1. **Chagos Island:** India reaffirmed its support for Mauritius' claim over the **Chagos Archipelago** ahead of Indian PM's visit to Mauritius.



   - **About:** Islands are a landmass surrounded by water on all sides, smaller than a continent but larger than a rock or islet which found in oceans, seas, lakes, or rivers in various shapes and sizes.
   - **Chagos Islands:** It is a grouping of 58 islands situated in the Indian Ocean about 500 km south of the **Maldives**, , ~1,600 km northeast of Mauritius.
     - It holds strategic importance, with Diego Garcia, one of its islands, serving as a vital military base jointly operated by the UK and the US.
   - **Diego Garcia**: Largest Island, area 32.5 sq km.
   - **Great Chagos Bank:** World's largest atoll structure, spread over 12,642 sq km.
   - **Historical Background:** In 16th Century, Chagos Islands mapped by Portuguese.
   - **British Indian Ocean Territory (BIOT):** In 1965, UK created BIOT by detaching Chagos from Mauritius and islands from Seychelles.
   - **Legal Dispute**: In 2022**,** UK-Mauritius negotiations began. The UK officially recognised Mauritius' sovereign rights over Chagos in **2023**, though it retained control over **Diego Garcia** for military purposes.
   - **Agreement**: Britain agreed in October 2024 to transfer sovereignty of the Chagos Islands to Mauritius while retaining control of the Diego Garcia military base under a 99-year lease (awaiting ratification).
   - **Military Base on Diego Garcia**: Strategically vital for U.S. bombers and warships.
2. **Small Modular Nuclear Reactor:** The concept design stage of India's proposed Bharat Small Modular Reactor (BSMR) has been completed and is awaiting approval.
   - **About Small Modular Nuclear Reactor (SMRs):** Advanced nuclear reactors with a power capacity of **up to 300 MW(e)** per unit, about **one-third** of traditional reactors.
   - **Key Features:**
     - **Small:** Fraction of the size of conventional reactors, requiring less space.

- **Modular:** Factory-assembled units transported to installation sites.
- **Reactors:** Harness **nuclear fission** to generate heat and produce energy.

- **About Bharat Small Modular Reactor (BSMR):** Each BSMR will have a capacity of **200 MW**.
  - **Technology:** Modified versions of India's existing **Pressurised Heavy Water Reactor (PHWR)**.
  - **Fuel:** Powered by **slightly enriched uranium**.
  - **Developers:** Jointly designed by Bhabha Atomic Research Centre (BARC) and Nuclear Power Corporation of India Limited (NPCIL).
  - **Manufacturing:** Equipment and components sourced from **indigenous nuclear vendors** developed by the **Department of Atomic Energy (DAE)**.
  - **Applications:** Provides captive power for energy-intensive industries like **steel, aluminium, and cement** → Supplies electricity to **remote locations** → Can be set up by **repurposing decommissioned thermal power plants**.

3. **Digital Arrest:** The number of digital arrest scams and related cybercrimes in India almost tripled between 2022 and 2024, with the defrauded amount skyrocketing 21 times.
   - The **Indian Cyber Crime Coordination Centre (I4C)** has proactively identified and blocked accounts used for digital arrests.
   - **About Digital Arrest:** A new tactic where cybercriminals impersonate law enforcement officials to extort money from victims by making them believe they've committed a serious crime.
   - **Modus Operandi:** Fraudsters pose as officials from **police, ED, CBI**, etc., tricking victims into believing they've been accused of a crime.
     - Victims are forced to stay visible on **Skype or video conferencing platforms** until demands are met.
     - Victims are deceived into believing they're under **'digital arrest'**, unable to leave their homes unless they pay the scammers.
   - **Preventive Measures:** Regularly update passwords/software, enable **two-factor authenticatio**.
     - **Avoid Phishing:** Don't click on suspicious links or share personal information without verification.
     - **Secure Devices:** Install trusted **antivirus/anti-malware** and keep systems updated.

- **Use VPNs:** Encrypt internet connections for enhanced privacy. Avoid free/untrusted VPNs.
- **Secure Communication:** Use **encryption** for sensitive information; avoid sharing passwords in public forums.

4. **PRIP Scheme:** The Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers recently organised a workshop on the Promotion of Research and Innovation in Pharma-MedTech Sector (PRIP) Scheme to promote research and development in the pharmaceuticals and medical technologies sector.
   - The workshop brought together over 100 participants from leading scientific departments and premier institutions and featured four dedicated breakout sessions.
   - **About Promotion of Research and Innovation in Pharma-MedTech Sector (PRIP) Scheme:** It's one of the objective to transform the Indian Pharma MedTech sector from cost-based competitiveness to innovation-based growth by strengthening research infrastructure.
   - **Aim:** Promote industry-academia linkage for R&D in priority areas, and inculcate the culture of quality research and nurture the pool of scientists.
   - **Implementation:** An Empowered Committee chaired by the **CEO, NITI Aayog** with secretaries from Pharmaceuticals, Health, ICMR, DBT, CSIR, AYUSH, and DST will guide implementation.
   - **Significance**: Boosts innovation, strengthens industry-academia linkages, and positions India as a global leader in pharmaceutical and MedTech research.
5. **Bharat 6G Alliance:** The Bharat 6G Vision, released by the Prime Minister on March 23, 2023, focuses on affordability, sustainability, and ubiquity in 6G technology.
   - **About Bharat 6G Alliance (B6GA):** Facilitated by the **Department of Telecom** to develop an action plan for the Bharat 6G Vision.
   - **Purpose:** Collaborative platform aiming for universal and affordable connectivity, promoting indigenous technology, and establishing India as a global telecom leader.
   - **Composition:** Includes public and private companies, academia, research institutions, and standards development organizations.
   - **Global Collaboration:** Will forge synergies with other global 6G alliances for international cooperation and knowledge exchange.
   - **Key Goals:** Enable India to become a leading global supplier of IP, products, and solutions for affordable 5G and 6G.

- **Frequency Bands for 6G:**
  - **Under Study:** 4400-4800 MHz, 7125-8400 MHz, and 14.8-15.35 GHz — under study by the International Telecommunication Union (ITU) for International Mobile Telecommunications (IMT).
  - **Currently Identified Bands:** 600 MHz, 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300 MHz, and 26 GHz.
  - **Technology Deployment:** TSPs acquiring spectrum in these bands can deploy **2G/3G/4G/5G/6G**, based on **device ecosystem availability**.

6. **SPHEREx Observatory:** NASA's **SPHEREx observatory** was launched to map the entire sky in infrared, aiming to explain galaxy formation and the universe's expansion from the Big Bang.
   - **About SPHEREx Observatory:**
     - **Full Form:** Spectro-Photometer for the History of the Universe, Epoch of Reionization and Ices Explorer (SPHEREx).
     - **Shape:** Megaphone-shaped telescope.
     - **Tenure:** 2 years with plans to complete four full-sky surveys.
     - **Launch:** SpaceX launched SPHEREx from California, along with four satellites to study the Sun.
   - **Aims of SPHEREx:**
     - **Mapping:** Map the universe while detecting optical and infrared light.
     - **Cosmic Inflation:** Measure cosmic inflation, a period around 14 billion years ago when the universe expanded faster than light.
     - **Understanding Universe:** Study the formation of the universe, growth of galaxies, and search for water and life-forming molecules in the Milky Way.
     - **3D Galaxy Mapping**: Use spectroscopic images to measure the 3D positions of about 450 million galaxies.
     - **Complement Other Telescopes:** Support the work of other infrared telescopes like the James Webb and Hubble Space Telescopes.
7. **Grand Commander of the Order of the Star and Key of the Indian Ocean (G.C.S.K) Award:** Recently, Mauritius bestowed its highest civilian award to the Prime Minister of India.

- **About:**
  - **First Indian Recipient:** Prime Minister Narendra Modi became the first Indian to receive Mauritius' highest civilian honour, the GCSK.
  - **International Honours:** This marks the **21st international honour** for Prime Minister Modi.
- **About GCSK:** Founded 1992 to honour individuals contributing to social progress in Indian Ocean nations. Only 5 foreign dignitaries have received the title, including Nelson Mandela (1998).

8. **Rashtriya Gokul Mission (RGM):** White Revolution 2.0 launched in Sep, 2024 and **Rashtriya Gokul Mission** launched in 2014 was aimed to enhance milk production and strengthen dairy infra.
   - **About Rashtriya Gokul Mission:** Launched in 2014 under the National Programme for Bovine Breeding and Dairy Development; and merged with the Rashtriya Pushudhan Vikas Yojana (RPVY) in 2021.
     - **Nodal Ministry:** Ministry of Animal Husbandry, Dairying and Fisheries.
     - **Period of Operation:** Initially 2014–2017, extended from 2021 to 2026 under the RPVY.
     - **Implementing Agencies:** Livestock Development Boards → Central Frozen Semen Production and Training Institute (CFSPTI) → Central Cattle Breeding Farms (CCBFs) → ICAR, Universities, Colleges, NGOs, Cooperative Societies.
     - **Key Initiatives:** Gokul Gram for integrated cattle development → Semen Stations and IVF labs → E-Pashu Haat for livestock trading Kamdhenu Breeding Centre and awards like Kamdhenu Awards and Gopal Ratna Award etc.
   - **About White Revolution 2.0:** Launched by Ministry of Cooperation, to increase milk production along with empowerment of women and the fight against malnutrition.
     - t is in line with White Revolution launched in 1970 by **Dr. Verghese Kurien** that transformed the dairy-deficient nation into the global leader in milk production.
     - White Revolution is also known as **'Operation Flood'.**
     - **Objective:** Enhance milk production and improve dairy infrastructure through various schemes: Rashtriya Gokul Mission (RGM) → National Programme for Dairy Development (NPDD) → Supporting Dairy Cooperatives & Farmer Producer Organisations (SDCFPO) → Animal Husbandry Infrastructure Development Fund (AHIDF)