THE FRAYING OF THE MODEL CODE OF CONDUCT

Context

- **The Model Code of Conduct (MCC) in Indian elections serves as a crucial framework** to ensure fairness, integrity, and civility in the electoral process.
- However, **recent violations by senior politicians** during election campaigns for the 18th Lok Sabha have **brought national attention to its efficacy and enforcement.**
- While general elections are ongoing, it is important to **examine the significance of the MCC, its key provisions, enforcement mechanisms, and the imperative role of the Election Commission of India (ECI)** in upholding electoral integrity.

Key Provisions of the MCC

- **Prohibition of Inciting Communal Hatred**
  - **Political parties and candidates are prohibited** from making statements or engaging in actions that **may incite communal hatred or animosity between different religious**, linguistic, or caste-based communities.
  - This **provision aims to promote social harmony and prevent polarisation** along sectarian lines.
- **Restriction on Criticism of Opponents**
  - While political discourse is essential for a vibrant democracy, **the MCC imposes restrictions on the manner in which criticism of opponents is articulated.**
  - Criticism must be confined to policies, programs, and past actions of rival parties or candidates.
  - **Personal attacks, character assassinations, or unsubstantiated allegations are strictly prohibited.**
- **Prohibition of Appeals to Caste or Communal Sentiments**
  - Recognising the divisive potential of caste and communal politics, **the MCC prohibits parties and candidates from making appeals that exploit caste or communal sentiments** to garner votes.

- o **Appeals based on caste, religion, or community affiliation are considered antithetical to the principles of secularism** and equality enshrined in the Constitution.
- o By prohibiting such appeals, the MCC aims to safeguard the democratic ethos of inclusivity and equality.

- **Ban on Corrupt Practices**
  - o The MCC prohibits parties and candidates from engaging in bribery, coercion, or other forms of electoral malpractice to influence voters.
  - o **Any attempt to buy votes, distribute gifts, or offer inducements in exchange for electoral support is considered a violation of the code.**
  - o This provision aims to ensure that elections are decided based on merit and public interest rather than undue influence or coercion.

- **Enforcement of Election Laws**
  - o In addition to specific prohibitions, **the MCC emphasises adherence to all relevant election laws and regulations.**
  - o **Parties and candidates are expected to comply with electoral laws** regarding campaign financing, polling procedures, and other legal requirements.
  - o This **includes timely submission of expenditure reports, adherence to campaign expenditure limits, and cooperation** with election authorities.
  - o By enforcing election laws, **the MCC promotes transparency, accountability, and fairness in the electoral process.**

Challenges Faced by ECI in Enforcing the MCC

- **Addressing Communalism and Maintaining Electoral Purity**
  - o **Religious polarisation in Indian elections poses a significant challenge** to electoral integrity.
  - o While the Constitution upholds secularism, **politicians often exploit religious sentiments for electoral gains, undermining the spirit of democracy.**

- o The **ECI must prioritise addressing this issue and take stringent measures** against communal rhetoric during election campaigns.
- **Violation of Oath by Senior Politicians**
  - o **Senior politicians making communally charged speeches** during election campaigns not only violate the MCC but **also breach their oath as public servants.**
  - o **While the Representation of People Act 1951 provides legal provisions against promoting enmity on religious grounds**, there is a need for stricter enforcement and accountability mechanisms, particularly for members of the Council of Ministers.
  - o **The judiciary can play a pivotal role in directing the ECI to initiate criminal proceedings against violators**, ensuring adherence to electoral norms and constitutional principles.

WHAT IS DIGILOCKER?
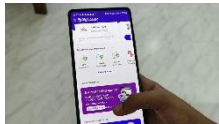
DigiLocker has become a digital placeholder for administrative and government-related documents and now students have the option of viewing their scores and even obtaining their verified marksheets.

About DigiLocker:
- It is a flagship initiative of the **Ministry of Electronics & IT (MeitY)** under the Digital India programme in 2015.
- It is a government approved application and is ideally maintained with strict security protocols framed by officials.
- It operates as an app to **store users' digital records**. The app can be used when applying for a passport, reviewing marksheets, or proving one's identity during travel.
- The app is part of the Indian government's paper-free initiative aimed at letting users access, verify, and store essential documents in a digital wallet so that they are easy to retrieve and present to officials when required.

o The issued documents in DigiLocker system are deemed to be at par with original physical documents as per Rule 9A of the **Information Technology** (Preservation and Retention of Information by Intermediaries providing Digital Locker facilities) **Rules, 2016.**

- It has **standard security measures** in place including **2048 Bit RSA SSL encryption**, **multi-factor authentication** (OTP verification), consent systems, timed log outs, and security audits.

OLEANDER FLOWERS

Two Kerala government-controlled temple boards have banned use of oleander in temple offerings after a 24-year old woman died after accidentally chewing some oleander leaves.

- Nerium oleander, commonly known as **oleander or rosebay**, is a plant cultivated worldwide in **tropical, subtropical and temperate regions.**
- It is known for its **drought tolerance**, the **shrub** is often used for **ornamental and landscaping purposes.**
- In Kerala, the plant is known by the names of arali and kanaveeram, and is grown along highways and beaches as a natural, green fencing.
- There are different varieties of oleander, each with a flower of a different colour. The plant has been frequently described in **Brihattrayi, Nighantus** and other classical Ayurvedic texts.
- **Charaka** [Charak Samhita] has prescribed the leaves of white flowered variety externally in chronic and obstinate skin diseases of serious nature including leprosy.
- According to Ayurvedic Pharmacopoeia of India (API) an **oil prepared** from the root bark can be used to treat **skin diseases.**

Oleander's toxicity

- Ingestion or inhalation of smoke from burning oleander can be intoxicating.

- This is due to the properties of **cardiac glycosides** (a type of chemical) including oleandrin, folinerin, and digitoxigenin, which are present in all parts of the plant.
- Effects of oleander toxicity include nausea, diarrhea, vomiting, rashes, confusion, dizziness, irregular heartbeat, slow heartbeat, and, in extreme cases, death.

ENTRY OF PRIVATE PLAYERS IN THE INDIAN SPACE SECTOR

Why in News?

The commercial arm of the department of space (DoS) - New Space India Limited (NSIL), has called on private players to manufacture its largest launch vehicle LVM3.

This is the same launch vehicle that carried Chandrayaan-2 and Chandrayaan-3 to the moon, and it will also be utilised for the Gaganyaan (human spaceflight) mission.

Opening up Indian Space Sector for Private Sector:

- The DOS desires to encourage the participation of private companies in space activities.
    - **This is to enhance the diffusion of space technology and boost space economy** (from current $8 billion/ 2% of global space economy to $100 billion by 2040) within the country,
- **As a result**, start-ups began to take root in India in the early 2010s with the first space start-up, **Dhruva Space Private Limited**, being established in 2012 in Hyderabad.
    - Soon after, **several other space start-ups** cropped up in India: Bellatrix Aerospace (2015), Manastu Space (2017), Skyroot Aerospace (2018), etc.
- As of date, **over 200 space start-ups** are registered in the country, **attracting investments worth ₹1000 crore in 2023 itself**.
- Most of these companies are involved in **designing and manufacturing satellites, launch vehicles**, etc., and offer launch services using ISRO's PSLV/GSLV or private launch vehicles.

Indian Regulatory Framework for Private Space Companies:

- **New Space India Limited (NSIL):**
  - It is **a Public Sector Undertaking (PSU)** of the Government of India under DoS and is responsible for producing, assembling and integrating the launch vehicle with the help of industry consortium.
  - It was established in 2019 under the Company Act 2013, with the main objective **to scale up private sector participation in Indian space programmes.**
  - In 2022, the agency called for complete manufacturing of its workhorse Polar Satellite Launch Vehicle (**PSLV**).
  - **A consortium of HAL and L&T** has been selected to manufacture five PSLV, with the first flight of the privately manufactured vehicle likely this year.

- **Indian National Space Promotion and Authorization Center (IN-SPACe):**
  - As part of the 4th 'Aatma Nirbhar Bharat Abhiyan' stimulus, the Union Finance Minister announced the creation of IN-SPACe in 2020.
  - **IN-SPACe was set up as a single-window**, independent, nodal agency to authorise, promote and supervise space activities of private non-governmental entities (NGEs).
  - Since its establishment, IN-SPACe has signed 45 MoUs with NGEs to support them in space activities.

- **National Geospatial Policy:**
  - In 2021, Centre **issued guidelines for private companies** to acquire all geospatial data and maps from government agencies without licences.
  - Building on these guidelines, the Centre also **unveiled the National Geospatial Policy in 2022**. The policy promotes private sector participation in collection of geospatial data.

- **Indian Space Policy:**

- o Strengthening the private space sector in India by finally providing a legislative framework, the Centre rolled out the Indian Space Policy in **2023**.
- o The policy has paved the way **for ISRO to transition from manufacturing operational space systems** to a focus on research and development in advanced technologies.

- **Amended FDI policy:** In 2024, Centre amended its FDI policy, allowing -
  - o Up to 74% FDI for satellite manufacturing and operation,
  - o Up to 49% FDI for launch vehicles, spaceports and associated systems and
  - o 100% FDI to manufacture components and systems/subsystems for satellites, ground and user segments.

Why NSIL Looking Towards Private Players?
  - o NSIL recognises that there is **a growing demand for launching heavier communications satellites** as well as other satellites to LEO.
  - o This is in line with the **government's vision to increase participation of private players**, making them capable of manufacturing complete launch vehicles instead of remaining mere producers of parts.

- **How will NSIL Handover Projects to Private Players?**
  - o NSIL will conduct a two-stage bidding process - shortlist multiple technically qualified manufacturers and then select one company based on their financial competitiveness.

WHAT ARE CARBOXYSOMES?

A research team led by the Hong Kong University of Science and Technology (HKUST) has discovered how carboxysomes work.
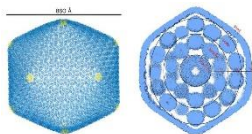
About Carboxysomes:
- These are intracellular structures found in many **autotrophic bacteria**, including Cyanobacteria, Knallgasbacteria, Nitroso- and Nitrobacteria.

- They are **proteinaceous structures** resembling phage heads in their morphology; they contain the enzymes of carbon dioxide fixation in these organisms.
- Similar structures are known to harbor the B12-containing coenzyme glycerol dehydratase, the key enzyme of glycerol fermentation to 1,3-propanediol, in some **Enterobacteriaceae, such as Salmonella.**
- They **perform carbon fixation**, which is the process of converting carbon dioxide from the atmosphere into organic compounds that can be used by the cell for growth and energy. These are made of polyhedral protein shells about 80 to 140 nanometres in diameter.
- These compartments are thought to concentrate carbon dioxide to overcome the inefficiency **of RuBisCo** (ribulose bisphosphate carboxylase/oxygenase) – the predominant enzyme in carbon fixation and the rate limiting enzyme in the Calvin cycle.

Application:

- One of the most promising applications of carboxysome is in plant **synthetic biology**, whereby the introduction of carboxysome into plant chloroplasts as the CO2-concentrating mechanism can **improve photosynthetic efficiency** and **crop yield.**

HANOOMAN AI PLATFORM

Recently, 3AI Holding Limited and SML India, announced the launch of 'Hanooman', India's homegrown multilingual GenAI platform.

About Hanooman AI Platform:

- It is the **largest multilingual** and most affordable Gen AI platform.

- **Features**
  - It is available in **98 global languages,** of which, **12 are Indian languages**.
  - The 12 Indian languages that the web version and app are currently available in include Hindi, Marathi, Gujarati, Bengali, Kannada, Odia, Punjabi, Assamese, Tamil, Telugu, Malayalam and Sindhi.

- o It can handle everything from a casual chat to offering **professional advice** as well as performing complex technical tasks like **coding and tutoring.**
- o The Gen AI platform will offer its multimodal and multilingual capabilities, including **text, voice, image and code to users.**
- o It aims to cater to **four sectors: healthcare, governance, financial services, and education**. It offers an open-source alternative to commercially accessible Large Language Models (LLMs).

What is Generative Artificial Intelligence?

- It refers to **deep-learning models** that can take raw data and "learn" to generate statistically probable outputs when prompted.
- It is powered by **foundation models** (large AI models) that can **multi-task** and perform out-of-the-box tasks, including summarization, Q&A, classification, and more.
- With minimal training required, foundation models can be adapted for targeted use cases with very little example data.
- It works by using a **Machine Learning model** to learn the patterns and relationships in a dataset of human-created content.
- It then uses the learned patterns to generate new content.