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PRELIMS

POLITY & GOVERNANCE

ENEMY AGENTS ORDINANCE

Context: Jammu and Kashmir Director General of Police (DGP) R R Swain said recently that those **found assisting militants in J&K should be tried by investigating agencies under the Enemy Agents Ordinance, 2005.**

Background:

- The law is more **stringent than the Unlawful Activities (Prevention) Act (UAPA**) and has the punishment of either a life term or a death sentence.

About J&K Enemy Agents Ordinance

- The J&K Enemy Agents Ordinance was first issued in 1917 by the then Dogra Maharaja of J&K.

- It is referred to as an '**ordinance 'since laws made during the Dogra rule were called ordinances.**

- According to the ordinance, "whosoever is an enemy agent or, with an intent to aid the enemy, conspires with any other person to any act which is designed or likely to give assistance to the enemy or to impede the military or air operations of Indian forces or to endanger life or is guilty of incendiarism shall be punishable with death or rigorous imprisonment for life or with rigorous imprisonment for a term which may extend to 10 years and shall also be liable to fine".

- After Partition in 1947, the ordinance was incorporated as a law in the erstwhile state and was also amended.

- In 2019, when Article 370 of the Constitution was repealed, J&K's legal framework also underwent several changes. The Jammu and Kashmir Reorganisation Act was passed, which listed out state laws that were to continue while several others were repealed and replaced with Indian laws.

- **While the security laws such as Enemy Agents Ordinance and Public Safety Act remained; the Ranbir Penal Code was replaced with the Indian Penal Code.** Other laws including The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 or Forest Act, and The Scheduled Caste and the Scheduled Tribes (Prevention of Atrocities) Act, 1989 were extended to J&K as well.

- The trial under the Enemy Agents Ordinance is conducted by a special judge who is appointed by the **"government in consultation with the High Court".**

- There is no provision for **appeal against the verdict**, and the decision of the special judge can only be reviewed "by a person chosen by the Government from the judges of the High Court and the decision of that person shall be final".

Source: Indian Express

LEADER OF OPPOSITION

Context: Rahul Gandhi has been named the Leader of the Opposition in Lok Sabha, party general secretary KC Venugopal announced after a meeting of floor leaders of opposition parties.

Background:

- In the Indian parliamentary system, the Leader of the Opposition holds a crucial role.

Leader of Opposition:

- In each House of Parliament, there is **the 'Leader of Opposition'**.

- The leader of the largest Opposition party **having not less than one-tenth seats of the total strength of the House** is recognised as the leader of the Opposition in that House.

- In a parliamentary system of government, **the leader of the opposition has a significant role to play.**

- Main functions **are to provide a constructive criticism** of the policies of the government and to provide an alternative government.

- It was in 1969 that an official leader of the opposition was recognised for the first time.

- **The leader of Opposition in the Lok Sabha and the Rajya Sabha were accorded statutory recognition in 1977 through "The salary and allowance of Leader of opposition act, 1977".**

- The Act defines the term ' Leader of the Opposition' as that member of the Lok Sabha or the Rajya Sabha who, for the time being, is the Leader of that House of the party in Opposition to the government having the greatest numerical strength and recognised, as such, by the chairman of the Rajya Sabha or the speaker of the Lok Sabha.

- **They are also entitled** to the salary, allowances and other facilities equivalent to that of a cabinet minister.

Source:Hindustan Times

DEPUTY SPEAKER

Context: With the Opposition's increased strength in Lok Sabha, its members are hoping to get the post of Deputy Speaker. There was no Deputy Speaker for the entire duration of the 17th Lok Sabha (2019-24).

Background:-

- The first four Deputy Speakers, from 1952 to 1969, were from the ruling Congress. The Opposition had the post of Deputy Speaker continuously from 1990 through 2014.

Key takeaways

- According to **Article 95(1), the Deputy Speaker performs the duties of the Speaker if the post is vacant.** And he has **the same general powers as the Speaker when presiding over the House.**

- All references to the "Speaker" in the Rules are deemed to be references to the Deputy Speaker as well for the times when he or she presides.

- Both the Speaker and Deputy Speaker must be appointed "as soon as may be". **Article 93 states that** "The House of the People shall, as soon as may be, choose two members of the House to be respectively Speaker and Deputy Speaker".

- **Article 178** contains the corresponding provision for the Speakers and Deputy Speakers in the state Assemblies.

Is it mandatory under the Constitution to have a Deputy Speaker?

- The **Constitution does not specify a time frame for making the appointments.** It is this gap in the provision that allows governments to delay or avoid appointing a Deputy Speaker.

- However, constitutional experts have pointed out that both Article 93 and Article 178 use the words "shall" and "as soon as may be".

What are the rules for the election of the Deputy Speaker?

- The Speaker / Dy Speaker is ele**cted from among the Lok Sabha members by a simple majority** of members present and voting

- The election of the Deputy Speaker usually takes place in the second session, even though there is no bar on having this election in the first session of the new Lok Sabha or Assembly. But the election of Deputy Speaker is generally not delayed beyond the second session unless there are some genuine and unavoidable constraints.

- In the Lok Sabha, the election of **Deputy Speaker is governed by Rule 8 of the Rules of Procedure and Conduct of Business in Lok Sabha**. According to Rule 8, the election shall be held on such date as the Speaker may fix.

- The Deputy Speaker is elected once a motion proposing his or her name is carried. Once elected, the Deputy Speaker usually continues in office until the dissolution of the House.

Additional Information:
- After the first Speaker, G V Mavalankar, died in 1956 before his term ended, Deputy Speaker M Ananthasayanam Ayyangar filled in for the remaining tenure of Lok Sabha from 1956 to 1957. Ayyangar was later elected as Speaker of the second Lok Sabha.

Source:Indian Express

PROTECTION OF CHILDREN FROM SEXUAL OFFENCES (POCSO) ACT

Context: The Gujarat High Court on Thursday granted **bail to a juvenile accused of rape and also facing charges under the Protection of Children from Sexual Offences (POCSO) Act** after it held that the Juvenile Justice Board and the children court needed to examine whether he had the mental and physical capacity to understand the consequences of the offences he has been accused of.

Background:

- According to the case details, the juvenile was in a relationship with a schoolmate, who was also a minor. The girl had died by suicide on the day her elder sister, aged 22 years, found her alone at home with the juvenile. The sister had scolded and beaten up the girl, following which she died by suicide.

Protection of Children from Sexual Offences (POCSO) Act:

- It aims to **address offences of sexual exploitation and sexual abuse of children, which were either not specifically defined or adequately penalised.**

- It was enacted as a **consequence of India's ratification of the UN Convention on the Rights of the Child in 1992.**

Key features of the Protection of Children from Sexual Offences (POCSO) Act:

- It is a **gender-neutral legislation** as it defines a child as "any person" **under the age of 18.**

- It considers **non-reporting a crime so any person in charge of an institution (excluding children) who fails to report the commission of a sexual offense involving a subordinate, faces punishment.**

- It does **not specify any time limit for reporting abuse so a victim may report an offence at any time, even years after the abuse has occurred.**

- It keeps the victim's identity confidential as the Act **forbids the disclosure of the victim's identity in any form of media** unless authorized by the special courts established by the Act.

Key Provisions of the Protection of Children from Sexual Offences (POCSO) Act:

- It defines a **child as any person below the age of 18 years**. The Act provides **punishment as per the gravity of the offence**.

- It mandates that **investigation in the cases is to be completed in two months (from the date of registration of FIR) and trial in six months.**

- **It states a sexual assault is to be considered aggravated if -** the abused child is mentally ill or, when the abuse is committed by a member of the armed forces or security forces, a public servant, or a person in a position of trust or authority of the child, like a family member, police officer, teacher, or doctor or a person-management or staff of a hospital, whether Government or private.

- It prescribes r**igorous imprisonment for a term which shall not be less than ten years** but which may extend to imprisonment for life and also a fine as punishment for aggravated penetrative sexual assault.

- It prescribes punishment to the **people who traffic children for sexual purposes.**

- It provides for punishment **against false complaints or untrue information**.

- It was amended in 2019 to **increase the minimum punishment from seven years to ten years.** It further adds that if a person commits penetrative sexual assault on a child below the age of 16 years, he will be punished with imprisonment between 20 years to life, with a fine.

Source:Indian Express

KRISHI SAKHI CONVERGENCE PROGRAM (KSCP)

Context: Recently, the Prime Minister of India granted certificates to over 30,000 women from Self Help Groups (SHGs) as 'Krishi Sakhis' under the Krishi Sakhi Convergence Programme (KSCP).

Background:

- This certification course aligns with the objectives of the "Lakhpati Didi" Program.

About KRISHI SAKHI CONVERGENCE PROGRAM (KSCP)

- KSCP aims to **transform rural India through the empowerment of rural Women as Krishi Sakhi, by imparting training and certification of Krishi Sakhis as Para-extension Workers.**

- **This certification course aligns with the objectives of the "Lakhpati Didi" Program.**

- Under the 'Lakhpati Didi' program, the **aim is to create 3 crore Lakhpati Didis, one dimension of which is Krishi Sakhi.**

- **Training Modules**:

  o Krishi Sakhis undergo comprehensive training, including modules on agro-ecological practices, farmer field schools, soil health, livestock management, and more.

  o After training, Krishi Sakhis take a proficiency test. Those who qualify become certified Para-extension Workers, enabling them to undertake various agricultural activities.

- **Employment Opportunities:**

  o Krishi Sakhis can engage in activities related to soil health, crop demonstrations, crop insurance, horticulture awareness, and rainfed area development, earning resource fees for their services.

Source: PIB

PRO-TERM SPEAKER

Context: Senior Congress leader K Suresh, as the seniormost member of the Lok Sabha, is expected to be appointed as pro-tem Speaker when the first session of the 18th Lok Sabha begins.

Background:-

- The 18th Lok Sabha will hold its first session from June 24 to July 3, during which the new Speaker of the House will be elected. Until this happens, a pro-tem Speaker will be chosen to swear in the new Members of Parliament.

What is a pro-tem Speaker?

- Being the Presiding Officer of the Lok Sabha, the Speaker has to fulfil certain key duties related to its day-to-day proceedings.

- **Article 94 of the Indian Constitution states: "Whenever the House of the People is dissolved, the Speaker shall not vacate his office until immediately before the first meeting of the House of the People after the dissolution."**

- In the new Lok Sabha, the Speaker of the House is **decided by a simple majority**. Until her selection, the pro-tem Speaker is chosen to **administer some important duties. 'Pro-tem' essentially means 'for the time being' or 'temporarily'.**

- The Constitution does not mention the post. However, the **official 'Handbook on the Working of Ministry of Parliamentary Affairs' speaks about the 'Appointment and Swearing in of Speaker pro term'.**

How is the pro-tem Speaker chosen?

- Administering oaths to the new MPs is the pro-tem Speaker's primary duty.

- **Under Article 99 of the Constitution, "**Every Member of the House shall, before taking his seat, make and subscribe before the President or some person appointed in that behalf by him, an oath or affirmation according to the form set out for the purpose in the Third Schedule of the Constitution."

- Normally, **three other elected members of the Lok Sabha are also appointed by the President for the MPs to take oath before them. According to the handbook, the seniormost members (in terms of number of years of membership of the House) are generally chosen for the purpose, though there have been exceptions.**

- As soon as the new government is formed, the Legislative I Section of the Government of India prepares a list of the senior most Lok Sabha members. It is then submitted to the Minister of Parliamentary Affairs or the Prime Minister for identifying an MP as Speaker pro-tem and another three members for oath-taking.

How are new MP's administered oaths?

- After the Prime Minister's approval, the consent of these members is obtained by the Minister of Parliamentary Affairs. The Minister then submits a note to the President, seeking approval for the appointment of the Speaker pro-tem and the other three members. They also decide the date and time of the swearing-in ceremony.

- Following the approval of the President, the Ministry informs the Speaker pro-tem and other members about their appointments.

- Finally, the President administers the oath to the Speaker pro-tem in the Rashtrapati Bhawan. The other three members appointed by the President are administered the oath by the Speaker pro-tem in the Lok Sabha.

Source:Indian Express

BIHAR QUOTA STRUCK DOWN

Context: Patna High Court on Thursday set aside notifications by the Bihar government increasing reservation in government jobs and educational institutions from 50% to 65%.

Background:-

- On November 7, 2023, the Nitish Kumar-led Mahagath bandhan government had raised the Bihar quota slab to 65 per cent. With this, reservation in the state effectively became 75 per cent when the 10 per cent quota for economically weaker sections (EWS) is taken into consideration.

What did the high court say in its order?

- **The high court set aside the Bihar government's move to hike quotas on various grounds, making it clear that population percentage cannot form the sole basis for it,** merit cannot be totally compromised, and the move infringed upon the Constitution's provisions for the right to equality.

- Another reason for the court's decision to strike down the government's decision is the **Supreme Court-stipulated quota ceiling at 50%.The HC called enhancement of quota beyond 50% "bad in law based on principles of equality".**

What is the 50% Ceiling on reservation?

- The 50% ceiling was introduced by the Supreme Court in its landmark 1992 decision in **Indra Sawhney v Union of India** in order to ensure "efficiency" in administration.

- The **6-3 majority verdict that upheld the 27% quota for socially and economically backward classes (SEBC) set two important precedents** — first, it said that the criteria to qualify for reservation is "social and educational backwardness";

- **Second, it reiterated the 50% limit to vertical quotas that the court had laid down in earlier judgments (M R Balaji v State of Mysore, 1963, and Devadasan v Union of India, 1964).** The 50% limit would apply unless in "exceptional circumstances", the court said.

- The only exception to 50% limit has been the 10% quota for the Economically Weaker Section (EWS) introduced in 2019.

- In November 2022, a five-judge Bench of the Supreme Court upheld the EWS quota in a 3-2 verdict that said the **50% ceiling applied only to SC/ ST and OBC quotas, and not to a separate quota that operated outside the 'backwardness' framework which was "an entirely different class".**

- Critics of the **50% ceiling argue that it is an arbitrary line drawn by the court.**

- On the other hand, an argument is made that breaching 50% would be antithetical to the principle of equality since reservations are an exception to the rule.

- However, there is also a view that reservations are a feature of the fundamental right to equality, and part of the basic structure of the Constitution.

Reservation in other states

- **The 76th constitutional amendment in 1994 inserted the Tamil Nadu reservation law breaching the 50% limit into the Ninth Schedule of the Constitution.**

- **The Ninth Schedule provides the law with a "safe harbour" from judicial review under Article 31A of the Constitution.**

- In May 2021, **SC struck down a Maharashtra law** that provided reservation to the Maratha

community as unconstitutional, holding that the quota limit could not exceed 50%.

Source: Indian Express

RENAMING OF STATE

Context: The Kerala Legislative Assembly has unanimously adopted a resolution urging the Centre to officially change the state's name to 'Keralam'.

Background:

- Chief Minister Pinarayi Vijayan reasoned that the state's name is 'Keralam' in Malayalam. **The Assembly requests the Centre to amend the state's name under Article 3** of the Constitution and have it changed to 'Keralam' in all the languages mentioned in the Eighth Schedule of the Constitution.

Renaming of State:

- The renaming of a state can be initiated either by the Parliament or the State Legislature.

- The renaming of a state requires Parliamentary approval **under Article 3 and 4** of the Indian Constitution.

- **Parliament Initiation:**

    o A bill for renaming a state may be introduced in the Parliament on the recommendation of the President.

    o Before introducing the bill, the President sends it to the respective State Assembly for their views within a stipulated time.

    o The views of the state assembly are not binding on either the President or the Parliament.

    o After the stipulated period, the bill is deliberated in Parliament and must be passed by a simple majority to become law.

    o The bill then receives Presidential approval, and the state's name stands modified.

- **State Initiation**:

    o If a fresh proposal comes from a state, the Home Ministry prepares a note for the Union Cabinet. Central Government will create a bill.

    o The bill is sent to state assembly for taking views following which it is introduced in Parliament. It needs approval by a simple majority.

    o Once approved, the President gives assent, and the state's name is officially changed.

Source:NDTV

INTERNATIONAL RELATIONS

SHANGRI LA DIALOGUE

Context: The 2024 Shangri-La Dialogue took place in Singapore from 31 May to 2 June.

Background:-

- The Shangri-La Dialogue is Asia's premier defence summit. It's a unique meeting where ministers debate the region's most pressing security challenges, engage in important bilateral talks and come up with fresh approaches together.

About Shangri La Dialogue

- It's an **annual "Track One" inter-governmental security conference held in Singapore**.

- It's organized by the **International Institute for Strategic Studies (IISS**), an independent think tank. The forum is **named after the Shangri-La Hotel in Singapore,** where it has been held since 2002.

- The dialogue is attended by defense ministers, permanent heads of ministries, and military chiefs of mostly Asia-Pacific states.

- Besides government delegations, the summit is also attended by legislators, academic experts, distinguished journalists, and business delegates.

- The 2024 Shangri-La Dialogue **took place in Singapore** from 31 May to 2 June.

- **Some of the highlights from the 2024 dialogue include:**

    o **The Philippines made a statement regarding the South China Sea conflict,** suggesting that China and the Philippines would be 'crossing the Rubicon' should a Filipino citizen be killed by Beijing's ongoing actions in the South China Sea4.

    o **Canada announced the deployment of a Harry DeWolf-class Arctic patrol vessel to the Indo-Pacific** as part of the country's effort to deepen its naval presence.

- The Shangri-La Dialogue has become one of the **most important independent forums for the exchange of views by international security policy decision-makers.** It provides a unique platform for debate among government ministers and senior officials, as well as business leaders and security experts, on Asia's developing security challenges.

Source:IISS

EUROPEAN COMMISSION (EC)

Context: The European Commission (EC) has proposed anti-dumping duties on Indian optical fibre cable (OFC) manufacturers.

Background:

- If implemented, the duties would increase the cost of Indian OFC exports, potentially limiting their competitiveness in the European market. India exported nearly Rs 39,600 crore worth of OFC in 2024, with Europe being a major destination.

About European Commission (EC):

- It's a crucial institution within the European Union (EU).

- It serves as the **EU's executive arm, overseeing day-to-day operations and policy implementation.**

- **Composition**:

  o The EC **consists of a College of Commissioners, with each member representing one of the 27 EU member states.**

  o The day-to-day running of Commission business is performed by its staff (lawyers, economists, etc.), organised into departments known as Directorates-General (DGs), each responsible for a specific policy area.

What does the Commission do?

- **Proposes new laws**: The Commission is the sole EU institution tabling laws for adoption by the Parliament and the Council that -

  o protect the interests of the EU and its citizens on issues that can't be dealt with effectively at national level

- **Manages EU policies & allocates EU funding**

  o sets EU spending priorities, together with the Council and Parliament

  o draws up annual budgets for approval by the Parliament and Council

  o supervises how the money is spent, under scrutiny by the Court of Auditors

- **Enforces EU law :**together with the Court of Justice, ensures that EU law is properly applied in all the member countries

- **Represents the EU internationally**

  o speaks on behalf of all EU countries in international bodies, in particular in areas of trade policy and humanitarian aid

  o negotiates international agreements for the EU

Source: Economic Times

INDIA-BANGLADESH BILATERAL RELATIONS

Con Context: Delhi hosted Bangladeshi Prime Minister Sheikh Hasina over the weekend for the first state visit by a foreign leader during PM Modi's third term.

Background:

- Hasina was in Delhi barely two weeks earlier for the swearing-in of Modi and that the two PMs have met 10 times over the past year underlines the intensity of the engagement.

Key Takeaways

- The two countries have promised to **focus on the unfinished agenda of connectivity that includes the easing of visa procedures, freer movement of goods, cross-border energy and electricity flows, and the building of digital bridges.**

- Delhi and Dhaka now propose to commence the long overdue **negotiations on a Comprehensive Economic Partnership Agreement (CEPA).**

- Free trade across India's longest frontier to the second-largest economy in the Subcontinent is an urgent regional imperative amidst the breakdown of the global trading order.

- Hasina and Modi have also outlined the ambition to **modernise the bilateral defence relationship that has fallen behind the pillars of commerce and connectivity.** This would involve wide-ranging collaboration between the armed forces of the two countries, defence industrial partnership, and Delhi's support for the modernisation of Dhaka's armed forces.

- **A substantive bilateral defence partnership will contribute to maintaining stability** in the wider Indo-Pacific region through collaboration on disaster mitigation and building resilient infrastructure.

- Expanded regional and international **collaboration between Delhi and Dhaka will also help promote the Global South's collective interests.**

Source: Indian Express

DANISH FARMERS TO FACE CARBON TAX FOR FLATULENT COWS

Context: Denmark will tax livestock farmers for the greenhouse gases emitted by their cows, sheep and pigs from 2030, the **first country** in the world to do so as it targets a major source of methane emissions, one of the most potent gases contributing to global warming.

Background:-

- Denmark's move **comes after months of protests by farmers across Europe against climate change mitigation** measures and regulations that they say are driving them to bankruptcy.

Key takeaways

- Although carbon dioxide typically gets more attention for its role in climate change, methane traps about 87 times more heat on a 20-year timescale, according to the US National Oceanic and Atmospheric Administration.

- Levels of methane, which is emitted from sources including landfills, oil and natural gas systems and livestock, have increased particularly quickly since 2020.

- **Livestock account for about 32 per cent of human-caused methane emissions, says the UN Environment Program.**

For Your Information:

- The aim is to reduce Danish greenhouse gas emissions by 70% from 1990 levels by 2030

- As of 2030, Danish livestock farmers will be taxed 300 kroner ($43) per ton of carbon dioxide equivalent in 2030. The tax will increase to 750 kroner ($108) by 2035. However, because of an income tax deduction of 60%, the actual cost per ton will start at 120 kroner ($17.3) and increase to 300 kroner by 2035.

Source:Hindu

EUROPEAN PARLIAMENT

Context: European Parliament elections will be held from June 6-9.

Background:

- Around 373 million citizens across the 27 member states of the European Union are eligible to vote on June 6-9 in elections to the European Parliament, which is the only directly elected body of the EU.

Key takeaways

- The **European Parliament (EP)** is the only directly elected body of the EU, representing the

citizens of its member states.

- **The Parliament has 3 main roles:**
  - o **Legislative**
    - Passing EU laws, together with the Council of the EU, based on European Commission proposals
    - Deciding on international agreements
    - Deciding on enlargement of the bloc
    - Reviewing the Commission's work programme and asking it to propose legislation
  - o **Supervisory**
    - Democratic scrutiny of all EU institutions
    - Electing the Commission President and approving the Commission as a body. Possibility of voting a motion of censure, obliging the Commission to resign
    - Granting discharge, i.e. approving the way EU budgets have been spent
    - Examining citizens' petitions and setting up inquiries
    - Discussing monetary policy with the European Central Bank
    - Questioning Commission and Council
    - Election observations
  - o **Budgetary**
    - Establishing the EU budget, together with the Council
    - Approving the EU's long-term budget, the "Multiannual Financial Framework"
- Unlike national parliaments, the EP does not have the right to propose laws but can only negotiate those proposed by the executive European Commission.
- The EP comprises 720 Members (MEPs) elected every five years. The MEPs then elect their president for a term of two and a half years.
- It represents the second-largest democratic electorate in the world (after the Parliament of India)with an electorate of around 373 million eligible voters.

Who can vote in the elections?

- In 21 member states, people aged 18 and above can vote. In Belgium, Germany, Austria and Malta, the minimum voting age is 16. In Greece, people who turn 17 during the election year can vote, and in Hungary, married individuals can vote regardless of age.
- Citizens living in another EU country can choose to vote for candidates either from their country of origin or from their country of residence.

Who can run?

- All candidates must be EU citizens. Voters may choose from individual candidates or political parties 'delegates, depending on the country. Once elected, politicians from each nation will flow into the European groups that form the Parliament, based on political orientations.
- Elected individuals cannot hold functions in national governments or other political bodies such as the EU Commission.

Source: Indian Express

EUROPEAN UNION

Context: European Union parliamentary election was held recently.

Background:

- Following the elections, the European Parliament votes to approve the new President of the European Commission, as well as the entire College of Commissioners. The new European Commission is then appointed by the European Council.

About European Union (EU):

- The EU is an international organization consisting of European Countries, formed in 1993 after the signing of the Maastricht Treaty by 28 countries.

- The EU grew out of a desire to form a single European political entity to end centuries of warfare among European countries.

- The EU was awarded the Nobel Prize for Peace in 2012 for its efforts in promoting peace and stability.

Objectives of the EU:

- Political Cooperation: To increase political cooperation among member countries.

- Economic Integration: To enhance economic integration by creating a single currency, the euro.

- Unified Security and Foreign Policy: To coordinate security and foreign policy.

- Common Citizenship Rights: To establish common citizenship rights for EU citizens.

- Enhanced Cooperation: To collaborate in areas such as judiciary, immigration, and asylum.

Members:

- As of 2024, the European Union (EU) comprises 27 member countries.

- The United Kingdom (UK) officially exited the EU on January 31, 2020. This historic event, commonly known as Brexit.

- The EU's members are Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden.

- Currency: The Euro is the official currency for 19 of the 27 EU member countries.

- There are 4 main decision-making institutions which lead the EU's administration. **These institutions collectively provide the EU with policy direction and play different roles in the law-making process:**

  o   the European Parliament (Brussels/Strasbourg/Luxembourg)

  o   the European Council (Brussels)

  o   the Council of the European Union (Brussels/Luxembourg)

- o   the European Commission (Brussels/Luxembourg/Representations across the EU)

- **Their work is complemented by other institutions and bodies, which include:**

  - o   the Court of Justice of the European Union (Luxembourg)

  - o   the European Central Bank (Frankfurt)

  - o   the European Court of Auditors (Luxembourg)

Source:Indian Express

INDIA MALDIVES RELATIONS

Context: The President of Maldives, Mohamed Muizzu, was one of seven leaders from India's neighbourhood who attended Prime Minister Narendra Modi's swearing-in at Rashtrapati Bhavan onJune 9.

Background:

- Muizzu's presence was significant, given the way he has positioned himself politically vis à vis India, and the crucial strategic aspect to the India-Maldives relationship.

About INDIA MALDIVES RELATIONS

- Muizzu came to power on November 17 last year on an 'India Out' plank.

- The India Out campaign had begun in 2020 as the Maldives opposition's protest against then President Ibrahim Solih's policies that were perceived to be friendly towards New Delhi, but had soon turned into a movement against India's alleged military presence in the archipelago, which both the Solih government and India denied.

- Muizzu demanded the withdrawal of all Indian military personnel from Maldives. Consequently, the final batch of Indian soldiers — who were stationed in the Maldives to operate and maintain two helicopters and three Dornier aircraft India had previously gifted to the country were replaced by civilians in May.

- Like his mentor, former President Abdulla Yameen Abdul Gayoom, under whose rule (2013-18) the India-Maldives relationship deteriorated severely, Muizzu has openly aligned his country with China, India's geopolitical rival in the Indian Ocean.

- The Chinese influence in the Maldives has increased steadily over the past couple of decades.

- The island nation is part of China's Belt and Road Initiative, which has led to an influx of Chinese money and a strengthening of the relationship between the two countries — at the expense of India.

- For India, the Maldives is a crucial ally, important to secure its maritime periphery and to keep an eye on the larger Indian Ocean region where China is making aggressive moves.

- Regardless of Muizzu's pro-China, anti-India posturing, the Maldives cannot simply "let go" of India. It is heavily dependent on Indian imports in almost all important sectors, from food to life-saving medicines, and aircraft used in search and rescue missions.

- At a time when relations between India and the Maldives are at a low, Muizzu's visit sends an encouraging signal. Some groundwork for a reset in the relationship has been done over the past couple of months.

- In April, India approved the highest-ever export quotas for essential commodities — eggs, potatoes, onions, sugar, rice, wheat flour and pulses, river sand and stone aggregates — to Maldives for 2024-25 under a unique bilateral mechanism that has been in effect since 1981.

- **Significance of Maldives for India:**

o Maldives' proximity to the west coast of India, and its location at the hub of commercial sea lanes running through the Indian Ocean imbues it with significant strategic importance to India. The security scenario in India's periphery in the Indian Ocean is very much linked to the maritime strength of Maldives.

Source:Indian Express

INTERNATIONAL ORGANIZATION OF MIGRATION (IOM)

Context: The International Organization for Migration (IOM) reported at least 49 migrants died and 140 others were missing after their boat capsized off the coast of Yemen.

Background:

- The vessel had departed from Bossaso in northeast Somalia, bound for Yemen, a journey of about 330 kilometers (approximately 205 miles).

About INTERNATIONAL ORGANIZATION OF MIGRATION (IOM)

- The IOM is a United Nations related organization that works in the field of migration.

- It is established in 1951.

- It is the leading intergovernmental organization in the field of migration.

- It is dedicated to promoting humane and orderly migration for the benefit of all.

- The IOM operates in 171 countries with 175-member states.

- It provides support to migrants across the world, develops effective responses to the shifting dynamics of migration, and provides advice on migration policy and practice.

- **The IOM has a strategic plan for 2024-2028, aimed at delivering on the promise of safe, orderly, and regular migration while supporting the world's most vulnerable.**

- **The organization's work is focused on three main objectives:**

  o Saving lives and protecting people on the move: IOM prioritizes the safety, dignity, and protection of people, especially in challenging crisis response contexts.

  o Driving solutions to displacement: IOM works to reduce the risks and impacts of climate change, environmental degradation, conflict, and instability for communities affected by or at risk of displacement.

  o Facilitating pathways for regular migration: IOM seeks to safely connect people, goods, services, knowledge, and innovation.

Source: Live Science

Economy

CASE FOR BUFFER FOOD POLICY

Context: Inflation, based on the **official consumer price index (CPI), stood at 8.69 % for cereals in May**, and almost **twice as much (17.14%) for pulses**. These rates would probably have been higher, but for the sales from buffer stocks, especially of wheat and chana (chickpea), built by government agencies during surplus production years.

Background:-

- Overall CPI inflation, at 4.75% year-on-year in May, was the lowest in 12 months. It would have been lower had retail food inflation not stayed elevated at 8.69%.

Key takeaways

- The Food Corporation of India's (FCI) **open market sale scheme brought down retail inflation in cereals and wheat,** from their respective highs of 16.73% and 25.37% in February 2023 to 8.69% and 6.53% in May 2024.

- The inherently volatility and unpredictability of food prices, exacerbated by climate change**has made it difficult for the Reserve Bank of India (RBI) to consider any monetary easing or cutting interest rates.**

- The government, too, is forced to resort to undesirable measures such as **restricting exports, or imposing produce stock limits on traders and processors.**

- One possible way out of the conundrum would be to **build a buffer stock of all essential food items,** by procuring these from farmers during years of surplus production, and offloading the same in times of crop failures to moderate market prices.

- There's scope to not only expand procurement of pulses and oilseeds, **but extend it to staple vegetables and even skimmed milk powder (SMP).**

- The **onion, potato and tomato procured can be stored in dehydrated/processed form**. This would ensure that both households and bulk buyers do not compete to drive up prices during shortages.

- Buffer stocking can be an instrument for curbing excessive volatility in food prices, similar to the RBI's foreign exchange reserves vis-à-vis the currency market. Increasing climate-driven price volatility — ultimately helping neither consumers nor producers — only strengthens the case for a food buffer policy.

Source:Indian Express

INDIAN GOVERNMENT BONDS IN JP MORGAN INDEX FROM JUNE 28

Context: Indian Government Bonds (IGBs) are set to be included in the JP Morgan Government Bond Index, Emerging Market (GBI-EM) from June 28. The inclusion will take place over a period of 10 months starting June 28, 2024, through to March 31, 2025.

Background:

- **Inclusion of domestic bonds to global indices will help bring in dollar inflows into India and ensure a stable financing of the current account gap of the country.**

What was JP Morgan's announcement?

- In September last year, JP Morgan had announced that it would include IGBs to its emerging markets bond index from June 2024. The decision was taken after the 2023 index governance review, it had

said.

- **India will have a 1% weightage in the JPMorgan Emerging Market (EM) Bond index**, which will gradually rise to 10% over a 10-month period, at an inclusion rate of about 1% weight per month.

How many Indian Government Bonds are eligible for inclusion?

- JP Morgan said there are **23 IGBs that meet the index eligibility criteria, with a combined notional value of approximately Rs 27 lakh crore or $330 billion.**

- Only IGBs designated **under the Fully Accessible Route (FAR) are index-eligible.** In March 2020, the RBI, in consultation with the government, introduced a separate channel, called the FAR, to enable non-residents to invest in specified Government of India dated securities.

- As per the index inclusion criteria, **eligible instruments are required to have notional outstanding above $1 billion (equivalent) and at least 2.5 years remaining maturity**, JP Morgan said.

What would be the impact of the bond inclusion?

- According experts, the move could lead to **fresh active flows in the debt market,** which remains underpenetrated on external financing.

- India is likely to **receive $2 billion to $2.5 billion every month during the 10-month period** starting June 28.

- Overall, it is expected that **$20 billion to $25 billion of flows would come into India due to the inclusion.**

- It will not only result in **lower risk premia,** but will also h**elp India to finance its fiscal and current account deficit (CAD),** as well as **enhance the liquidity and ownership base of government securities** (G-secs; debt instruments issued by the central government to meet its fiscal needs).

- It could help **lower funding costs slightly, and support further development of domestic capital markets,** but direct positive effects on India's credit profile will be marginal in the near term.

Source: Money Control

FOREIGN DIRECT INVESTMENT (FDI) EQUITY INFLOWS

Context: According to the latest data released by the government, foreign direct investment (FDI) equity inflows in India decreased by 3.49 per cent in FY24 to $44.42 billion. Reduced investments in sectors such as services, computer hardware and software, telecom, auto, and pharma, are being attributed as the primary reasons for the slump.

Background:

- Foreign investment, including FDI equity inflows, is needed to supplement domestic resources and finance the current account deficit. FDI inflows are a good indicator of a nation's appeal as a long-term investment destination.

- The total FDI, which includes equity inflows, reinvested earnings, and other capital, saw a slight decrease of 1 per cent to $70.95 billion in FY24, down from $71.35 billion in FY23, as reported by the Department for Promotion of Industry and Internal Trade (DPIIT).

Key Takeaways

- **The FDI inflows into the manufacturing sector in FY24 are one of the lowest in the past five years, according to the provisional FDI data published in the RBI annual report.**

- The manufacturing sectors received $9.3 billion FDI in FY24, which was 17.7 per cent less than the $11.3 billion inflows in FY23. In FY22, the manufacturing sector received $16.3 billion in FDI.

- Computer services received $4.9 billion during the financial year 2023-24, down from $5.6 billion in

FY23.

- The decline in financial services was more significant, with FDI inflows dropping by 35 per cent to $4.4 billion.

- FDI inflows in communication services fell by 17.8 per cent in FY24.

- Conversely, FDI in electricity transmission and generation surged by two-thirds, rising from $3.3 billion in FY23 to $5.5 billion in FY24.

- **Singapore remained the largest source of FDI into India in FY24,** contributing $11.8 billion, although this was $5.4 billion less than the previous year.

- It was followed by Mauritius ($7.97 billion), the United States ($4.99 billion).

- **The fall in FDI equity inflows can be attributed to two reasons** – globally, investible funds have fallen and interest rates have hardened. Several sectors, including IT (information technology) and startups are seeing saturation of investment.

- **Maharashtra continued to be the most favoured destination of investors**, receiving $15.11 billion worth of investments, although inflows declined 2 per cent.

- **This was followed by Karnataka with $6.57 billion in FY23 from $10.42 billion a year ago.**

Source: Business Standard

UTTAR POORVA TRANSFORMATIVE INDUSTRIALIZATION SCHEME, 2024

Context: Union Cabinet has approved Uttar Poorva Transformative Industrialization Scheme, 2024.

Background:

- **The Uttar Poorva Transformative Industrialization Scheme**, is a transformative initiative by the Department for Promotion of Industry and Internal Trade **(DPIIT)** to foster economic growth and industrialization in the North Eastern Region of India.

About Uttar Poorva Transformative Industrialization Scheme:

- Government of India has formulated this Scheme, also **known as UNNATI 2024**, **as a Central Sector Scheme.**

- It aims for the development of Industries and generation of employment in the **states of North East Region and** will be implemented by the Department for Promotion of Industry and Internal Trade (DPIIT) in cooperation with the states.

- **The Steering Committee, headed by the Secretary of DPIIT**, will decide upon any interpretation of the scheme within its overall financial outlay and issue detailed guidelines for execution.

- **Objective**: to generate gainful employment, which will lead to the area's overall socio-economic development.

- It will create **productive economic activity** in the manufacturing and service sectors.

Source: PIB

GOVT LOOKS AT INCOME TAX RATE CUT TO BOOST DEMAND, TRIGGER PRIVATE INVESTMENT

Context: As the Indian economy grapples with the problem of flagging consumption, policymakers in the government are in favour of rationalising the existing income tax structure, especially at lower income levels.

Background:

- In the most recent GDP data release for the January-March quarter on May 31, **Private Final Consumption Expenditure (PFCE),** an indicator of consumption demand, dropped as a share of GDP to 52.9 per cent — the lowest level in the 2011-12 base year series.

Key Takeaways

Income tax slabs (Rs)	Income tax rate (%)
From 0 to 3,00,000	0
From 3,00,001 to 6,00,000	5
From 6,00,001 to 9,00,000	10
From 9,00,001 to 12,00,000	15
From 12,00,001 to 15,00,000	20
From 15,00,001 and above	30

- According to senior government officials, it is likely that **tax rate cuts for those earning less may likely take precedence over freebies or excessive welfare spending given the focus on fiscal consolidation.**

- The tax cuts may be a **more efficient measure to enhance disposable income**, which in turn would result in higher consumption, and give a fillip to economic activities.

- The revenue loss from any such measure requires a dynamic analysis, officials said. "Since it is expected to spur demand, it requires a general equilibrium analysis to assess the net effect. There will be more money in the hands of the people, leading to better consumption and more direct and indirect tax revenues. So even though revenue loss might be there, the net effect will be positive," the official said.

- In the most recent GDP data release for the January-March quarter on May 31, **Private Final Consumption Expenditure (PFCE),** an indicator of consumption demand, dropped as a share of GDP to 52.9 per cent — the lowest level in the 2011-12 base year series.

- The government has been focusing on fiscal consolidation over the last few years, with an aim to bring down the fiscal deficit to 5.1 per cent of the GDP in 2024-25 and reduce it further to below 4.5 per cent in 2025-26.

- Right now, in the new tax system, first slab of 5 per cent starts at Rs 3 lakh. By the time it goes to Rs 15 lakh, which is five times, the marginal tax rate jumps from 5 per cent to 30 per cent — a six fold jump. So while income goes up five times, the marginal tax rate goes up six times, which is quite steep.

Source: Indian Express

INDUSTRY SEEKS REMOVAL OF ANGEL TAX

Context: Amid a sharp decline in funding for startups and consequent job losses, Indian Inc has sought the removal of Angel Tax that has been a subject of heated debate between the industry and the government ever since the scope of the controversial tax was expanded in the Finance Bill 2023.

Background:

- The Confederation of Indian Industry (CII) in its Union Budget recommendation on Tuesday suggested the removal of Section 56(2)(viib) of the Income-tax Act colloquially known as the 'Angel Tax' stating that the step would greatly aid capital formation in the country.

About Angel Tax

- Angel Tax was **first introduced in 2012 to deter the generation and use of unaccounted money through the subscription of shares of a closely held company at a value that is higher than the fair market value of the firm's shares.**

- Angel tax – which is income tax at the rate of 30.6 per cent – **is levied when an unlisted company issues shares to an investor at a price higher than its fair market value.**

- Earlier, it was imposed only on investments made by a resident investor. However the Finance Act 2023 proposed to extend Angel Tax even to non-resident investors from April 1, 2024, meaning that when a start-up raises funding from a foreign investor, that too will now be counted as income and be taxable.

- The industry has argued that the government is wrong in citing the difference between valuations and actual performance as a sign of money laundering, adding that investors fund startup based on their future potential. Taxes levied on the difference between issue price of unlisted securities and its fair market value (FMV) has hurt funding, it said.

- The changes in the Angel Tax provisions came at a time when an estimated 100 Indian startups laid off over 15,000 employees in 2023, as funding winter that began in 2022 persisted.

- Moreover, Indian startups witnessed over 60 per cent decline in funding in terms of value in 2023.

Source: Indian Express

NATIONAL MONETISATION PIPELINE (NMP)

Context: National Monetisation Pipeline monetised Rs 3.85 lakh crore of assets in 3 years.

Background:

- Pursuant to the announcement made in the Union Budget 2021-22, the **National Monetisation Pipeline (NMP) - listing potential core assets of Central Government Ministries/PSEs for monetization during the period 2021-22 to 2024-25 - was prepared by NITI Aayog in collaboration with the concerned Infrastructure Ministries.**

About Asset Monetisation

- It's the process of **creating new sources of revenue for the government and its entities by unlocking the economic value of unutilised or underutilised public assets**.

- A public asset can be any p**roperty owned by a public body, roads, airports, railways, stations, pipelines, mobile towers, transmission lines, etc., or even land that remains unutilised.**

- As a concept, asset monetisation implies **offering public infrastructure to the institutional investors or private sector through structured mechanisms.**

- Monetisation is different from 'privatisation', in fact, it signifies 'structured partnerships' with the private sector under certain contractual frameworks.

- **Asset monetisation has two important motives:** Firstly, it unlocks value from the public investment in infrastructure, and secondly, it utilises productivity in the private sector.

National Monetisation Pipeline (NMP)

- Union Minister for Finance and Corporate Affairs on 23 August 2021 launched the asset monetisation pipeline of Central ministries and public sector entities as NMP.

- It is considered as one of the **key factors in fulfilling the government's goal of providing universal access to high-quality and affordable infrastructure to its citizens**.

- Under the ambitious NMP, the government has identified **13 sectors** - including airports, railways, roads, shipping, gas pipeline among others.

- It estimates aggregate monetisation potential of **Rs 6.0 lakh crores** through core assets of the Central Government, over a four-year period, from FY 2022 to FY 2025.

- **NMP is one among the three pronged strategy developed by the government to strengthen**

country's infrastructure, the other two being creating institutional structures, and enhancing share of capital expenditure in central and state budgets.

Source: PIB

PRIORITY SECTOR LENDING (PSL)

Context: Reserve Bank of India (RBI) revises Priority Sector Lending (PSL) norms.

Background:

- The Reserve Bank of India (RBI) periodically revises its guidelines for Priority Sector Lending (PSL) to promote financial inclusion and address emerging challenges.

Key Takeaways:

- Priority Sector refers to those sectors which the Government of India and the Reserve Bank of India consider as important for the development of the basic needs of the country. The banks are mandated to encourage the growth of such sectors with adequate and timely credit.

- Priority Sector Lending (PSL) is an **important policy tool in India aimed at ensuring that adequate credit is available to vital sectors of the economy that may not get timely and adequate credit in the absence of this special dispensation.**

- Priority Sector Lending was formalised in 1972 to facilitate the flow of credit to such sectors, which though credit worthy, cannot access credit from formal financial institutions.

- This initiative is designed to promote inclusive growth by directing a portion of the lending by banks to specified sectors.

- **Some categories of priority sector are:** Agriculture, Micro Small and Medium Enterprises, Export Credit, Education, Housing, Social Infrastructure, Renewable Energy, Others.

- Banks who have not achieved their PSL targets can achieve their PSL targets by purchasing Priority Sector Lending Certificates (PSLCs). This mechanism allows banks that have surpassed their PSL targets to sell their excess lending to other banks that have not met their targets.

- **Monitoring and Reporting**:

  o Banks are required to **submit quarterly and annual reports on their Priority Sector Lending performance to the RBI.**

  o The RBI monitors and ens**ures compliance with PSL guidelines, and non-compliance can attract penalties.**

Source: Regulation Asia

EXTERNAL DEBT TO GDP RATIO

Context: The external debt to GDP ratio declined to 18.7% at the end of March 2024 from19.0% at the end of March 2023.

Background:

- **India's external debt reached $663.8 billion by the end of March 2024, marking a 6% increase (approximately $39.7 billion) compared to March 2023.**

About external debt to GDP ratio:

- The external debt-to-GDP ratio is a **crucial economic metric that compares a country's external debt to its gross domestic product (GDP).**

- **External Debt:**

- o External debt refers to the **total amount of money a country owes to external creditors, including foreign governments, international organizations, and private entities outside the country.**

  - o It includes both **short-term and long-term debt obligations.**

  - o External debt is a **type of public debt**. Public debt refers to the total amount of money that a governm**ent owes to external creditors and domestic lenders.**

- **Gross Domestic Product (GDP):**

  - o GDP represents the **total value of all goods and services produced within a country's borders during a specific period (usually a year).**

  - o It reflects the **economic output and productivity of a nation**.

- **Calculation of External Debt-to-GDP Ratio:**

  - o The external debt-to-GDP ratio is **calculated by dividing the total external debt by the country's gross domestic product (GDP).**

  - o This ratio helps **assess a nation's financial stability and its ability to manage debt obligations.**

  - o A low external debt-to-GDP ratio indicates that an economy produces sufficient goods and services to repay its debts without accumulating further debt.

  - o Conversely, a high ratio suggests challenges in paying off external debts, potentially leading to higher interest rates for borrowing.

- **Significance:**

  - o When a country's debt-to-GDP ratio climbs, **its risk of default increases, potentially causing financial panic in domestic and international markets.**

  - o **Governments aim to lower this ratio**, but during periods of unrest (e.g., wartime or recession), borrowing may increase to stimulate growth.

Source:Reserve Bank of India

PRESTON CURVE

Context: The Preston curve refers to a certain empirical relationship that is witnessed between life expectancy and per capita income in a country. The average per capita income of Indians rose from around ₹9,000 per year in 1947 to around ₹55,000 per year in 2011. During the same period, the average life expectancy of Indians rose from a mere 32 years to over 66 years.

Background:

- The empirical relationship was first proposed by American sociologist Samuel H. Preston in his 1975 paper "The changing relation between mortality and level of economic development".

About PRESTON CURVE

- **The Preston curve is an empirical relationship between life expectancy and real per capita income**. It is named after Samuel H. Preston who first described it in 1975.

- Preston found that people living in richer countries generally had longer life spans when compared with people living in poorer countries. This is likely because people in wealthier countries have better access to healthcare, are better educated, live in cleaner surroundings, enjoy better nutrition etc.
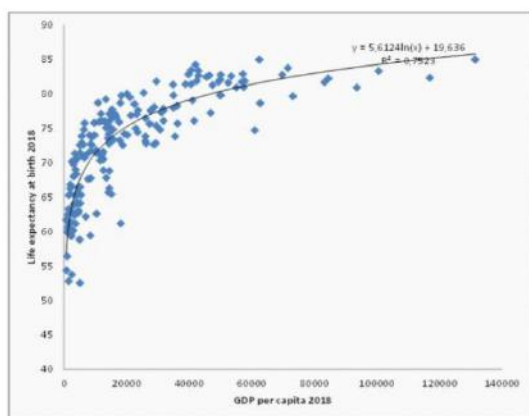
Figure 1: The Preston Curve, 185 countries, 2018.

- **When a poor country begins to grow, its per capita income rises and causes a significant increase in life expectancy initially as people are able to consume more than just subsistence calories, enjoy better healthcare etc.**

- **However, the positive relationship between per capita income and life expectancy begins to flatten out after a certain point.**

- In other words, an increase in the per capita income of a country does not cause much of a rise in the life expectancy of its population beyond a point, perhaps because human life span cannot be increased indefinitely.

Problems in the curve

- The positive relationship highlighted by the **Preston curve holds true not just when it comes to life expectancy and per capita income.**

- Other development indicators such as infant and maternal mortality, education, healthcare, etc. also improve when the per capita income of a country rises.

- Experts, however, have disagreed over the causal relationship between income levels and human development indicators.

- Many economists have used this positive relationship to argue that the way to improve development outcomes in a country is to encourage economic growth.

- The rapid economic growth of India and China over the last few decades, which has helped improve life expectancy and other development indicators, has been cited as an example of faster economic growth leading to better development outcomes.

- Other experts, meanwhile, have argued that most improvements in life expectancy have come from a shift in the Preston curve rather than due to a movement along the curve. That is, higher life expectancy has been achieved by countries even at low per capita income levels.

- Such improvement in life expectancy at low income levels, according to these experts, could be due to improvements in medical technology, such as the development of life-saving vaccines.

- **So, in this view of the Preston curve, improvement in life expectancy and other development outcomes is seen as the result of public investment in human development.**

- Critics of this view however, argue that technological advancement itself is linked to income levels; richer countries tend to possess better technologies.

- It should also be noted that poor countries can benefit from technologies that have already been developed by richer countries. They may thus be able to achieve higher life expectancy even at very low levels of income, thus providing a boost to their development indicators despite their low income levels.

- Richer countries, on the other hand, may not have possessed the same life-saving technologies when they were very poor. Hence, their life expectancy may have been far lower when they were poor than poor countries today which have the benefit of technology transfers from countries that are already rich.

Source:Hindu

GREEDFLATION

Context: 'Greedflation' caused more than half of last year's inflation surge in US, study finds, as corporate profits remain at all-time highs.

Background:

- Corporate profits drove 53% of inflation during the second and third quarters of 2023 and more than one-third since the start of the pandemic, the report found.

What is inflation

- To begin with, inflation (or the inflation rate) is the rate at which the general price level rises. When it is reported that the inflation rate was 5% in June it implies that the general price level of the economy (as measured by a representative basket of goods and services) was 5% more than what it was in June 2022.

What causes inflation?

- For the most part, there are two main ways in which inflation happens. Either prices get pushed up because input costs have risen — this is called cost-push inflation — or they are pulled up because there is excess demand — this is called demand-pull inflation.

What is the wage-price spiral?

- If prices go up, it is natural that workers will ask for higher wages. But if wages go up, it only fuels the overall demand, while doing nothing to boost the supply. End result: inflation surges further because while a worker has more money, so does his colleague. When they go to the market then the only thing that changes is the price of the good — in other words, inflation rises.

- But what if prices were going up not because workers were getting higher wages but because their masters — the companies — were making more profits?

What is Greedflation

- Greedflation simply means **(corporate) greed is fuelling inflation. In other words, instead of the wage-price spiral, it is the profit-price spiral that is in play.**

- In essence, greedflation implies that companies exploited the inflation that people were experiencing by putting up their prices way beyond just covering their increased costs and then used that to maximise their profit margins. That, in turn, further fuelled inflation.

- In the developed countries — in Europe and the US — there is a growing consensus that greedflation is the real culprit.

Source:Indian Express

STICKY INFLATION

Context: RBI in its recent monetary policy review decided to retain the repo rate, for eighth time in a row, due to concerns of sticky inflation.

Background:

- The repo rate is the interest rate at which the RBI lends money to commercial banks. When RBI wants to incentivise economic activity in the broader economy, it reduces the repo rate, which makes it cheaper for banks to borrow from it and lend onwards to customers. When it wants to disincentivise economic activity, it raises the repo rate, which makes it costly for everyone in the economy to borrow money.

Key Takeaways

- **Sticky inflation refers to a phenomenon where prices do not adjust quickly to changes in supply**

and demand, leading to persistent inflation.

- When prices are sticky, inflation can persist even if the economy operates below its potential level.

- Sticky inflation has been a concern for many central banks, making it difficult to control inflation.

- Simply put, if inflation stays persistently high ('sticky'), it would necessitate the RBI to keep raising interest rates — or, at the very least, keep them at a high level for a longer period — and, in doing so, hurt India's economic growth.

- There is a constant tradeoff between maintaining price stability (read containing inflation) and boosting growth (which hopefully creates jobs and reduces unemployment).

Why is the RBI not cutting interest rates?

- Currently, the retail inflation rate has been coming down closer to the 4% mark. In fact, it has stayed within the so-called "comfort zone" of the RBI — anywhere between 2% and 6% — since September 2023 and yet, the RBI has not changed the repo rate since February 2023.

There are four broad reasons for it:

- One, despite keeping the repo rate consistently high, the retail inflation has not dropped to touch the 4% mark since January 2021. Although it has declined, the rate of its decline has been very gradual. In fact, the RBI has expressed its concern over the stickiness of inflation.

- Two, the RBI does not cut the repo rate as soon as the overall inflation rate falls to (or below) the 4% target in any one month. The RBI has to be convinced that inflation rate will stay around the 4% mark sustainably. The RBI's policy statement predicts that inflation is likely to fall below the 4% target in the near future but that fall would only be due to temporary reasons.

- Three, as explained earlier, the RBI typically cuts the repo rate when it finds that economic activity needs a boost. However, India's gross domestic product (GDP) growth rate has been surprisingly strong over the past year in particular. Under the circumstances, it is unlikely that repo rates are holding back India's economic growth.

- Four, although not articulated by the RBI per se, the decision may have to do with India's forthcoming Union Budget. Most economists are waiting to see how the political compulsions of a coalition government will impact the Centre's commitment to fiscal deficit — the amount of money the government intends to borrow from the market. Higher than anticipated fiscal deficit has implications for both inflation (if more fresh money is printed) or interest rates (if there is less money for the private sector to borrow).

Source: Indian Express

GEOGRAPHY

MOLDOVA

Context: U.S. pledged $135 million in aid to Moldova for energy security and to counter Russian disinformation as the Western-leaning nation struggles to blunt Moscow's push for influence that has been buoyed by recent successes in its war in neighboring Ukraine.

Background:

- There are also signs Russia may be considering new actions in Moldova, where it has 1,500 troops stationed in the disputed territory of Transnistria, and is behind anti-Western moves that the U.S. believes run counter to Moldovan aspirations to join the European Union.

About Moldova

- Moldova is a landlocked country in Eastern Europe, on the northeastern corner of the Balkans.
- Moldova is bordered by Romania to the west and Ukraine to the north, east, and south.
- The unrecognised breakaway state of Transnistria lies across the **Dniester river on the country's eastern border with Ukraine.**
- **Moldova is a unitary parliamentary representative democratic republic with its capital in Chișinău,** the country's largest city and main cultural and commercial centre.
- Moldova is a member state of the United Nations, the Council of Europe, the World Trade Organization, the Organization for Security and Cooperation in Europe, the GUAM Organization for Democracy and Economic Development, the Organization of the Black Sea Economic Cooperation, and the Association Trio.

Source:Hindu

COAL

Context: A recent report by the Organized Crime and Corruption Reporting Project,furnished new documents to allege that in 2014, the Adani Group claimed 'low grade' coal, imported from Indonesia, to be 'high-quality' coal, inflated its value and sold it to Tamil Nadu's power generation company, TANGEDCO (Tamil Nadu Generation and Distribution Company).

Background:

- Due to this, not only did the Adani Group make a huge profit, but it also harmed the environment due to the burning of low-grade coal by the power-generating company, alleged the report.

What is 'high grade' and 'low grade' coal?

- High and low quality are relative terms and only meaningful in the context of where the coal is used and how they are processed.
- **The Gross Calorific Value (GCV),** or the amount of heat or energy that can be generated from

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burning the coal, determines the gradation of coal.

- Coal being a fossil fuel is a mi**xture of carbon, ash, moisture and a host of other impurities.** The higher the available carbon in a unit of coal, the greater is its quality or 'grade.'

- There are 17 grades of coal by this metric from grade 1, or top quality coal, with a kilo of it yielding higher than 7,000 kcal, and the lowest producing anywhere between 2,200-2,500 kcal, as per a classification by the Coal Ministry.

- However, the calorific value is not a useful metric on its own. The most important uses of coal are in running thermal power plants or powering a blast furnace to produce steel and both require different kinds of coal.

- **'Coking' coal is the kind needed to produce coke** — an essential component of steel making — and thus requires minimal ash content. **Non-coking coal, despite its ash content, can be used to generate enough useful heat to run a boiler and turbine.**

What are the characteristics of Indian coal?

- Indian coal has historically been evaluated as being high in ash content and low in calorific value compared to imported coal.

- The average GCV of domestic thermal coal ranges from 3,500-4,000 kcal/kg compared to imported thermal coals of +6,000 kcal/kg of GCV.

- Also the average ash content of Indian coals is more than 40% compared to imported coal which has less than 10% ash content. The consequence of this is that high-ash coal when burnt results in higher particulate matter, nitrogen and sulphur dioxide.

What is clean coal?

- Broadly, we get **clean coal when the carbon content has been increased by reducing its ash content.**

- Coal plants have '**washing plants' on site which can process the coal in ways that reduce ash and moisture content.** They employ huge blowers or a 'bath' to remove fine, coarse ash. However, deploying such equipment is expensive and adds to the cost of power.

- The other method to clean coal — again requiring significant investment — is coal gasification. Here, the need to directly burn coal is bypassed by converting it into gas. By relying on an in**tegrated gasification combined cycle (IGCC) system, steam and hot pressurised air or oxygen combine with coal in a reaction that forces carbon molecules apart. The resulting syngas, a mixture of carbon monoxide, hydrogen, CO2 and water vapour,** is then cleaned and burned in a gas turbine to make electricity. Since IGCC power plants create two forms of energy (steam from the gasification process apart from syngas as fuel), they increase efficiency of the coal used.

What is the future of coal in India?

- Official data says that **India in 2023-24 produced 997 million tonnes of coal, an 11% growth over the previous year.** Most of this was produced by the state-owned Coal India Ltd and its subsidiaries.

- Change, however, is in the air as for the first time this year, renewable energy accounted for 71.5% of the record 13.6 GW power generation capacity added by India in the first quarter of this year, while coal's share (including lignite) of total power capacity dropped below 50% for the first time since the 1960s.

Source: Hindu

A NEW WAY TO PREDICT EL NIÑO

Context: Hyderabad-based Indian National Centre for Ocean Information Services (INCOIS) has developed a new product to predict the emergence of El Niño and La Niña conditions — they are different phases of El Niño Southern Oscillation (ENSO) — up to 15 months in advance.

Background:-

- In India, while El Niño conditions usually lead to a weak monsoon and intense heatwaves, La Niña conditions result in a strong monsoon.

About ENSO

- **ENSO is a climate phenomenon that involves changes in the temperature of waters in the central and eastern tropical Pacific Ocean, coupled with fluctuations in the overlying atmosphere.**

- It can alter the global atmospheric circulation, which, in turn, influences weather across the world.

- ENSO occurs in **irregular cycles of 2-7 years and has three different phases — warm (El Niño), cool (La Niña), and neutral.**

- In the neutral phase, the eastern side of the Pacific Ocean (near the northwestern coast of South America) is cooler than the western side (near the Philippines and Indonesia). This is due to the prevailing wind systems that move from east to west, sweeping the warmer surface waters towards the Indonesian coast. The relatively cooler waters from below come up to replace the displaced water.

- **In the El Niño phase**, however, wind systems weaken, leading to lesser displacement of warmer waters. As a result, the eastern side of the Pacific becomes warmer than usual.

- In contrast, a **La Niña event** is characterized by a period of colder than average sea surface temperatures in the central and eastern Pacific Ocean and an intensification of the prevailing east to west surface winds.

What is the new product?

- Known as **Bayesian Convolutional Neural Network (BCNN),** the new product uses the latest technologies such as Artificial Intelligence (AI), deep learning, and machine learning (ML) to improve forecasts related to the ENSO phases.

- The model's prediction relies on the fact that El Niño or La Niña are connected to the slow oceanic variations and their atmospheric coupling, which gives sufficient lead time to issue early forecasts.

How does BCNN compare with existing models?

- **There are largely two kinds of weather models used for forecasting.**

  o One is the statistical model, which generates forecasts based on various information sets received from different countries and regions.

  o The other is the dynamic model, which involves a 3D mathematical simulation of the atmosphere done using High Performance Computers (HPC). The dynamic model is much more accurate than the statistical model.

- The BCNN, however, is a combination of the dynamic model with AI. This helps it forecast the emergence of El Niño and La Niña conditions with a 15-month lead time — unlike other models which can give a prediction up to six to nine months in advance.

Source:Indian Express

PANTANAL WETLAND

Context: Brazil's Pantanalwetland is ablaze, with fires in June breaking historical records for that month.

Background:-

- **Brazil's National Institute of Space Research (INPE)** has detected 733 fires in the **Pantanal biome so far this month,** with the previous record for fires in Pantanal for June being 435 registered in 2005.

About PANTANAL WETLAND

- Situated in the heart of South America, the Pantanal is **the world's largest tropical wetland.**

- While not as globally familiar as the Amazon to the north, the **Pantanal is one of the most biologically rich environments on the planet** with more than 4,700 plant and animal species.

- In fact, the Pantanal contains South America's **highest concentration of some wildlife species, including the jaguar and caiman.**

- From October to March, floodwaters fill the Pantanal like a giant reservoir and drain out slowly between April and September, providing ideal aquatic habitat, nutrient renewal, and flood control for millions of people downstream.

- The Pantanal also contains a hub of economic activity, ranging from cattle ranching to soy production to tourism.

- This wetland also provides an array of irreplaceable benefits that help the region's economic development and environment, including river flow for boats to navigate, groundwater recharge, and regulation of floodwaters for millions of people.

Source:CNN

GHAGGAR RIVER

Context: Punjab Chief Minister Bhagwant Mann recently conducted an on-site review of flood-prone areas along the Ghaggar River.

Background:

- This proactive move aims to mitigate flood risks in Punjab and assess the preparedness for the upcoming monsoon season. Notably, this approach represents a significant shift from past practices, where state visits occurred post-flooding.

About GHAGGAR RIVER

- The Ghaggar river rises from the Shivalik Range in northwestern Himachal Pradesh.

- It is a seasonal river that flows only during the monsoon season.

- **The Ghaggar River flows through four states in India:** Himachal Pradesh, Punjab, Haryana, and Rajasthan

- The Hakra, which flows in Pakistan, is the continuation of the Ghaggar River in India, and they are together called the Ghaggar - Hakra River.

- Before reaching the Ottu barrage, it is known as the Ghaggar.

- **It dries up in the Great Indian (Thar) Desert.**

- **Historical Significance:**

  o In pre-Harappan times, the Ghaggar was a tributary of the Sutlej River.

  o The Sutlej changed its course around 8,000-10,000 years ago, leaving the Ghaggar-Hakra as a system of monsoon-fed rivers terminating in the Thar Desert.

  o The Indus Valley Civilization thrived along the dried-up Hakra riverbed in Pakistan.

- **Sarasvati River Connection**:

  o Scholars have suggested that the Ghaggar-Hakra might be the defunct remains of the Sarasvati River mentioned in the Rig Veda.

  o Despite drying up, it still holds historical and cultural significance.

Source: Business Standard

ESTONIA

Context: Estonia, one of the **world's most advanced digital countries**, is looking to partner with India to collaborate on strengthening the two countries' **cybersecurity infrastructure**.

Background:

- Estonia, courtesy its vicinity to Russia, faces a barrage of cyberattacks from the country, more so because of the former's stance on the war between Russia and Ukraine.

About ESTONIA

- Estonia, officially the Republic of Estonia, is a country by the Baltic Sea in Northern Europe.

- It is bordered to the north by the Gulf of Finland across from Finland, to the west by the sea across from Sweden, to the south by Latvia, and to the east by Lake Peipus and Russia.

- The territory of Estonia consists of the mainland, the larger islands of Saaremaa and Hiiumaa, and over 2,300 other islands and islets on the eastern coast of the Baltic Sea.

- Tallinn, the capital city, and Tartu are the two largest urban areas of the country.

- Estonia was repeatedly contested, invaded, and occupied; by the Soviet Union in 1940, then

by Nazi Germany in 1941, and was ultimately reoccupied in 1944 by, and annexed into, the USSR as an administrative subunit (Estonian SSR).

- Estonia is a developed country, with a **high-income advanced economy, ranking 31st (out of 191) in the Human Development Index.**

- With a population of just around 1.4 million, **it is one of the least populous members of the European Union, the Eurozone, the OECD, the Schengen Area, and NATO.**

- Estonia has consistently ranked highly in international rankings for quality of life,education, press freedom, digitalisation of public servicesand the prevalence of technology companies.

Need for strengthening the two countries 'cybersecurity infrastructure:

- Estonia faced one of the largest cyberattacks on its digital infrastructure in 2007 by means of a distributed denial of service (DDoD) attack.

- Since the war between Russia and Ukraine, the country has experienced similar threats from Russian actors. India have previously said that New Delhi faces much of a similar challenge from Beijing, where a group of independent, and state-backed actors have increased attacks on critical infrastructure in New Delhi.

- The ties between Estonia and India are increasingly growing. An Indian contingent was, for the first time, observers in an NATO-run cyber security exercise in Estonia last month. The exercise was the largest of its kind in Europe.

Source: PIB

NORD STREAM PIPELINES

Context: According to a new study by researchers from the University of Gothenburg, a **significant portion of the methane gas released from the ruptured Nord Stream pipelines in the Baltic Sea last September never made it into the atmosphere**.

Background:

- The Nord Stream pipelines in the Baltic Sea have been a topic of concern due to their environmental impact.

Key Takeaways:

Nord Stream pipelines from Russia
— Nord Stream
-- Nord Stream 2
Source: Gazprom — BBC

- Nord Stream is a **network of offshore natural gas pipelines that run under the Baltic Sea from Russia to Germany, providing Western Europe with natural gas.**

- **It comprises two separate projects:**

  o **Nord Stream 1 (NS1):** This pipeline runs from Vyborg in northwestern Russia near Finland and entered service in 2011. **It is operated by Nord Stream AG.** NS1 was the **first pipeline to bypass Ukraine and Poland, delivering Russian natural gas directly to Western Europe.**

  o **Nord Stream 2 (NS2)**: NS2 runs from Ust-Luga in northwestern Russia near Estonia. Although completed in 2021, it did not enter service due to Germany withholding opening permission. This decision

was made after Russia recognized the Ukrainian separatist regions of Donetsk and Luhansk as independent. The United States opposed NS2, citing concerns about German dependence on Russian energy, and imposed sanctions on companies involved in the project.

Significance:

- **For Europe**: Nord Stream provides a reliable and cost-effective natural gas source, crucial for many European countries. Reducing gas supply from Russia could impact domestic gas prices.

- **For Russia**: Around 40% of Russia's budget comes from gas and oil sales. Nord Stream also enhances Russia's influence over Europe's energy markets.

Source: Science Daily

COTTON CULTIVATION IN INDIA

Context: According to the **Ministry of Textiles**, cotton consumption by the textile industry during the current marketing season (October 2023 to September 2024) is one of the highest this decade.

Background:

- This year is expected to be the **second highest in terms of consumption over the last ten years,** with an estimated demand of 307 lakh bales, including 103 lakh bales from the MSME textile units.

Key Takeaways:

- **India** is believed to be the **original home of the cotton plant**.

- Cotton being a tropical or sub-tropical crop primarily grown in semi-arid regions, especially on the Deccan Plateau, occupies **about 4.7% of the total cropped area in the country**.

- Cotton is a **Kharif crop, taking 6 to 8 months** to mature and the **ideal soil for cotton cultivation is well-drained and capable of retaining moisture. Black cotton soil is preferred.**

- It requires **at least 210 frost-free days** and prefers light rainfall (50 to 100 centimeters) along with **bright sunshine** during growth and a **clear sky** during flowering are essential.

- **Cotton-Producing States: India has three major cotton-growing regions**:

    o **North-West**: Includes parts of Punjab, Haryana, and northern Rajasthan.

    o **West**: Gujarat and Maharashtra.

    o **South**: Plateaus of Telangana, Andhra Pradesh, Karnataka, and Tamil Nadu.

    o **Leading cotton producers are Gujarat, Maharashtra, and Telangana**.

    o **Other significant states include** Madhya Pradesh, Karnataka, Andhra Pradesh, Tamil Nadu, Punjab, Haryana, and Uttar Pradesh.

Source: Regulation Asia

GULF OF ADEN

Context: Houthi rebels targeted a ship in the Gulf of Aden. The ship was off the coast of Aden when a missile impacted the water near it.

Background:

- The Houthi rebels continue to pose a threat in the Gulf of Aden region. The safety of seafarers and vessels remains a concern.

About Gulf of Aden

- The Gulf of Aden is an **extension of the Indian Ocean, situated between the Arabian Peninsula and the African continent.**

- It connects the Red Sea to the Arabian Sea and ultimately to the Indian Ocean.

- The gulf is named after "Aden," a port city on Yemen's coast.

- The Gulf of Aden is bounded by Somalia and the Socotra Islands (part of Yemen) to the south, Yemen to the north, the Arabian Sea to the east, and Djibouti to the west.

- Notable cities near the gulf include Aden, Mukalla, Ahnwar, Balhaf, Berbera, Bosaso, and Djibouti City.

- **Major ports in the region include** Aden (Yemen), Berbera, and Bosaso (both in Somalia).

- It plays a critical **role in the Suez Canal shipping route**, connecting the Red Sea and the Mediterranean Sea.

Source:AP News

GANGA WATER TREATY

Context: India Prepares for Ganga Water Treaty Renewal with Bangladesh.

Background:

- The Ganga Water Treaty, a crucial agreement between India and Bangladesh, was signed on December 12, 1996, and is due for renewal in 2026.

About GANGA WATER TREATY
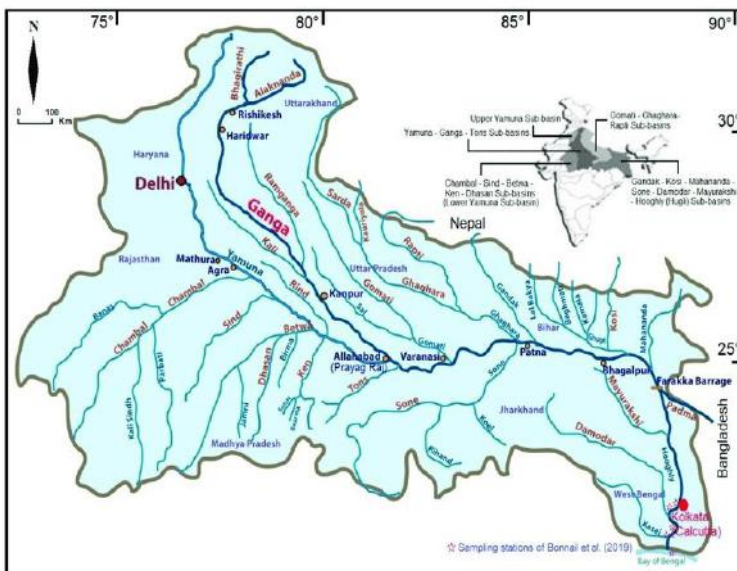
- The Ganga Water Sharing Treaty, signed in 1996, governs the sharing of Ganga River waters at the Farakka Barrage in West Bengal between India and Bangladesh.

- This comprehensive bilateral treaty established a 30-year water-sharing arrangement between the two countries.

- **The treaty is valid until the end of 2026**, with a clause allowing renewal every 10 years by mutual consent.

- It specifically outlines the **minimum level of water flow that India must share with its downstream neighbour, Bangladesh, during the dry season—from**

January to May.

- **The treaty recognizes Bangladesh's rights** as a lower-level riparian and aims to resolve the long-standing dispute over the allocation and development of the Ganges River's water resources.

- **The Farakka Barrage, built in 1974, plays a crucial role** in controlling the flow of the Ganges River and diverting water into the Hooghly River to maintain navigability at Kolkata Port.

Ganga River System:

- **It rises in the Gangotri glacier near Gaumukh in Uttarakhand** where it is known as Bhagirathi.

- At Devprayag, the Bhagirathi meets the Alaknanda; hereafter, it is known as the Ganga.

- The Ganga enters the Northern plains at Haridwar.

- Ganga flows through the states of Uttarakhand, Uttar Pradesh, Bihar and West Bengal.

- Yamuna, Son and Damodar are the major right bank tributary and the important left bank tributaries are Ramganga, Gomati, Ghaghara, Gandak, Kosi and Mahananda.

- Ganga flows into the Bay of Bengal near the Sagar Island.

Source: Financial Express

LAKE NATRON

Context: Climate change impact is jeopardising delicate balance of Tanzania's Lake Natron

Background:

- The lake is the **only regular breeding area in East Africa for the 2.5 million lesser flamingoes,** whose status of "near threatened" results from their dependence on this one location.

About Lake Natron

- It's a **salt or alkaline lake** located in north Ngorongoro District of Arusha Region in Tanzania at the border with Kenya.

- It is in the **Gregory Rift, which is the eastern branch of the East African Rift.**

- The lake is within the Lake Natron Basin, a Ramsar Site wetland of international significance.

Properties

- This lake is **fed principally by the Southern Ewaso Ng'iro River, which rises in central Kenya, and by mineral-rich hot springs.**

- It is quite shallow, less than three metres deep, and varies in width depending on its water level.

- High levels of evaporation have left behind natron (sodium carbonate decahydrate) and trona (sodium sesquicarbonate dihydrate).

- The alkalinity of the lake can reach a pH of greater than 12.

- The lavas have significant amounts of carbonate but very low calcium and magnesium levels. This has allowed the lake to concentrate into a caustic alkaline brine.

- **The chemical properties of the water are known to calcify the bodies of any living thing that died in the lake, turning them to stone before they decompose.**

- As water evaporates during the dry season, **salinity levels increase to the point that salt-loving microorganisms begin to thrive. Such halophile organisms include some cyanobacteria that make their own food with photosynthesis as plants do.**

- The red accessory photosynthesizing pigment in the **cyanobacteria produces** the deep reds of the

- open water of the lake and the orange colours of the shallow parts of the lake.
- The alkali salt crust on the surface of the lake is also **often coloured red or pin**k by the salt-loving microorganisms that live there. Salt marshes and freshwater wetlands around the edges of the lake do support a variety of plants.

Source:Down to Earth

KUWAIT

Context: The devastating fire in Kuwait has resulted in the loss of 49 lives, with 41 of those being Indian nationals.

Background:

- The majority of the Indian victims were from the southern states, particularly Kerala and Tamil Nadu.

About KUWAIT

- Kuwait is situated in the northeastern corner of the Arabian Peninsula.

- It is bordered by Iraq to the north and northwest, Saudi Arabia to the south, and the Persian Gulf to the east.

- Kuwait City is the capital and largest city, serving as the political, cultural, and economic centre of the country.

- **Political System**:

  o Kuwait is a constitutional monarchy with a parliamentary system of government.

  o The head of state is the Emir, who is a hereditary monarch.

- **Economic Significance**:

  o Kuwait holds the world's sixth-largest oil reserves, contributing to nearly 10% of the world's reserves.

  o Kuwait is a founding member of the Organization of the Petroleum Exporting Countries (OPEC), which coordinates and unifies petroleum policies among Member Countries.

- **Historical Context**:

  o Kuwait gained independence from British protection in 1961.

  o It was invaded by Iraq in 1990, leading to the Gulf War, and was liberated by coalition forces in 1991.

- **India-Kuwait Relations**:

  o Diplomatic relations between India and Kuwait began in June 1962.

  o The relationship is marked by economic cooperation, cultural exchanges, and a significant Indian diaspora in Kuwait.

  o India was among the earliest countries to recognize Kuwaiti independence and has maintained traditionally friendly relations.

Source:Business Standard

ISLANDS - THE GREATER TUNB, THE LESSER TUNB AND ABU MUSA

Context: China held its stance on three disputed islands in the Gulf despite Tehran's anger at Beijing for describing the Iran-controlled islands as a matter to be resolved with the United Arab Emirates.The islands, claimed by the UAE and Iran, have been held by Tehran since 1971 after the withdrawal of British forces from the Gulf.

Background:

- In a statement last week, China expressed support for the efforts of the UAE to reach a "peaceful solution" to the issue of the islands - the Greater Tunb, the Lesser Tunb and Abu Musa. Following this, the Iranian foreign ministry summoned the Chinese ambassador to Iran to protest China's repeated support" for the UAE's baseless claims.

About Greater Tunb and Lesser Tunb:
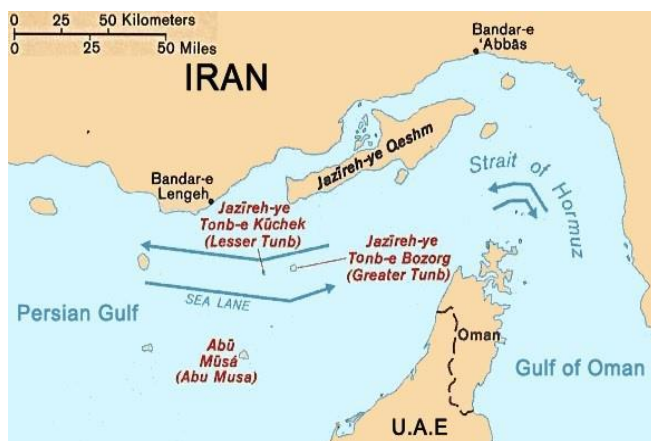
- **Greater Tunb and Lesser Tunb are two small islands in the eastern Persian Gulf, close to the Strait of Hormuz.** They lie around 12 kilometres from each otherand 20 kilometres south of the Iranian island of Qeshm.

- The islands are administered by Iran as part of its Hormozgan Province.

- Greater Tunb is known for its red soil. There are conflicting descriptions about its population: While some sources state there are between a few dozen and a few hundred inhabitants others describe the island as having no native civilian population.

- Lesser Tunbis uninhabited with the exception of a small airfield, harbour, and entrenched Iranian military unit.

Abu Musa

- Abu Musa is an island in the eastern Persian Gulf near the entrance to the Strait of Hormuz.

- Due to the depth of sea, oil tankers and big ships have to pass between Abu Musa and Greater and Lesser Tunbs; this makes these islands some of the most strategic points in the Persian Gulf.

- The island is administered by Iran as part of its province of Hormozgan.

Source: Reuters

MEXICO

Context: Claudia Sheinbaum was elected as the First Female President of Mexico.

Background:

- Sheinbaum will represent the left-leaning National Regeneration Movement (Morena) party when she takes office on October 1.

About MEXICO:

- Mexico, officially the United Mexican States, is a country in the southern portion of North America.

- It is the world's 13th largest country by area; with a population of almost 130 million, it is the 10th most populous country and has the most Spanish speakers in the world.

- It is the third largest country in Latin America, after Brazil and Argentina.

- Mexico is organized as a federal constitutional republic comprising 31 states and Mexico City, its capital and largest city, and among the world's most populous metropolitan areas.

- The country shares land borders with the United States to the north, with Guatemala and Belize to the southeast; as well as maritime borders with the Pacific Ocean to the west, the Caribbean Sea to the southeast, and the Gulf of Mexico to the east.

- The stretch of land called the Yucatán Peninsula juts into the Gulf of Mexico from Mexico's southeastern tip. It was once the home of the Maya civilization.

- Mountains cover much of Mexico. Between the Sierra Madre Oriental mountain range in the east and the Sierra Madre Occidental in the west lie small mountain ranges on the Central Plateau. These regions are rich with valuable metals like silver and copper.

- **Mexico is located in one of the Earth's most dynamic tectonic areas. It is a part of the circum-Pacific "Ring of Fire"—a region of active volcanism and frequent seismic activity.**

- Mexico is situated on the western, or leading, edge of the huge North American Plate, whose interaction with the Pacific, Cocos, and Caribbean plates has given rise to numerous and severe earthquakes as well as the earth-building processes that produce southern Mexico's rugged landscape.

Source: The Wire

Environment and Ecology

ECO

KAZA SUMMIT

Context: Delegates to the ongoing KAZA 2024 Heads of State Summit in Livingstone, Zambia, renewed calls this week for member states to pull out of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (or CITES) which has repeatedly denied them permission to sell off their abundant ivory and other wildlife products.

Background:

- The Kavango Zambezi Transfrontier Conservation Area spans five southern African countries: Angola, Botswana, Namibia, Zambia and Zimbabwe. The KAZA TFCA was formally established on 18th of August 2011 when the Heads of States of the five governments signed its Treaty in Luanda, Angola.

About KAZA-TFCA

- **The Kavango-Zambezi Trans-Frontier Conservation Area (KAZA-TFCA)** is a 520,000-square kilometre nature and landscape conservation area straddling five southern African nations that share common borders along the Okavango and Zambezi river basins.
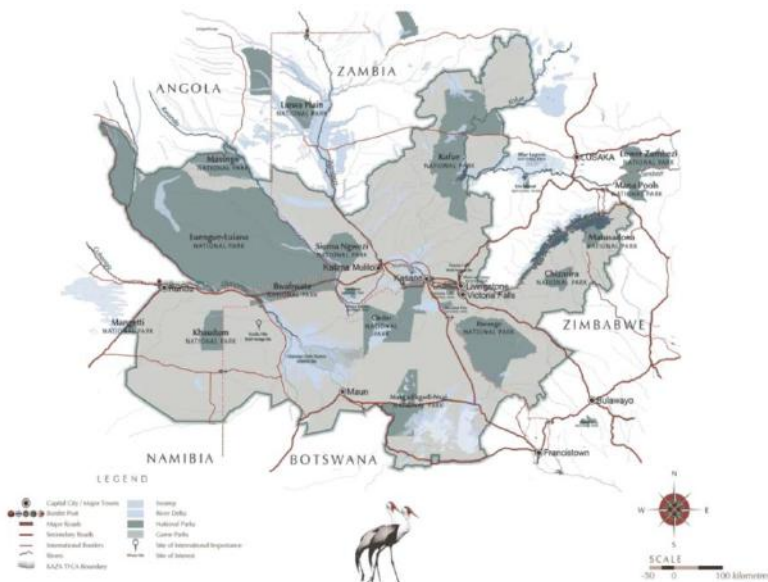
- It includes a major part of the Upper Zambezi River and Okavango basins and Delta, the Caprivi Strip of Namibia, the southeastern part of Angola, southwestern Zambia, the northern wildlands of Botswana and western Zimbabwe.

- **The centre of this area is at the confluence of the Zambezi and Chobe Rivers** where the borders of Botswana, Namibia, Zambia and Zimbabwe meet.

- It incorporates a number of notable national parks and nature sites, **including Chobe National Park, Hwange National Park, and the Victoria Falls.** The region is home to a population of approximately 250,000 animals, including the largest population of African Elephants in the world

Source: Down to Earth

INDIA METEOROLOGICAL DEPARTMENT (IMD)

Context: When Delhi's Mungeshpur weather station recorded a maximum temperature of 52.9 degrees Celsius on May 29, it was on account of "malfunctioning of the sensor," the India Meteorological Department (IMD) has said.

Background:

- The maximum temperature of 52.9 degrees at Mungeshpur was an all-time high for any location in India and this had prompted the IMD to verify the recording at the station.

About IMD

- It is the **principal agency responsible for meteorological observations**, weather forecasting, and seismology.

- IMD is also one of the **six Regional Specialised Meteorological Centres of the World Meteorological Organisation.** It has the responsibility for forecasting, naming and distribution of warnings for tropical cyclones in the Northern Indian Ocean region, including the Malacca Straits, the Bay of Bengal, the Arabian Sea and the Persian Gulf.

Here are some key details about IMD:

- Established in 1875, IMD is the National Meteorological Service of the country.

- IMD is headquartered in Delhi and operates hundreds of observation stations across India and Antarctica.

- It deals with all matters relating **to meteorology, seismology, and associated subjects.**

- IMD provides a variety of services such as rainfall information, monsoon information, cyclone information, agromet advisory services, climate services, urban meteorological services, aviation services, climate hazard & vulnerability atlas, geospatial services, and forecasts.

- It also provides specialized forecasts and conducts research in meteorology and allied subjects.

Additional Information - History of meteorology in India:

- The beginnings of meteorology in India can be traced to ancient times.

- Early philosophical writings of the 3000 B.C. era, such as the **Upanishadas, contain serious discussion about the processes of cloud formation and rain** and the seasonal cycles caused by the movement of earth round the sun.

- **Varahamihira's classical work, the Brihatsamhita**, written around 500 A.D., provides a clear evidence that a deep knowledge of atmospheric processes existed even in those times.

- **Kautilya's Arthashastra** contains records of scientific measurements of rainfall and its application to the country's revenue and relief work.

- India is fortunate to have some of the oldest meteorological observatories of the world. The British East India Company established several such stations, for example, those at Calcutta in 1785 and Madras (now Chennai) in 1796 for studying the weather and climate of India.

- **The Asiatic Society of Bengal founded in 1784 at Calcutta**, and in 1804 at Bombay (now Mumbai), promoted scientific studies in meteorology in India. In the first half of the 19th century, several observatories began functioning in India under the provincial governments.

Source:IMD

HEAT STROKE

Context: Odisha reported at least 99 suspected heatstroke deaths over the past 72 hours as intense heatwave conditions gripped the state.

Background:

- According to the IMD, heatwave conditions are likely to prevail in the western region of the state, while the coastal and interior districts will witness hot and humid weather conditions.

About Heat Stroke:

- **Heat stroke is the most serious heat-related illness.** It occurs when the body can no longer control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body

is unable to cool down.

- If untreated, heatstroke can **quickly damage your brain, heart, kidneys, and muscles. The damage worsens the longer treatment is delayed**, increasing your risk of serious complications or death.

Here are some key details about heat stroke:

- **Symptoms**: The symptoms of heat stroke include a high body temperature of 104°F or higher, altered mental state or behavior (such as confusion, agitation, slurred speech, irritability, delirium, seizures, and coma), alteration in sweating, nausea and/or vomiting, flushed or reddened skin, rapid breathing, fast heartbeat, headache, and muscle weakness or cramps.

- **Causes**: Heatstroke can occur due to prolonged exposure to a hot environment or intense physical activity in hot weather. Other factors that could lead to heatstroke include wearing excess clothing, drinking too much alcohol, not drinking an adequate amount of water or being dehydrated, aging (as the ability to cope with hot weather decreases with age), lack of proper air conditioning, certain medications that lead to dehydration, and medical conditions such as heart and lung diseases.

- **Treatment**: Treatments for heatstroke aim at reducing the body temperature and preventing damage to the internal organs. Immediate actions to cool the overheated person include moving them to a cool place, removing excess clothing, getting them to drink a sports or rehydration drink, or cool water, and cooling their skin by spraying or sponging them with cool water.

- **Prevention**: To prevent heat stroke, it's recommended to remain indoors during hot weather, wear loose-fitting, lightweight clothing in high temperatures, drink plenty of fluids, protect yourself from sunburn, do not leave anyone in a parked car, especially during hot weather, rest adequately during long working hours, and be cautious in hot temperatures if you suffer from any heart or lung diseases.

Source: Mayo Clinic

AEDES ALBOPICTUS MOSQUITO

Context: EU health agency recently stated that the Climate change is influencing the spread and impact of the Aedes albopictus mosquito.

Background:

- **Warmer conditions are allowing this mosquito, to thrive** in regions where it previously could not survive.

- Predictions suggest that this s**pecies will continue to be a successful invasive species and spread beyond its current geographical boundaries** due to its adaptation to colder climates.

About AEDES ALBOPICTUS:

- **Also known as the Asian tiger mosquito or forest mosquito**, is native to tropical and subtropical areas of Southeast Asia.

- It's easily recognizable by its **distinctive black and white striped appearance**, which has earned it the **nickname 'tiger mosquito'**.

- This species is an **important vector for transmitting several viral pathogens, including yellow fever, dengue fever, chikungunya fever, and Zika virus, as well as some filarial nematodes like Dirofilaria immitis.**

- The spread of Aedes albopictus has been **facilitated by international trade and increased travel, and it's now found on all continents except Antarctica.**

- Its adaptability to various environments and its close association with humans make it a significant

concern for public health.

Source: NDTV

FILOBOLETUS MANIPULARIS

Context: A rare species of bioluminescent mushrooms, **scientifically known as Filoboletus manipularis, has been discovered in the forests of Kasaragod.**

Background:

- The discovery was made during a micro-**fungal survey conducted by the Kasaragod division of the Kerala Forest and Wildlife Department and the Mushrooms of India Community in the Ranipuram forest.** Scientists have warned against consuming these mushrooms due to potential toxicity.

About FILOBOLETUS MANIPULARIS

- It's a species of **agaric fungus in the family Mycenaceae,** which is commonly found in **Australasia, Malaysia, and the Pacific islands**.

- They thrive in **tropical, humid environments, typically found in dense forests** where there's plenty of decaying organic matter, like fallen trees and leaves. This rich, moist environment provides the nutrients and conditions necessary for their growth and their unique glowing property.

- The glow is due to a **chemical reaction involving luciferin (a pigment) and luciferase (an enzyme), with oxygen playing a critical role.** This reaction produces light, a trait shared with other bioluminescent organisms like fireflies and certain marine creatures.

- **In fungi, this glowing mechanism is thought to attract insects, which help disperse the mushroom's spores.**

Source:Indian Express

HINDU KUSH HIMALAYA (HKH)

Context: A recent report by the International Centre for Integrated Mountain Development (ICIMOD) analysed data on snow persistence from 2003 to 2024 and found it to be significantly lower than normal in the Hindu Kush Himalaya (HKH) this year.

Background:

- The 2024 trend follows a pattern of decreasing amounts and persistence of snow across the HKH. Snow persistence is the fraction of time that snow remains on the ground.

About HINDU KUSH HIMALAYA (HKH)

- The HKH region is **often referred to as the Third Pole due to its extensive snow and ice cover.**

- **It spans across eight countries**: Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan.

The Hindu Kush Himalaya Region

Source: International Centre for Integrated Mountain Development

Bloomberg Environment
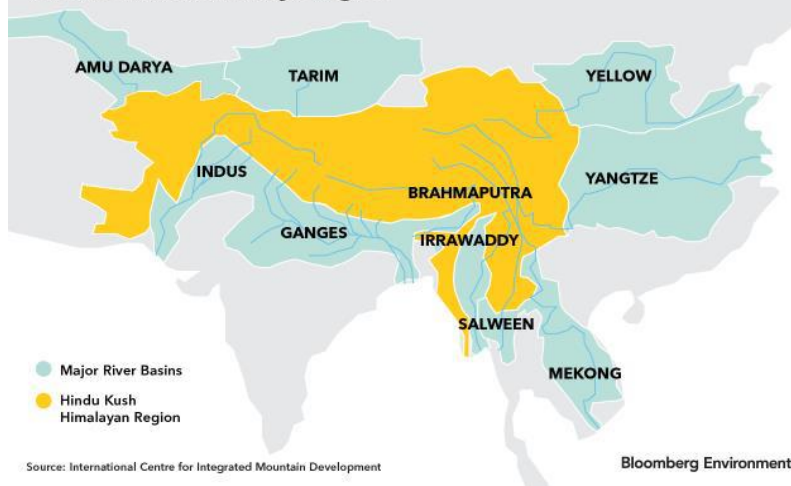
- The HKH range is known for its **rugged terrain and towering peaks, including several of the world's highest mountains, such as Mount Everest and K2.**

- The region covers approximately 4.2 million square kilometers, providing a diverse range of ecosystems from subtropical forests at lower elevations to alpine meadows and permanent ice and snow at the highest elevations.

- **It is the source of ten large Asian river systems –** the Amu Darya, Indus, Ganges, Brahmaputra (Yarlungtsanpo), Irrawaddy, Salween (Nu), Mekong (Lancang), Yangtse (Jinsha), Yellow River (Huanghe), and Tarim (Dayan).

Source: Down To Earth

STRATEGIC IMPERATIVE AND ENVIRONMENT CONCERN IN GREAT NICOBAR PROJECT

Context: The Congress party has described the proposed Rs 72,000-crore infra upgrade at the Great Nicobar Island as a grave threat to the island's indigenous inhabitants and fragile ecosystem, and demanded immediate suspension of all clearances and a thorough, impartial review of the proposed project.

Background:

- The Andaman and Nicobar Islands are a cluster of 836 islands, split into two groups — the Andaman Islands to the north and the Nicobar Islands to the south — by the 150-km wide Ten Degree Channel.

Key Takeaways

- Great Nicobar is the southernmost and largest of the Nicobar Islands, a sparsely inhabited 910-sq-km patch of mainly tropical rainforest in southeastern Bay of Bengal. Indira Point on the island, India's southernmost point, is only 90 nautical miles (less than 170 km) from Sabang at the northern tip of Sumatra, the largest island of the Indonesian archipelago.

- **Great Nicobar has two national parks, a biosphere reserve, small populations of the Shompen and Nicobarese tribal peoples, and a few thousand non-tribal settlers.**

- The Great Nicobar Island has **tropical wet evergreen forests, mountain ranges reaching almost 650 m above sea level, and coastal plains.**

- The leatherback sea turtle is the island's flagship species.

- **The project for the "holistic development" of Great Nicobar Island was implemented after a report by**
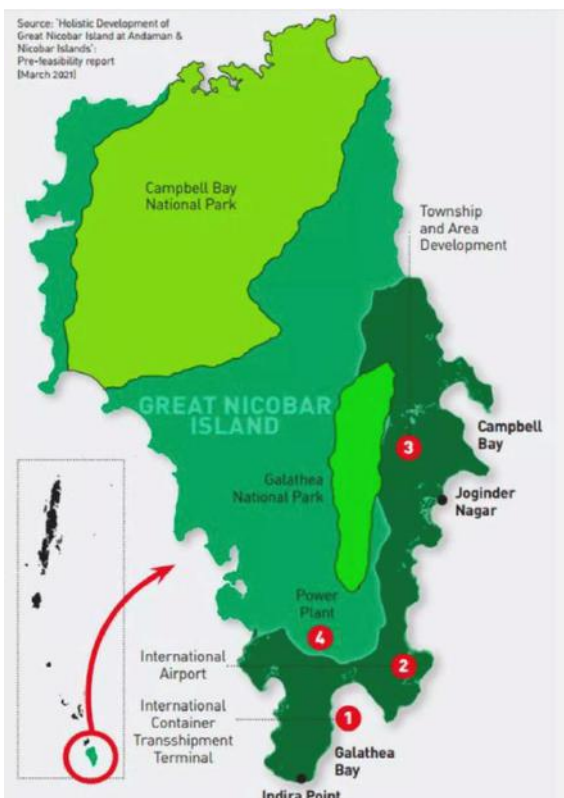
NITI Aayog.

- It is close to the Malacca Strait, the main waterway that connects the Indian Ocean to the Pacific, and the infrastructure project is expected to allow Great Nicobar to participate in the regional and global maritime economy by becoming a major player in cargo transshipment.

- **The opposition — by wildlife conservation researchers, anthropologists, scholars, and civil society apart from the Congress** — has focused on the potentially devastating impact on the Shompen, a particularly vulnerable tribal group (PVTG) of hunter-gatherers with an estimated population of a few hundred individuals who live in a tribal reserve on the island.

- **It is feared that the port project will destroy coral reefs** with spinoff effects on the local marine ecosystem, and pose a threat to the terrestrial Nicobar Megapode bird and leatherback turtles who nest in the Galathea Bay area.

For Your Information:

- The proposal: **A "greenfield city" has been proposed, including an International Container Transhipment Terminal (ICTT), a greenfield international airport, a power plant, and a township for the personnel who will implement the project.**

- The site for the proposed ICTT and power plant is Galathea Bay on the southeastern corner of Great Nicobar Island.

Source: Indian Express

EUROPEAN UNION'S NEW NATURE RESTORATION PLAN

Context: The European Union (EU) on June 17 approved its ambitious Nature Restoration Plan which aims to make continent-wide efforts to restore degraded ecosystems.

Background:

- **The European Green Deal** is a package of policy initiatives, which aims to set the EU on the path to a green transition, with the ultimate goal of reaching climate neutrality by 2050.

Key Takeaways

- **The new law aims to restore ecosystems,** including species and habitats that exist on EU's land and in seas to:

  o enable the **long-term and sustained recovery of biodiverse and resilient nature,**

  o contribute to **achieving the EU's climate mitigation and climate adaptation objectives,** and **meet international commitments.**

What are the targets to be met under the new law?

- The measures should ideally **cover at least 20% of the EU's land and sea areas by 2030, and all ecosystems in need of restoration by 2050.**

- Priority should be given to areas under the Natura 2000 – a network of 27,000 natural sites protected by EU legislation.

- The Restoration Law also has **specific targets based on existing legislations, for urban, forest, marine, and agricultural ecosystems, for pollinating insects, and those related to river connectivity. Some of these are:**

  o Reversing the decline of pollinator population by 2030

  o No net loss of green urban space and tree cover by 2030, and an increase in their area thereafter

- o Increasing stock of **organic carbon and restoring drained peatlands under agricultural use**

- o **Restoring the habitats of iconic marine species such as** dolphins and porpoises, sharks and seabirds

- o Restoring at least **25,000 km of rivers to a free-flowing state by 2030**

- **How will the law be implemented?**

  - o Countries in the EU bloc are expected to submit National Restoration Plans to the Commission within two years – by mid-2026 – specifying their plans to achieve the targets.

  - o The European Environment Agency will prepare technical reports on this progress.

Source: Hindu

NITROUS OXIDE EMISSIONS UP 40 % IN 40 YEARS

Context: Emissions of planet-warming nitrous oxide gas rose by 40 per cent between 1980 and 2020, a study by the Global Carbon Project revealed recently.

Background:-

- China (16.7 per cent), India (10.9 per cent), US (5.7 per cent), Brazil (5.3 per cent) and Russia (4.6 per cent) were the top five emitters of the gas more potent than carbon dioxide and methane.

About NITROUS OXIDE

- Nitrous oxide commonly known as laughing gas is a chemical compound, an oxide of nitrogen with the formula N_2O.

- **At room temperature, it is a colourless non-flammable gas, and has a slightly sweet scent and taste.**

- At elevated temperatures, nitrous oxide is a powerful oxidiser similar to molecular oxygen.

- Nitrous oxide has significant medical uses, especially in surgery and dentistry, for its anaesthetic and pain-reducing effects.

- Its colloquial name, "**laughing gas**" is due to the euphoric effects upon inhaling it, a property that has led to its recreational use as a dissociative anaesthetic.It is on the World Health Organization's List of Essential Medicines.

- Most recreational users are unaware of its neurotoxic effects when abused. When used chronically, nitrous oxide has the potential to cause neurological damage through inactivation of vitamin B12.

- It is also used as an oxidiser in rocket propellants, and in motor racing to increase the power output of engines.

- **It is a major scavenger of stratospheric ozone, with an impact comparable to that of CFCs.**

- Being the third most important greenhouse gas, nitrous oxide substantially contributes to global warming.Reduction of emissions is a popular topic in the politics of climate change.

Key Takeaways from the study

- Agricultural production and livestock rearing were the two key human-driven sources of nitrous oxide.

- In the last decade agricultural production, chiefly owing to the use of nitrogen fertilisers and animal manure, contributed to 74 per cent of the total anthropogenic nitrous oxide emissions, according to

the study.

- Nitrous oxide is also emitted from natural sources such as oceans, inland water bodies and soil. These sources contributed to 11.8 per cent of the global emissions of the gas between 2010 and 2019.

- Agriculture activities and related waste generation, biomass burning, fossil fuels and industries together contributed to around six per cent of the global nitrous oxide emissions in 2010-2019, the study noted.

- The High levels of nitrous oxide in the atmosphere can deplete the ozone layer and compound effects of climate change, the study said. On the earth, excess nitrogen contributes to soil, water and air pollution.

- Among the 18 regions considered in this study, only Europe, Russia, Australasia, and Japan and Korea had decreasing nitrous oxide emissions.

- Europe had the largest rate of decrease between 1980 and 2020, resulting from reduced fossil fuel and industry emissions.

- China and South Asia, on the other hand, had the largest increases in nitrous oxide emissions from 1980 to 2020 at 92 per cent.

- Nitrous oxide emissions from human activities must decline in order to limit global temperature rise to 2 degrees Celsius as established by the Paris Agreement.Reducing nitrous oxide emissions is the only solution since at this point no technologies exist that can remove nitrous oxide from the atmosphere.

Source:Indian Express

HIGH SEAS BIODIVERSITY TREATY

Context: Grethel Aguilar, the director general of the International Union for Conservation of Nature (IUCN), urged countries worldwide "to strive for a fully functional High Seas Biodiversity Treaty".
Background:-

- The high seas are those areas of the world's oceans that are outside national jurisdictions. They constitute a huge chunk of the world's oceans and are home to a wide variety of biodiversity.

About HIGH SEAS BIODIVERSITY TREATY

- The United Nations agreement on biodiversity beyond national jurisdiction or BBNJ Agreement, also referred to by some stakeholders as the High Seas Treaty or Global Ocean Treaty, is a legally binding instrument for the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.

- It is an agreement under the United Nations Convention on the Law of the Sea (UNCLOS). The text was finalised during an intergovernmental conference at the UN on 4 March 2023 and adopted on 19 June 2023

Here are some key points about the treaty:

  o Protection Beyond Borders: While countries are responsible for the conservation and sustainable use of waterways under their national jurisdiction, the high seas now have added protection from such destructive trends as pollution and unsustainable fishing activities.

  o Cleaner Oceans: The treaty aims at strengthening resilience and contains provisions based

on the polluter-pays principle as well as mechanisms for disputes. It addresses the issue of toxic chemicals and plastic waste flooding into coastal ecosystems.

- o Sustainable Management of Fish Stocks: More than one third of global fish stocks are over-exploited, according to the UN. The treaty underlines the importance of capacity building and the transfer of marine technology.

- o Legal Framework: The treaty provides a legal framework for addressing various stressors affecting the marine environment in the high seas.

- o Addressing Planetary Crisis: The treaty is crucial for addressing the triple planetary crisis of climate change, biodiversity loss, and pollution.

- The treaty recognizes traditional knowledge. It has articles regarding the "polluter-pays" principle, and different impacts of human activities including areas beyond the national jurisdiction of the countries making those activities.

- The agreement was adopted by the 193 United Nations Member States.

- Before the treaty can enter into force, it needs to be ratified by at least 60 UN member states.

- However, only seven countries — Belize, Chile, Mauritius, Federated States of Micronesia, Monaco, Palau and the Seychelles — have ratified the treaty. India has neither signed nor ratified the treaty.

- Greenpeace called it "the biggest conservation victory ever".The main achievement is the new possibility to create marine protected areas in international waters.

Source:Down To Earth
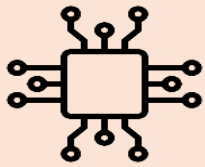
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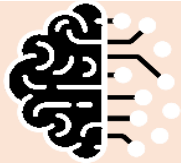
AGNIBAAN SOrTeD (SubOrbital Technological Demonstrator)

Context: Chennai-based space startup AgniKul Cosmos launched a single-stage technology demonstrator rocket — Agnibaan SOrTeD (suborbital technological demonstrator) — from Sriharikota.

Background:-

- **Founded in 2017 by Srinath Ravichandran, Moin S P M, and S R Chakravarthy, AgniKul became the first Indian firm to sign an agreement with ISRO in December 2020.** This pioneering agreement was facilitated under the I**N-SPACe initiative, granting AgniKul unprecedented access to ISRO's expertise and cutting-edge facilities.** The company is one of the highest-funded space startups in India and has raised $42 million so far.

Key takeaways

- India made history in the space sector with the first launch from a **private launchpad of the country's second privately built rocket and the first using a combination of gas and liquid fuel.**

- **SOrTeD uses the world's first single-piece 3D-printed engine,** designed and built indigenously.

- This launch is also considered historic because the ISRO has not yet successfully flown a semi-cryogenic engine, in which a mix of liquid and gas is used as a propellant.

- **Agnibaan also has the unique distinction of having been launched from India's first private launchpad Dhanush, established by AgniKul.**

- The key purpose of this missionis to serve as a test flight, demonstrate in-house and home-grown technologies, gather crucial flight data, and ensure optimal functioning of systems for AgniKul's orbital launch vehicle, the 'Agnibaan'.

- The Agnibaan rocket is a customisable, **two-stage launch vehicle that can carry up to 300 kilogram (kg) of payload to orbits nearly 700 kilometre in altitude, the company said.**

Source:Business Standard

CHANG'E-6

Context: China landed an uncrewed spacecraft on the far side of the moon, overcoming a key hurdle in its landmark mission to retrieve the world's first rock and soil samples from the dark lunar hemisphere.

Background:

- The landing elevates China's space power status in a global rush to the moon, where countries including the United States are hoping to exploit lunar minerals to sustain long-term astronaut missions and moon bases within the next decade.

About CHANG'E-6 CRAFT

- The mission is the sixth in the Chang'e moon exploration programme, which is named after a Chinese moon goddess. **It is the second designed to bring back samples,** following the Chang'e 5, which did so from the near side in 2020.

- **In 2020 Chang'e-5 brought back 1.7kg of material from an area called Oceanus Procellarum on the Moon's near side.**

- The current mission lander touched down on the lunar far side on 1 June 2024 in a huge crater known as the South Pole-Aitken Basin.

- An ascender atop the lander will then take the samples in a metal vacuum container back to another module that is orbiting the moon. The container will be transferred to a re-entry capsule that is due to return to Earth in the deserts of China's Inner Mongolia region about June 25.

- This mission will enable an unprecedented comparison between the moon's unexplored far side and its well-studied Earth-facing side. The South Pole-Aitken Basin is one of the largest known impact craters in the solar system.

Source: Financial Express

DIGI YATRA

Context: The CEO of Digi Yatra Foundation, has indicated that the vision is to enhance seamless movement across India by including hotels, rail travel, and public places in the Digi Yatra system.

Background:

- A prototype of the procedure is ready, and discussions are ongoing with various government agencies, including the Ministry of Tourism and the Ministry of Railways.

About DIGI YATRA

- The Initiative is a project by the M**inistry of Civil Aviation to create a Biometric Enabled Seamless Travel experience (BEST) using Facial Recognition Technology (FRT) for passengers at airports.**

- The primary goal is to **streamline the boarding process and enhance the airport experience by eliminating manual verification of tickets and IDs at various checkpoints.**

- It provides a decentralized mobile wallet-based identity management platform which is cost effective and addresses privacy/data protection issues in implementation of Digi Yatra

- **Digi Yatra aligns with the Digital India vision to transform India into a digitally empowered society.**

Digi Yatra Foundation:

- It has been set up as a joint venture (JV) company in 2019 under Section 8 of the Companies Act, 2013.

- **Objective:** creating the Digi Yatra Central Ecosystem (DYCE).

Source:Economic Times

KAVACH

Context: The accident involving the Sealdah Kanchanjunga Express on June 17, which claimed 10 lives, has brought to the fore once again the delay in installing Kavach, an indigenously developed automatic train protection (ATP) system, across the country's rail network.

Background:

- Experts, including former Railway Minister and West Bengal Chief Minister Mamata Banerjee, raised questions about the delay in the implementation of the system.

About KAVACH

- The KAVACH is an indigenously developed **Automatic Train Protection (ATP) system by the Research Design and Standards Organisation (RDSO) in collaboration with the Indian industry.**

- It is a state-of-the-art electronic system with **Safety Integrity Level-4 (SIL-4) standards.**

- It is meant to provide **protection by preventing trains to pass the signal at Red (which marks**

danger) and avoid collision.

- It activates the train's braking system automatically if the driver fails to control the train as per speed restrictions. In addition, **it prevents the collision between two locomotives equipped with functional Kavach systems.**

- The system also relays SoS messages during emergency situations. An added feature is the centralised **live monitoring of train movements through the Network Monitor System.**

How does Kavach work on Railway Systems?

- **The Traffic collision avoidance system (TCAS), with the help of equipment on board the locomotive and transmission towers at stations connected with Radio Frequency Identification (RFID) tags**, helps in two-way communication between the station master and loco-pilot to convey any emergency message.

- The instrument panel inside the cabin helps the **loco-pilot know about the signal in advance without visual sighting, and the permissible speeds to be maintained.**

- If a red signal is jumped and two trains come face to face on the same line, the technology automatically takes over and applies sudden brakes.

- Additionally, the hooter activates by itself when approaching a level crossing which serves as a big boon to loco-pilots during fog conditions when visibility is low.

Source: Hindu

AMID SETBACKS, FIRST SIGNS OF PROGRESS IN LITHIUM MINING IN CHHATTISGARH

Context: Exploration of **lithiumin Chhattisgarh's Korba district** has moved a step further with one block advancing to the second round of auctions and promising deposits now being found in the initial exploration of another block, according to latest information available with the Union Mines Ministry.

Background:-

- The reassuring signs from Korba come after a series of roadblocks in the endeavour to develop India's first lithium mine including the cancellation of auction of a lithium block in Jammu and Kashmir'sReasi district due to insufficient investor interest, shelving of exploration plans in Manipur's Kamjong district due to "local resistance", and "not encouraging" results from exploration in Ladakh and Assam.

Key takeaways

- In Korba, just south of the lithium block currently under auction, a private exploration company funded by the National Mineral Exploration Trust (NMET) has found hard rock lithium deposits ranging from 168 to 295 parts per million (ppm). Further exploration could pin down the reserves estimate to a large number.

- Since November, the mines ministry has put 38 blocks of critical minerals up for auction, including two lithium blocks — one in J&K's Reasi district and another in Chhattisgarh's Korba district.

- Preliminary surveys in Korba found lithium concentrations in bedrock samples ranging from 10 to 2,000 ppm, whereas exploration in Reasi showed lithium deposits exceeding 200 ppm.

- According to mining sector experts, the potentially lower concentration of lithium in the J&K block, coupled with the need for expensive mineral extraction infrastructure, could explain the weak investor interest.

Additional Information:

- **Lithium is a soft, silvery-white alkali metal**, which is a vital ingredient of rechargeable lithium-ion

batteries that power electric vehicles, laptops, and mobile phones.

- With lithium demand having grown significantly over the past few years and set to rise further going forward, there is a global rush for mining the critical mineral.

- India currently **imports all the lithium it needs**.

- Khanij Bidesh India Limited (KABIL), a joint venture of three public sector companies under the Mines Ministry, secured rights to explore, develop, and extract lithium across five blocks in Argentina's Catamarca province earlier this year.

Source:Indian Express

INNOVATIONS FOR DEFENCE EXCELLENCE (IDEX)

Context: Defence Ministry signs 350th contract under Innovations for Defence Excellence (iDEX) for miniaturised satellite.

Background:

- The contract was inked with **SpacePixxel Technologies Pvt Ltd for design and development of a miniaturised satellite capable of carrying electro-optical, infrared, synthetic aperture radar and hyperspectral payloads up to 150 kg.**

About Innovation for Defence Excellence (iDEX)

- The iDEX initiative was **launched by the Hon'ble PM in April 2018.**

- iDEX is an ecosystem initiated by the **Ministry of Defence** to foster innovation and technology development in the defence and aerospace sectors by engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes & academia.

- iDEX is **funded and managed by a 'Defence Innovation Organization (DIO)'** which has been formed as a 'not for profit' company as per Section 8 of the Companies Act 2013 for this purpose, by the two founder members i.e. Defence Public Sector Undertakings (DPSUs) - HAL & 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.**

- **Objectives of iDEX:**

  o **FACILITATE** : Facilitate rapid development of new, indigenized, and innovative technologies for the Indian defence and aerospace sector, to meet needs for these sectors in shorter timelines

  o **CREATE:** Create a culture of engagement with innovative startups, to encourage co-creation for defence and aerospace sectors

  o **EMPOWER:** Empower a culture of technology co-creation and co-innovation within the defence and aerospace sectors.

- **Funding and Support:**

  o iDEX provides grants (up to ₹1.50 crore, or up to ₹10 crore for iDEX Prime) through the Support for Prototype and Research Kickstart (SPARK) Framework.

  o These grants fund projects in technological areas identified through the Defence India Startup Challenges (DISC) and open challenges.

Source: Hindu

AGNI-V

Context: Recently, India successfully conducted the first flight test of indigenously developed Agni-5 missile with Multiple Independently Targetable Re-entry Vehicle (MIRV) technology from Dr A P J Abdul Kalam Island off the coast of Odisha.

Background:

- The flight test was conducted as part of India's 'Mission Divyastra'.

About Agni-V:

- The Agni-V is an **advanced surface-to-surface ballistic missile** developed under the Integrated Guided Missile Development Programme (IGMDP) in India.
- The Agni-V is an **intercontinental ballistic missile (ICBM)** developed indigenously by the DRDO.
- **It's a fire-and-forget missile,** which means once fired, it doesn't require further guidance and can't be stopped without an interceptor missile.
- The missile has a range of over 5000 km, making it capable of hitting targets beyond this range.
- It can carry a warhead of about 1500 kg.

Multiple Independently Targetable Re-entry Vehicle (MIRV) Technology

- The latest variant of the Agni missile is equipped with MIRV technology.
- MIRV technology allows a **single missile to deploy multiple warheads at different locations or at the same location with a time gap.**
- This technology significantly enhances the **missile's effectiveness by enabling it to hit multiple targets simultaneously.**
- These missiles can be launched from land or from sea from a submarine.

Global Context:

- Currently, only a **handful of countries possess MIRV-equipped missiles.**
- These countries include the United States, Russia, China, France, and the United Kingdom.
- While Pakistan is developing such a missile system, there are suspicions that Israel may also possess or be developing one.

ADITYA-L1 MISSION

Context: The Indian Space Research Organisation (ISRO) recently released images of the Sun captured by Aditya-L1 during May Solar Storm.

Background:

- The Indian Space Research Organisation (ISRO) said these photos captured by the Aditya-L1 will help in studying solar flares as well as energy distribution and sun spots.

About Aditya-L1

- Aditya-L1 is India's first space-based solar mission to study the Sun.
- It was launched on September 2, 2023, by the Indian Space Research Organisation (ISRO) into a halo orbit around the Sun-Earth Lagrange point 1 (L1).

- Aditya-L1 would provide an uninterrupted view of the Sun for prolonged periods, overcoming the limitations of Low Earth Orbits where the view is frequently blocked by the Earth itself.

- **Objectives**

  o Understanding Coronal Heating and Solar Wind Acceleration.

  o Understanding initiation of Coronal Mass Ejection (CME), solar flares and near-earth space weather.
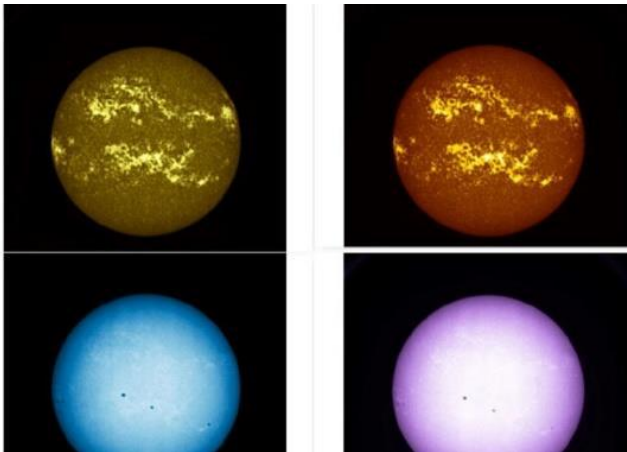
  o Understanding coupling and dynamics of the solar atmosphere.

  o Understanding solar wind distribution and temperature anisotropy.

- **Significance**

  o Aditya-L1 will facilitate India to establish its own solar observatory in space, which would have numerous applications in day-to-day life.

  o Its success would place ISRO into an elite space club along with NASA and ESA.

  o Understanding the Sun's complex magnetic behaviour is crucial to advancing space weather prediction, securing technological assets and unravelling stellar evolution.

- **Payloads**

  o Aditya-L1 carries seven payloads to examine the Sun's properties using visible and X-ray spectrometers, a coronagraph, analysers for solar winds and energetic particles, and magnetometers.

  o This multi-wavelength observation capacity will probe the Sun's corona, the chromosphere, the photosphere, flares and coronal mass ejections.

Source:Hindu

LIQUID NITROGEN

Context: The Food Safety and Standards Authority of India (FSSAI), has cautioned against use of liquid nitrogen in products such as cocktails, ice-creams, meetha pan and bakery items at the point of sale.

Background:

- The food safety regulator said such use of liquid nitrogen immediately before consumption of food items is "unauthorised" and will attract " action" in accordance with the regulations.

Key Takeaways

- Nitrogen is a colourless and odourless gas or liquid, with the functional use of "freezing agent, propellant, packaging gas or foaming agent.

- FSSAI said that as per the FSS regulations, Nitrogen is a GMP (Good Manufacturing Practice) additive and its use has been laid out in the regulations for specific food categories.

- In addition, dairy-based desserts (ice-creams) at GMP level liquid nitrogen is permitted to be used only for "technological function of contact freezing and cooling only," FSSAI added.

- FSSAI has taken cognisance of several instances of liquid nitrogen being used in bars, restaurants,

food serving establishement, caterer in fairs and marriage in food items to make them more "eye-pleasing" at the time of serving.

- In an advisory, the food safety authority expressed concerns of instances where such "unauthorised use" of liquid nitrogen in food items and direct consumption of liquid nitrogen infused food by consumers has led to "serious health issues and injuries."

- "Liquid nitrogen which is illicitly being used directly at the point of serving or plating is not allowed as this is not the intended purpose and technological use of the additive and shall be considered as non-compliance by the food businesses doing so," FSSAI said.

Source: Hindu Businessline

STROMATOLITES

Context: Scientists have unearthed living stromatolites — ancient geological structures made from algae — on Sheybarah Island, nestled on the northeastern shelf of the Red Sea in Saudi Arabia. These ancient life forms, dating back 3.48 billion years, were previously thought to thrive only in select modern environments like Shark Bay, Australia, and the Exuma Islands in the Bahamas.

Background:

- The reason this is such a crucial discovery is because Stromatolites are the earliest geological indicators of life on Earth.

About Stromatolites

- Stromatolites are layered sedimentary formations created mainly by photosynthetic microorganisms such as cyanobacteria, sulfate-reducing bacteria, and Pseudomonadota(formerly proteobacteria).

- These microorganisms produce adhesive compounds that cement sand and other rocky materials to form mineral "microbial mats". These mats build up layer by layer, growing gradually over time.

- They exhibit a variety of forms and structures, including conical, stratiform, domal, columnar, and branching types.

- Stromatolites are considered the oldest living lifeforms on our planet.They are living fossils and provide important records of some of the most ancient life.

- **These biotic structures were instrumental in the Great Oxygenation Event over two billion years ago, introducing oxygen into the atmosphere and transforming the planet's habitability.**

  o Being photosynthetic, cyanobacteria produce oxygen as a by-product. Photosynthesis is the only major source of free oxygen gas in the atmosphere.

  o As stromatolites became more common 2.5 billion years ago, they gradually changed the Earth's atmosphere from a carbon dioxide-rich mixture to the present-day oxygen-rich atmosphere.

  o This major change paved the way for the next evolutionary step, the appearance of life based on the eukaryotic cell (cell with a nucleus).

- The oxygenation event initially wiped out many of their competitors, allowing stromatolites to dominate the biosphere during the Archean eon, when life had just begun to bud.

- However, as life forms adapted to the oxygen-rich atmosphere, stromatolites began to decline, only reappearing in the geological record after mass extinctions or in extreme environments.

- The rediscovery of stromatolites on Sheybarah Island also offers potential insights into the search for extraterrestrial life, particularly on Mars.

- By studying stromatolites, which thrived before Earth had an oxygenated atmosphere, scientists can develop models to recognise potential signs of life on other planets.

Source:Business Insider

HISTORY AND ART & CULTURE

AHILYABAI HOLKER

Context: On May 31, we celebrated the 300th birth anniversary of the Maratha queen Ahilya Bai Holkar — a great administrator and visionary with a spiritual inclination.

Background:

- "The reign of Ahilyabai, of Indore in central India, lasted for thirty years. This has become almost legendary as a period during which perfect order and good government prevailed and the people prospered. She was a very able ruler and organizer, highly respected during her lifetime, and considered as a saint by a grateful people after her death." - Jawaharlal Nehru (The Discovery of India/1946)

About AHILYABAI HOLKER

- **Rajmata Ahilyabai Holkar was the Holkar Queen of the Malwa kingdom**. She is regarded as one of the most **visionary female rulers of India.**

- Born in the village of Chondi in Jamkhed, Ahmednagar (Maharashtra), Ahilya hailed from a very humble background. Her father Mankoji Rao Shinde was the village head, and he taught her to read and write.

- As a young girl, the combination of her simplicity and strength of character caught the attention of Malhar Rao Holkar, the Lord of the Malwa territory. He was so impressed with the young Ahilya that in 1733 when she was barely eight years old, he got her married to his son Khanderao Holkar.

- Twelve years after her marriage, her husband Khanderao died during the siege of the Kumher Fort. After the death of her husband, Ahilyabai was stopped by her father-in-law from committing sati. Instead, he took her under his wing and trained her in military and administrative matters.

- Keeping in mind the welfare of the kingdom and her people, she petitioned the Peshwa to allow her to take over the reign of Malwa. Although some of the nobles objected to this, she still had the support of the army.

- In 1767, the Peshwa granted Ahilyabai permission to take over Malwa. She ascended the throne and became the ruler of Indore on 11 December 1767. For the next 28 years, Maharani Ahilyabai ruled over Malwa in a just, wise, and knowledgeable manner.

- Under Ahilyabai's rule, Malwa enjoyed relative peace, prosperity, and stability, and her capital, Maheshwar, was turned into an oasis of literary, musical, artistic, and industrial pursuits.

- Ahilyabai also established a textile industry in Maheshwar, which today is very famous for its Maheshwari sarees.

- Her most notable contribution was the renovation and repair **of the famous Kashi Vishwanath Temple in 1780**.

Source: Indian Culture

RAZIA SULTAN

Context: In the narrow lanes of Bulbuli Khana near Turkman Gate in Old Delhi, walled in by buildings on all sides, is a tomb made of stone. It hardly sees any visitors. This forgotten tomb is of the first and only

woman ruler to ever sit on Delhi's throne, Razia Sultan.

Background:

- Daughter of Sultan Iltutmish, Razia ruled during the Delhi Sultanate era from 1236 to 1240. It is believed she had refused to be addressed as a Sultana (as per her gender) as that word meant "wife or mistress of a Sultan", but claimed the title "Sultan". It was a title never before bestowed on a woman.

About RAZIA SULTANA

- **Raziyyat-Ud-Dunya Wa Ud-Din (1205 - 1240), popularly known as Razia Sultana, was a ruler of the Delhi Sultanate.**

- **She was the first female Muslim ruler** of the subcontinent, and the **only female Muslim ruler of Delhi.**

- A daughter of Mamluk Sultan Shamsuddin Iltutmish, Razia administered Delhi during 1231–1232 when her father was busy in the Gwalior campaign.

- According to a possibly apocryphal legend, impressed by her performance during this period, **Iltutmish nominated Razia** as his heir apparent after returning to Delhi.

- Iltutmish was succeeded by Razia's half-brother Ruknuddin Firuz, whose mother Shah Turkan planned to execute her. During a rebellion against Ruknuddin, Razia instigated the general public against Shah Turkan, and ascended the throne after Ruknuddin was deposed in 1236.

- Razia's ascension was challenged by a section of nobles, some of whom ultimately joined her, while the others were defeated. The Turkic nobles who supported her expected her to be a figurehead, but she increasingly asserted her power. This, combined with her appointments of non-Turkic officers to important posts, led to their resentment against her.

- She was deposed by a group of nobles in April 1240, after having ruled for less than four years. She married one of the rebels – Ikhtiyaruddin Altunia – and attempted to regain the throne, but was defeated by her half-brother and successor Muizuddin Bahram in October that year, and was killed shortly after.

Source:Indian Express

TARAKNATH DAS

Context: Birth anniversary of Shri Taraknath Das was celebrated recently.

Background:

- He was a pioneering immigrant in the west coast of North America and discussed his plans with Tolstoy, while organising the Asian Indian immigrants in favour of the Indian independence movement.

About TARAKNATH DAS

- **Taraknath Das (15 June 1884 – 22 December 1958) was an Indian revolutionary and internationalist scholar,** born at Majupara, West Bengal.

- At a young age Das was **attracted by the revolutionary cause of the Anushilan Samiti, a secret society, and became its member.**

- On the advice of Jatindranath Mukherjee, Das escaped initially to Japan and then moved to the United States of America.

- Taraknath Das reached Seattle on 12 July 1906 and subsequently got enrolled in the University of California.

- In the United States, Das was actively participating in the political activities of the South Asian immigrants.

- Following the Bellingham riots of September 1907 against South Asian immigrants, he started the publication of an anti-British newspaper, 'Free Hindusthan' to champion the cause of these immigrants.

- In 1913, Das came in contact with Har Dayal and got associated with the Ghadar Movement and its anti-colonial activities. In 1917, he was implicated in the Indo-German conspiracy case for which he was imprisoned in Kansas for two years.

- Das continued to be involved in revolutionary activities throughout his life, his writings maintained a strong anti-British stance, instilling nationalism in the minds of the readers.

Source: Amritmahotsav

SANT KABIR DAS

Context: Recently,the Prime Minister Modi paid his respectful tribute to Sant Kabir Das on his 647th birth anniversary.

Background:

- Kabir Jayanti, also known as **Kabir Praakat Diwas**, is celebrated to commemorate the manifestation of Kabir, a famous poet and mystic saint. It is celebrated once in a year on the full moon day in the Hindu month Jyeshtha, which is the month of May or June according to the Gregorian calendar.

About Kabir Das

- Kabir (1398–1518 CE)was a well-known **Indian mystic poet and sant**. Born in the city of Varanasi, Uttar Pradesh.

- His verses are found in **Sikhism's scripture Guru Granth Sahib**, the Sat**guru Granth Sahib of Saint Garib Das, and Kabir Sagar of Dharamdas.**

- He questioned what he regarded to be the meaningless and unethical practices of all religions, primarily what he considered to be the wrong practices in Hinduism and Islam.During his lifetime, he was threatened by both Hindus and Muslims for his views.

- Kabir suggested that "truth" is with the person who is on the path of righteousness, considered everything, living and non living, as divine, and who is passively detached from the affairs of the world.To know the truth, suggested Kabir, drop the "I", or the ego.

- Kabir's legacy survives and continues through the **Kabir panth ("**Path of Kabir"), Sant Mat sect that recognizes Kabir as its founder. Its members are known as Kabir panthis

Philosophies and Teachings of Kabir Das

Unity of God

- He criticized the rigid practices of both Hinduism and Islam, promoting the idea that God is one and present everywhere.

- Kabir's famous lines, "If by worshiping stones one can find God, I will worship a mountain. But no one worships the grinding stone at home, though it feeds the world," show his disdain for superficial religiosity.

Inner Devotion (Bhakti)

- Kabir emphasized that **true worship comes from the heart.** He believed that a sincere connection with God is more important than external rituals. He taught that **one's heart should be pure and filled with love for the divine**, and this inner devotion is what truly matters.

Critique of Rituals and Superstitions

- Kabir was a vocal critic of **empty rituals and superstitions**. He urged people to look beyond these practices and focus on sincere devotion. He believed that rituals without true devotion are meaningless, and that people should seek a deeper, personal experience of God.

Equality and Social Justice

- Kabir **condemned the caste system and social inequality.** He believed that all human beings are equal, regardless of their caste, creed, or gender. His verses often called for unity and equality among all people, promoting a message of social justice and harmony.

Guru and Spiritual Guide

- Kabir placed great importance on the role of the Guru (spiritual teacher). He believed that a Guru is essential for guiding individuals on their spiritual journey and helping them realize the divine within themselves. Kabir saw the Guru as a vital link between the individual and the divine.

Source: Money Control

4-DAY LONG AMBUBACHI MELA AT KAMAKHYA TEMPLE ENDS

Context: As today is June 26th, the annual **Ambubachi Mela at Kamakhya Temple, atop Nilachal hills in Assam's Guwahati,** which commenced on Saturday, will conclude with the temple doors opening for darshan after a ritualistic bath and daily puja, following a four-day cessation of worship.

Background:

- During the period of Ambubachi from the seventh to the tenth day of the Hindu **month of "Asadha**", the doors of the shrine are closed to all as it is believed that **Goddess Kamakhya goes through the annual cycle of menstruation.** On the twelfth day, the doors are opened ceremonially and a big fair held at the temple premises on that day.

Key Takeaways

- The Ambubachi Mela is an **annual mela (gathering) held at Kamakhya Temple in Guwahati, Assam.**

- This **yearly mela is celebrated during the monsoon season that happens to fall during the Assamese month Ahaar**, around the middle of June when the sun transits to the zodiac of Mithuna, when the **Brahmaputra River is in spate**. During this time Brahmaputra River near the temple turns Red for three days.

- It's the celebration of the **yearly menstruation course of goddess Kamakhya**. It is believed that the presiding goddess of the temple, Devi Kamakhya, the Mother Shakti, goes through her annual cycle of menstruation during this time stretch.

- **"Ambubachi" means spoken with water** and it also implies that the rains expected during this month make the earth fertile and ready for procreation.

- The concept of Ambubachi thus has in its origin, formative influences and elements of agricultural, social and religious ideas that have contributed to the emergence of the phenomenon. It is thus symbolic, supported by religious sanction.

- This mela is also **known as Ameti or Tantric fertility festival** since it is closely associated with Tantric Shakti cult prevalent in eastern parts of India. Even some Tantric Babas make their public appearances only during these four days. The rest of the year, they remain in seclusion.

Source: Livemint

OPERATION BLUE STAR

Context: The 40th anniversary of Operation Blue Star was recently observed.

Background:

- The anniversary passed off peacefully at the Akal Takht campus in the Golden Temple. The anniversary marks a significant and contentious event in Indian history, with this year being particularly notable as it's been 40 years since the operation took place.

About Operation Blue Star:

- Operation Blue Star was an Indian Army operation conducted in 1984 in Punjab.

- The operation was ordered by then Prime Minister Indira Gandhi, primarily to take control of the Harmandir Sahib Complex in Amritsar (popularly known as the Golden Temple).

- The operation aimed to capture Sikh leader Jarnail Singh Bhindranwale and his group of supporters who had lodged at the Harmandir Sahib Temple Complex.

- **Events Leading to Operation Blue Star:**

  o Insurgency in Punjab had begun in the early eighties, largely for a separate Sikh homeland called Khalistan.

  o Akali Dal, a regional political party in Punjab, had passed the Anandpur Resolution in 1973 which demanded more autonomy to the states.

  o In 1982, Bhindranwale joined the Akali Dal and launched the Dharam Yudh Morcha to implement the Anandpur Resolution.

  o Failing to get the Anandpur Resolution implemented, Bhindranwale declared his intention to carve out a semi-autonomous homeland for Sikhs in the Punjab region of India.

- **Impact:**

  o The operation was the biggest internal security operation till date at that time.

  o It was a controversial operation and one that had severe ramifications for many.

  o The operation resulted in the death of Bhindranwale.

  o Few months post-Operation Blue Star, Indira Gandhi was assassinated by her Sikh bodyguards, followed by severe anti-Sikh riots in Delhi.

Source: Tribune India

BIRSA MUNDA

Context: The Jharkhand Governor and Chief Minister recently paid tribute to tribal icon Birsa Munda on his death anniversary.

Background:

- Birsa Munda's life and struggles are celebrated as an unparalleled example of service to the nation, and his legacy continues to inspire the ideals of patriotism and resistance against injustice.

Key Takeaways

- Birsa Munda was a folk hero and a tribal freedom fighter from the Munda tribe.

- He was born on November 15, 1875, in Ulihatu village in present-day Jharkhand.

Role in Freedom Struggle:

- He led an Indian tribal mass movement in the Bihar and Jharkhand belts in the early 19th century against British colonisation.
- He rallied the tribals to fight against the forceful land grabbing carried out by the British government.

Birsa Munda Revolt:

- The Birsa Munda revolt, also known as the Munda Rebellion or Ulgulan (meaning 'The Great Tumult'), was a significant tribal uprising against British colonial rule in India.
- It took place in the late 19th century, primarily in the Munda belt of Khunti, Tamar, Sarwada, and Bandgaon regions
- In response to the introduction of the Zamindari system in tribal areas, Birsa Munda declared "Ulgulan", or revolt, against the British and the Dikus (outsiders) in 1894.

Religious Influence:

- He created a faith called 'Birsait 'and propagated the principles of Hindu religion.
- Known as 'Dharti Abba 'or the Earth Father, Birsa Munda stressed the need for the tribals to study their own religion and not forget their cultural roots.
- **Legacy**:
    o His struggle against exploitation and discrimination against tribals led to the Chotanagpur Tenancy Act being passed in 1908.
    o The act restricted the passing on of land from the tribal people to non-tribals.
    o The state of Jharkhand was created on his birth anniversary in 2000.
- **Death**:
    o He died on June 9, 1900, at the age of 25.

Source: Hindustan Times

RAM PRASAD BISMIL

Context: 11th June marked the birth anniversary of freedom fighter Ram Prasad Bismil.

Background:

- His ideals of freedom struggle stood in contrast to that of Mahatma Gandhi and he would reportedly say "independence would not be achieved by means of non-violence".

About RAM PRASAD BISMIL

- Ram Prasad Bismil (11 June 1897 – 19 December 1927) was an Indian poet, writer, and revolutionary who fought against British Raj.
- He composed poetry in both Urdu and Hindi, using pen names like Ram, Agyat, and Bismil.
- **Early Life**:

- o Bismil was born on June 11, 1897, in Shahjahanpur district (present-day Uttar Pradesh, India).

- o He came from a Brahmin family and showed early talent for writing patriotic poetry.

- o Bismil learned Hindi from his father and Urdu from a moulvi.

- o Despite his father's disapproval, he attended an English-language school and joined the Arya Samaj.

- **Revolutionary Activities**:

  - o At 18, Bismil read about the death sentence passed on Bhai Parmanand, a scholar and companion of Har Dayal.

  - o Angered by this, he composed a Hindi poem titled "Mera Janm" (My Birth), expressing his commitment to removing British control over India.

  - o Bismil was associated with the Arya Samaj and became a founding member of the revolutionary organization Hindustan Republican Association (HRA).

- **Conspiracies:**

  - o **Bismil participated in the Mainpuri Conspiracy of 1918 and the Kakori Conspiracy of 1925.**

    - ▪ Bismil got his name etched as a prominent freedom fighter with his participation in the Mainpuri conspiracy of 1918.

    - ▪ Bismil along with Genda Lal Dixit, a school teacher from Auraiya, organised youth from Etahwah, Mainpuri, Agra and Shahjahanpur districts to strengthen their organisations, 'Matrivedi 'and 'Shivaji Samiti'.

    - ▪ He published a pamphlet titled 'Deshwasiyon ke Naam 'and distributed it along with his poem 'Mainpuri ki Pratigya 'on January 28, 1918. To collect funds for the parties, they looted government coffers.

  - o **The Kakori train robbery, masterminded by Bismil, aimed to fund revolutionary activities.**

    - ▪ On August 9, 1925, Ram Prasad Bismil along with companions Ashfaqulla Khan and others executed the plan of looting the train at Kakori near Lucknow.

    - ▪ After the revolutionaries stopped the 8-Down Saharanpur Lucknow passenger train at Kakori, Ashfaqullah Khan, Sachindra Bakshi, Rajendra Lahiri and Ram Prasad Bismil subdued the guard and looted cash meant for the treasury.

    - ▪ Within a month of the attack, the angered colonial authorities arrested more than a dozen HRA members.After the trial in the so-called Kakori conspiracy, these four revolutionaries were sentenced to be hanged.

Source: PIB

DEFENCE& SECURITY.

EXERCISE RED FLAG 2024

Context: The Indian Air Force (IAF) successfully completed its participation in Exercise Red Flag 2024.

Background:

- It was conducted at Eielson Air Force Base, Alaska, from June 4 to June 14.

About EXERCISE RED FLAG 2024

- A premier **air-to-air combat training exercise** that serves as an advanced aerial combat training event for air forces of the **United States and its allies**.

- 2024 edition was conducted at Nellis Air Force Base, Nevada, and Eielson Air Force Base, Alaska.

- The 2024 edition of the focused on offering realistic training that replicates the stresses of combat operations, improving the participants' capabilities to maintain a high level of readiness and survivability, and enhancing interoperability among allied air forces.

- Red Flag exercise is known as the most realistic air combat training, where fighter pilots refine skills against numerous targets, authentic threats, and adversary forces.

Air Combat Exercises	Location
Iniochos	Greece
Orion	France
Blue Flag	Israel
Pitch Black	Australia
Desert Flag	UAE

- This was the first time the IAF Rafale aircraft participated in Ex Red Flag.

- Other combat exercises in which IAF regularly participates:

Source:PIB

GREY ZONE WARFARE

Context: Since Lai Ching-te assumed office as Taiwan's president, his tenure has faced a rocky start, marked by China's belligerent reaction to his pro-independence stance. China has now shifted to a 'grey-zone' warfare strategy to consistently undermine Taiwan.

Background:

- Experts from the US and Europe have characterised certain Russian actions also as examples of grey zone warfare.

Key Takeaways

- **Grey zone warfare generally means a middle, unclear space that exists between direct conflict and peace in international relations**.

- A multitude of activities fall into the category grey zone warfare — from nefarious economic activities, influence operations, and cyberattacks to mercenary operations, assassinations, and disinformation campaigns. **Experts also include economic actions such as debt traps and economic sanctions under grey zone.**

What grey zone warfare looks like: examples -

- Experts from the US and Europe have characterised certain **Russian and Chinese actions of late as examples of grey zone warfare.** It includes the Chinese military's presence in the South China Sea.

- **The Philippines is one of the countries which has challenged China's claims in south china sea.**

In December 2023, it termed the presence of more than 135 Chinese maritime militia vessels near a disputed reef as "illegal".

- It accused China of firing water cannons at its boats and ramming into others, while the **Chinese coast guard blamed the Philippines for hitting Chinese boats**.

- Another example can be found in a recent Reuters report, which said, "Taiwan has complained for four years of stepped-up Chinese military action, such as fighters regularly flying over the strait as part of a 'grey zone 'strategy to wear down Taiwan with activities that stop short of a full-blown conflict."

Why is grey zone warfare seen as a separate category of action?

- Firstly, the challenges that grey zone warfare poses differ from those of an open conflict. Here, action is often covert or indirect, meaning a country's response needs to be appropriate in terms of its scale.

- China might have other aims in mind. Its actions could be designed to bait the other party into escalation, which would thus free Chinese forces to respond in kind – and the use of force would then be **legitimised as a form of self-defence or response in kind to what the other party does.**

- Other reasons for engaging in such tactics include the pr**ojection of strength, and to normalise disputed territorial claims by repeatedly marking a presence in those regions.**

Source: Indian Express

CENTRAL INDUSTRIAL SECURITY FORCE (CISF)

Context: The Central Industrial Security Force (CISF) is yet to receive formal orders to take over the security at the Parliament. In the past few months, over 2,500 CISF personnel have been deployed on the premises replacing the Delhi Police and the Central Reserve Police Force (CRPF).

Background:

- After a security breach in the new Parliament building on December 13, 2023, MHA accorded in-principle approval to the CISF to survey the complex for regular deployment of personnel on a comprehensive pattern under the Government Building Security.

About Central Industrial Security Force (CISF)

- The CISF is a **federal police organization in India operating under the Ministry of Home Affairs.**

- It is one of the Central Armed Police Forces (CAPF) and provides security to over 356 industrial units, government infrastructure projects, and establishments across the country.

- Established in 1969, the CISF has grown into a premier multi-skilled force with a current strength of 177,713 personnel.

- **Its security umbrella covers critical infrastructure facilities such as nuclear installations, space establishments, airports, seaports, and power plants.**

- **Additionally, the CISF safeguards important government buildings, iconic heritage monuments, and the Delhi Metro.**

- The force also has a specialized VIP Security vertical that ensures round-the-clock protection for important dignitaries.

- Post the Mumbai terror attack in November 2008, the mandate of CISF was broadened to provide security cover to private corporate establishments also.

Source:Hindu

METHANOL POISONING

Context: The death toll in the hooch tragedy in Tamil Nadu's Kallakurichi district rose on Thursday to 38, with 24 others in critical care. Initial investigations suggest that **methanol, a highly toxic form of alcohol often used to increase the potency of bootleg liquor, was the cause of severe illnesses and deaths.**

Background:

- The tragedy prompted the DMK-led state government to order the immediate suspension of **Kallakurichi Superintendent of Police and the transfer of the District Collector.**

Spurious Alcohol/Hooch:

- **Unlike branded liquor which is produced in factories with sophisticated equipment and rigorous quality control, hooch is made in much more crude settings.** To put it simply, hooch is alcohol meant to intoxicate. But if prepared incorrectly, it can kill.

- The alcohol becomes **spurious due to the contamination by methyl alcohol or methanol to increase its alcohol content.**

- The unsafe distillation of hooch which is a derivative of cane sugar leads to the formation of methyl alcohol.

- The alcohol becomes spurious due to the addition of herbs to give flavours which may react to form deadly chemicals.

Reasons behind the problem of methanol poisoning deaths due to spurious alcohol:

- **It is manufactured illegally mostly in villages on farmlands which makes it difficult to inspect the area by regulatory authorities.**

- Country-made liquor is mainly produced by local breweries which resort to supply underground when the demand rises which makes it prone to corruption and lack of regulation, which leads to hooch tragedy incidents.

- The contaminants used to produce illicit liquor like methyl alcohol are easily available.

- According to WHO, unrecorded and spurious alcohol makes up more than half of all alcohol consumed in India. This is due to its reduced price when compared to the price of Indian-made foreign liquor.

- Few states like Bihar and Gujarat have enacted total prohibition on alcohol which helps in the flourishing underground illicit liquor business supported by bordering states.

Consequences of methanol poisoning deaths due to spurious alcohol in India:

- **Spurious alcohol contains methanol which can cause severe poisoning leading** to coma and death if untreated. It may also lead to permanent blindness, kidney failure, or other long-term neurological impairments of the body's organs.

- The treatment of methanol poisoning and its **long-term consequences places a substantial burden on the healthcare system.**

- The illegal production and distribution of spurious alcohol leads to **increased crime rates, which include violence and corruption.**

Source: Indian Express

E-COLI CONTAMINATION

Context: Over 300 residents of a 15-tower residential building at Kochi, reported vomiting and diarrhoea in a suspected case of E-coli contamination in drinking water.

Background:

- There are also allegations that the apartment association may have delayed public awareness by suppressing initial findings of E-coli contamination in water samples.

About E-coli:

- **E-coli, or Escherichia coli, is a type of bacteria that normally lives in the intestines of people and animals.**

- While **most strains are harmless, some can cause serious food poisoning and infection.**

- Most strains are **part of the normal microbiota of the gut and are harmless or even beneficial to humans (although these strains tend to be less studied than the pathogenic ones).** For example, some strains of E. coli benefit their hosts by producing vitamin K2 or by preventing the colonization of the intestine by pathogenic bacteria.

- These mutually beneficial relationships between E. coli and humans are a type of mutualistic biological relationship — where both the humans and the E. coli are benefitting each other.

- There are harmful strains of E. coli that causes illness if you accidentally ingest them. But the E. coli that usually live in your gut can also get in places they're not supposed to be (like your urinary tract). This causes an E. coli infection there.

- The most familiar strains **of E. coli that make one sick are those producing a toxin called Shiga.**

- **E-coli can lead to** diarrhea, urinary tract infections, respiratory illness, pneumonia, and other illnesses.

- It's often **spread through contaminated food or water,** or through contact with animals or persons.

- Treatment for E-coli infection typically focuses **on relieving symptoms and preventing dehydration**, as most cases resolve on their own without the need for antibiotics.

Source: NDTV
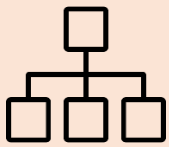
GOVT. INITIATIVES, SCHEMES AND POLICIES, ORGANISATION

PM-KISAN

Context: Over 1 lakh farmers voluntarily gave up their PM-Kisan benefits last year.

Background:-

- Bihar, Uttar Pradesh and Rajasthan lead the chart of 1.16 lakh farmers who have voluntarily given up the benefits of the annual Rs 6,000 Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) scheme across the country from June 2023 to May 2024, according to data available with the Ministry of Agriculture & Farmers Welfare.

- Possible reasons for some farmers giving up the PM-Kisan benefits include: absentee landlords who may have decided against availing of the subsidy; land going to tax-paying descendants who are not eligible; change in status of land-owners.

About PM KISAN

- PM Kisan, or the PM-Kisan Samman Nidhi, is a Central Sector scheme with 100% funding from the Government of India. It has been operational since December 1, 2018.

Here are some key details about the scheme:

- The scheme provides an income support of ₹6,000/- per year in three equal installments to all land holding farmer families.

- The definition of a family for the scheme is husband, wife, and minor children.

- The State Government and UT administration identify the farmer families which are eligible for support as per scheme guidelines.

- The fund is directly transferred to the bank accounts of the beneficiaries.

- **There are certain exclusion categories for the scheme. The following categories of beneficiaries of higher economic status are not eligible for benefit under the scheme:**

  o All Institutional Land holders.

  o **Farmer families which belong to one or more of the following categories:**

    ▪ Former and present holders of constitutional posts

    ▪ Former and present Ministers/ State Ministers and former/present Members of LokSabha/ RajyaSabha/ State Legislative Assemblies/ State Legislative Councils, former and present Mayors of Municipal Corporations, former and present Chairpersons of District Panchayats.

    ▪ All serving or retired officers and employees of Central/ State Government Ministries /Offices/Departments and its field units Central or State PSEs and Attached offices /Autonomous Institutions under Government as well as regular employees of the Local Bodies.

- Prime Minister released the 16th Installment of the PM KISAN scheme on February 28, 2024. eKYC is mandatory for PMKISAN Registered Farmers.

Source: Indian Express

MISSION KARMAYOGI

Context: Indian Institute of Public Administration assessed the impact of mission karmayogi by seeking inputs on recently trained staff from their supervisors and reported increased proficiency in data analytics and e-governance tools

Background:

- Improved governance and efficient and competent civil services are required for achieving India's ambitions.

About Mission Karmayogi

- Mission Karmayogi, also known as the National Programme for Civil Services Capacity Building (NPCSCB), is an ambitious program launched by the Government of India.

- The mission was launched by the Union Cabinet on 2nd September 2020.

- It aims to transform the government's human resource management, making the bureaucracy more efficient, effective, and accountable.

- The goal is to develop the skills and competencies of civil servants to deliver better results for citizens.

- The mission intends to lay down the foundations for the Indian civil servants' capacity building and aims to enhance governance.

The guiding principles of Mission Karmayogi include:

- Shift from rule to role-based training and capacity building: Capacity building of government officials under Mission Karmayogi focuses on enhancing the attitudes, skills, and knowledge of these individuals through role-based training.

Mission Karmayogi – Build Future Ready Civil Service
- with right Attitude, Skills and Knowledge, aligned to the Vision of New India
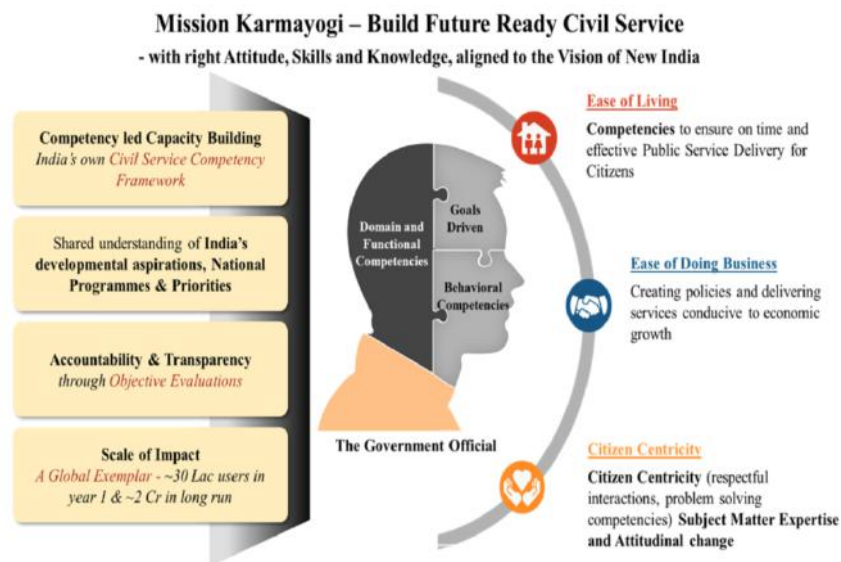
- Moving to a competency-driven approach for capacity development: A competency-driven capacity building approach focuses on developing competencies critical for public officials to effectively undertake their various roles.

- Democratising and enabling continuous, lifelong learning opportunities: Mission Karmayogi aims to make available to all government officials, across hierarchies and geographies, the opportunity to continuously build and strengthen the competencies required for their roles.

- The NPSCSB aims to embark on a learning transformation program that will address the capacity building issues of the Civil Services through a comprehensive online platform - iGOT Karmayogi.

- iGOT Karmayogi aims to provideonline, face-to-face and blended learning and manage lifelong learning records of the officials.

- Implementing and managing a platform of the complexity and size of iGOT requires a specialized institutional mechanism, with core competency in technology and innovation. Considering the

specialist skills and management autonomy needed, the government has instituted a Special Purpose Vehicle (SPV) termed Karmayogi Bharat, to operate the iGOT Karmayogi platform and any other digital assets pertaining to the Program.

Institutional framework for Mission Karmayogi

- The Institutional Framework includes four institutions and functional bodies, with representation from the Centre, State and civil society, and oversight from the highest level of political office.

- These are the Prime Minister's Human Resource Council, the Cabinet Secretariat Coordination Unit, the Capacity Building Commission and the SPV Karmayogi Bharat.

- As of now, there are 3506824 Total Karmayogis Onboarded and 1039 Total Courses available. The courses range from AI Using Google Bard and ChatGPT for Beginners by Invest India, Microsoft Excel for Beginners by Microsoft, to Women Self Defense Techniques Course by Central Reserve Police Force (CRPF), and many more.

Source:CBC

OPEN NETWORK FOR DIGITAL COMMERCE (ONDC)

Context: The government-backed Open Network for Digital Commerce (ONDC) recorded an all-time high of 8.9 million transactions across retail and ride-hailing segments in May.This represented a robust 23 per centmonth-on-month increase in total transaction volume, the ONDC said.

Background:-

- The Open Network for Digital Commerce (ONDC) is a government-backed initiative in India that aims to create an open and interoperable e-commerce ecosystem.

About Open Network for Digital Commerce (ONDC)
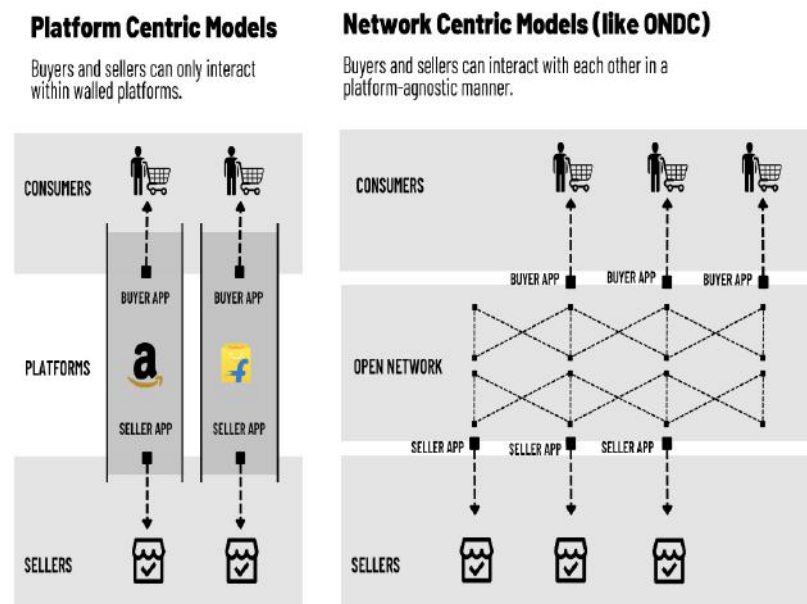
- **The 'Open Network for Digital Commerce' (ONDC), is a Government of India (GoI) backed technology infrastructure.**

- It is a network-centric model, wherein buyers and sellers can transact irrespective of the platforms/applications they use as long as "platforms/applications are connected to this open network".

- In simple terms, **ONDC is like a digital road network over which different digital storefronts (in the form of buyer and seller apps) can be built.** The digital road network aims to enable e-commerce traffic to travel across these different digital storefronts seamlessly, thereby allowing buyers and sellers to transact regardless of the application / platform they use.

- **This is a significant departure from existing platform centric models of e-commerce where buyers and sellers can only interact within walled platforms.**

- These walled platforms have increasingly dominated transaction volumes in India's ecommerce market over the years, and today are able to wield immense power and control over e-commerce supply chains.

- **This concentration of power and control has led to harmful behaviour such as self-preferencing by platforms or leveraging data to distort competition, which squarely impacts MSME businesses and the consumer interest.** ONDC is GoI's answer to this market distortion.

- **ONDC is expected to make e-Commerce more inclusive and accessible for consumers.** Consumers can potentially discover any seller, product or service by using any compatible application or platform, thus increasing freedom of choice for consumers.

- It will enable the consumers to match demand with the nearest available supply. This would also give consumers the liberty to choose their preferred local businesses. Thus, ONDC would standardize operations, promote inclusion of local suppliers, drive efficiencies in logistics and lead to enhancement of value for consumers.

- **ONDC was incorporated as a Section 8 (NON-PROFIT) company in December 2021, with the Quality Council of India and Protean eGov Technologies Limited as Founding Members.**

- Various public and private sector entities have invested in ONDC, including Punjab National Bank, State Bank of India, Axis Bank, Kotak Mahindra Bank, BSE Investments, Central Depository Services, ICICI Bank, and the Small Industries Development Bank of India.

- It is important to note that the relationship between the GoI and ONDC is not legally defined and it does not flow from an act of parliament.

Source: [Internet freedom foundation]

NATIONAL HEALTH CLAIM EXCHANGE (NHCX)

Context: The health ministry andInsurance Regulatory and Development Authority of India (IRDAI) are launching the National Health Claim Exchange (NHCX), a digital platform which will bring together insurance companies, healthcare sector service providers and government insurance scheme administrators.

Background:-

- The primary hurdle in health insurance today lies in improving the relationship between hospitals and insurance companies. Issues such as discharge delays and miscommunication between hospitals and insurers further complicate matters.

About NATIONAL HEALTH CLAIM EXCHANGE

- The NHCX will serve as a gateway for exchanging claims-related information among various stakeholders in the healthcare and health insurance ecosystem.

- The integration with NHCX is expected to enable seamless interoperability of health claims processing, enhancing efficiency and transparency in the insurance industry, benefiting policyholders and patients.

- Acting as a centralised hub for all health claims, the NHCX will significantly alleviate the administrative burden on hospitals, which currently contend with multiple portals for various insurers. Twelve insurance companies and one TPA (Third Party Administrator) have completed the NHCX integration.

- While the actual on-ground launch of both the NHCX and time-bound insurance clearance is expected to roll out soon, a Health Ministry official confirmed that over 30 insurance companies

are already onboard the NHCX platform while effort and awareness drives are going on to bring in the hospitals.

What are some other incentives on offer?

- To encourage adoption of digital health transactions and digitisation of patient health records in the country, the National Health Authority had announced financial incentives under the Digital Health Incentive Scheme (DHIS) from January 2023.

- Under the DHIS, there is a provision that for every insurance claim transaction through NHCX, financial incentives of ₹500 per claim or 10% of the claim amount, whichever is lower, would be given to hospitals, according to a Health Ministry note.

Why is NHCX being brought in?

- Arguing for the NHCX, the Health Ministry states that the platform will help in standardisation and interoperability of health claims and will bring in seamless exchange of data, documents and images between payer (insurance company/TPA/government scheme administrator) and provider (hospital/lab/poly clinic).

- Additionally, it will enable transparent and efficient claims processing and reduce related operational costs.The transition to digitisation is also anticipated to significantly decrease the cost of processing claims.

Source:Hindu

NATIONAL TESTING AGENCY (NTA)

Context: The National Testing Agency (NTA) and the Union Education Ministry announced the formation of a four-member committee to review the results of over 1,500 candidates who were awarded "grace marks" to compensate for the "loss of time" suffered while appearing for this year's NEET (Undergraduate).

Background:

- NTA has drawn widespread criticism for its conduct of NEET this year.

About National Testing Agency (NTA)

- The NTA is an autonomous agency under the Department of Higher Education of the Ministry of Education of India.

- It was established in November 2017.

- NTA is a premier, specialist and self-sustained testing organization to conduct entrance examinations for admission/fellowship in higher educational institutions.

- To assess competence of candidates for admissions and recruitment has always been a challenge in terms of matching with research based international standards, efficiency, transparency and error free delivery.

- The NTA is entrusted to address all such issues using best in every field, from test preparation, to test delivery and to test marking.

- NTA conducts various examinations including the Common University Entrance Test (CUET), National Eligibility cum Entrance Test (NEET), Joint Entrance Examination (JEE), and University Grants Commission - National Eligibility Test (UGC-NET).

Source: Deccan Herald

AGNIPATH SCHEME

Context: The Bharatiya Janata Party-led government's ambitious Agnipath scheme has faced opposition, from political parties and Armed Forces veterans alike, since it was announced in June 2022.Now, with the BJP short of a majority on its own in the Lok Sabha, crucial alliance partners too have called for a review of the contentious scheme.

Background:-

- In fact, a key plank in INDIA bloc's campaign in states like Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Bihar and Rajasthan — where the Armed Forces are a sought after employer — was the opposition to this scheme for military recruitment. And the BJP's performance in these states indicates that the pitch had some resonance on the ground.

What is the Agnipath scheme?

- Agnipath was aimed at recruiting personnel below officer ranks — soldiers, airmen, and sailors who are not commissioned officers — to the Indian Armed Forces for a period of four years.

- At the end of this tenure, upto 25% of these recruits, the so called 'Agniveers', can join the services on a permanent commission (another 15 years), subject to merit and organisational requirements.

- Aspirants between the ages of 17.5 years and 23 years are eligible to apply (the upper age limit was increased from 21), and the recruitment standards remain the same as with regular service, prior to Agnipath.

- At present, all sailors, airmen, and soldiers, except the technical cadre of the medical branch, are recruited to the services under the scheme, which has also opened doors for the recruitment of women to the IAF and the Navy.

- The scheme was announced in June 2022, after military recruitment was paused for two years due to the Covid-19 pandemic.

How are Agniveers compensated?

- Agniveers draw a basic salary of Rs 30,000-Rs 40,000 per month, and are entitled to other risk and hardship allowances.

- They contribute 30% of their monthly emoluments to the Seva Nidhi fund, which the government matches. At the end of their service, they receive approximately Rs 11.71 lakhs (with interest) as a lump sum severance package from this fund, which is exempt from income tax.

- If they die on duty, their family receives a lump sum of Rs 1 crore (including the Seva Nidhi package), and full pay for the period which the soldier could not serve. In case of disability, an Agniveer can receive upto Rs 44 lakh as compensation, depending on the percentage of disability suffered which is attributed to, or aggravated by military service.

How is Agnipath different from regular military service?

- Unlike soldiers in regular service, Agniveers do not draw pensions post-retirement. Only the 25% of Agniveers who get absorbed into the forces after four years will receive pensionary benefits, although the initial four years of service will not be considered for these.

- This is the biggest change that Agnipath has brought in. Not only does the scheme will help reduce the Armed Forces' permanent force levels, this in turn will considerably cut the defence pension bill, which has been a major concern for governments for many years.

Why was Agnipath introduced?

- Apart from the unsaid intention of reducing the Armed Forces' wage and pension bill, the

government has argued that the scheme will ensure the forces' "youthful profile".

- At the time the scheme was brought in, the average age in the Armed Forces was 32 years, which Agnipath will bring down to 26 years, if implemented.

- Moreover, the government has argued that after the completion of their service, Agniveers would contribute to the civil society "through their education, skill, discipline and other qualities".

Why has Agnipath seen such strong opposition?
- Critics say that the scheme creates a "lesser" cadre of soldiers, who work on the same tasks as those with full commission, but with lesser pay, benefits, and prospects.

- On the ground, this disparity has caused significant disaffection among those who see military recruitment as a path to economic stability and upward mobility.

Source:Indian Express

PRADHAN MANTRI AWAS YOJANA (PMAY)

Context: The new Union Cabinet, led by Prime Minister Narendra Modi, has taken its first decision to provide assistance for the construction of three crore additional houses under the Pradhan Mantri Awas Yojana (PMAY).

Background:
- This initiative aims to address the increase in the number of eligible families requiring housing.

About Pradhan Mantri Awas Yojana (PMAY)
- PMAY is a flagship program implemented by the Government of India with the mission of 'Housing for All by 2022'.

- It is a centrally sponsored scheme.

- It was launched in 2015 with the aim to provide affordable housing to the poor, including the Economically Weaker Section (EWS), Low-Income Groups (LIGs), and Middle-Income Groups (MIGs). The scheme has two components: PMAY-Urban (PMAY-U) and PMAY-Gramin (PMAY-G)

Key Points
- **Under PMAY, there are three main schemes:**

    o Credit Link Subsidy Scheme (CLSS): This provides subsidies on home loans for eligible beneficiaries.

    o Affordable Housing Projects (AHP/PDD): These projects focus on creating affordable housing options.

    o Beneficiary Lead Construction (BLC): Beneficiaries can directly construct their own houses with financial assistance from the government.

- **Components: The scheme has two components:**

    o Pradhan Mantri Awas Yojana, Urban (PMAY-U) for the urban poor.

    o Pradhan Mantri Awaas Yojana, Gramin (PMAY-G) for the rural poor.

- Ministries Involved: Ministry of Housing and Urban Affairs (Urban), Ministry of Rural Development (Gramin).

- **Aim**: To provide a pucca house with basic amenities to all families, who are homeless or living in

kutcha or dilapidated houses by the end of March 2022.

- **Beneficiaries**: People belonging to SCs/STs, freed bonded labourers and non-SC/ST categories, widows or next-of-kin of defence personnel killed in action, ex-servicemen and retired members of the paramilitary forces, disabled persons and minorities.

- **Cost Sharing**: The cost of unit assistance is shared between Central and State Governments in the ratio 60:40 in plain areas and 90:10 for North Eastern and hilly states.

- Progress: The PMAY-G has a completion rate of 67.72%, whereas the PMAY-U scheme that started a year ahead is lagging behind with a 50% completion rate.

Source: Hindu

POPULATION CENSUS

Context: Congress party demanded to Prime Minister Narendra Modi to announce the timeline for the updated census.

Background:

- The last census was scheduled for 2021 but has not been completed, which has led to concerns about the accuracy of data used for various welfare schemes and socio-economic planning.

About POPULATION CENSUS:

India - Population & Percentage Decadal Growth
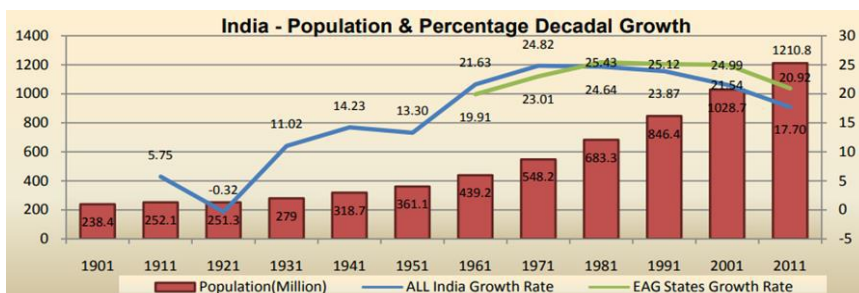
- Population Census is the total process of collecting, compiling, analyzing and disseminating demographic, economic and social data pertaining, at a specific time, of all persons in a country or a well-defined part of a country.

- It also provides the trends in population characteristics.

- The decennial Census is conducted by the Office of the Registrar General and Census Commissioner, Ministry of Home Affairs.

- The population census is a Union subject under Article 246 of India Constitution. It is listed at serial number 69 of the seventh schedule of the constitution.

- **Census is conducted under the provisions of the Census Act, 1948.**

  o The information collected during the population Census is so confidential that it is not even accessible to the courts of law.

  o The confidentiality is guaranteed by the Census Act, 1948. The law specifies penalties for both public and census officials for non-compliance or violation of any provision of the Act.

- The first census in India was conducted in 1872 under Viceroy Lord Mayo, but it was not complete in its coverage.

- The first complete census, which covered the entire country, was conducted in 1881.

- The most recent complete census was conducted in 2011.

- The subsequent census was scheduled for 2021, but it has been postponed due to the COVID-19 pandemic.

Source: Economic Times

PRIME MINISTER MEGA INTEGRATED TEXTILE REGION AND APPAREL (PM MITRA) PARKS SCHEME

Context: The Committee on Estimates presented the report on Empowerment through PM Mega Integrated Textile Region and Apparel (PM MITRA) Parks Scheme and Revival Efforts for the Sick Textile Units/PSUs.

Background:

- Committee has recommended framing a comprehensive National Textile Policy.

PM MITRA Parks Scheme:

- It aims to develop world class infrastructure including plug and play facility with an outlay of Rs. 4445 crores for a period up-to 2027-28.

- It is inspired by 5F vision (Farm to Fiber to Factory to Fashion to Foreign) of Prime Minister to propel India into a leading global hub for textile manufacturing and exports.

- It will help in creating world-class industrial infrastructure that would attract large scale investment including foreign direct investment (FDI) and encourage innovation and job creation within the sector.

- It will offer an opportunity to create an integrated textiles value chain right from spinning, weaving, processing/dyeing and printing to garment manufacturing at a single location.

The main objectives of the PM MITRA Parks Scheme:

- To develop integrated large scale and modern industrial infrastructure facility including plug and play facilities for total value chain of the textile industry.

- To reduce logistics costs by housing entire value chain at one location and improve competitiveness of Indian textiles.

- To help India in attracting investments, boosting employment generation and position itself strongly in the global textile market through augmentation of export potential.

Important features/provisions of MITRA Parks:

- It will offer the opportunity to create an Integrated Textiles Value Chain right from spinning, weaving, processing, and printing to garment manufacturing, accessories making at one location.

- MITRA parks can be either greenfield or brownfield.

- The minimum estimated area per MITRA Park is 1,000 acres.

- A Special Purpose Vehicle (SPV) owned by center and state government jointly will be set up for each park which will oversee the implementation of the project.

- The Ministry of Textiles will provide financial assistance up to Rs 800 crores per park for greenfield projects and up to Rs 500 crores per park for brownfield projects.

- Commercial Development (CD) in a limited area up to 10% of the park area on self-financing model will enhance viability of the park and help maintenance of common assets and facilities by SPVs even after scheme's completion.

- Competitive Incentive Support (CIS) up to Rs. 300 crores per park will incentivize early operationalization and quick scale up.

Source:Parliament Digital library

CENTRAL INFORMATION COMMISSION (CIC)

Context: The Delhi High Court has recently made a significant ruling regarding the jurisdiction of the Central Information Commission (CIC) over the Members of Parliament Local Area Development Scheme (MPLADS) funds.

Background:

- The court ruled that the Central Information Commission does not have the authority to comment on the utilization of MPLADS funds by Members of Parliament.

About CENTRAL INFORMATION COMMISSION (CIC):

- The CIC is a statutory body in India, established under the provisions of the Right to Information Act (2005).

- It is not a constitutional body.

- It functions as the overseer for implementing the RTI Act in the organizations of the Central Government as well as Union Territories (UTs).

- **Composition**:

  o The CIC consists of a Chief Information Commissioner and not more than ten Information Commissioners.

  o **They are appointed by the President on the recommendation of a committee consisting of:**

    ▪ The Prime Minister as the Chairperson,

    ▪ The Leader of Opposition in the Lok Sabha, and

    ▪ A Union Cabinet Minister nominated by the Prime Minister.

- **Qualifications of Members**:

  o The Chief Information Commissioner and the Information Commissioners should be persons of eminence in public life with wide knowledge and experience in Law, Science, and Technology, Social service, Management, Journalism, Mass media, Administration and governance.

- **Tenure of Members**:

  o The tenure of the Chief Information Commissioner (CIC) and Information Commissioners in India has been a subject of change.

  o As per the latest information, the tenure has been reduced from the earlier five years to now three years, or until they attain the age of 65 years, whichever is earlier.

  o This amendment aligns with the government's effort to reform the functioning of the CIC under the Right to Information (RTI) Act.

  o It's important to note that they are not eligible for reappointment after their tenure ends.

- **Responsibility**:

  o The CIC acts upon complaints received from individuals who have been unable to submit requests of information to a Central or State Public Information Officer due to either the officer not having been appointed, or the respective officer refused to entertain the application under the Right to Information Act (RTI Act).

Source: Live Law

GENERAL ANTI-AVOIDANCE RULE (GAAR)

Context: The Telangana High Court has made a significant ruling regarding the General Anti-avoidance Rule (GAAR).

Background:

- The court ruled against a taxpayer, Ayodhya Rami Reddy Alla, in a case where the revenue department had invoked GAAR. This decision is notable as it marks the first judgment on GAAR since its implementation in April 2017.

About General Anti-Avoidance Rule (GAAR)

- GAAR is an anti-tax avoidance law in India, aimed at curbing tax evasion and preventing tax leaks.

- Implemented on April 1, 2017, under the Income Tax Act, 1961.

- **Objective of GAAR**:
  - o To check aggressive tax planning strategies that lack commercial substance.
  - o To ensure that transactions are not structured solely to avoid taxes.

- **Key Features of GAAR**:
  - o GAAR can be invoked for transactions that are legal but are entered into primarily to avoid tax.
  - o It distinguishes between acceptable tax mitigation and unacceptable tax avoidance or evasion
  - o Tax mitigation is allowed under the Act, even after GAAR's implementation.
  - o Tax evasion, which is illegal, is not covered by GAAR as existing laws address it.
  - o Tax avoidance, though not illegal, is considered undesirable if it undermines effective tax collection.

- **GAAR vs BEPS**:
  - o GAAR is often discussed in relation to Base Erosion and Profit Shifting (BEPS).
  - o BEPS refers to tax avoidance strategies by Multinational Corporations (MNCs) to shift profits to tax havens, thus eroding the tax base.

Source: Hindu Businessline

WOMEN IN LEADERSHIP IN CORPORATE INDIA

Context: A report titled "Women in Leadership in Corporate India" by the networking platform has shown a persistent underrepresentation of women in leadership positions across Indian corporates.

Background:

- The report is based on LinkedIn members in India, where the firm has over 100 million people registered.

Findings of the Report:

- Women's representation across the workforce and in senior leadership positions is below 30% all the time and is on a declining trend post-pandemic. This can be attributed to the slowdown in fresh hires of women for leadership roles.

- The lowest representation of women includes construction, oil, gas, mining, and utilities (11%), wholesale and manufacturing (12%), and accommodation and food services (15%).

- The highest representation of women includes education (30%) and government administration (29%)

- Reports show that laws such as the Companies Act, of 2013, which mandates women directors on company boards, are not being followed strictly. Between April 2018 and December 2023, 507 companies were fined for flouting this norm. Of them, 90% were listed companies.

Factors contributing to lower representation of women in corporates:

- Deeply ingrained societal biases and stereotypes about women's abilities, leadership styles, and career ambitions can lead to unfair assessments and limited opportunities for advancement.

- The reduction in the availability of hybrid or work-from-home roles may have contributed to the stagnation, as these arrangements often facilitate the participation of women in the corporate workforce.

- Migration and safety concerns further limit women's access to employment. Inadequate urban infrastructure, along with safety issues in public spaces, can discourage women from seeking and retaining jobs, particularly in urban areas.

- Women often have less access to influential mentors and sponsors who can advocate for their career progression and help them navigate the corporate landscape.

- The scarcity of women in senior leadership positions creates a lack of visible role models and makes it harder for women to envision themselves in these positions.

Ways to enhance gender diversity in corporate leadership:

- Flexible or hybrid work policies are important for retaining women, especially at the junior and middle management levels, as this is when they often have to balance career aspirations and family commitments.

- Adopting a 'skills-first' approach to hiring, rather than making gendered assumptions about a prospective employee's capabilities, can help reduce biases and promote meritocracy. This involves focusing on the candidate's relevant skills, qualifications, and experience, rather than relying on gender-based stereotypes.

- Through peer learning and support, women can share experiences, learn from each other's successes and challenges, and build a strong support system.

- Experienced female leaders can guide and support aspiring women, sharing insights and strategies for career advancement.

- Shared parental leave policies can promote a more equitable distribution of caregiving responsibilities between men and women. Paid paternity leave policy, especially in the private sector, can help promote a more equitable distribution of caregiving responsibilities between men and women.

Source:Hindu

MISCELLANEOUS

SRINAGAR GETS TAG OF WORLD CRAFT CITY

Context: Srinagar has become the fourth Indian city to be recognised as a 'World Craft City' by the World Craft Council (WCC), three years after it was designated as part of the UNESCO Creative City Network (UCCN) for crafts and folk arts.

Background:-

- **Jaipur, Malappuram and Mysore** are the other Indian cities that have previously been recognised as World Craft Cities.

Key takeaways

- The **World Craft City (WCC)** initiative, launched in 2014 by the World Crafts Council AISBL (WCC-International), recognizes the vital role played by local authorities, craftspeople, and communities in cultural, economic, and social development worldwide.

- The WCC-World Craft City Programme establishes a dynamic network of craft cities across the globe, aligning with the principles of the creative economy. This initiative responds to the increasing acknowledgment of the valuable contributions made by local entities to the multifaceted dimensions of development.

Key objectives of the WCC-World Craft City Programme:

- **Global Recognition:** Showcase the reputation and assets of creative cities/regions specializing in specific craft disciplines, raw materials, articles, or a variety of crafts on a global platform.

- **Government Advocacy:** Encourage governmental support and future commitments for the development of crafts in designated cities/regions.

- **Knowledge Exchange:** Promote the exchange of know-how, experiences, and best practices in various craft fields at the national, regional, and international levels.

- **Collaborative Opportunities:** Create new opportunities for cooperation and partnerships between designated craft cities.

Source:World Crafts Council

GLOBAL GENDER GAP INDEX

Context: The 2024 edition of the **Global Gender Gap Index** places India at 129 out of the 146 countries it surveyed. **This puts India at the 18th position from the bottom.**

Background:-

- For comparison, of the 156 countries included in 2021, India was at the 17th position from the bottom. Thus, overall, India's ranking has remained in the bottom 20 over years.

Key Takeaways

- The Global Gender Gap Index annually benchmarks the current state and evolution of gender parity across key dimensions.It is **published by World Economic Forum**

- Like all indices, the Global Gender Gap Index, first introduced in 2006, is a précis measure. **It is a combination of four different sub-indices** — economic participation and opportunity, educational attainment, health and survival and political empowerment — each summarising multiple indicators.

- The index lies between 0 and 1, with 1 denoting complete parity.

- It is important to note that this index focuses on gender gaps, that is, the focus is on the **position of women relative to men (gender equality), rather than to their absolute position. The idea is to track changes in gender gaps both over time and across countries.**

- The 2024 report shows that on "**Health and Survival Score", India's value is at 0.951 which means that 95.1 per cent of the male-female gap has been closed. Similarly, in educational attainment, 96.4 per cent of the gap has been closed.**

- **India has done well on these indicators but since several other countries have done better, India is at 112th position in the educational ranking and at 142nd position in the health rankings among 146 countries.**

- While this is an improvement since 2021 (when it was 32.6 per cent), it is very low in absolute terms, and is lower than the 2012 score of 46 per cent.

- To put this score in perspective, countries with the lowest levels of economic parity are Bangladesh (31.1 per cent), Sudan, (33.7 per cent), Iran (34.3 per cent), Pakistan (36 per cent), India (39.8 per cent), and Morocco (40.6 per cent).

- In political participation, even though India has closed only 25.1 per cent of the gap, its global rank is 65.This reflects the fact that while the rest of the world has made significant forward strides towards gender equality in the economic, educational and health spheres, the global progress on gender equality in political participation remains low. We should note that India's position was at 51 in 2021 with a value of 27.6 per cent, implying that India's score has worsened over the last two years.

- Internalisation of this understanding would mean that gender equality has to be mainstreamed into economic policy making, rather than viewed as a residual concern to be tackled later, as an afterthought.

Source:Indian Express

INTERNATIONAL DAY OF YOGA

Context: Prime Minister Narendra Modi participated in the 10th International Day of Yoga in Srinagar.

Background:

- PM Modi emphasised the global journey of Yoga, mentioning that in India, the AYUSH department has established the Yoga Certification Board for yoga practitioners.

Key Takeaways:

- The term "Yoga" originates from the Sanskrit word "yuj," which means to join or unite.

- The International Day of Yoga (IDY) is observed annually **on June 21st.**

- **Historical Background**:
    o India proposed the idea of IDY during the opening of the **69th session of the United Nations General Assembly (UNGA) in 2014.**
    o The UN officially declared June 21st as IDY by passing a resolution in December 2014.

- **Significance and Theme**:
    o The theme for International Yoga Day 2024 is "**Yoga for Self and Society**".
    o **This theme emphasizes the dual benefits of yoga practice: enhancing personal well-being and contributing to the betterment of society.**

Source: Hindu

MAINS

PAPER 1

GEO HERITAGE SITES

GEO-HERITAGE SITES OF INDIA

Gujarat
• Sedimentary Structures Eddy Markings, Kadan Dam

Himachal Pradesh
• Siwalik Fossil Park

Jharkhand
• Plant Fossil bearing Inter-trappean beds

Sikkim
• Stromatolite bearing Dolomite

Rajasthan
• Sendra Granite
• Barr Conglomerate
• Stromatolite Fossil Park
• Gossan in Rajpura-Dariba
• Stromatolite Park
• Akal Fossil Wood Park
• Kishangarh Nepheline Syenite
• Welded Tuff
• Jodhpur Group-Malani Igneous Suite Contact
• Great Boundary Fault at Satur
• Ramgarh crater
• Zawar lead-zinc mine

Nagaland
• Nagahill Ophiolite

Odisha
• Pillow Lava

Chhattisgarh
• Lower Permian Marine bed

Andhra Pradesh
• Volcanogenic bedded Barytes
• Eparchaean Unconformity
• Natural Geological Arch
• Erra Matti Dibbalu

Kerala
• Laterite
• Varkala Cliff Section

Tamil Nadu
• Fossil wood park
• National fossil wood park
• Charnockite Badlands of Karai Formation

Maharashtra
• Lonar Lake

Karnataka
• Columnar Basaltic Lava
• Pillow lavas
• Peninsular Gneiss
• Pyroclastics & Pillow lavas

GS I – INDIAN GEOGRAPHY

Context: Geo-heritage sites are educational spaces where people acquire much-needed geological literacy, especially when India's collective regard for this legacy is abysmal.

Geo-heritage Sites:

• They are specific places with geological importance, holding both natural and cultural value.
• These features offer valuable insights into the Earth's history and evolution, as well as contribute to education in Earth sciences.
• The Geological Survey of India (GSI) is the main organization responsible for identifying and preserving geo-heritage sites and national geological monuments throughout the country.
• The Mawmluh Cave in Meghalaya was designated as the first Indian Geo-heritage Site by UNESCO in 2001.
• There are 34 notified National Geological Heritage Monument Sites of India.
• GSI or the respective State governments are responsible for taking necessary measures to protect these sites.

Significance of Geo Heritage Sites in India:

• They serve as educational hubs for learning about geology and contribute to our understanding of Earth's history and the processes that have shaped our planet.
• Preserving these sites is as important as conserving biodiversity and cultural heritage because they offer a unique insight into the geological evolution of our world.
• These sites provide valuable knowledge about geological phenomena, climate change, and the Earth's dynamic past, making them essential for scientific research and education. They also help cultivate an

appreciation for Earth sciences among people of all ages.
- They can provide additional benefits such as boosting tourism, driving economic growth, and promoting environmental conservation which makes them invaluable assets for society and for future generations to cherish and learn from.

Challenges/Issues faced in Geological Conservation in India:

- Many fossil-bearing sites have been destroyed in the name of development by real estate growth and destructive stone mining activities. More than 10% of the total area of India is under stone-mining operations.
- India is a signatory to the 'First International Symposium on the Conservation of our Geological Heritage' of UNESCO but has not made any separate legislation or policy for its implementation like that of Thailand and Vietnam.
- Geo-heritage sites in Canada, China, Spain, the United States, and the United Kingdom have been developed as national parks whereas no such steps have been taken in India.
- The Geological Survey of India (GSI) has notified 34 geological monuments but it lacks the regulatory powers to implement the preservation measures. Recently, the district administration demolished a part of the cliff in Varkala in Thiruvananthapuram district, Kerala citing landslide hazards.

India should have a 'National Geo-Conservation Authority' along the lines of the National Biodiversity Authority, with independent observers, while ensuring that the establishment will not lead to red tape and encroach on the autonomy of researchers and academically-inclined private collectors.

MENSTRUAL HYGIENE IN PRISONS

GS I –ISSUES RELATED TO WOMEN

Context: On World Menstrual Hygiene Day 2024, India celebrates significant progress in menstrual hygiene management, with the 5th National Family Health Survey (NFHS 2019-2020) reporting that around 80% of young women aged 15-24 now use safe menstrual hygiene products.

Status of Menstrual Hygiene in Prisons:

- According to the **National Crime Records Bureau,** there are 23,772 women in Indian prisons, with 77% of them in the reproductive age group (18-50 years) and likely to be regular menstruators.
- The availability of **sanitary napkins** is inconsistent across prisons, and the quality of these products could be better.
- All prisons issue **'one size' sanitary pads,** which do not cater to the varying needs of different women. Most prisons do not offer other types of menstrual products like tampons or menstrual cups.
- Despite the **2016 Model Prison Manual's** recommendations, many **states have not provided female prisoners with adequate water and washroom facilities.**
- Proper disposal of menstrual hygiene materials is often neglected, impacting both women's health and the facility's hygiene.
- **Overcrowding and poor socio-economic conditions** further hinder access to necessities like water, detergent, and soap.

Reasons for overlooking Menstrual Hygiene Management in Prisons:

- Menstruation itself can be a **taboo subject,** and there might be hesitation to discuss it openly, especially in a prison environment. This can make it difficult for women to ask for what they need.
- There is no law mandating the provision of free, unlimited sanitary products in prisons. No prison rule has provisions for providing hot water to women prisoners to manage menstruation.
- Existing schemes like the **Menstrual Hygiene Scheme 2011, Swachh Bharat Abhiyan, and** Pradhan Mantri Bhartiya Janaushadhi Pariyojana **do not specifically address the needs of women prisoners.** The **Model Prison Manual 2016** suggests providing sterilised sanitary pads as needed, but implementation varies widely across states and prisons.

- There is a lack of data on **water availability in prisons,** complicating efforts to address hygiene needs effectively.
- Prison authorities may not be fully aware of the specific needs of women during menstruation, or the importance of menstrual hygiene for their health.
- Providing menstrual products can be seen as an extra expense, especially in overcrowded prisons with limited resources.

Government Initiatives Related to Menstrual Hygiene:

- **National Menstrual Hygiene Policy was i**ntroduced in 2023, this policy emphasises safe and dignified MHM for all. Remarkably, the **policy identifies prisoners as a target population** with compromised access to menstrual hygiene facilities, marking a positive step forward. The policy does not provide a specific action plan for improving menstrual hygiene management in prisons.
- The Ministry of Health and Family Welfare has launched the **Menstrual Hygiene Scheme (MHS)** to promote menstrual hygiene among rural adolescent girls aged 10-19. The **scheme provides subsidised sanitary napkin** packs to adolescent girls through decentralised procurement, with Accredited Social Health Activist (ASHA) workers responsible for distribution and education.
- **Under the Pradhan Mantri Bharatiya Janaushadhi Pariyojana (PMBJP), Suraksha Suvidha Napkins (oxo-biodegradable sanitary napkins)** are available at Jan Aushadhi Kendras **for Rs 1 each.**
- Under the **Beti Bachao Beti Padhao (BBBP) (Mission Shakti) efforts have been undertaken to g**enerate **awareness about menstrual hygiene** and the use of sanitary napkins.
- State-specific projects for menstrual health and hygiene, including the installation of **sanitary pad vending machines and incinerators** in schools.
- The zero-napkin mission aims to **replace synthetic napkins with menstrual cups implemented inKerala.** Due to the **environmental challenges and health issues posed by synthetic napkins,** local bodies in Kerala are distributing menstrual cups and raising awareness about their use.

Way Forward:

- Creating **designated and accessible locations in prisons** for inmates to discreetly request and obtain menstrual supplies, such as vending machines stocked with products or designated staff for distribution.
- Training **incarcerated women to become peer educators on menstrual hygiene** best practices. This empowers them to share knowledge with fellow inmates, fostering a sense of community and promoting self-care.
- Organise workshops for prison staff on menstrual hygiene management and dispelling misconceptions.
- Involve female healthcare professionals for regular access to gynaecological checkups and education on menstrual health concerns.
- The government should **establish and uphold uniform national regulations for menstrual hygiene in prisons**, including providing unlimited, free high-quality sanitary pads, ensuring clean and functional toilets with proper ventilation in female wards, and providing safe and hygienic disposal bins for sanitary pads.

Establishing a monitoring system to assess implementation, track product availability, and address issues. Promote menstrual hygiene as a basic right and include it in prison reform initiatives for an ongoing focus on women's well-being.

World Menstrual Hygiene Day 2024:

- It is an annual awareness day held on **28th May.** It aims to **break the silence and stigma surrounding menstruation** and promote good menstrual hygiene management.
- **The theme for 2024 was "#PeriodFriendlyWorld".**

MIHIR BHOJA

GS I – PERSONALITIES
Context:A statute of Raja Mihir Bhoja was unveiled in Kaithal, Haryana.

Mihir Bhoja:

- He was a prominent ruler of the Gurjar-Pratihara dynasty in the 9th century.
- He succeeded his father Rambhadra and ascended to the throne in 836 CE.
- He adopted the title of Adivaraha (devotee of Lord Vishnu).
- Some of his coins contained the term Adivaraha.
- He was a great patron of art and literature. The poet Rajsekhara adorned his court.
- He reorganized and consolidated the Pratihara empire through conquests and diplomacy.
- The inscriptions at Varaha, Daulatpur, Kahala, Pahewa, etc., indicate his control over Malwa, Rajputana, and Madhyadesh.
- His rule spanned a vast territory, from the foothills of the **Himalayas to the Narmada River,** which included the present district of Etawah in Uttar Pradesh. **Kannauj, which served as his capital during his reign, was known as Panchala.**
- Kalhana's Rajatrangini mentions the expansion of his empire to Kashmir in the north.
- **Bhoja's Daulatpura-Dausa Inscription,** confirms his rule in the Dausa region.
- He was also involved in the tripartite struggle for Kannauj with Palas in the East and Rashtrakutas in the Deccan.
- He fought wars with Pala king Devapala. Later, according to Gwalior Prashasti, Bhoja defeated the son of Devapala.
- He captured Kannauj from Rashtrakutas and extended his empire up to the river Narmada.

Tripartite Struggle:

- It is also known as Kannauj Struggle for the control of Northern India in the 9th century. It was between the Pratihara Empire, the Pala Empire, and the Rashtrakuta Empire.

NALANDA UNIVERSITY

GS I –INDIAN ARCHITECTURE
Context: The Prime Minister of India inaugurated the new campus of Nalanda University in Rajgir, Bihar.

Nalanda University:

- It was founded by Gupta Emperor Kumaragupta I in **427 CE** in modern Bihar in the early 5th century, and it flourished for 600 years until the 12th century.
- It **was a renowned Buddhist mahavihara** (great monastery) in ancient and medieval **Magadha** (modern-day Bihar), near the city of Rajagriha (now Rajgir) and about 90 km southeast of Pataliputra (now Patna).
- It is considered to be **among the greatest centres of learning in the ancient world**.
- **It played a vital role** in promoting the patronage of arts and academics during the 5th and 6th centuries CE, a period that has since been described as the "Golden Age of India" by scholars.
- **After Guptas**, Nalanda continued to thrive with the support of the rulers of the **Pala Empire.**
- **It** may have been attacked in 1190s and **damaged by Muhammad Bakhtiyar Khalji** - a Turko-Afghan military general.
- The chronicles of the seventh-century Chinese traveller **Hsuan Tsang** provide the most detailed description of ancient Nalanda.
- **After being lost for six centuries,** the university was rediscovered in 1812 by Scottish surveyor Francis Buchanan-Hamilton.
- Later in 1861, it was officially identified as an ancient university by **Sir Alexander Cunningham.**
- It is a **UNESCO World Heritage Site.**
- **The contemporary Nalanda University at Rajgir** has been listed as an "**Institute of National Importance**" by the Government of India.

Features of the New Nalanda University Campus:

- **Its architecture is** situated on a sprawling 455 acres of land, fusing both the modern and ancient styles.
- **It** integrates eco-friendly architecture, ensuring a net-zero carbon footprint.
- **It currently operates six schools**, covering Buddhist studies, historical studies, ecology, sustainabledevelopment, languages, literature, and international relations.
- **Along with that, it also hosts four centres** specialising in Bay of Bengal Studies, Indo-Persian Studies, Conflict Resolution, and a Common Archival Resource Center.
- **It offers a range of programs including postgraduate and doctoral research courses, short-term certificate courses, and scholarships for international students, reflecting its commitment to global academic excellence.**

Revival of Nalanda University:

- The idea to re-establish Nalanda University was proposed by former president Dr APJ Abdul Kalam **in 2006.**
- **In 2007**, the proposal to re-establish Nalanda was endorsed at the East Asia Summit in Mandaue, Philippines, and was reiterated in the East Asia Summit of 2009, in Hua Hin, Thailand.
- It gained momentum with the passing of the Nalanda University Bill in 2010 in the Indian Parliament, **leading to its operational launch in 2014** from a temporary location near Rajgir.
- **Former president Pranab Mukherjee laid the foundation** stone for the permanent campus in 2016 at Pilkhi village, Rajgir.
- **Its construction commenced in 2017** and the university became fully functional by 2022, culminating in the inauguration of the new campus recently.
- Along with India **17** other **countries** including Australia, Bangladesh, Bhutan, Cambodia, China, New Zealand, Portugal, Singapore, South Korea, etc - have helped set up the university.

Kumaragupta I:

- He was the son of Chandragupta II and grandsonof the Great Samudragupta of the Gupta dynasty.
- He succeeded Chandragupta II and reigned for 40 years (from c.415 to 455 CE).
- He adopted the title of Shakraditya and Mahendraditya.
- He performed the Asvamedha Yajna which was confirmed by Asvamedha coins
- During his reign, the Gupta dynasty saw a revolt by the Pushyamitra tribe, and the invasion of the Huna began.
- Kumargupta I successfully defended his kingdom against the Huna invasion.
- After the death of Kumaragupta-l, Skandagupta succeeded in 455 A.D. and reigned from 455 to 467 A.D.

WOMEN ENTREPRENEURS IN MIDDLE INDIA

GS I –ROLE OF WOMEN AND WOMEN'S ORGANIZATION

Context: The Reserve Bank of India's Innovation Hub (RBIH) released a whitepaper titled 'At the Helm: Women Entrepreneurs Transforming MiddleIndia.'

Status of Women Entrepreneurs in India:

- India ranks 57th out of 65 on the Mastercard Index of Women Entrepreneurs, indicating a substantial journey ahead. Despite this, the financial commitment to women-led startups showed a commendable increase, with funding escalating to 18% of the overall in 2022. Currently, the country has nearly 14% of women entrepreneurs, equating to 8.05 million, and over 20% of the MSME sector comprises women-led businesses.

Significance of Women Entrepreneurs in Middle India:

- According to NITI Aayog, by increasing women's entrepreneurship, India could create more than 30 million women-owned enterprises, potentially creating 150 to 170 million jobs.
- India could increase GDP growth by 1.5 percentage points by including 50% of women in the workforce (World Bank). This also leads to sustainably augmenting family income.
- According to the ILO Report, only 19.2% of Indian women participate in the workforce, in stark contrast to

70.1% of men. Women entrepreneurs help bridge the gender gap in the business world and promote gender equality.

- Women entrepreneurs also tap into the global market using digital and social platforms. For example, The Splendor of Kashmir was started by Varuna Anand from Jammu to promote Kashmiri shawl artistry through online sales and exhibitions across India by online sales venture.
- Women entrepreneurs inspire other women to embark on their entrepreneurial journeys through Self Help Groups. For example, Maa Bimaleshwari Janhit Karya Samiti is a Self-Help Group started by Phool Basan Yadav, empowering 2,00,000 poor women.
- When women can be financially independent and can participate in decision-making it will lead towomen's empowerment. For example, Usha Jha, also known as 'Usha auntie' in Patna, supported women with entrepreneurial aspirations.

Issues/Challenges faced by women entrepreneurs in Middle India:

- There is a capital gap as merely 3% of the women surveyed had accessed external funding, such as bank loans or equity investments, to start or expand their businesses.
- Women entrepreneurs frequently confront societal undervaluation of their work, often stereotyped by their roles within the family or judged by their age or level of ambition.
- Cities deemed safer for women usually have more entrepreneurs which indicated enhancing women's safety can directly contribute to fostering a more vibrant entrepreneurial ecosystem.
- Women face the challenge of rebuilding their social networks after migration due to marriage which often leads to slower career progression, as rebuilding networks takes time and effort.
- Women entrepreneurs are more likely to experience pauses in their careers due to caregiving responsibilities, including maternity leave and other family care needs.

'At the Helm: Women Entrepreneurs Transforming Middle India':

- It is aimed at understanding complex socioeconomic dynamics affecting women's entrepreneurship in Middle India.
- Middle India includes Tier II and Tier III cities with women entrepreneurs who are poised to play a transformative role. Despite notable progress in education and legislative measures improving workplace conditions, women's participation in entrepreneurship remains limited, particularly in Tier II and Tier IIIcities which demands immediate attention and dedicated action.

COALITION GOVERNMENT

GS II –PARLIAMENT

Context: The 18th Lok Sabha election result signifies the end of single-party dominance and heralds the return of a true coalition government at the center.

Coalition Government:

- It consists of multiple political parties or individuals working together, sometimes with different ideologies and viewpoints.
- It is formed when no single political party obtains the majority required to form a national government.
- Its main aim is to ensure majority control of the parliament or legislative assembly and the implementation of a common minimum programme.
- It can be either pre-poll or post-election.
- Generally, member political parties in a coalition form a political alliance and adopt a common programme.

Advantages of Coalition Government:

- In a country like India which is vast with diverse cultures, languages, castes, religions, and ethnic groupings, the coalition government is more representational of the electorate and reflects the public mood.
- It acts as a vehicle for meeting and addressing the needs of various parties.
- The federal fabric of the Indian political system is strengthened by coalition politics as coalition administration is more receptive to regional requests.
- Despotic control is less possible with a coalition administration as the government's activities are not dominated by a single political party.
- The coalition government is made up of a variety of political parties with differing ideologies and objectives which encourages political consensus.

Disadvantages of Coalition Government:

- They are unstable most of the time as the government may fall apart due to differences of opinion among coalition members.
- The parliamentary system of government vests more power with the Prime Minister but in a coalition government, this principle is constrained because the Prime Minister must consult with the coalition partners before making key decisions.
- Regional leaders participate in national decision-making by bringing regional realities to the fore. They put pressure on the alliance's central executive to comply with their requests, threatening to depart if they don't.
- The coalition partners' Steering Committee or Coordination Committee serves as a "Super Cabinet," undermining the cabinet's role and position in government operations.
  Smaller parties in a coalition government might have **significant influence** by demanding more than their fair share of power in Parliament.

GROUP OF SEVEN (G7)

GS II – REGIONAL AND GLOBAL GROUPINGS AND AGREEMENTS INVOLVING INDIA AND/OR AFFECTING INDIA'SINTERESTS.

Context: The 50th anniversary of the Group of Seven (G7) summit was held in Italy.

Group of Seven (G7):

- It is an intergovernmental political and economic forum of the most developed and advanced economies of the world consisting of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
- It is an informal grouping that operates outside of formal treaties and lacks a permanent bureaucracy.
- It brings together the world's advanced economies to influence global trends and tackle pervasive and crosscutting issues, as well as emergent global crises.
- Its agenda includes ensuring trade security, building regional partnerships, and countering the influence of China to bolster economic and security stability in the region.
- It cannot enact laws directly and decisions are taken through consensus.

Significance of G7 for India:

- India being the **5th largest economy** with rapid economic growth can get access to **cutting-edge technologies** in the areas of renewable energy, artificial intelligence, and digital technology and helps to **expand into new markets by** participating in the G7 summit.
- **By participating in the G7 summit,** India can counter China's influence in the Indo-Pacific by developing strategic partnerships with Western countries within the framework of G7.
- The G7 countries are major contributorsto development assistance, and their funding decisions can impact positively on India's development agenda.
- India has historic and strategic ties with Russia alongside its growing relationships with Western nations which plays a critical role in maintaining stability and pursuing strategic interests amidst global geopolitical shifts.
- The G7 countries have greatly impacted global climate policy, and closer cooperation with them could help India reduce its emissions and adapt to the impacts of climate change.

Key Highlights of the 50th G7 Summit in Italy:

- It promoted concrete G7 PGII (Partnership for Global Infrastructure and Investment) initiatives which were launched by the US and G7 allies at the 48th G7 Summit in 2022 to narrow the USD 40 trillion infrastructure gap in the developing world.
- It promoted the India-Middle East-Europe Economic Corridor (IMEC) that aims to create a comprehensive transportation network, comprising rail, road, and sea routes, connecting India, the Middle East, and Europe.
- It extended support for the Lobito Corridor in Central Africa and Luzon Corridor and the Middle Corridor. Lobito Corridor extends from the port city of Lobito on the Atlantic coast of Angola through the Democratic Republic of the Congo (DRC) and into Zambia. Luzon Corridor is a strategic economic and infrastructure corridor located on the island of Luzon in the Philippines. Luzon is the largest and most populous island in the Philippines.
- It took steps to **enhance interoperability amongst its AI governance** approaches to promote **greater certainty, transparency, and accountability.**
- It agreed to provide financing of approximately USD 50 billion in additional funding to Ukraine by the end of 2024.

HYPERPOLITICISATION OF EDUCATION

GS II – EDUCATION

Context: The hyperpoliticisation of Indian higher education is a grave threat to academic institutions, the academic profession, and intellectual life in general.

Reasons for Nexus Between Politics and Indian Higher Education:

- Indian higher education institutions have long been influenced by political agendas, with **politicians founding colleges** to bolster their careers.
- Many institutions were created to meet the **socio-cultural demands of the electorate**, reflecting the diverse and complex nature of Indian society. Governments have placed **educational institutions in politically advantageous locations,** often catering to socio-cultural demands.

- The naming and renaming of universities, particularly by state governments, are frequently driven by political motives. For example, The Uttar Pradesh Technical University (UPTU), Lucknow was renamed several times.
- Academic appointments and promotions have sometimes been **influenced by political considerations rather than the qualifications and merits of candidates.** Several Indian states are showing dissent over the appointment of state **governors as chancellors** for state universities.
- While norms of academic freedom have not always been strictly followed, especially in undergraduate colleges, universities have generally adhered to international norms, allowing professors to teach, research, and publish freely. **Self-censorship is becoming prevalent**, especially in the social sciences and humanities. Prominent academics have faced repercussions for publishing controversial material.

Consequences of Hyperpoliticisation of Higher Education:

- There's a growing concern that political influence could **undermine academic freedom,** with faculty and students potentially facing pressure to align with the political ideology. **Liz Magill, president of the University of Pennsylvania**, testified before a U.S. Congressional committee on the issue of antisemitism on college campuses. Under pressure from wealthy donors and alumni, she resigned.
- A politicised academic environment may **deter talented students and faculty** from enrolling or working in Indian institutions. This could hinder India's efforts to become a global leader in higher education.
- When political agendas dominate academic discourse, it can lead to a **stifling of open debate and a reluctance to explore alternative viewpoints.**
- Increased politicisation can lead to **student activism** aligned with or against the political party. While **student activism can be positive,** it can also disrupt academic life if it becomes overly politicised.
- When universities are seen as pawns in political games, public trust in the value and objectivity of academic research can erode. This weakens the legitimacy of academic expertise in shaping public policy.
- Politicians with short-term agendas may be less likely to **invest in long-term research projects** with uncertain commercial applications. This can stifle innovation and India's ability to compete in the global knowledge economy.
- Employers increasingly value **skills like critical thinking, problem-solving, and adaptability.** A hyper-politicised education that prioritises ideology over these skills can leave graduates less prepared for the workforce.

INDIA AGEING REPORT 2023

GS II – ISSUES RELATED TO HUMAN RESOURCES

Context: The United Nations Population Fund India (UNFPA) has released the India Ageing Report 2023.

Key findings of the India Ageing Report 2023:

- It observed sharp growth in the elderly population is observed from 2010 onwards along with a decline in the age group below 15 years, indicating rapidity of ageing in India.
- It also found significant interstate variation in absolute levels and growth of the elderly population. It found out that when compared to southern and western India, central and northeastern regions have the younger group of states.

Challenges faced by Ageing Population in India:

- Poverty is inherently gendered in old age when older women are more likely to be widowed, living alone, with no income, with fewer assets of their own, and fully dependent on family for support.
- According to the Census of India 2011, about 71 % of older persons live in rural areas. These are more vulnerable to income insecurity, lack of access to adequate and quality healthcare, and isolation in comparison to urban counterparts.
- From 2000–to 2022, the total population of the country grew by 34 %, while the population of 60+ years grew by 103 %.
- Isolation and loneliness will increase due to the trend of nuclear families, lack of availability of a social

security system, gender-based discrimination against women, etc.

- The productivity of the nation will fall along with labour force shortages, public dissaving, and old-age income insecurity.
- The elderly often require more extensive healthcare services and long-term care, which can strain the healthcare system.
- The Longitudinal Ageing Study in India (LASI) survey finds that the Incidence of depression was seen to be rising with increasing age and was higher among elderly women than men.

Way Forward:

- Promoting Elderly SHGs (ESHGs) along with the livelihood mission, make the ageing population more productive and self-reliant.
- Old-age homes should be brought under government monitoring, and a regulatory body can be set up for the same.
- Promoting a silver economy includes all those economic activities, products, and services designed to meet the needs of people over 50.
- Promoting digital literacy among the old population will enhance their productivity and it will promote their integration into the economy.
- Senior citizens lacked awareness about the various schemes and programmes meant for them. As per the LASI report, only 12% of the elderly are aware of the Maintenance and Welfare Act.

INDUS WATER TREATY

GS II – INDIA AND ITS NEIGHBORHOOD- RELATIONS

Context: A Pakistani delegation made the first visit to Jammu and Kashmir in more than five years under the dispute settlement mechanism of the 1960 Treaty.

Indus Water Treaty:

- It is a treaty signed between **India and Pakistan** regulating the **use and distribution of the Indus River system.**
- It was signed by then-Prime Minister Jawaharlal Nehru and former Pakistan President Ayub Khan in **1960**.
- It was **brokered by the World Bank**, which too is a **signatory to the treaty.**
- It sets out **a mechanism for cooperation and information exchange between the two sides** on the use of the water of the Indus River and its five tributaries **Sutlej, Beas, Ravi, Jhelum, and Chenab.**
- Under the treaty, **water from three eastern rivers, Beas, Ravi, and Sutlej**, was **allocated to India,** and water from the **three western rivers – Chenab, Indus, and Jhelum** was allocated **to Pakistan.**
- **Pakistan** roughly **80% of the water in the Indus drainage** system.
- The treaty **permits both countries** to **use the other's rivers for certain purposes**, such as **small hydroelectric projects** that require little or no water storage.
- The treaty is **overseen by the Permanent Indus Commission (PIC),** a **bilateral body** with commissioners from both countries tasked with implementing and managing treaty provisions and resolving any questions, differences, or disputes that may arise.

Reasons to Renegotiate the Indus Water Treaty:

- **The Treaty came into being in 1960 and it did not consider** the **impacts of climate change and the advancement in water storage and management technologies. So, it needs to be** renegotiated to accommodate it.
- The treaty is **not equipped to cater to new techniques and technologies of hydropower projects** which increase their life and efficiency as these were not available at the time the treaty was negotiated.
- It can provide unique mechanisms to resolve disputes over water resources, including disputes between the two countries and disputes between individual states within each country.
- Renegotiation helps to promote greater transparency and cooperation between India and Pakistan on water-related issues, including the sharing of data and information.

The reconsideration of the treaty enhances the institutional arrangements for water management, including strengthening **the role of the Indus Waters Commission and other relevant institutions.**

JUDICIAL PENDENCY

GS II – JUDICIARY

Context: The Ministry of Law and Justice recently informed the Rajya Sabha that over 5.02 crore cases were pending in various courts.

Judicial Pendency:

- It refers to the high number of unresolved cases that are pending before the courts.
- The problem of pendency is particularly acute at the lower levels of the judiciary, where the majority of cases are filed and where the shortage of judges is most severe.
- In many states, the number of pending cases is significantly higher than the national average. For example, in Bihar, there are over 5 million pending cases, while in Uttar Pradesh, there are over 6 million pending cases.
- Between 2010 and 2020, pendency across all courts grew by **2.8% annually.** This implies that if no new cases were to be filed, the time taken by courts to dispose of all the pending cases at the current disposal rate would be 1.3 years for the Supreme Court and 3 years each for High Courts and subordinate courts.
- Tribunals and special courts (such as Fast Track Courts and Family Courts), which were set up to ensure speedy disposal of cases, also witness high pendency and vacancies.

Reasons for the pendency of cases:

- Low ratio of judges to population and delay in filling the vacancies of judicial officers and judges.
- The laid down procedure of allowing a maximum of three adjournments per case is not followed in over 50 percent of the matters being heard by courts, leading to rising pendency of cases.
- Court complexes lack adequate funds, internet, lackadaisical working style of staff, and courtrooms to occupy judges.
- Delay in processing both civil and criminal cases due to non-availability of counsel, misaligned incentives, the complexity of facts involved, nature of evidence, etc. leads to rising judicial pendency.

Way Forward:

- Collegium should take adequate safeguards and transparency in selecting judges so that judges of high calibre and impeccable integrity are appointed to the higher courts. An All-India Judicial Services examination can be considered to maintain high standards in the judiciary. Articles 224A and 128 of the Constitution can be invoked to appoint ad hoc Judges.
- Promoting Alternative Dispute Resolution (ADR) mechanisms such as Lok Adalat, Arbitration, Mediation, Conciliation, etc. for civil cases can help to reduce the burden on courts and facilitate robust legal practice.
- The government should provide adequate funds for developing and upgrading the judicial infrastructure, training judicial staff, etc.
- A time limit should be set for hearing a case and deciding. Consider and explore options for setting up fast-track courts and fixing time limits or deadlines for certain categories of cases, especially in subordinate courts.
- Reduce the criminalization of violations and move towards the compounding of minor offences.
- Reform forensics and ballistics testing by outsourcing to accredited laboratories.
- Government departments must establish a strong internal grievance redressal mechanism and empower designated officers to decide disputes between employees and departments.
  Introduce incentive and sanction-based models of motivation to ensure that citizens abide by the law.
  Prohibitive penalties should be imposed to check traffic violations, and civic violations including littering in public, first-time petty offenders, etc.

LGBTQIA+ IN INDIA

GS II – SOCIAL JUSTICE

Context: The Supreme Court has cautioned judges against using the court-ordered counselling of members of the LGBTQ+ community as a way to turn them against their own identity and sexual orientation. In such cases, they are often in distress or have been separated from their partners by their own relatives, it observed.

LGBTQIA+:

- It is an acronym that represents **lesbian, gay, bisexual, transgender, queer, intersex, and asexual.**
- The "+" represents the many other identities that are still being explored and understood. The acronym is constantly evolving and may include other terms like **non-binary and pansexual.**

Issues/Challenges faced by LGBTQIA+:

- There is a lack of legal recognition of same-sex relationships and marriage.
- They face significant social stigma and discrimination, including ostracization from families, workplace discrimination, and verbal or physical harassment.
- The social stigma faced by them can lead to mental health issues such as depression and anxiety.
- They often encounter difficulties accessing healthcare services that are sensitive to their needs and many healthcare providers lack awareness and training on LGBTQ+ issues, leading to inadequate or discriminatory care.
- They often face discrimination and bullying in educational institutions, which can negatively impact their academic performance and mental well-being.
- There is a lack of legal protection against discrimination based on sexual orientation and gender identity in areas such as employment, housing, and public accommodations.
- There is still a **lack of legal recognition and protections for non-binary and gender non-conforming individuals.**

Way Forward:

- Introducing LGBTQIA+ inclusive education in schools and universities to foster understanding, empathy, and acceptance from a young age.
- Legislatures can pass separate comprehensive anti-discrimination laws that explicitly protect individuals based on sexual orientation and gender identity.
- Ensuring easy access to LGBTQIA+-friendly healthcare services, including mental health support, hormone therapy, and gender-affirming surgeries.
- Encouraging entrepreneurship and economic empowerment within the LGBTQIA+ community by providing them access to **mentorship, funding, and resources** for starting LGBTQIA+-owned businesses and ventures.
- Establishment of support networks, community centers, and helplines for LGBTQIA+ individuals, particularly those facing family rejection or homelessness.
- The Supreme Court in 2023 stopped short of granting Constitutional validity to same-sex marriage. Through this judgment, SC shifted the onus on the legislature to decide this socially controversial issue.

PM GATI SHAKTI NATIONAL MASTER PLAN (PMGS-NMP)

GS II – GOVERNMENT POLICIES AND INTERVENTIONS

Context:PM GatiShakti National Master Plan to provide multimodal connectivity infrastructure to various economic zones has been completed two years after its inception.

PM Gati Shakti:

- It is an approach for growth accelerating trustworthy infrastructure through synchronized, holistic, integrated, and comprehensive planning based on knowledge, technology, and innovation.
- PM GatiShakti National Master Plan provides a comprehensive database of the ongoing and future projects of various Ministries i.e. Infrastructure Ministries and Ministries and States involved in the development of

Economic Zones, integrated with 200+ GIS layers thereby facilitating planning, designing, and execution of the infrastructure projects with a common vision.

- In the National Master Plan, all the existing and proposed economic zones have been mapped along with the multimodal connectivity infrastructure in a single platform ranging in three time periods, i.e. status as of 2014-15, achievements made by 2020-21, and planned interventions up to 2024-25.
- It will encompass the seven engines (Roads, Railways, Airports, Ports, Mass Transport, Waterways, and Logistics Infrastructure) of the National Infrastructure Pipeline (NIP).
- It was launched in 2021. Under the initiative, **100 critical infrastructure gap projects** have been prioritized in FY24 for development with a budgetary allocation of **Rs. 75,000 crores**.

Objectives:

- Incorporating economic zones like textile clusters, pharmaceutical clusters, defence corridors, electronicparks, etc. in PMGS-NMP.
- Setting up a unified portal that would bring 16 ministries including railways and roadways together.

Significance of PM Gati Shakti:

- **It gives a boost to economic growth** due to enhanced connectivity, reduced logistics costs, and increased business opportunities.
- **It increases investment opportunities** due to the improved state of infrastructure, ease of doing business, and enhanced connectivity.
- **It helps in employment generation**, particularly in infrastructure, logistics, and economic clusters, which is accompanied by economic growth and increased private investment.
- It will facilitate the last mile connectivity of the infrastructure so that road, rail, power, optic fiber cable, gas pipeline, etc. are available to the people.
- **It reduces regional disparity** due to increased investment and economic activity in underdeveloped regions, led by improved connectivity and accessibility.
- **It improves the ease of living** for common people due to improved connectivity, reduced transportation costs, and new job opportunities.

Challenges/Issues faced by PM Gati Shakti:

- It faces structural problems like securing approvals for land access, obtaining environmental clearances, and resettlement and compensation issues for affected communities.
- It suffers from financial constraints as private banks are reluctant to provide credit due to fear of increasing non-performing assets.
- It faces problems due to issues in center-state coordination due to the involvement of multiple authorities without a clear flow of accountability and issues of disputes arising during the implementation of the project.
  The real issue is to balance infrastructure development along with environmental considerations.

Economic Zone:

- It refers to a cluster where any economicactivity in the form of manufacturing or value addition services or other services are being carried out.

POST OFFICE ACT OF 2023

GS II – GOVERNMENT POLICIES AND INTERVENTIONS

Context: The Post Office Act came into force on June 18, 2024.

Post Office Act of 2023:

- It repealed the 125-year-old Indian Post Office Act of 1898.
- It contains provisions that allow the centre to intercept, open, or detain any item, and deliver it to customs authorities.

Key Provisions of the Post Office Act of 2023:

- The Act provides that wherever the central government establishes posts, it will have the exclusive privilege of conveying letters by post, as well as incidental services such as receiving, collecting, sending, and delivering letters.
- The Act provides for the issuance of postage stamps as per the prescribed Rules.
- The Act specifies the services provided by India Post to include:
  o delivery of postal articles including letters, postcards, and parcels, and
  o money orders.
- The Act provides that India Post will provide services, as may be prescribed by the central government.
- Under the Act, the Director General of Postal Services has powers to decide the time and manner of delivery of postal services.
- The Act allows interception of an article being transmitted through a post on certain grounds. An interception may be carried out on the occurrence of any public emergency, or in the interest of public safety or tranquility. Such interceptions may be carried out by the central government, state governments, or any officer specially authorised by them.
- Under the Act, an officer in charge may examine a postal article if he suspects that it contains goods which are prohibited, or are liable to be paid duty upon.
- The Act exempts the government from any liability related to the loss, misdelivery, delay, or damage to a postal article.

Concerns/Issues with the Post Office Act of 2023:

- The Act does not specify any procedural safeguards against the interception of postal articles. This may violate the **right to privacy**, and the **freedom of speech and expression.**
- **The Act does not define** the term emergency explicitly which in turn gives a very wide ground for interception.
- The Act does not establish tribunals for disposing of complaints against the Indian Post for lapses in services.
- The Act does not specify what consequences would follow if an officer acted fraudulently or willfully caused loss, delay, or misdelivery of service.
  The Act does not specify any consequences if a postal officer illegally opens postal articles.

PUBLIC EXAMINATIONS (PREVENTION OF UNFAIR MEANS) ACT OF 2024

GS II – GOVERNMENT POLICIES AND INTERVENTIONS

Context: The Public Examinations (Prevention of Unfair Means) Act, 2024 which aims to prevent unfair means in public examinations and common entrance tests held across the country came into effect on 21st June 2024.

Key Provisions of the Public Examinations (Prevention of Unfair Means) Act of 2024:

- It seeks to prevent the use of "unfair means" in public examinations and bring "greater transparency, fairness and credibility". Its objective is to reassure youth of **fair rewards for sincere efforts**.
- **Section 2(k) of the Act defines a public examination** as any exam conducted by a public examination authority listed in the Act's Schedule or designated by the Central Government through notification.
- The public examinations in the Act refer to examinations conducted by authorities notified by the central government. These include the Union Public Service Commission, Staff Selection Commission, Railway Recruitment Board, National Testing Agency, Institute of Banking Personnel Selection, and Departments of the central government and their attached offices for recruitment.
- **Section 3 lists 20 offences**, including impersonation, tampering, leakage of question papers or answer keys, unauthorized access to question papers or optical mark recognition (OMR) response sheets, creating fake

websites, etc.
- The Act prohibits disclosing exam-related confidential information before time, and unauthorised people from entering exam centres to create disruptions. The offences will be punishable with imprisonment between three and five years, and a fine up to Rs 10 lakh.
- The Act designates officers of at least Deputy Superintendent of Police (DSP) or Assistant Commissioner of Police rank to investigate unfair means in public examinations.
- All offences under the Act will be cognisable, non-bailable, and non-compoundable. This means that an arrest can be made without a warrant and bail will not be a matter of right; rather, a magistrate will determine whether the accused is fit to be released on bail.
- The Act defines a service provider as any agency, organisation, body, association of persons, business entity, company, partnership, or single proprietorship firm, including its associates, sub-contractors, and provider of support of any computer resource or any material.
- Under the Act, a service provider, engaged by the public examination authority for the conduct of examinations, shall also be liable to be punished with the imposition of a fine up to ₹1 crore and the proportionate cost of the examination shall also be recovered. Such service providers shall also be barred from being assigned with any responsibility for the conduct of any public examination for four years.
- The Act is binding for central authorities and a model for states.
- The Act establishes the **National Technical Committee** to enhance security in computerized exams by developing protocols for IT security and surveillance.

Issues with the Public Examinations (Prevention of Unfair Means) Act of 2024:

- The Act does not clearly mention the composition and qualifications of the National Technical Committee on Public Exams which raises concerns about potential partisanship.
- The Act does not specify a time frame for rescheduling exams cancelled due to unfair means like paper leaks.
- The Act depends on state governments to draft their acts which may lead to partisan interests.
- The Act does not provide separate specialized investigation and regulation authority for systematic investigation of the offences

SPEAKER OF THE LOK SABHA

GS II – PARLIAMENT
Context: Om Birla was elected as the Speaker of the 18th Lok Sabha.

Speaker of the Lok Sabha:

- The Speaker is the constitutional and ceremonial head of the House.
- The Speaker of the **Lok Sabha** is the presiding officer of the Lok Sabha, the lower house of the **Parliament** of India.
- The Speaker of the Lok Sabha derives his powers and duties from three sources - the Constitution of India, Rules of Procedure and Conduct of Business of Lok Sabha, and Parliamentary Conventions.
- The Speaker of the Lok Sabha is the highest authority in the lower house of the Parliament of India, the Lok Sabha.
- The Speaker is expected to be **neutral and unbiased** in discharging his or her duties and to ensure that all members of the Lok Sabha are treated fairly and equally.
- The Speaker has the authority to rule on points of order and to **enforce the rules of the parliament**.
- The Speaker is responsible for ensuring that the proceedings of the Lok Sabha are **open and transparent** and that the public has access to information about the work of the Lok Sabha.

Functions performed by the Speaker:

- The Speaker presides over the sittings of the Lok Sabha and is responsible for maintaining order and decorum in the house.
- The Speaker has the right to take part in the proceedings of the house and to speak in any sitting of the

house or of any committee of the house of which he/she is a member but does not have the right to vote in the first instance.

- The Speaker is responsible for the certification of **money bills** and financial bills and has the power to direct that any other bill be treated as a money bill or a financial bill.
- The Speaker has the casting vote in the event of a tie in the voting in the house.
- The Speaker is the final interpreter of the provisions of the Constitution of India, the Rules of Procedure and Conduct of Business of Lok Sabha, and the Parliamentary Precedents, within the House.
- The speaker has the power to punish unruly behaviour and disqualify members on grounds of defection under the 10th schedule of the constitution.
- The Speaker performs ceremonial duties, such as receiving foreign dignitaries and representing the Lok Sabha at national and international events.
- In the absence of a quorum, the Speaker adjourns or suspends meetings until the required attendance is met.
- The speaker appoints committees and chairpersons of committees and refers matters to committees for consideration. Committees like the Business Advisory Committee, the General Purposes Committee, and the Rules Committee, work directly under his Chairmanship.
- The Speaker serves as the ex-officio President of the Indian Parliamentary Group, facilitating inter-parliamentary relations. He/she leads delegations abroad and chairs the Conference of Presiding Officers of Legislative Bodies in India.

Issues related to the Office of Speaker/Functioning of Speaker:

- In many instances, the Speaker has been accused of being partisan or biased towards a particular political party or ideology which can compromise the impartiality and neutrality of the office, and undermine the credibility and integrity of the Speaker. Supreme Court in Kihoto Hollohan versus Zachilhu case highlighted the instances where speakers have allegedly acted in favour of their party.
- A Speaker **perceived as biased** can lead to **frustration and disruptions from the opposition,** ultimately hindering the functioning of Parliament.
- Many a time the Speaker has been accused of using his discretion in an arbitrary or biased manner which can lead to perceptions of unfairness or lack of transparency in the decision-making process.
  In cases like passing farm laws in 2020, the Speaker is accused of bypassing committees as they were passed without referring to parliamentary committees

53rd GOODS AND SERVICES TAX (GST) COUNCIL MEETING

GS III – GROWTH AND DEVELOPMENT

Context: The Goods and Services Tax (GST) Council met recently and approved measures to ease compliance for small businesses, exempted hostel accommodation worth up to ₹20,000 a month as well as railway services

Goods and Services Tax Council:

- **It** is a **constitutional body** established by the **101st Amendment Act of 2016.**
- **It** inserted a new **Article 279-A** which empowers the **President** to constitute a **GST Council** or by an order.
- It is responsible for making recommendations on issues related to the implementation of the **Goods and Services Tax (GST)** in India.
- It is chaired by the Union Finance Minister. Its other members include the Union Minister of State in charge of Revenue or Finance, the Minister in charge of Finance or Taxation, or any other Minister nominated by each state government.

Objectives of GST Council:

- To ensure a smooth implementation of the GST, regulate the goods and services tax regime in India.
- To harmonize tax laws across states, simplify the tax structure, eliminate cascading taxes, and reduce compliance costs.
- To monitor all the taxation processes to avoid fraudulent processes.

53rd GST Council Meeting Highlights:

- Announced a uniform GST rate of 12% for all milk cans.
- Implemented biometric-based Aadhaar authentication to combat fraudulent input tax credit claims.
- Exempted hostel accommodation services from GST up to ₹20,000 per person per month.
- Exempted platform tickets to ease passengers' financial burden.
- Reduced GST rate on carton boxes from 18% to 12%.
- Recommended waiving interest and penalties for demand notices under Section 73 of the GST Act.
- Recommended new monetary thresholds for filing appeals in courts to reduce government litigation.
- Introduced 'Scheme for Special Assistance to States for Capital Investment'.
- Reiterated intent to bring petrol and diesel under the GST regime.

Goods and Services Tax (GST):

- It is a comprehensive indirect tax levied on the supply of goods and services in India.

GST Features and Benefits

- Replaces multiple indirect taxes, bringing uniformity across India.
- Operates under a dual structure, comprising Central GST (CGST) and State GST (SGST).
- Allows for the utilization of input tax credit, reducing overall tax liability.
- Exempts small businesses with a turnover below a specified threshold.
- Provides a composition scheme for small taxpayers with a turnover below a prescribed limit.
- Introduces an online portal, the Goods and Services Tax Network (GSTN), for registration, filing of returns, and tax payment.
- Establishes the National Anti-Profiteering Authority (NAA) to ensure benefits are passed on to consumers.

- Aims to enhance tax compliance by bringing more businesses into the formal economy.
- Certain sectors, such as healthcare, education, and necessities like food grains, are either exempted from GST or have reduced tax rates.

AMRUT SCHEME

GS III – INFRASTRUCTURE

Context: The AMRUT scheme has garnered attention due to the challenges it is facing in addressing infrastructure issues related to water, mobility, and pollution

Atal Mission for Rejuvenation and Urban Transformation (AMRUT):

- **It** was launched in 500 selected cities across the country on 25th June 2015.
- It covered around **60% of the urban population.**
- It aims to enhance **basic infrastructure** and implement urban reforms **for selected cities which include** water supply, sewerage, drainage, green spaces, non-motorised transport, and capacity building.
- **AMRUT 2.0 Scheme subsumed AMRUT 1.0** for 5 years i.e. from the financial year (FY) 2021-22 to the FY 2025-26.Its aims include **universal coverage of water supply** from 500 cities to about 4,900 statutory towns in the country and coverage of **sewerage/septage management** in 500 cities covered in the first phase of the AMRUT scheme.
- AMRUT 2.0 is launched to promote the **circular economy of water** through the development of a **City Water Balance Plan (CWBP)** by recycling/reuse of treated sewage, rejuvenation of water bodies, and water conservation.

Issues/Challenges in the implementation of the AMRUT Scheme:

- Even though funds are released regularly, states like **Bihar and Assam** have **yet to complete projects** or utilize the **PPP model,** resulting in less than 50% execution completion in most states.
- It follows a **project-focused approach** instead of a holistic perspective.
- It is facing funding allocation challenges as it overlapswith **other schemes, like the Swachh Bharat Mission,** which has also resulted in an increased workload in **addressing specific urban issues.**
- **AMRUT 2.0** shifted solely to water and sewerage, leaving the unresolved air quality issues from AMRUT 1.0.
- It is a less inclusive scheme for urban people as it does not take into account the **organic participation from elected city governments.**

Way Forward:

- Taking cues from various case **studies** where **hygiene and sanitatio**n were **significantly improved,** can provide valuable insights for addressing similar challenges in housing initiatives.
- Instead of relying on a top-down funding mechanism, local urban bodies need to diversify financial resources to implement local projects.
- By taking into account the challenges posed by **climate change**, **rainfall patterns**, **and existing infrastructure**, urban water management, the scheme should evolve nature-based solutions and a comprehensive methodology with a **people-centric approach and empowering local bodies.**
- It can enhance the effectiveness of the scheme by encouraging participation from community groups, **including NGOs and resident associations**, soliciting ideas and feedback from the grassroots level It can spur innovative solutions by establishing innovation hubs to foster industry-specific research and development **related to health and housing issues**

ARTIFICIAL GENERAL INTELLIGENCE (AGI)

GS III – AWARENESS IN THE FIELDS OF IT AND COMPUTERS

Context: During a recent interview, the CEO of OpenAI stated his dedication to investing in the advancement of Artificial General Intelligence (AGI).

Artificial General Intelligence (AGI):

- It is highly advanced and more capable than **Artificial Intelligence (AI)** used commonly.
- It envisions a broader, more generalised form of intelligence, not confined to any particular task.
- It aims to create machines that possess human-like intelligence across a wide range of tasks.This includes reasoning, common sense, abstract thinking, background knowledge, transfer learning, the ability to differentiate between cause and effect, etc.
- It aims **to emulate human cognitive abilities** such that it allows it to do unfamiliar tasks, learn from new experiences, and apply its knowledge in new ways.

Characteristics of AGI:

- AGI can generalise knowledge and skills across tasks and domains, applying learning from one context to solve new problems.
- AGI can engage in intricate reasoning and problem-solving.
- AGI exhibits robust learning capabilities, allowing it to acquire knowledge and skills from data, experience, or instruction.
- AGI would be aware of its own existence and able to set goals.
- AGI's capabilities would match or surpass human intelligence.
- AGI demonstrates creativity by generating novel solutions, ideas, or artefacts that are not explicitly programmed or predefined.

Applications of AGI:

- AGI has numerous positive implications in various fields, including healthcare.**Personalised medicine,** which tailors medical treatment to individual characteristics, can be greatly enhanced by AGI's ability to analyse diverse datasets and identify personalised treatment options.
- AGI has the potential to automate different tasks and improve decision-making, providing real-time analysis and accurate market predictions.
- AGI has the potential to revolutionise **adaptive learning** platforms that cater to the individual requirements of students, potentially making **personalised education** accessible to people all over the world.
- AGI can boost the space industry by operating autonomous systems for space exploration and research. It could also analyse data from space missions to develop insights and contribute to discoveries.
- A typical use of AGI would be enhanced surveillance, military involvement, real-time strategies on the battlefield, and combat systems.

BIOMASS CULTIVATION ON DEGRADED LAND

GS III – ENVIRONMENTAL CONSERVATION

Context: The Principal Scientific Adviser (PSA) to the Government of India recently convened the first meeting to discuss biomass cultivation on degraded land for green biohydrogen production and bioenergy generation.

Biomass Cultivation on Degraded Land:

- **It** refers to the **practice of growing organic matter,** such as crops or trees, on land that has been rendered unsuitable for conventional agriculture due to factors like **soil erosion, salinisation, or deforestation.**

Significance/Benefits of Biomass Cultivation on Degraded Land:

- The cultivation of energy crops helps rebuild the soil on degraded land and helps improve soil quality, fertility, and structure.
- It **prevents soil erosion** and creates a habitat for native plant species.This restoration process **improves overall biodiversity** and provides additional carbon sinks, aiding in the fight against climate change.
- Biomass plants absorb carbon dioxide from the atmosphere during photosynthesis, contributing to **climate change** mitigation.

- Biomass can be used as a **feedstock for green biohydrogen production** through a process called **thermochemical or biochemical conversion.**Green biohydrogen is a clean-burning fuel that produces water vapour as its only emission.
- By growing specific bioenergy crops on previously degraded or barren land, we can harness their biomass for energy production.These crops include **fast-growing trees, grasses,** and other plants that have high energy content.The biomass can be converted into various forms of energy, such as **biofuels, biogas, or solid biomass.**
- By focusing biomass cultivation on degraded or marginal lands, it avoids using fertile agricultural land, which is better suited for food crops.This approach helps prevent the diversion of food grains and improves **food security while also promoting agri-export.**

Challenges/Issues in Biomass Cultivation on Degraded Land:

- Degraded land often **lacks essential nutrients and organic matter.** Rehabilitating soil quality is crucial for successful biomass cultivation.
- Selecting appropriate biomass crops that can thrive in harsh conditions is challenging. Research is needed to identify resilient species and improve their adaptability.Degraded land may experience extreme temperatures, **droughts, or** floods.
- Degraded land often lacks **adequate water resources**. Developing efficient irrigation methods for biomass crops is essential.Exploring **rainwater harvesting** techniques can enhance water availability.
- Initial investments in land preparation, seedlings, and infrastructure can be high.**Biomass crops must align with market demand for bioenergy** or other products.
- Governments can encourage farmers through financial incentives. Ensuring economic viability while rehabilitating land is complex.
- Introducing biomass crops may affect local ecosystems and biodiversity. Some biomass **crops may become invasive** and disrupt native flora and fauna.Implementing cultivation methods that minimise ecological impact is essential.

Way Forward:

- Implementing strategies to improve degraded soil fertility that involves **incorporating organic matter** like compost, and biochar, or using techniques like **biofloculation (harnessing microbial processes)** to improve soil health.
- Implementing a multi-tiered cropping system on degraded land, integrating fast-growing tree species with native grasses and legumes.Trees like **Pongamia pinnata (Karanj)** can fix nitrogen in the soil, improving fertility for companion crops like drought-resistant grasses **suitable for biofuel production.**This strategy not only helps in biofuel production but also creates a habitat for native fauna, promoting biodiversity.
- Using drones with multispectral sensors to quickly assess large areas of degraded land, map soil composition, identify potential biomass cultivation areas, and evaluate existing biodiversity.
- Developing markets for biomass and its by-products to ensure economic viability and create a value chain that supports rural livelihoods.

Biomass:

- **It is a renewable organic material** that comes from plants and animals. Biomass contains stored chemical energy from the sun that is produced by plants through photosynthesis.

Highlights of the Meeting:

- **It h**ighlighted prospects for **seaweed cultivation** as biomass for bioenergy production and fostering a marine biomanufacturing start-up ecosystem.
- **It d**iscussed biomass production using various plants, including **algae, molasses, and sugarcane.**
- **It h**ighlighted one of the objectives of the **National Green Hydrogen Mission** is to initiate focused pilots for biomass-based green biohydrogen production.
- The **Ministry of New & Renewable Energy (MNRE)** highlighted the various programs at the Ministry for

Bioenergy and also talked about the **National Biomass Atlas for agri-residue surplus data.**
The **National Remote Sensing Centre (NRSC)**, and **Indian Space Research Organisation (ISRO)**, presented the **Bhuvan portal** for biomass availability from agri-residue and degraded Land Mapping and emphasised the need for data on the characterisation of biomass for understanding the potential of biomass.

CENTRAL BANK DIGITAL CURRENCY (CBDC)

GS III – DIGITAL ECONOMY

Context: The Governor of the Reserve Bank of Indiaemphasized the innovative features being developed forIndia's Central Bank Digital Currency (CBDC), also known as the e-rupee.

Central Bank Digital Currency (CBDC):

- A CBDC is a **legal tender** issued by a central bank in **digital form.**
- It is the same as a **fiat currency** and is **exchangeable one-to-one** with the fiat currency.
- The digital fiat currency or CBDC can be **transacted using wallets** backed by blockchain.
- The main objective is to **mitigate the risks and trim costs** in handling physical currency, costs of phasing out soiled notes, transportation, insurance, and logistics.

Significance/Advantages of the CBDC:

- CBDCs leverage **digital security measures,** potentially reducing the **risk of counterfeiting** and theft compared to physical cash.
- Digital transactions can be **settled instantly** and efficiently, facilitating **faster and more cost-effective payments.**
- CBDCs can potentially **reach unbanked and underbanked** populations by offering a secure and accessible digital payment option.The increased use of CBDC could be explored for many other financial activities to push the **informal economy** into the formal zone to ensure better tax and regulatory compliance.
- The possibility of **permanent transaction deletion is being explored** to provide users with a level of anonymity comparable to cash transactions.
- The e-rupee is envisioned to be **transferable offline**, potentially overcoming the limitations of internet connectivity in rural areas.
- Programmable features could be introduced to **enable targeted disbursement** of government benefits or encourage specific financial behaviours, promoting financial inclusion.
- CBDCs possess unique attributes that can revolutionise cross-border transactions.The instant settlement features of CBDCs are a significant advantage, making **cross-border payments** cheaper, faster, and more secure.
- CBDC can gradually bring a c**ultural shift towards virtual currency** by reducing currency handling costs.
- Central banks might have **greater control over the money supply** and interest rates with CBDCs. This could allow for more targeted and effective monetary policy interventions.

Issues/Challenges associated with the CBDC:

- Robust security measures are crucial to protect the e-rupee system from cyberattacks.
- Balancing user privacy with the **need for anti-money laundering** and countering financing of terrorism measures is a critical aspect.Concerns have arisen about the CBDC's privacy, with its electronic nature potentially **leaving a traceable trail,** unlike cash.
- Despite efforts to promote the CBDC, there is a continued preference for UPI among retail users.However, the RBI expressed hope for a change in this trend and highlighted the RBI's efforts to enable the **interoperability of CBDC with UPI.**
- The RBI made CBDC non-remunerative and **non-interest-bearing** to mitigate potential risks of bank disintermediation.However, **non-banks are included** in the CBDC pilot to leverage their reach for distribution and value-added services.
- CBDCs could potentially **compete with private banks** for deposits, impacting their ability to lend and invest.
The impact of CBDCs on monetary policy tools like interest rates remains unclear.

Global Trends of Central Bank Digital Currency (CBDC):

- **Bahamas** was the **first economy** to launch its nationwide CBDC namely Sand Dollar in 2020.
- **Nigeria** is another country to have rolled out **eNaira in 2020.**

China became the **world's first major economy** to pilot a digital currency **e-CNY in April 2020.**

CONTAINER PORT PERFORMANCE INDEX (CPPI)

GS III – INFRASTRUCTURE

Context: 9 Major Ports of India make it to the Global Top 100 by the World Bank, a First for the country.

Container Port Performance Index (CPPI):

- It is a report prepared by the World Bank and S&P Global Marketing Intelligence.
- It **ranks 405 global container ports** by efficiency, focusing on the duration of port stay for container vessels.
- It measures and compares the performance of container ports around the world.
- According to the CPPI 2023 rankings, **Yangshan Port in China is first and the Port of Salalah in Oman is second.**
- **Nine Indian ports that secured ranks in the top 100 are** Visakhapatnam (19), **Mundra (27),** Pipavav (41), Kamarajar (47), Cochin (63), Hazira (68), Krishnapatnam (71), Chennai (80), and Jawaharlal Nehru (96).

Status of India's Port Ecosystem:

- According to the Ministry of Shipping, around **95% of India's trading by volume and 70%** by value is done through maritime transport.
- The Indian Government has **allowed Foreign Direct Investment (FDI) of up to 100%** under the automatic route for port and harbour construction and maintenance projects.
- Ports in India are classified as Major and Minor Ports according to the jurisdiction of the **central and state governments as defined under the Indian Ports Act, of 1908.** All the 13 Major Ports are **governed under the Major Port Trusts Act, of 1963** and are owned and managed by the central government. All the Minor Ports are **governed under the Indian Port Act, of 1908**, and are owned and managed by the state governments.

Challenges/IssuesFaced by Port Ecosystem in India:

- **Even though** India has a vast coastline and strategic location, the Indian fleet's share in global shipping remains minimal. According to recent statistics,**Indian ships constitute less than 1% of the world's shipping fleet, far behind countries like China which** is far behind countries like China which has around 19%.
- Indian ports are plagued with high turnaround times which in turnaffects efficiency and increases costs for shipping companies. The **average turnaround time at major Indian ports was around 2.48 days in 2022, compared to the global average of 0.97 days.**
- **The e**xisting ports suffer from inadequate **road and rail connectivity within the port area,** lack of cargo handling equipment and machinery, poor hinterland connectivity, insufficient dredging capacity, and a shortage of technical expertise.

DROP IN GLOBAL FOOD PRICES

GS III – INFLATION

Context: In 2023, world food prices dropped significantly from their 2022 highs. However, India's food inflation remained high at 9.5% in December 2023, contrasting with global deflation of -10.1%.

Factors contributing to the drop in Global Food Prices:

- Bumper harvests of major crops like **wheat** in 2023 led to a **surplus in the global market.**This abundance contrasts with concerns in **2022,** when worries about supply disruptions due to the war in **Ukraine**, a major

grain exporter, caused prices to spike.
- Despite the disruption of the **Black Sea Grain Initiative in July 2023**, both Russia and Ukraine have managed to maintain wheat exports.This continued flow of grain from the region has helped to alleviate some of the supply anxieties.
- The UN's Food and Agriculture Organization **Vegetable Price Index** saw the biggest drop in 2023, falling by 32.7%.This decline is due to a combination of factors, including improved vegetable oil supplies and a **decrease in its use for biofuel production.**
- High inflation and fears of an economic recession have dampened consumer demand in many parts of the world, including in major food-importing regions, leading to a **decline in import demand for certain food commodities** and putting downward pressure on global prices.

Reasons for experiencing High Food Inflation in India despite falling Global Food Prices:

- While global food prices fell, India's food prices stayed elevated due to the **limited transmission of international prices to domestic markets.**India's import dependence is significant only for **edible oils (60% of consumption)** and pulses.
- The Indian government-imposed bans on exports of certain food items like **wheat, non-basmati white rice, sugar, and onions** and provided **import duty waivers on others,** effectively reducing global market influences on domestic prices.
- **Domestic production challenges**like weather conditions affecting crop yields, particularly for c**ereals, pulses, and sugar,** contributed to supply shortages and higher prices domestically.Cereal and pulse inflation stood at **9.9% and 20.7%** year-on-year, respectively, in December 2023.
- Low stock levels for commodities like **wheat and sugar** further exacerbated price pressures.

Way Forward:

- Investing in agricultural infrastructure, technology, and research to **improve crop yields and reduce production costs** can boost supply and stabilise prices.
- Enhancing **logistics, storage facilities, and distribution networks** can reduce wastage and ensure a steady supply of food items to the market, mitigating price fluctuations.
- Promoting diversification by encouraging the **cultivation of a variety of crops** and supporting alternative farming practices can reduce reliance on a few commodities and balance market dynamics.
- Monitoring food prices regularly and **implementing effective price regulation** mechanisms can prevent price manipulation and ensure fair pricing for consumers and producers alike.
  Addressing climate change challenges through sustainable farming practices, water management strategies, and crop diversification can reduce production risks and enhance food security in the long term.

FARM MECHANISATION

GS III – AGRICULTURE
Context: The Standing Committee on Agriculture, Animal Husbandry and Food Processing recently tabled a report on "Research and Development in Farm Mechanization for Small and Marginal Farmers"

Farm Mechanization in India:

- It refers to the development and use of machines thatcan replace human and animal power in agriculturalprocesses.
- The agriculturalmechanization level in India is 47% whereas in China it is 59.5% and in Brazil, it is 75%.
- States such as UP, Haryana, and Punjab have very highmechanization levels, but northeastern states havenegligible mechanization.
- The Direct Benefit Transfer (DBT) Portalunder the Department of Agricultureand Farmers Welfare acts as a SingleWindow for clearance to approveequipment/machines procurement byindividual farmers/Custom HiringCentres.
- As per the Dalwai Committee, the adoption of agricultural mechanization can help reduce input costs by 25%, enhance productivity by 20%, and increase farmers' income by 25-30%.

Significance of Farm Mechanization:

- It improves the precision with which agricultural inputs like seeds, pesticides, and fertilizers are used in the field. This not only reduces the input cost for the farmer but also minimizes the impact onthe environment.
- Increased mechanization may reduce the labour costs involved in farming.
- *It h*elps in the conversion of uncultivable land to agricultural land through advanced tilling techniques and shifting land used for feed and fodder cultivation by draught animals towards food production.
- With the increasing feminization of agricultural labour, mechanization also helps in reducing the burden on women.
- It helps in encouraging the youth to join farming and attract more people to work and live in rural areas.

Issues/Challenges in Farm Mechanization:

- Thecommittee reports that it might takeanother 25 years to achieve 75-80%mechanization from the present levelof 47%.Currently, there is no engineeringworkforce to demonstrate, train,help in repairs, and maintenance, andguide farmers at their doorstep.
- A formal studyhas yet to be conducted to assess thefarm mechanization of the country sofar.
- There is a lack of formal education on Agri-EngineeringCurrently, the Directorate of Agricultural Engineeringexists only in two States, i.e. Madhya Pradesh andTamil Nadu.
- No specific National Industrial Classification Code(NIC) code exists for the farmingmachinery industry.This signifies that they are not recognized/classified as aseparate industry.
- Lack of access to power results in the slow uptakeoffarm mechanization and hence non-intensificationof farm productivity, particularly among small andmarginal farmers.For instance, Punjab has a power availability of6 kW per hectare compared to Mizoram, with0.7 kW per hectare.
- Low awareness, limited research,anddevelopment(R&D), shortage of skilled workers, low income of farmers,etc. are some other challenges.

Way Forward:

- Focus on low-cost small equipment to meet theneeds of the small and marginal farmers.
- Setting up ancillary units that specialize inmanufacturing the standard Components for themachinery can increasethe product spectrum.
- Recognizing farm equipment manufacturing as aseparate industry by providing themwith an NIC code will aid them to function better and improve their access to funds.
- Innovations by the local farmers and ITIs should beduly recognized. The Governmentshould help them receive patents for such inventions and aid incommercializing the machinery.
- Like KCC, term loan procedures may be simplified withminimum documentation.

Government Initiatives to Improve FarmMechanization:

- Sub Mission on Agricultural Mechanization (SMAM) 2014-15 under the Ministry of Agriculture and Farmers Welfareassists the StateGovernments in providing training anddemonstration of agricultural machineryand assist farmersin procuring agricultural machinery and equipment.It is currently merged with the RashtriyaKrishi VikasYojana.
- Custom Hiring Centres (CHCs) are set up under the SMAMscheme through which Cooperatives and Farmers' ProducersOrganization subsidies are provided.
  States like Kerala, Tamil Nadu, andMadhya Pradesh providefarmers with farm machinery at concessional rates.

GENOME SEQUENCING

GS III – BIOTECHNOLOGY

Context: The Department of Biotechnology (DBT) announced the completion of the GenomeIndiaProject which has finished sequencing 10,000 Indian genomes.

Genome Sequencing:

- It means determining the exact order of base pairsin a strand of DNA in an individual.
- The human genome contains approximately 3.2 billionnucleotides and 23,500 genes.

Significance of Genome Sequencing:

- Genomesequencing is useful in prenatal screening to identify genetic disorders infoetuses.
- It is useful in the development of predictive diagnostics andpersonalized healthcare through customised drugsand gene therapies based on genome sequencing.
- It facilitatesadvanced analytics and artificialintelligence integration to enhance understanding ofgenetic causative factors and develop diseasetreatments.

Issues/Concerns/Challengesrelated to Genome Sequencing:

- Due lack of a regulatory framework,limits quality and proficiency standards and leads to the misuse of data.
- It poses challenges to personal data due to technology involving sensitive information such as personal data, medical history,and family history with diseases.
- Fragmentation of genetic data as data remains in silos,preventing its access to public health decision-making.
- It creates inequity and low diversity due to unregulated market forces by creating barriers to better healthcare access, especiallyfor the poor and ethnic minorities.
- Lack of skilled personnel for sequencing facilities and financial constraints in establishing and maintaining sequencing facilities.

GenomeIndia Project:

- It was initiated by the Department of Biotechnology on 3rd January 2020.
- It involves **whole-genome sequencing** and data analysis of **10,000 individuals** to understand the disease nature in the Indian population and develop predictive diagnostic markers.
  It is led by the **Centre for Brain Research at the Indian Institute of Science, Bengaluru,** and involves collaboration with 20 institutions

GLOBAL VALUE CHAINS (GVCS)

GS III – INCLUSIVE GROWTH

Context: Trade and Investment Ministers of G20 nations under India's G20 Presidency agreed to map Global Value Chains (GVCs) and adopted a G20Generic Framework for Mapping GVCs.

Global Value Chains (GVCs):

- It consists of intricate production networks that are fragmented across multiple firms and countries for cost optimization and to achieve productionefficiency.
- Countries can participate in GVCs by engaging in either backward or forward linkages.

Significance/Benefits of GVCs:

- GVCs can increase economic growth, especially in developing countries, by attracting foreign direct investment (FDI), creating jobs, and enhancing exports. It also makes them part of the global economy.
- GVCs can boost inclusive and sustainable growth by streamlining economic systems.
- GVCs create a path forcountries and firms to focus on their strengths and specialize in specific stages of production, leading to cost savings and increased efficiency.
- GVCs help countries create specialized industries for specific stages of the value chain.
- GVCs provide access to global markets which in turn enables firms to reach a wider customer base.
- Countries participating in GVCs can benefit from technology transfer, as they engage with more technologically advanced partners.

Issues/Concerns/Challenges in GVC Participation:

- GVCs may widen economic gaps between countriessince the gains from GVC participationare not distributed equally across and within countries.
- GVC participation increases the domestic economy's exposure—albeit not necessarily its abilityto cope with—external shocks.
- GVCs create strong links in price formation, implyingthat inflation in one country is more likely tospill over to its direct and indirect trading partners.
  MSMEs across the world, especially in developing countries, face significant impediments withthe entry of global firms and the associated competition in local markets.

Note:

- Backward GVC participation is when a country uses inputs from another country for domestic production.
- Forward GVC participation is when a country supplies inputs that are used for production in another country.

G20 Generic Framework for Mapping GVCs:

- It is a voluntary, and non-binding generic mapping framework that was based on the following:
  - GVC resilience framework should be based on collecting timely high-quality sectoral data and voluntarily providing firm-level data.
  - The complexity of GVCs necessitates the use of models and indicators, which can provide key insights from such GVC data.
  GVC resilience framework should use advanced technological tools that present underlying patterns from data analysis in a user-friendly manner.

INDUSTRIAL ACCIDENTS IN INDIA

GS III – INFRASTRUCTURE

Context: An explosion in a chemical unit in Thane, Maharashtra, killed 11 people. Such industrial accidents in India and elsewhere in the world constitute a major problem for industrial establishments.

Factors Contributing to Industrial Accidents in India:

- Redundant regulations, including 15 Acts and 19 Rules, **lack a unified approach for the chemical industry.** This fragmentation leads to overlapping jurisdictions and loopholes, weakening oversight and enforcement of safety measures.
- The lack of a central database on industrial chemicals and **their risks creates a knowledge gap, hindering hazard assessment** and safety protocol development.
- Boiler operation often falls to untrained, contractual workers, lacking proper safety and emergency response training as **highlighted by IIT Kanpur.**This leads to confusion during accidents and increases risks, especially with hazardous chemicals.
- Cost-cutting by some industries **often neglects safety equipment and infrastructure**, such as proper ventilation and fire safety.IIT Kanpur study (2023) stresses the **need for increased investment in worker safety to reduce industrial accidents.**
- The **Visakhapatnam gas leak** involving benzimidazole raises concerns about maintenance and operations.**In the Neyveli incident**, a boiler being revived unexpectedly blew out, despite **not being operational** and mainly involving a furnace and steam production.

Consequences ofIndustrial Accidents:

- Industrial accidents result in numerous fatalities and serious injuries. Example: The explosion at a chemical factory in Thane claimed 11 lives.
- Chemical leaks, explosions, and improper waste disposal can cause severe environmental damage (air, water, and soil pollution). For example, the **Bhopal Gas Tragedy of 1984** serves as a horrific event, in which a leak of **methyl isocyanate gas** from a Union Carbide plant resulted in thousands ofdeaths and long-term health problems for countless others.
- The cost of repairing damage to facilities, compensating victims' families, and treating injured workers can be substantial.A study by the **US Environmental Protection Agency (EPA)** found that chemical accidents can

decrease property values in surrounding areas by 5-7%, further impacting the local economy.
- The trauma associated with industrial accidents can have long-lasting psychological effects on survivors, witnesses, and families of victims.Anxiety, depression, and **post-traumatic stress disorder (PTSD)** are common consequences.
- Frequent industrial accidents can erode public trust in regulatory bodies and industries. This can lead to public fear and resistance to new industrial projects.

International Safeguards againstIndustrial Disasters:

- **The UN Convention on the Transboundary Effects of Industrial Accidents (1992)**provides a legal framework for **international cooperation** in preventing and responding to industrial accidents.
- **Flexible Framework for Accident Prevention and Preparedness (CAPP) (2006) of UNEP**adopts a flexible approach to help countries, especially developing ones, build programs to prevent and prepare for chemical accidents.It also offers **guidance on creating these programs considering a country's specific needs.**

OECD Programme on Chemical Accidents (1990)focuses on **preventing accidents through information sharing and best practices in chemical safety.**

JOINT DOCTRINE FOR CYBERSPACE OPERATIONS

GS III –CYBER SECURITY

Context: Joint Doctrine for Cyberspace Operationsis a keystone publication that will guide commanders of the armed forces in conducting cyberspace operations in today's complex military operating environment.

Significance of Joint Doctrine for Cyberspace Operations:

- It will **guide tri-services in planning and conducting cyberspace operations** in the current complex military operating environment.
- It emphasizes understanding the military aspects of cyberspace operations.
- It provides conceptual guidance to commanders, staff, and practitioners in the planning, and conduct of operations in cyberspace.
- It raises awareness in our warfighters at all levels.

Reasons for India's Vulnerability to Cyber Threats:

- In cyber warfare, espionagemay involve using a botnet or spear-phishing attack to gain a foothold in a computer before extracting sensitive information.
- The organizations storing sensitive information that includes third parties that may want to steal the data may face insider threats.
- A denial-of-service (DoS) attack could be used to cripple a critical website used by citizens, military personnel, safety personnel, scientists, or others to disrupt critical operations or systems.
- Propaganda attacks involve trying to control the minds or hearts of the people living in or fighting for the targeted country.
- Most modern economic systems depend on computers to function. Attacking the computer networks of economic facilities like stock markets, payment systems, or banks can give hackers access to funds or prevent their targets from getting the money needed to live or engage in cyber or other warfare.

Initiatives related to cyber security taken by the Indian government:

- **The Indian Computer Emergency Response Team (CERT-In)** acts as the central agency for incident response, vulnerability handling, and security management in India's cyberspace.
- **Cyber Surakshit Bharat** was launched **to ensure more awareness** about the latest cybercrimes and the cybersecurity challenges in India.
- **Cyber Swachhta Kendra** provides free tools for malware analysis and helps improve the security of systems and devices.
- **National Cybersecurity Policy 2013**provides a framework for creating a secure cyber ecosystem and aims to protect information and other critical infrastructure.

- The National Critical Information Infrastructure Protection Centre (NCIIPC) was established for the **protection of critical information infrastructure** in the country.

Indian Cyber Crime Coordination Centre (I4C) handles issues related to cybercrime in the country in a comprehensive and coordinated manner.

Status of cyber-attacks in India:

- **In 2023, India** recorded 2,138 weekly cyber-attacks per organization, a 15% increase from 2022.This makes India the **second most targeted nation in the Asia Pacific region**, after Taiwan.

LANDSLIDES IN INDIA

GS III –DISASTER MANAGEMENT

Context: Cyclone Remal caused landslides in the northeastern region of India causing several casualties, highlighting the need for multi-hazard disaster resilience.

Landslide:

- A landslide can be defined as the **movement of a mass of rock, debris, or earth down a slope.**
- They are a **type of mass wasting,** which denotes any downward movement of soil and rock under the direct influence of gravity.
- Landslide encompasses five slope movement modes: **falls, topples, slides, spreads, and flows.**

Reasons for India's vulnerability to Landslides:

- According to the Geological Survey of India (GSI),roughly **13% of India's landmass**, translating to approximately **4.2 lakh km2**, is prone to landslides. This encompasses almost all hilly regions spread across 15 states and 4 Union Territories.
- **Natural causes** like **heavy rainfall** are the most common trigger for landslides in India. **Earthquakes** can also trigger landslides but are less frequent.
- The **Northeast region** bears the brunt of India's landslide vulnerability. Around **42% of the country's total landslide-prone area** falls within this region, concentrated in hilly states like **Meghalaya, Mizoram, Assam, and Nagaland.**
- The Northeast region experiences a **disproportionately high frequency** of landslides. During the period **2015-2022, 10% of all major landslides** in India occurred in the Northeast, translated to an average of 54 major landslides per year in the region.
- In the **Northeastern Himalayas,** the presence of young, weak rocks and steep slopes make it landslide-prone. **Heavy monsoon rains** further weaken the soil which is further affected by deforestation. Sometimes, Earthquakes and climate change add to the region's landslide problems.
- **Human Factors** like **unregulated construction in hilly areas, infrastructure development projects,** and certain agricultural practices can significantly increase the risk of landslides.A recent example is the collapse of a stone quarry in **Aizawl, Mizoram** during Cyclone Remal, which highlights the extent of unregulated construction that can lead to fatalities during landslides.

Issues/Challenges in Mitigating Landslide Risks in India:

- Detailed geological mapping and risk assessments are often lacking, hindering efforts to prioritise mitigation measures.
- Deforestation, unplanned development on slopes, and poor construction practices further increase landslide risks.
- Implementing **robust mitigation measures** like retaining walls, drainage systems, and slope stabilisation can be expensive.India **lacks a comprehensive network of sensors** (rain gauges, tiltmeters, etc.) to detect **early warning signs** of landslides.
- Communities living in landslide-prone areas are **not adequately informed** about the risks and the ways to

prepare for them.

Way Forward:

The **Madhav Gadgil Committee** (2010) and the **Kasturirangan Committee** (2012) reports, while focusing on the Western Ghats, made some recommendations that can be applied more broadly to landslide mitigation in India:
- The reports proposed **classifying a significant portion** of the Western Ghats as ESZs. This classification **aims to restrict activities like mining, quarrying, and large infrastructure projects** that can destabilise slopes and contribute to landslides.
- These advocated for **promoting sustainable land-use practices** like **agroforestry** and **traditional farming methods** to minimise soil erosion and maintain slope stability.

The report highlighted the **importance of involving local communities** in landslide risk assessment, mitigation efforts, and disaster preparedness.

Government Initiatives to Mitigate the Risk of Landslides:

- **The National Landslide Risk Management Strategy (2019)** by the **National Disaster Management Authority (NDMA)** outlines a **comprehensive approach to landslide risk reduction** highlighting issues of inadequate **urban planning** and the absence of a comprehensive land use policy.
- Scientists did a risk assessment based on 80,000 landslides recorded between 1998 and 2022 in 147 districts in 17 states and two Union Territories to build a **Landslide Atlas** of India.

LIVESTOCK SECTOR

GS III –ECONOMICS OF ANIMAL-REARING

Context: The Department of Animal Husbandry and Dairying (DAHD),Ministry of Fisheries, Animal Husbandry and Dairying haslaunched the first-ever Credit Guarantee scheme for thelivestock sector.

Significance of the Livestock Sector:

- Food and nutrition security through food itemslike milk, meat, eggs, etc.
- Subsidiary income to the rural households andsocial security to the landless.
- Employment generation in the labour-intensivesectors like textile, leather, etc.
- Gender equity and women empowerment in theprimary sector. For example, women representclose to 70% of the workforce in India's dairysector.
- Organic/ Integrated farming provides organicmanures for farming, biological weed control, etc.

Challenges/Issues with India's Livestock Sector:

- The average annual milk yield ofIndian cattle is 1172 kg which is only about 50% ofthe global average.
- India has 2.3% of the land area of the world tomaintain nearly 10.7% of globallivestock.
- Increased susceptibility of livestock to variousdiseases including exotic diseases due to poorimplementation of cross-breeding programs, and inadequatecoverage of vaccination.
- Absence of adequate extension machinery like agricredit, awareness, etc. to absorb the latesttechnology by small and marginal farmers.
- The livestock sector received only ~12% of publicexpenditure on agriculture and alliedsector against 25.6% contribution of livestock in total agro-GDP.
- Absence of necessary infrastructure like dairyprocessing units, meatprocessing plants, carcass utilization centres, etc.MSMEs in the livestock sector face issues like inadequate access to finances, lack ofbusiness expertise, and poorintegration in supply chains resulting in limited scalability prospects.
- Climate change and global warming may have seriousimplications in the form of heatstress, loss of animal habitat in coastal areas, and changes in epidemiological patterns of vector-borne disease.

Government Initiatives Related to Livestock Sector:

- National Livestock Mission to promote entrepreneurshipdevelopment andbreed improvement in poultry, sheep,goat, and piggery including feed andfodder development.
- Rashtriya Gokul Mission for the development andconservation ofindigenous bovine breeds.
- Livestock Health & Disease Control (LH&DC) to improveanimal healththrough prophylactic vaccination, disease surveillance, and strengthening ofveterinary infrastructure.

Supporting Dairy Cooperatives and Farmer Producer Organizations(SDCFPO) to provide working capital to state cooperatives and federations.

Status of Livestock Sector in India:

- About 20.5 million people depend upon livestock for their livelihood.
- Livestock contributed 16% to the income of small farm households as against an average of 14% for all rural households.
- Livestock provides livelihood to two-thirds ofrural communities.
- It also employs about 8.8 % of the population in India.
- The livestock sector contributes 4.35% of GDP and 29.35% of total Agriculture GDP.

MARITIME SECTOR

GS III –GROWTH AND DEVELOPMENT

Context:
The third edition of the Global Maritime India Summit 2023 was hosted in Mumbai.

Maritime Sector in India:

- It comprises ports, shipping, shipbuilding ship repair, and inland water transport systems.
- It is administered by the Ministry of Shipping.
- India has 13 major ports and about 200 minor ports along the coastline and island.
- India has reached 22nd rank in the International Shipment category as against 44th rank in 2014.
- The average Container Dwell Time has reached a level of 3 days only as compared to 4 days for countries like UAE and South Africa, 7 days for USA and 10 days for Germany.
- Indian Ports "Turn Around Time" has reached 0.9 days which is better than the USA (1.5 days), Australia (1.7 days), Singapore (1.0 days), etc.

Importance of developing India's maritime sector:

- The Indian Ocean is the world's third largest water body,covering 70 million square km with richmineral resources and connectivity with global cities.Hence, developing the maritime sector provides a wide range of opportunities in the Indian Ocean.
- India has a vast coastline stretching over 7,517 km and 1,382offshore islands that bring generous resources andopportunities.
- Most coastalregions of India are densely populated and low-lying, with around250 million people active within a 50-kilometre range of coast.
- India is the second-largest fish-producing nation in the world with a fleet of 250,000 fishing boats.Therefore, it provides multiple ways to enhance food security.
- Indian Ocean is the corridor of the globaleconomy and India is strategically located commercial shippinglanes between the Strait of Hormuz and the Strait of Malacca.
- India has the potential and capability toplay the role of a net security provider and a reliable partner in theIndian Ocean region.

Challenges/Issues related to India's maritime sector:

- It suffers from infrastructural deficiencies like inadequate port infrastructure andconnectivity hinderthe

efficient movement of goods and increaseturnaround times.

- It has limited facilities for shipbuilding and repair impacting theoperational efficiency and expansion of the maritime fleet.
- It faces security concerns like piracy and maritimeterrorism pose threats to the safety of shipping routesand maritimeactivities.
- It faces non-traditional security threats also emanate from drug and contraband trafficking, armed robbery, humansmuggling, and illegal migration.
- It creates environmental pollution from the maritime sector like increased greenhouse gas emissions, water consumption,sewage, waste generation, and loss or degradation of coastal habitats, biodiversity, and ecosystem services.
- It faces various geopolitical challenges like politicaltensions in the region (for instance with China) impacton the stability and security ofmaritime trade routes,affecting the smooth flow of goods.
- Climate change impacts like sea level rise and consequent decline in marine resources, intensification of disasters,oceanic acidification, etc. pose major challenges in realizing the socio-economic potential of maritime boundaries.
- India lags in the adoption of modern technologies suchas those required for deep-seaexploration and mining.

Global Maritime India Summit 2023:

- It was hosted by the Ministry of Ports, Shipping, and Waterwaysin Mumbai.
- The Maritime Amrit Kaal Vision 2047prepared by the Ministry of Ports,Shipping, and Waterways waslaunched.

Maritime Amrit Kaal Vision 2047:

- Itis a comprehensive roadmap to transform India's maritime sector with an estimated investment of Rs. 80trillion.
- It encompasses aspirations in Logistics, Infrastructure, and Shipping, supporting India's 'Blue Economy'.
- The vision, shaped through over 150 consultations with various stakeholders and the analysis of 50 international benchmarks, outlines more than 300 actionable initiatives for enhancing ports, shipping, and waterways by 2047.

ORGAN TRANSPLANTATION IN INDIA

GS III –HEALTH

Context: The Delhi High Court has prescribed an ideal timeline of 6-8 weeks to complete the process of transplanting organs from living donors.

Organ Transplantation in India:

- It is a surgical procedure in which anorgan is removed from thedonor and transplanted into the recipient ormoved fromone site to another in the same person.
- It includes the kidney, liver, heart,lung, pancreas, intestine, etc.
- Its compatibility is determined by the degree ofimmunological similarity between the donor and recipient.
- It is permitted by law, and coveredunder theTransplantation of Human Organs Act 1994,which has allowed organ donation by live andbrain-stem dead donors.

Issues/Challenges in Organ Transplantation in India:

- India has a deceased organ donation rate of 0.52 donors per million population, which is much less in comparison to other countries like Spain which has a donation rate of 49.61 per million.
- According to the Health Ministry's data, the number ofdonors (including deceased) only grew from6,916 in 2014 to about 16,041 in 2022.
- There is a supply-demand mismatch as only 8,000 out of 1.5-2 lakh peopleobtain a kidney transplant, 1,800

out of 80,000 receive a livertransplant, and 200 out of 10,000 are given a heart transplant.
- One of the serious challenges is organ trafficking which means that human organs are illegallyacquired by fraud,force, or any other illegal means for moneyexchangewith third parties.
- There is a lack of male donor participation as 70%-75%of donors arefemale.
- Brain death has been definedonly in connection with organ donation in the THOTA,1994, andnot in the Indian Penal Code, Registration of Births and DeathsAct, 1969.This makes doctors reluctant to give certificates due tolitigation fear and ethical concerns.
- People hesitate to agree todonate the organs of their loved ones largelydue to a lack of awareness and superstition.

Way Forward:

- There should be an emphasis on the opt-out model of organ donation systems like England, Austria, and Singapore.
- Make efforts to sensitize police personnel and forensic experts to take up a war footing to make all medico-legal casessmooth.
- Kerala has become thefirst state to formulate well-defined clinical protocols for braindeath certification in the country. Policymakers can take cues from this model to overcome ethical dilemmas faced by healthcare personnel.
- Creatinga digital registry on organ transplantation can lead to enhanced transparency.

Recent Delhi High Court Ruling:

- The High Court **underscores the necessity ofAuthorisation Committees** to maintain the integrity and effectiveness of organ transplantation protocols.
- The high court stipulates that the timeline for processing living donor transplantation applications **should not exceed a maximum of 10 days** from the date of application.**Within a maximum of 14 days,** the **court mandates** the verification of documents concerning the domicile status of the recipient and donor.
- The court stipulates that the entire process, **from submission to decision, should ideally not exceed six to eight weeks.**

Opt-Out Model:

Under this model, the deceasedpatient is presumed tohave consented to organ removal unless proved otherwise.

RAIL SAFETY

GS III –INFRASTRUCTURE
Context: The West Bengal train accident highlights the need for a thorough review of misplaced priorities of the past two decades in Indian Railways.

Indian Railways:

- It is the largest rail network in Asia and the world's second-largest railway system under a single management.
- The first railway line in India, between Mumbai and Thane, was opened to the public on April 16, 1853.

Importance/Significance of Rail Safety:

- Millions of people rely on the railways for their daily commute so ensuring the safety of railways becomes paramount.
- Indian Railways plays a major role in the country's transportation infrastructure and plays a vital role in the economy. So, any disruption can lead to economic setbacks, affecting industries, businesses, and overall development.
- Railways are considered the lifeline for a bulk of India's poorer economic migrants whose ability to move and

improve their economic prospects has a positive impact on their home states through remittances.
- Rail safety is essential to maintain the public's trust and confidence in the system.
- Indian Railways is a lifeline for connectivity, ensuring people from various regions can travel and access opportunities for economic growth.

Issues/Challenges related to Rail Safety:

- **Congestion on railway tracks due to the** same track for passenger trains and goods trains.
- **Technical glitches** and **system failures** include poor signalingsystems.
- The railway infrastructure, which includes tracks, bridges, overhead wires, and rolling stock, is often defective due to poor maintenance, aging, vandalism, sabotage, or natural disasters.
- There is a lack of **sufficient funds** for switching over toLinke Hofmann Buschcoaches, etc.

Government measures towards Rail Safety:

- **KAVACH is a**n a**utomatic train protection system that** prevents trains from passing the red signal along with activating an automatic train braking system.
- **Rashtriya Rail SanrakshaKosh (RRSK)** aims to replace/renew/upgrade critical safety assets.
- **An Electrical/Electronic Interlocking System is a** computer-based system that prevents more than one train from running on the same track.

Status of Railway Accidents:

- According to the National Crime Records Bureau, an average of 23,000 people died every year between 2010 and 2021 in railway accidents.
- A steep decline in the number of **consequential train accidents** has been witnessed from 473 in 2000-01 to 48 in 2022-23.

Note:

- **Justice Khanna or Railway Safety Review Committee of 1998 l**ed to the creation of a safety department in Indian Railways with officers and staff drawn from all disciplines.
- **High Level Safety Review Committee under the chairmanship of Dr. Anil Kakodkar of 2012 r**ecommended switching over from the Integral Coach Factory (ICF) design coaches to the much safer LHB design coaches.

RED LIST OF MANGROVE ECOSYSTEMS

GS III –ENVIRONMENTAL CONSERVATION
Context: The International Union for Conservation of Nature (IUCN) has issued a "Red List of Mangrove Ecosystems" cautioning that half of the world's mangrove ecosystems are at risk of collapsing. This marks the first comprehensive global assessment of mangroves by IUCN.

Key Findings of the Report:

- **It** classified the world's mangrove ecosystems into **36 different regions** called provinces and assessed the threats and risk of collapse in each region.
- Over **50%** of the world's mangrove ecosystems are at risk of collapse (classified as either vulnerable, endangered or critically endangered), with nearly 1 in 5 facing severe risk.
- **One-third** of the world's mangrove ecosystem provinces will be severely affected by **sea-level rise**, with 25% of the global mangrove area predicted to be submerged in the next 50 years.
- The mangrove ecosystem in South India shared with Sri Lanka and Maldives, is categorized as **"critically endangered".**In contrast, mangrove ecosystems in the Bay of Bengal region (shared with Bangladesh) and the western coast (shared with Pakistan) are classified as **"least concerned".**
- A study found that globally, climate change is the major threat to mangrove ecosystems, affecting 33% of mangroves.It is followed by deforestation, development, pollution, and dam construction.

- Increased frequency and intensity of **cyclones, typhoons, hurricanes, and tropical storms are impacting mangroves** on certain coastlines.
- Coasts along the Northwest Atlantic, North Indian Ocean, Red Sea, South China Sea, and Gulf of Aden are **predicted to be significantly impacted.**Without increased conservation, about 7,065 sq km (5%) more mangroves could be lost, and 23,672 sq km (16%) **will be submerged by 2050.**

Status of Mangroves Cover in India:

- Mangroves are a unique type of coastal ecosystem found in tropical and subtropical regions. They are **dense forests of salt-tolerant trees and shrubs** that thrive in intertidal zones, where land meets the sea.These **ecosystems are characterized by their ability to withstand harsh conditions,** such as saline water, tidal fluctuations, and muddy, oxygen-poor soils.
- About **40%** of the world's mangrove cover is found in **Southeast Asia** and South Asia.India has about **3%** of the total mangrove cover in South Asia.
- India's mangrove cover has increased by **54 sq. km (1.10%)** compared to the previous assessment.
- The current mangrove cover in India is **4,975 sq. km**, which is 0.15% of the country's total geographical area.
- **West Bengal (42.45%)** has the **largest share of India's mangrove cover,** followed by **Gujarat at 23.66%** and **Andaman & Nicobar Islands at 12.39%.**The **South 24 Parganas** district of West Bengal alone accounts for **41.85% of India's mangrove cover.** This region includes the **Sundarbans National Park,** one of the largest mangrove forests in the world.
- **Gujarat** has shown a **maximum increase of 37 sq. km** in mangrove cover.

India's Initiatives Related to Mangroves Conservation:

- **Coastal Regulation Zone (CRZ) Notification (2019)** under the **Environment (Protection) Act, 1986**, classifies coastal areas including wetlands into four categories. It restricts activities that could damage mangroves, such as:
  o Dumping of waste (industrial or otherwise).
  o Industrial activities within the CRZ.
  o Land reclamation and building in these areas.
- **Central Sector Scheme on 'Conservation and Management of Mangroves and Coral Reefs'**provides financial assistance to coastal states and union territories for implementing action plans specific to mangrove conservation.These plans can include surveying, alternative livelihoods for local communities, awareness campaigns, etc.
- **Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI)was l**aunched in the **2023-24 Union Budget**and is a dedicated initiative for promoting and conserving mangroves. It aims to:
  o Increase mangrove cover along the coastline and on degraded lands.

Support sustainable development and protect vulnerable coastal areas.

ROHINGYA REFUGEES IN INDIA

GS III –EFFECTS OF POLICIES AND POLITICS OF COUNTRIES ON INDIA'S INTERESTS.

Context: There needs to be international attention to the escalating mental health epidemic of Rohingya refugees in India.

Rohingyas:

- They are a Muslim minority ethnic group with their roots in the Arakan kingdom in Myanmar, formerly known as Burma.
- The Rohingya are culturally and religiously distinct from the majority Buddhist population in Myanmar.

Rohingyas in India:

- As per the Ministry of Home Affairs, there are more than 40,000 Rohingya in India.
- Only 14,000 of them hold United Nations High Commissioner for Refugees (UNHCR) refugee ID cards, which

offers them protection from arbitrary detention.

Challenges faced by Rohingya refugees in India:

(According to the report **'A Shadow of Refuge: Rohingya Refugees in India'** the following are the **challenges faced by Rohingya refugees in India.)**

- **The most challenging concern faced by Rohingya is India has refused to grant exit visas to Rohingya refugees** who have completed refugee status determinations and gained approval for resettlement in third countries.
- The **Rohingya refugees in India are** being labelled as **illegal migrants whichhamper their integration into society along with risks of being deported back to Myanmar**, where they fled from a genocidal regime.
- **The fear of deportation**has instilled a **sense of fear within the Rohingya community**, compelling some to return to **camps in Bangladesh**.

Rohingyas live in dire conditions such as **slum-like settlements without safe running water, toilets, or access to basic healthcare and education.**

Ways to address the escalating mental health epidemic of Rohingya refugees in India:

- We must address and mitigate the core causes of re-traumatization, providing the Rohingya people a life with more dignity, agency, and official identity in India.
- We must enable access to primary and tertiary healthcare facilities for everyone who holds a UNHCR card.
- We must support grassroots organisations to build safe spaces where the Rohingya refugees can access support without fear and start their healing journeys.

STATE OF OCEAN REPORT 2024

GS III –DISASTER MANAGEMENT

Context: The UNESCO's State of Ocean Report highlights key knowledge gaps in research and data on spiking oceanic warming.

Key highlights of the State of Ocean Report 2024:

- The upper 2,000 metres (m) of oceans warmed at a rate of 0.32 ± 0.03 watt per square metre (W/m2) from 1960 through 2023. It has accelerated to 0.66 Watt/m² in the past two decades and is expected to warm in the future as well, leading to irreversible changes in the centennial to millennial time scales.
- Due to increased greenhouse gas emissions from human activities led to increased uptake of the Earth energy imbalance (EEI) by oceans.About 90 percent of the EEI is being absorbed by oceans, resulting in a cumulative increase in ocean heat content (OHC) in the upper 2,000 m of the water column.
- Due to an increase in ocean heat content (OHC),ocean layers are prevented from mixing leading to lowering the preformed oxygen content of near-surface high latitude waters reaching the deeper layers of oceans. This reduction is termed 'deoxygenation' which is a concern as it can have long-term negative impacts on the health of coastal and large marine ecosystems, a sustainable blue economy, and coastal communities that depend on oceans such as tourism, fisheries, aquaculture, and ecosystem services.
- Coastal waters can turn acidic due to natural processes, such as freshwater influx, biological activity, temperature change, and climate patterns like El Nino/Southern Oscillation (ENSO).
- Human activities like nutrient input from agricultural and industrial activities also influence the chemistry of coastal areas.
- The open ocean has been experiencing a continuous decline in pH (increase in acidic levels), with an average global surface ocean pH decline of 0.017-0.027 pH units per decade since the late 1980s. This indicates a mean global increase in ocean acidification in all ocean basins and seas.

Sea levels continued to rise in 2023. The global mean sea level from 1993 to 2023 increased at a rate of 3.4 +/-0.3 mm/yr.

Earth Energy Imbalance (EEI):

- It is the balance between incoming energy from the Sun and outgoing energy from the Earth.

UNIFIEDPAYMENTS INTERFACE (UPI)

GS III –DIGITAL ECONOMY

Context: The Reserve Bank of India (RBI) hasannounced new rules and regulations to enhance thescope of Unified Payments Interface (UPI) payments.

Unified Payments Interface (UPI):

- It was developed by the National Payments Corporation of India (NPCI) in 2016 and built over Immediate Payment Service (IMPS) infrastructure.
- It powers multiple bank accounts into a single mobile application (of any participating bank), merging severalbanking features e.g., transfer of funds, etc.
- It is designed to enable peer-to-peer inter-bank transfers through a single two-click factor authentication process.

Features of Unified Payments Interface (UPI):

- It simplifies transfers using the recipient's UPI ID, be it a mobile number, QR code, or Virtual Payment Address, eliminating account numbers.
- Earlier, only the deposited amount could be transacted through theUPI System. But now using the credit line on UPI enables pre-sanctioned credit lines from banks viaUPI.
- It eliminates the need to enter bank details or other sensitive information each time a customer initiates a transaction.
- It enhances cross-operability, enabling 24/7 transactions.
- It uses technologies like the Immediate Payment Service (IMPS) and the Aadhaar-Enabled Payment System (AEPS) to ensure that payments between accounts go smoothly.
- The users can both send and receive money offline through anycompatible device that supports Near Field Communication (NFC) using UPI Lite X.
- 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.
- UPI Tap and Payallows NFC-enabled QR codes at merchants to complete payments, with a single tap withoutentering the PIN.

Concerns/Issues/Challenges associated with UPI:

- Expanding UPI to accommodate a global userbasewill require adhering to data protection, financial laws,and regulations of different countries posing regulatoryand compliance challenges.
- The recent Parliamentary panel's report, titled 'Digital Payment and Online Security Measuresfor Data Protection' recently highlights that foreign entitieslike PhonePe and Google Pay dominate the Indian fintechsector. For example, the market share of PhonePe is46.91% and Google Pay is 36.39% in terms of thetransaction volume in October-November 2023,whereas for BHIM UPI it is 0.22%.
- UPI faces various threats by cybercriminals who may exploit vulnerabilities in the system or use socialengineering techniques togain access to sensitive information leading to financial losses.
- UPI poses a significant challenge for cross-border transactions that includes managingcurrency conversion andexchange rates whilefacilitating payments andloading money into the wallet.

UPIremains a barrier to itswidespread adoptionespecially among individualswith a lack of familiarity withdigital payments, leading tofinancial fraud.

National Payments Corporation of India (NPCI):

- It is an umbrella organization for operatingretailpayments and settlement systems in India.
- It has been incorporated as a not-for-profitcompanyunder provisions Section 8 ofthe Companies Act 2013.

- It is an initiative of RBI and the Indian Banks'Association (IBA)under provisions of the Payment and Settlement Systems Act of 2007.
- It has launched payment products like RuPay card, IMPS,UPI, BHIM, BHIM Aadhaar,etc.

WHEAT IMPORTS

GS III –AGRICULTURE
Context: India, the world's second-largest wheat producer, plans to begin wheat imports after a six-year gap to replenish depleted reserves and control rising prices, driven by three consecutive years of disappointing crops.

Reasons for India to Resume Wheat Imports:

- India's wheat production has declined in the **last 3 years** due to unfavourable weather conditions, leading to a sharp drop in wheat output.The government estimates this year's wheat crop to be **6.25% lower** than the previous year's (2023) record production of **112 million metric tons.**
- As of April 2024, wheat stocks in government warehouses have dropped to 7.5 million tons, the lowest in 16 years, due to the government selling over 10 million tons from its reserves to control domestic prices.
- The **government's target** for wheat procurement in the year 2024 was **30-32 million metric tons,** but it has managed to buy **only 26.2 million tons** so far.
- **Domestic wheat prices** have stayed above the government's **minimum support price (MSP)** of 2,275 rupees per 100 kg and have been on the rise recently.So, the government decided to remove the 40% import duty on wheat to allow private traders and flour millers to import wheat, primarily from Russia.

Implications of Resuming Wheat Imports:

- Abolishing import duty will likely lead to **increased wheat supplies in the domestic market.** This can potentially **mitigate price hikes.**
- Lower import costs can **aid the government in replenishing depleted wheat reserves.** This **bolsters food security** by creating a **buffer against unforeseen disruption**s in domestic production.
- While India's estimated import volume (3-5 million metric tons) is modest, it could **contribute to a rise in global wheat prices.**This is due to the current scenario of **high prices driven by production concerns in major exporting nations** like Russia.

India's import requirement is unlikely to significantly influence the global market. Larger players will continue to exert a more substantial influence on global wheat price trends.

WI-FI 7 TECHNOLOGY

GS III –AWARENESS IN THE FIELDS OF IT
Context: Qualcomm, a U.S. based company suggested that India should adopt the newest Wi-Fi 7 technology.

Wi-Fi 7 Technology:

- It is the next-generation Wi-Fi standard to be launched, based on IEEE 802.11be — extremely high throughput(EHT).

Characteristics/Features of Wi-Fi 7:

- It has backward compatibility as it connects with devicesin 2.4GHz, 5GHz, and 6GHz bands without requiringnewhardware.It won't be stuck to a single frequency but use a mix of available spectrum frequencies to provide a solution.
- It has lower latency as it enables faster cloud-basedoperations like file transfers and gaming.
- It combines multiple channels on different frequenciesfor improved networkperformance.
- It could theoretically support a bandwidth of up to 330Gigabits per second per accesspoint. Four times faster than the maximum speed of Wi-Fi 6.

Benefits/Significance of Wi-Fi 7:

- It enables India'srapid adoption ofcloud-based and wirelessapplications andthe government'sdigital

- initiativesregarding securityand privacy.
  - • It augments digital transformation in the enterprisesector, fixedwireless connectivity, smartphonetechnology, and the potential of Artificial Intelligence (AI),especially Edge AI.
  - • It could support the growing number of emerging technologies like Internet of Things (IoT)devices, including smart home devices, wearables, and industrial IoT applications.
  - • It has applications in tele-diagnostics and telesurgery.
  - • It can facilitate the streaming of higher-resolutioncontent, such as 8K videos.

It could enhance performance in cloud gaming, AR/VR,and other data-intensive activities.

Institute of Electrical and Electronics Engineers (IEEE):

- • It is the world's largest technicalprofessional organizationdedicated to advancing technology for the benefit ofhumanity.

Wi-Fi (Wireless Fidelity):

- • It is a wireless technology that allowsdevices to connect to the internet andcommunicate witheach other.

It uses radio waves to provide high-speed wireless internet and networkconnections.

WOMEN IN LEADERSHIP IN CORPORATE INDIA

GS III –EMPLOYMENT

Context: A report titled "Women in Leadership in Corporate India" by the networking platform has shown a persistent underrepresentation of women in leadership positions across Indian corporates.

Findings of the Report:

- • Women's representation across the workforce and in senior leadership positions is below 30% all the time and is on a declining trend post-pandemic.This can be attributed to the **slowdown in fresh hires of women for leadership roles.**
- • **The lowestrepresentation of women includes** construction, oil, gas, mining, and utilities (11%), wholesale and manufacturing(12%), and accommodation and food services (15%).
- • **The highestrepresentation of women includes**education (30%) and government administration (29%)
- • Reports show that laws such as the **Companies Act, of 2013,** which **mandates women directors on company boards, are not being followed** strictly.Between April 2018 and December 2023, 507 companies were fined for flouting this norm. Of them, 90% were **listed companies.**

Factors contributing to lower representation of women in corporates:

- • Deeply ingrained **societal biases and stereotypes** about women's abilities, leadership styles, and career ambitions can **lead to unfair assessments and limited opportunities for advancement.**
- • The reduction in the availability of hybrid or work-from-home roles may have **contributed to the stagnation,** as these arrangements often facilitate the participation of women in the corporate workforce.
- • The disproportionate **burden of domestic and caregiving responsibilities** that often falls on women can make it difficult to demonstrate the same level of commitment and **availability as their male counterparts.**
- • Migration and safety concerns further limit women's access to employment. **Inadequate urban infrastructure, along with safety issues in public spaces, can discourage women from seeking and retaining jobs**, particularly in urban areas.
- • Women often have **less access to influential mentors and sponsors** who can advocate for their career progression and help them navigate the corporate landscape.
- • The scarcity of **women in senior leadership positions creates a lack of visible role models** and makes it harder for women to envision themselves in these positions.

Ways to enhance gender diversity in corporateleadership:

- • **Flexible or hybrid work policies**are important for **retaining women, especially at the junior and middle management levels,** as this is when they often have to balance career aspirations and family commitments.

- Adopting a **'skills-first' approach to hiring, rather than making gendered assumptions** about a prospective employee's capabilities, can help reduce biases and promote meritocracy.This involves **focusing on the candidate's relevant skills, qualifications,** and experience, rather than relying on gender-based stereotypes.
- The government can promote **diversity in senior leadership** through initiatives to raise awareness of **board diversity** in listed companies.As an example, the **Japanese Ministry of Economy** collaborated with the Tokyo Stock Exchange to introduce the **"Nadeshiko Brands"** program.This **highlights companies that encourage women's empowerment and leadership** as attractive investment opportunities.
- **Creating a strong network group** for women professionals can foster connections and collaboration, **empowering women to navigate the path to leadership.**
- **Through peer learning and support,women can share experiences, learn from each other's successes and challenges**, and build a strong support system.
- Providing **mentorship and networking opportunities for women** can help them navigate the **corporate ladder more effectively.**
- Experienced **female leaders can guide and support aspiring women,** sharing insights and strategies for career advancement.

Shared parental leave policiescan **promote a more equitable distribution of caregiving responsibilities** between men and women.**Paid paternity leave policy,** especially in the private sector, **can help promote a more equitable distribution of caregiving responsibilities** between men and women.

WORLD WILDLIFE CRIME REPORT 2024

GS III –WILDLIFE CONSERVATION

Context: The UN Office on Drugs and Crime (UNODC)
has recently released the 3rd edition of a report titled the World Wildlife Crime Report 2024.

Key Highlights of the Report:

- The **rhino (animal)** and the **cedar (plant)** are **most affected** by global illegal wildlife trade during 2015-2021.**Rhino horn** is the largest portion of the illegal animal trade at **29%**, followed by **pangolin scales** at 28% and **elephant ivory** at 15%.
- Eels(5%), crocodilians(5%), parrots and cockatoos(2%), carnivores, turtles and tortoises, snakes, and seahorses.
- Cedars and other Sapindales like mahogany, holy wood, and Guiacum **made up the biggest market at 47%**, followed by rosewoods at 35% and agarwood and other myrtales at 13%.
- Among the commodities, **coral pieces** were found the most and comprised 16% of all seizures during 2015-2016; live specimens - 15%, while medicines made of animal products constituted 10% of all seizures.
- It highlighted that traditionally, bones are processed in destination countries (Far East) but may now be processed closer to where the animals are sourced (Africa, Latin America, Asia).This is concerning because it would be easier to traffic as processing like boiling bones into a paste makes it easier to smuggle, it would be unknown if this is for local use, export, or both.
- It notes concerns about substituting lion and jaguar bones for tiger bones, which are highly valued in traditional Chinese medicine.
- In 2024, the **UNODC** introduced a new indicator to track progress on **SDG target 15.7**, which **aims to stop illegal wildlife trafficking.**
- Rising illegal trade suggests that the proportion of illegal wildlife trade compared to all wildlife trade (legal and illegal) has been **increasing since 2017.**The problem worsened during the **COVID-19** pandemic (2020-2021), with **wildlife seizures** reaching their **highest levels at 1.4-1.9%** of global trade.Compared to 0.5-1.1% in previous years, the **rise in illegal wildlife trade** suggests the world is not on track to achieve the SDG target of 15.7 by 2030.

Factors Responsible for Wildlife Crime:

- Organised crime groups are involved in activities such as elephant and tiger poaching, illegal fishing, and logging by operating remotely and often converging with other criminal enterprises, utilising power relationships, corruption, illicit firearms, and **money-laundering** opportunities.Throughout the trade chain, organised crime is evident in specialised roles like export, import, brokering, storage, breeding live

specimens, and interfacing with processors.
- While big criminal groups might be behind some trafficking, many poor people are just trying to make ends meet.Sometimes, **poaching** happens because people are desperate to protect their crops or livestock from wild animals.
- When legal uses of a product decline, illegal traders might invent **new ways** to use it to keep selling.For luxury items like rare animals, plants, or endangered species trophies (ivory, big cat skins), scarcity can drive up demand in illegal markets, attracting more buyers.
- **Corruption** significantly **undermines efforts to disrupt and deter wildlife trafficking**, ranging from bribery at inspection points to higher-level influence on permit issuance and legal decisions.Despite legislation addressing corruption offering strong investigative powers and potentially higher penalties, prosecution of wildlife trafficking organisers under such laws is uncommon.
- People don't just poach wildlife for money as sometimes it's part of their culture; research in the periphery of **ChinkoReserve** in the **Central African Republic** revealed that some individuals view elephant hunting as part of their cultural identity, symbolising bravery and manhood, and passed down through generations.

Way Forward:

- **Banning illegal wildlife products**aims to reduce demand by making it illegal to possess or trade goods derived from illegally obtained wildlife.For example, banning ivory products would discourage the killing of elephants for their tusks.
- India's existing laws like the **Wildlife Protection Act (1972)**, **Environment (Protection) Act (1986)**, and **Biological Diversity Act (2002)** need stricter enforcement and improved implementation across various government levels.Penalties for violating wildlife protection laws should be effectively implemented.
- While funding may exist, better allocation and management of resources are crucial. Funds should directly support wildlife protection agencies like park rangers and anti-poaching units.
- Additionally, involving local communities in conservation efforts and providing them with financial incentives can increase their participation in preventing wildlife crime.

Raising public awareness about the consequences of wildlife trafficking is essential. Educating citizens about the value of wildlife and the impact of illegal products can decrease demand.This fosters a sense of responsibility and encourages individuals to report suspicious activity to authorities.

ARTIFICIALINTELLIGENCE (AI) AND ETHICAL ISSUES

GS IV –CONSEQUENCES OF ETHICS IN HUMAN ACTIONS

Context: A music composer utilized ArtificialIntelligence (AI) software to recreate the voices of deceased singers.

Artificial Intelligence (AI) and Ethical Issues:

- AI-generated content may raise concerns aboutpreserving the authenticity and integrity of artisticexpression, particularly when it is difficult to discernbetween human-created and AI-generated works.
- There are questions regarding the rights of artists, creators, and participants involved in AI-driven projects, including issues related to intellectualproperty, ownership, and consent for using personaldata orcreative contributions.
- AI can revive historical voices or artistic styles, but ethical considerations ariseconcerning whether such efforts aim to preserve cultural heritage or exploit the identities and legacies ofindividuals for commercial gain.
- The widespread adoption of AI in creative industries may have implications forhuman creativity andinnovation, potentially leading to homogenization, lossof diversity, or reliance on formulaicapproaches.
- The lack of regulatory measures presents challengesin safeguarding privacy and preventingdiscrimination, necessitating compliance, enforcement, andadaptation to evolving technologies.

Way Forward:

- AI-driven creative processes should ensure transparency and disclosure including clear attribution of AI-generatedcontent and obtaining informedconsent from all involved parties.
- The authenticity and integrity of artisticexpression should be upheld by acknowledging the contributionsof humancreators andrespecting their rights tocontrol and be properly credited for their work.
- The ethical guidelines and best practices for the ethical use of AI in creative endeavours should be developed by addressing issues suchas consent, ownership, fairness, and accountability.

The regulatory oversight and governance mechanisms should advocate compliance with ethical standards andprotect the rights and interests ofindividuals involved in AI-driven creative projects.

ETHICS AND CRIMINALIZATION OF POLITICS

GS IV –ETHICS IN PUBLIC ADMINISTRATION

Context: Several cases have been filed against members of legislative wings recently that raise ethical issues regarding the criminalization of politics.

Criminalization of Politics:

- **It refers to** the involvement of individuals with a criminal record in the political arena. It can include criminals running for and being elected to positions in parliament and state legislatures.
- It often occurs due to the close relationship between politicians and criminal elements.

Ethical challenges related to the Criminalization of Politics:

- Few members from the legislative wing who are facing serious criminal charges reveal a pattern of defending individuals accused of serious offenses relating to women, indicating the **separation from ethical norms** across party lines.This separation often originates from **intense partisanship** and prioritization of power over ethical conduct.
- **Many times, there are failures to address misconduct** within the political class, which undermines accountability and ethical standards.
- **The recent case of** Prajwal Revanna which faced severe p**ublic outrage catalyzed** action within political parties. However, the reactive nature of political responses to scandals highlights a broader **issue**

of accountability within democratic systems.
- Even when the members are at fault through their misconduct, parties often remain inactive until forced to address the public outcry, emphasizing the need for more robust mechanisms of accountability beyond public pressure.
- A culture of impunity diffuses through the political sphere, where norms and rules are **inconsistently enforced**, placing the burden of accountability on individual women.
- Despite widespread agendas on women's empowerment, substantive progress on **women's issues** such as **respect, equality, and security**
  remain unaddressed.While **women are mobilized as voters and beneficiaries of welfare schemes**, their **collective concerns** often remain on the periphery of political agendas.

Only an equitable representation for women won't suffice to politically empower women. The disconnect between representation and empowerment is evident in the limited impact of bodies like the **National Women's Commission.**

Practice Questions

Q1.) Consider the following countries:
1. Israel
2. Syria
3. Iran
4. Egypt

How many of the above-mentioned countries share border with Lebanon?
   a. Only one
   b. Only two
   c. Only three
   d. All four

Q2.)Consider the following National Parks:
1. Raimona
2. Manas
3. Kaziranga
4. Orang

How many of the above-mentioned National Parks are located in Assam?
   a. Only one
   b. Only two
   c. Only three
   d. All four

Q3.)Consider the following statements:
1. The Financial Action Task Force (FATF) is a global intergovernmental organization established in 1989.
2. Currently, India is in the black list of the FATF.

Which among the statements given above is/are correct?
   a. 1 only
   b. 2 only
   c. Both 1 and 2
   d.Neither 1 nor 2

Q4.) With reference to the Innovation for Defence Excellence (iDEX), consider the following statements:
1. iDEX is an ecosystem initiated by the Ministry of Home Affairs.

2. iDEX aims to deliver technologically advanced solutions for modernizing the Indian Military by engaging innovators, entrepreneurs, and industries.

Which of the statements given above is/are correct?
   a. 1 only
   b. 2 only
   c. Both 1 and 2
   d. Neither 1 nor 2

Q5.)With reference to the Leader of the Opposition, consider the following statements:
1. Leader of opposition is not a constitutional post.
2. The opposition leader must come from a party that commands at least 10 percent of the lawmakers in the lower house.

Which of the statements given above is/are correct?
   a. 1 only
   b. 2 only
   c. Both 1 and 2
   d. Neither 1 nor 2

Q6.)With reference to the Priority Sector Lending (PSL), consider the following statements:
1. Priority Sector Lending (PSL) is aimed at ensuring the availability of adequate credit to vital sectors of the economy
2. Banks can meet their PSL targets by purchasing Priority Sector Lending Certificates (PSLCs).
3. The RBI monitors and ensures compliance with PSL guidelines, and non-compliance can attract penalties.

How many of the statements given above are correct?
   a. Only one
   b. Only two
   c. All three
   d. None

Q7.) With reference to the Gulf of Aden, consider the following statements:
1. The Gulf of Aden is an extension of the Pacific Ocean.
2. It connects the Red Sea to the Arabian Sea.

Which of the statements given above is/are correct?
a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor

Q8.)With reference to the Ganga Water Sharing Treaty, consider the following statements:
1. It governs the sharing of Ganga River waters at the Farakka Barrage in West Bengal between India and Bangladesh.
2. It specifically outlines the minimum level of water flow that India must share with its downstream neighbour, Bangladesh, during the dry season.
3. The treaty is valid until the end of 2026, with a clause allowing renewal every 10 years by mutual consent.

How many of the statements given above are correct?
a. 1 only
b. 1 and 2 only
c. 2 and 3 only
d. 1,2 and 3

Q9.) "The chemical properties of the water are known to calcify the bodies of any living thing that died in the lake, turning them to stone before they decompose". Which water body is the sentence referring to?
a. Lake Natron
b. Lake Baikal
c. Lake Tangayika
d. Lake Huron

Q10.) With reference to the external debt to GDP ratio, consider the following statements:
1. The external debt-to-GDP ratio is calculated by dividing the total external debt by the country's gross domestic product (GDP).

2. This ratio helps assess a nation's financial stability and its ability to manage debt obligations.
3. A low external debt-to-GDP ratio indicates that an economy produces sufficient goods and services to repay its debts without accumulating further debt.

How many of the statements given above are correct?
a. Only one
b. Only two
c. All three
d. None

Q11.)With reference to the Inflation, consider the following statements:
1. Inflation refers to the sustained increase in the general price level of goods and services in an economy over a period of time.
2. It erodes the purchasing power of money and affects the standard of living.
3. A moderate level of inflation is good for economy

Which of the statements given above is/are correct?
a. 1 only
b. 1 and 2 only
c. 2 and 3 only
d. 1,2 and 3

Q12.)Consider the following states:
1. Gujarat
2. Maharashtra
3. Telangana
4. Kerala

How many of the above-mentioned states are the leading cotton producers in India?
a. Only one
b. Only two
c. Only three
d. All four

Q.13) With reference to river Teesta, consider the following statements:
1. The Teesta River originates from the Pahunri glacier in Sikkim.

2. It flows through the Assam and West Bengal.

3. It merges with the Brahmaputra in Bangladesh.

How many of the statements given above are correct?

a. Only one
b. Only two
c. All three
d. None

Q14.)With reference to the renaming of a state, consider the following statements:

1. The renaming of a state can be initiated only by the State Legislature.

2. Before introducing the bill, the President sends it to the respective State Assembly for their views within a stipulated time.

3. The views of the state assembly are not binding on either the President or the Parliament.

4. The bill must be passed by a simple majority to become law.

How many of the statements given above are correct?

a. Only one
b. Only two
c. Only three
d. All four

Q15.)With reference to the Nord Stream pipelines, consider the following statements:

1. Nord Stream is a network of offshore natural gas pipelines.

2. It provides a reliable and cost-effective natural gas source for European countries.

3. It run under the Black Sea from Russia to Germany.

How many of the statements given above are correct?

a. Only one
b. Only two
c. All three
d. None

Q16.) Which among the following countries do not recognize Palestine as a sovereign state?

a. India
b. China
c. Armenia
d. United States

Q17.)With reference to the Chenab River, consider the following statements:

1. The Chenab River originates in the Lahaul and Spiti region of Himachal Pradesh.

2. According to the Indus Water Treaty, Pakistan is entitled to the Chenab's waters.

3. The Chenab flows through the Jammu and Kashmir before joining the Yamuna

Which of the statements given above is/are correct?

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

Q18.)With reference to the Neglected Tropical Diseases (NTDs), consider the following statements:

1. NTDs are a diverse group of diseases that prevail in tropical and subtropical conditions.

2. January 30 is observed as World NTD Day

Which of the statements given above is/ are correct?

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

Q19.) Consider the following statements:

1. Digi Yatra Initiative is a project by the Ministry of Road Transport and Highways to create a Biometric Enabled Seamless Travel experience.

2. It provides a decentralized mobile wallet-based identity management platform.

Which of the statements given above is/are correct?

a. 1 only

b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

Q20.)With reference to the E. coli, consider the following statements:
1. E. coli is a type of bacteria that can be found in the intestines of humans and animals.
2. It can be transmitted to humans through contaminated food and water.

Which of the statements given above is/are correct?
a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

Q21.) Consider the following rivers:
1. Indus
2. Ganga
3. Brahmaputra
4. Mekong

How many of the above given rivers are originating from the Hindu Kush Himalaya (HKH) region?
a. Only one
b. Only two
c. Only three
d. All four

Q22.) Global Gender Gap Report 2024 was released by
a. World Economic Forum
b. World Bank
c. International Monetary Fund
d. World Trade Organisation

Q23.)With reference to the Central Industrial Security Force (CISF), consider the following statements:
1. It is a federal police organization operating under the Ministry of Defence.
2. Its security umbrella covers critical infrastructure facilities such as nuclear installations, space establishments, airports, seaports, and power plants.

Which of the statements given above is/are correct?
a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

Q24.) With reference to the International Yoga Day, consider the following statements:
1. The International Day of Yoga (IDY) is observed annually on June 21st.
2. The theme for International Yoga Day 2024 is "Yoga for Self and Society".

Which of the statements given above are correct?
a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

Q25.) Consider the following statements:
1. European Commission is the EU's politically independent executive arm.
2. Ursula von der Leyen is the current president of European Commission.

Which of the statements given above is/are correct?
a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

Q26.)With reference to the Krishi Sakhi Convergence Programme (KSCP), consider the following statements:
1. It aims to transform rural India through the empowerment of rural Women as Krishi Sakhi, by imparting training and certification of Krishi Sakhis as Para-extension Workers.
2. Krishi Sakhis undergo comprehensive training, including modules on agro-ecological practices, farmer field schools, soil health, livestock management, and more.

3. This certification course aligns with the objectives of the "Lakhpati Didi" Program.

Which of the statements given above is/are correct?

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

Q27.) Consider the following states:
1. Himachal Pradesh
2. Punjab
3. Haryana
4. Rajasthan

The Ghaggar river flows through how many of the above - mentioned states in India?

a. Only one
b. Only two
c. Only three
d. All four

Q28.) Consider the following Air combat exercises:
1. Pitch Black
2. Desert Flag
3. Red Flag

The Indian Air Force (IAF) participates in how many of the above given exercises?

a. Only one
b. Only two
c. All three
d. None

Q29.)Filoboletus manipularis, recently seen in news is a
a. Bacterium
b. Virus
c. Fungus
d. Alga

Q30.) Consider the following statements:
1. Aedes albopictus mosquito is a native to tropical and subtropical areas of Southeast Asia.
2. Aedes albopictus mosquito transmits dengue, chikungunya and Zika viruses.

Which of the statements given above is/are correct?

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

Q31.) Consider the following statements about Razia Sultana
1. Iltutmish was succeeded by Razia's half-brother Ruknuddin Firuz,
2. She ruled during the Delhi Sultanate era from 1236 to 1240.
3. Shedressed in traditional male attire&rode on elephants through the streets of Delhi.

How many of the statements given above are correct?

a. Only one
b. Only two
c. All three
d. None

Q32.) Consider the following statements about James Webb Space Telescope (JWST):
1. JWST is an international collaboration between NASA, the European Space Agency (ESA), and the Canadian Space Agency (CSA).
2. Scientists have used JWST to explore Cosmic Dawn.
3. JWST is designed to conduct infrared astronomy.

How many of the statements given above are correct?

a. Only one
b. Only two
c. All three
d. None

Q33.) Consider the following statements :
1. CHANG'E-6 mission is part of China's moon exploration programme.
2. Missions to the moon's far side are more difficult because it doesn't face the Earth, requiring a relay satellite to maintain communications.

Which of the statements given above is/are not correct?
   a. 1 only
   b. 2 only
   c. Both 1 and 2
   d. Neither 1 nor 2

Q34.) Consider the following statements about India Meteorological Department (IMD):
   1. IMD is headquartered in Delhi and operates observation stations across India and Antarctica.
   2. It functions under Ministry of Science & Technology.
   3. IMD is also one of the six Regional Specialised Meteorological Centres of the World Meteorological Organisation.
How many of the statements given above are correct?
   a. Only one
   b. Only two
   c. All three
   d. None

Q35.) Consider the following statements:
   1. Indian coal has historically been evaluated as being high in ash content and low in calorific value compared to imported coal.
   2. The higher the available carbon in a unit of coal, the greater is its quality or 'grade.'
   3. Non-coking coal, despite its ash content, can be used to generate enough useful heat to run a boiler and turbine.
How many of the statements given above are correct?
   a. Only one
   b. Only two
   c. All three
   d. None

Q36.) Consider the following statements about Shangri La Dialogue:
   1. It's organized by the International Institute for Strategic Studies (IISS), an independent think tank.
   2. The 2024 Shangri-La Dialogue took place in Malaysia.

Which of the statements given above is/are not correct?
   a. 1 only
   b. 2 only
   c. Both 1 and 2
   d. Neither 1 nor 2

Q37.)Consider the following statements about Kavango-Zambezi Trans-Frontier Conservation Area

   1. It spans five southern African countries: Angola, Botswana, Namibia, Zambia and Zimbabwe.
   2. It incorporates a number of notable national parks and nature sites, including Chobe National Park, Hwange National Park, and the Victoria Falls.

Which of the statements give above is/are correct?
   a. 1 only

   b. 2 only

   c. Both 1 and 2

   d. Neither 1 nor 2

Q38.)Consider the following countries
   1. Maldova
   2. Poland
   3. Slovakia
   4. Belarus
How many of the countries given above share borders with Ukraine?
   a. Only one

   b. Only two

   c. Only three

   d. All four

Q39.) Consider the following statements about Ahilyabai Holker

1. She was the Holkar Queen of the Malwa kingdom.
2. Her notable contribution was the renovation and repair of the famous Kashi Vishwanath Temple.
3. Her capital, Maheshwar, was an oasis of literary, musical, artistic, and industrial pursuits.

How many of the statements give above are correct?
   a. One only
   b. Two only
   c. All three
   d. None

Q40.) Consider the following statements about PM KISAN scheme
   1. It is a Central Sector scheme with 100% funding from the Government of India.
   2. The scheme provides an income support of ₹6,000/- per year in three equal installments to all land holding farmer families.
   3. The State Government and UT administration identify the farmer families which are eligible for support as per scheme guidelines.

How many of the statements given above are correct?
   a. Only one
   b. Only two
   c. All three
   d. None

Q41.) Consider the following statements about European Parliament (EP)
   1. The European Parliament (EP) is the only directly elected body of the European Union.
   2. Unlike national parliaments, the EP does not have the right to propose laws but can only negotiate those proposed by the executive European Commission.
   3. The EP comprises 720 Members (MEPs) elected every five years.

How many of the statements given above are correct?
   a. Only one
   b. Only two

   c. All three
   d. None

Q42.) Consider the following statements about Stromatolites:
   1. Stromatolites are layered sedimentary formations created mainly by photosynthetic microorganisms such as cyanobacteria.
   2. Stromatolites are considered the oldest living lifeforms on our planet.

Which of the statements given above is/are correct?
   a. 1 only
   b. 2 only
   c. Both 1 and 2
   d. Neither 1 nor 2

Q43.) Consider the following statements with respect to depreciation of rupee.
   1. Exporters stand to gain the most from Rupee depreciation as it makes exports more competitive.
   2. Importers can import more quantity at a less price because of rupee depreciation.
   3. Higher supply of dollar causes the rupee to depreciate with respect to dollar.

How many of the statements given above are correct?
   a. Only one
   b. Only two
   c. All three
   d. None

Q44.) Consider the following statements about Open Network for Digital Commerce (ONDC)
   1. It aims to create an open and interoperable e-commerce ecosystem.
   2. It is a network-centric model, wherein buyers and sellers can transact irrespective of the platforms/applications they use as long as platforms/applications are connected to this open network.
   3. ONDC was incorporated as a Section 8 (non-profit) company and is fully owned by Government of India.

How many of the statements given above are correct?
   a. Only one
   b. Only two
   c. All three
   d. None

Q45.) Consider the following statements about greedflation:
   1. Greedflation happens when companies try to increase their profit margin.
   2. It is a direct result of wage-price spiral.

Which of the statements given above is/are correct?
   a. 1 only
   b. 2 only
   c. Both 1 and 2
   d. Neither 1 nor 2

Q46.) Consider the following statements about PM KISAN scheme
   3. It is a Central Sector scheme with 100% funding from the Government of India.
   4. The scheme provides an income support of ₹6,000/- per year in three equal installments to all land holding farmer families.
   5. The State Government and UT administration identify the farmer families which are eligible for support as per scheme guidelines.

How many of the statements given above are correct?
   e. Only one
   f. Only two
   g. All three
   h. None

Q47.) Consider the following statements about European Parliament (EP)
   6. The European Parliament (EP) is the only directly elected body of the European Union.
   7. Unlike national parliaments, the EP does not have the right to propose laws but can only negotiate those proposed by the executive European Commission.
   8. The EP comprises 720 Members (MEPs) elected every five years.

How many of the statements given above are correct?
   i. Only one
   j. Only two
   k. All three
   l. None

Q48.) Consider the following statements about Stromatolites:
   9. Stromatolites are layered sedimentary formations created mainly by photosynthetic microorganisms such as cyanobacteria.
   10. Stromatolites are considered the oldest living lifeforms on our planet.

Which of the statements given above is/are correct?
   m. 1 only
   n. 2 only
   o. Both 1 and 2
   p. Neither 1 nor 2

Q49.) Operation Blue Star was related to which of the following events?
   a. Khalistan Movement
   b. Quit India Movement
   c. Nuclear Weapon Test
   d. None of the above

Q50.) Consider the following countries:
   1. United Kingdom
   2. Germany
   3. France
   4. Finland
   5. Belgium
   6. Ukraine

How many of the above-mentioned countries are the members of the European Union (EU)?
   a. Only two
   b. Only three
   c. Only four
   d. Only five

Q51.) With reference to the Council of Ministers (COM), consider the following statements:

1. The Council of Ministers is the highest decision-making body in the government, headed by the President of India.
2. The Council of Ministers is collectively responsible to the House of the People.
3. The salaries and allowances of Ministers are determined by President of India.

How many of the statements given above are correct?

a. Only one
b. Only two
c. All three
d. None

Q52.) With reference to the Pradhan Mantri Awas Yojana (PMAY), consider the following statements:

1. It is a flagship program implemented by the Government of India with the mission of 'Housing for All by 2022'.
2. It is a centrally sponsored scheme.

Which of the statements given above is/are correct?
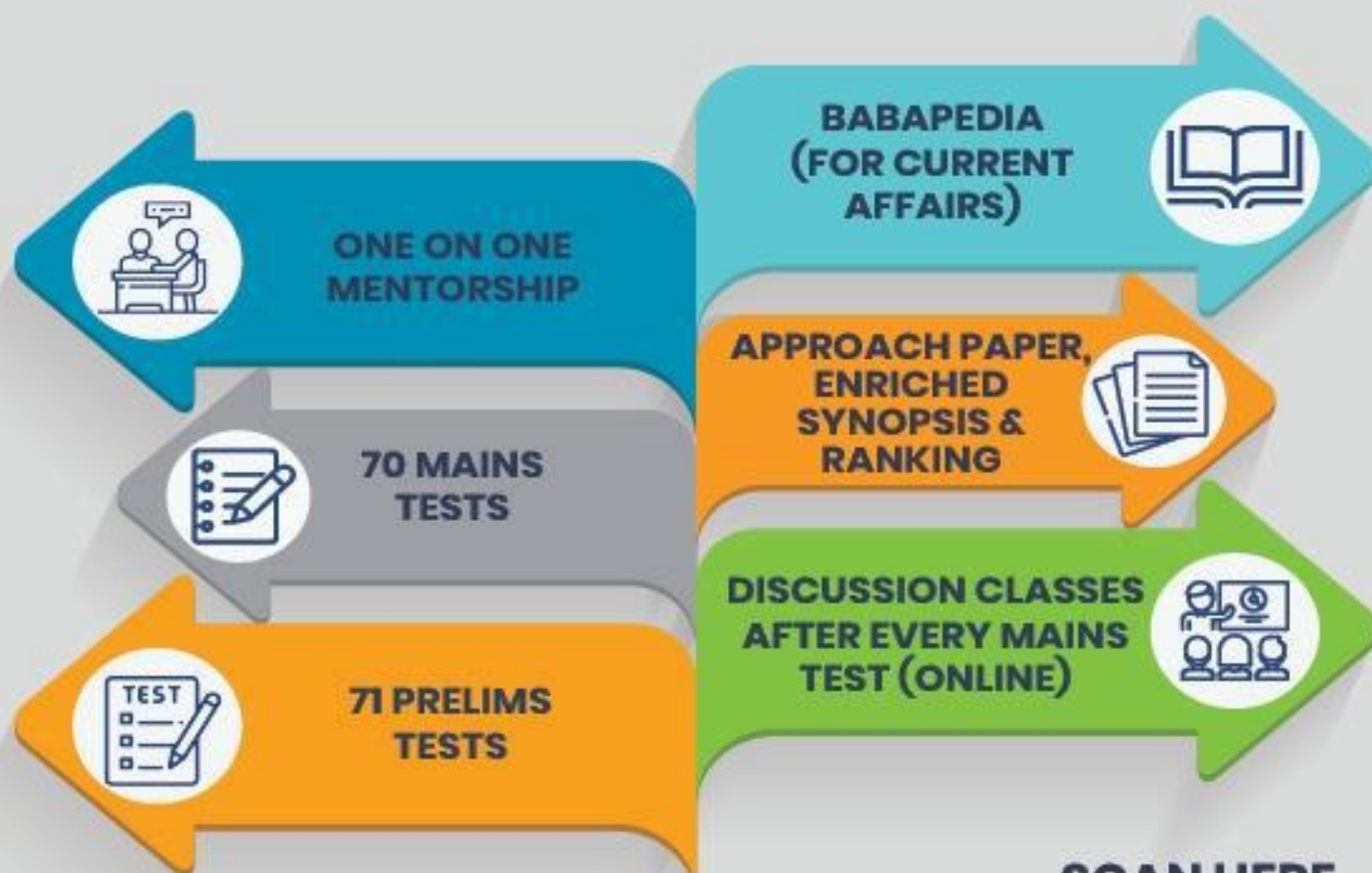
a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

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