible mark on the hearts of millions.

[The Lakshminarayana International Award](#)

- The Lakshminarayana International Award, named after the violin maestro Lakshminarayana, is presented to individuals who have made significant contributions to the world of music. Pyarelal Sharma’s receipt of this award is a testament to his artistic genius and the timeless appeal of his compositions. The award was presented by renowned musicians L Subramaniam and Kavita Krishnamurthy Subramaniam, adding further prestige to the occasion.

[A Legacy of Musical Excellence](#)

- **Iconic Soundtracks**

- The duo Laxmikant-Pyarelal has been responsible for some of the most iconic soundtracks in Indian cinema. Their music for films like “Mera Gaon Mera Desh,” “Bobby,” “Amar Akbar Anthony,” and “Prem Rog” has transcended time, remaining popular across generations. Their ability to blend classical Indian music with contemporary sounds has revolutionized film music, setting new benchmarks for excellence.

- **A Range Unmatched**

- The range of Laxmikant-Pyarelal’s music is unparalleled. Whether it was the soul-stirring melodies of “Mere Hamdam Mere Dost” or the vibrant tunes of “My Name Is Lakhan,” their compositions have showcased an incredible diversity. This versatility has made them one of the most sought-after music directors in the industry, with a career spanning several decades and numerous awards to their name.

5. Gulzar and Jagadguru Rambhadracharya Awarded Prestigious Jnanpith Award 2023

- **The Jnanpith Award**, India’s most prestigious literary accolade, has announced its recipients for the year 2023, marking a momentous occasion in the annals of Indian literature. This year, the honour is bestowed upon two luminaries from the world of letters: celebrated Urdu poet and Bollywood personality **Gulzar**, and the distinguished Sanskrit scholar and spiritual leader **Jagadguru Rambhadracharya**. Their selection for the **58th edition of the award** underscores the rich diversity and depth of Indian literary traditions, spanning the classical to the contemporary.

[Gulzar: A Versatile Literary Genius](#)

- **Gulzar, born Sampooran Singh Kalra**, has etched his name in the realms of Urdu poetry and Hindi cinema with an indelible ink. As one of the finest Urdu poets of his generation, Gulzar’s contributions extend beyond the poetic to include significant works as a writer and director in Bollywood. His achievements have been recognized with numerous accolades, including the Sahitya Akademi Award for Urdu, the Dadasaheb Phalke Award, the Padma Bhushan, and several National Film Awards. Notably, his song “Jai Ho” from the film “Slumdog Millionaire” has won both an Oscar and a Grammy, showcasing his international acclaim.
- Gulzar’s directorial ventures such as “Koshish,” “Parichay,” and “Mausam,” among others, are considered classics. His creation of the ‘Triveni,’ a unique genre of non-rhyming three-line poetry, and his focus on children’s poetry in recent years, highlight his innovative spirit and versatility.

[Jagadguru Rambhadracharya: A Scholar of Sanskrit and Spirituality](#)

- Jagadguru Rambhadracharya stands as a towering figure in the world of Sanskrit scholarship and Hindu spirituality. As the founder and head of **Tulsi Peeth in Madhya Pradesh**, his contributions to education, literature, and spiritual discourse are unparalleled. Authoring over 240 books and texts, including four epics, Rambhadracharya's prolific output spans a variety of themes and forms. His receipt of the Padma Vibhushan in 2015 attests to his significant impact on Indian culture and scholarship.
- A polyglot fluent in 22 languages, Rambhadracharya's influence extends across linguistic and sectarian boundaries, embodying the universal appeal of Indian spiritual and literary traditions.

Jnanpith Award 2023 Committee

- The awardees were selected by a committee headed by Odia writer Pratibha Rai. Other members of the selection committee included Madhav Kaushik, Damodar Mauzo, Suranjan Das, Purushottam Bilmale, Praful Shiledar, Harish Trivedi, Prabha Verma, Janaki Prasad Sharma, A. Krishna Rao and Jnanpith director Madhusudan Anand.

The Jnanpith Award, A Legacy of Literary Excellence

- Established in **1965** by the **Bharatiya Jnanpith**, the **Jnanpith Award** recognizes outstanding contributions to Indian literature. With a legacy spanning over five decades, the award has celebrated the works of authors across various Indian languages, reflecting the country's rich linguistic and cultural tapestry. The award includes a cash prize of **₹11 lakh**, a statue of Vagdevi, and a citation, symbolizing the highest honour in Indian literature.
- This year's selection of Gulzar and Jagadguru Rambhadracharya for their contributions to Urdu and Sanskrit literature, respectively, marks the second time Sanskrit and the fifth time Urdu has been recognized, highlighting the inclusive nature of the award.

6. Shashi Tharoor Honoured with France's Highest Civilian Award

- Diplomat, author, and politician, **Shashi Tharoor** has been bestowed with the prestigious '**Chevalier de la Légion d'Honneur**' (**Knight of the Legion of Honour**), **France's** highest civilian honour. This accolade celebrates Tharoor's lifelong dedication to fostering global understanding and his significant service to India and the world at large.

A Ceremonial Recognition in New Delhi

- The award ceremony took place at the French Embassy in New Delhi, where French Senate President Gerard Larcher presented the honour to the Congress MP. The decision to award Tharoor was initially announced in August 2022, with the formal conferring happening on a Tuesday, marking a notable moment in Tharoor's illustrious career.

Tharoor's Multifaceted Contributions

- Gerard Larcher, in his address, praised Tharoor for his exceptional career and contributions. Tharoor's body of work, which includes renowned books like 'An Era of Darkness', 'Pax Indica', and 'The Great Indian Novel', alongside his significant diplomatic and political roles, underscores a life dedicated to knowledge, service, and the betterment of global society.

Tharoor's Response to the Honour

- Expressing his gratitude, Shashi Tharoor acknowledged the honour with immense pride, reflecting on his long-standing relationship with France. He highlighted the mutual values of strategic autonomy and independent foreign policy that bind France and India as partners in navigating the complexities of contemporary global affairs.

The Significance of the Legion d'Honneur

- Established in 1802 by Napoleon Bonaparte, the Legion of Honour stands as the epitome of French recognition for outstanding service to France, transcending nationality. The President of the French Republic acts as the Grand Master of the Order, symbolizing the prestige and honor associated with this award.

Distinguished Attendees of the Ceremony

- The award ceremony saw the presence of notable figures including French envoy to India Thierry Mathou, India's G20 sherpa Amitabh Kant, and Congress leader Anand

Sharma, among others, signifying the importance of this occasion in the Indo-French relationship.

CAREER IAS