THE NATIONAL CREDIT FRAMEWORK MAKES EDUCATION SYSTEM MORE FLEXIBLE

Context

- In the academic domain, **the credit system plays a pivotal role in capturing the learning effort and achievements of students.**
- Therefore, in the changing landscape of education system the significance of credits, the challenges posed by credit incompatibility, and **the transformative impact of the National Credit Framework (NCrF) and the Academic Bank of Credits (ABC) need to be explored and studied.**

Need for the National Credit Framework (NCrF)

- The challenges faced by pre-NEP credit system **underscored the imperative for a more flexible and adaptable credit-earning approach.**
- It became apparent that the existing credit systems, while a step towards enhancing educational flexibility, were not fully aligned with the contemporary requirements of fostering interdisciplinary learning and accommodating the diverse aspirations of students.
- In a significant step towards redefining the educational landscape, **the University Grants Commission (UGC) introduced the National Credit Framework (NCrF) in April 2023.**

Role and Transformative Features of the NCrF

- **Holistic Integration of Education Levels**
    - The NCrF represents a **paradigm shift by recognising that education is not a linear and one-dimensional path but a multifaceted journey.**
    - By encompassing the entire spectrum of learning, **the NCrF provides a comprehensive framework that aligns with the holistic vision outlined in the National Education Policy (NEP) of 2020.**

- **Provides Clear Definition of Learning Outcomes and Credits**
  - **A cornerstone of the NCrF is its emphasis on clearly defining learning outcomes for each educational level** and the corresponding credits a student should earn.
  - This explicit framework facilitates a standardized understanding of academic achievements, ensuring a transparent and consistent evaluation process.
- **Seamless Transition and Flexibility**
  - The **NCrF advocates for flexible pathways within the educational journey, allowing students the freedom to enter and exit the system** at various stages based on their achievements and aspirations. This innovative feature dismantles the rigid structures that historically hindered students' ability to customize their educational trajectories.
- **The Inclusion of Diverse Voices and Stakeholders**
  - To ensure the effectiveness and relevance of the NCrF, **the UGC engaged in extensive consultations with all stakeholders**, including the prestigious Indian Institutes of Technology (IITs) through the IIT Council.
- **Institutional Openness and Academic Bank of Credits (ABC) Integration**
  - The integration of the NCrF with the Academic Bank of Credits (ABC) platform serves as a testament to the adaptability and openness of these institutions.
  - This **integration also facilitates a streamlined process of credit accumulation, storage, and retrieval,** enhancing the overall efficiency and transparency of the credit management system.

Conclusion

- **The integration of the NCrF and the ABC marks a paradigm shift in the Indian education system,** offering flexibility, inclusivity, and a holistic learning experience.
- This transformative approach **aligns with the goals of the National Education Policy, paving the way for a dynamic and adaptable education system** that caters to the diverse needs and aspirations of students and educators alike.

INDIA'S FIRST UNDER-RIVER METRO TUNNEL

Prime Minister recently inaugurated a metro train service in Kolkata, marking the opening of India's first under-river metro tunnel.

- It is a part of **Kolkata Metro's** East-West Corridor.
- It passes **under the Hooghly River** and forms part of section from Howrah Maidan to Esplanade.
- The **stretch also has the deepest metro station** in the country, the Howrah Maidan station, at 32 metres below ground level.

Key Facts about River Hooghly:

- The **Hooghly River**, also known as the Bhagirathi-Hoogly and Kati-Ganga Rivers, is one of the significant rivers in West Bengal. It is a **distributary o**r arm **of the Ganges River**.
- **Course**:
    - It is **formed in Murshidabad**, where the Ganga splits into two parts, while the **part flowing through Bangladesh** is **called the Padma.**
    - The Hooghly River is silted up above Kolkata, and the river flows to the west and south to the estuary of Rupnarayan and then south and southwest to enter the Bay of Bengal through a 32-kilometer-wide estuary.
- The Hooghly's **majority of water comes from the Farakka Feeder Canal** instead of natural water.
    - The **Farakka Barrage is a dam** that diverts water from the Ganges into a canal near the town of Tildanga in Malda district. This supplies the Hooghly with adequate water even in the dry season.
- **Haldi, Ajay, Damodar and Rupnarayan** are the rivers that feed the lower reaches of the Hooghly.
- The **important cities** near the Hoogli River are **Jiaganj, Azimganj, Murshidabad**, and Baharampur.

WHAT IS A DYING DECLARATION?

The Supreme Court recently held that the conviction of the accused can be sustained solely based on the dying declaration if the declaration made by the victim inspires the confidence of the court and proves to be trustworthy.

- A Dying Declaration is a **statement made by a person who is dead.** It is dealt with under clause (1) of Section 32 of the **Indian Evidence Act 1872.**
- Generally, it relates to the cause of death of the declarant. It is **admissible as evidence in all proceedings**, civil or criminal.
- The reason behind this can be followed by the **Latin maxim 'Nemo Mariturus Presumuntur Mentri'** which means that "Man Will Not Meet His Maker with Lying on His Mouth.
- **Format:**
    - There is **no specific format** required for a dying declaration. It can be **given orally, in writing, through gestures** or signs, by a thumb impression, or even in the form of a question and answer.
    - However, the statement must clearly and assertively convey the person's intention. Ideally, a written declaration should be **recorded using the exact words stated by the person** making the statement.

Who can record a Dying Declaration?

- The best form of declaration of dying would be the **one recorded by the Magistrate.**
- However, according to the Supreme Court's guidelines, **anyone can record the dying statement.**
- A dying statement can also be recorded by public servants or by a doctor as well, where the victim is hospitalized.

- **Evidentiary Value:**

- A dying declaration carries significant weight in legal proceedings and **can serve as the sole basis for a conviction** without the need for additional corroborating evidence.
- However, the court must ensure that the statement of the deceased **was not influenced, coached,** or a result of imagination.
- It must also **ascertain that the deceased was of sound mind** and had a clear opportunity to observe and identify the assailants.

- If the person making the dying statement is likely to live, his statement is inadmissible as a dying statement.

WHAT IS RUPA TARAKASI?

The famous silver filigree (Rupa Tarakasi) of the millennium Cuttack city in Odisha recently received the Geographical Indication (GI) tag.

- It is one of the most exquisite **silver crafts.**
- This centuries-old, sophisticated craft is practiced in the **silver city of Cuttack, Odisha.**
- **Origin**:
  - It is known to have existed as far back as the **12th century.**
  - The art form received considerable **patronage under the Mughals**.
- **Process**:
  - In this work of craft, **silver bricks** are **transformed into thin, fine wires** (tara) or foils, from which silver filigree is made with all designs (kasi).
  - While **different grades of silver** are used in the main metal alloy, the craftsmen also use other metals like **copper, zinc, cadmium and tin.**
- The artists involved with this filigree work are called **"Rupa Banias**" or "**Roupyakaras**" (in Odia).
- This craftsmanship extends to creating various items, including **jewellery** worn by Odissi dancers, decorative artifacts, accessories, and religious and cultural pieces.

INTERNATIONAL CENTRE OF EXCELLENCE FOR DAMS

The Ministry of Jal Shakti (MoJS) signed a Memorandum of Agreement (MoA) with the Indian Institute of Science (IISc) Bangalore for the establishment of an International Centre of Excellence for Dams (ICED).

- It will act as **a technological arm** of the Ministry to provide specialised technical support in investigations, modelling, research and innovations, and technical support services for the Indian and overseas dam owners.
- This MoA will remain valid for ten years or till the duration of the Dam Rehabilitation and Improvement Project (**DRIP) Phase-II** and III Scheme, whichever is earlier, from the date of signing this MoA.
- The Centre will work on dam safety to support the Ministry and provide solutions to various **emerging challenges faced** in dam safety through scientific research.
- It will also offer **area specific academic courses** (including training programs and workshops) and carry out applied research and technology transfer in dam safety
- **Funding:** The **Ministry of Jal Shakti** will provide a grant of 118.05 crore rupees for construction and modernisation of infrastructure for setting up and functioning of ICED.
- It will carry out research in **two core areas**
    - Advanced construction and rehabilitation materials & Material testing for dams and
    - Comprehensive (multi-hazard) risk assessment of dams
- ICED, IISc Bangalore is the second International Centre in the area of Dam Safety.
- The first ICED has been institutionalized at IIT Roorkee upon signing of MoA in February 2023.

MAJULI MASKS

Recently, the traditional Majuli masks and Majuli manuscript painting in Assam were given a Geographical Indication (GI) tag.

About Majuli masks:

- These are handmade masks traditionally used to depict characters in **bhaonas, or theatrical performances** with devotional messages under the neo-Vaishnavite tradition, introduced by the 15th-16th century reformer saint **Srimanta Sankardeva.**
- **Srimanta Sankardeva** established this art of masks through a play called **Chinha Jatra.**
- The masks can depict gods, goddesses, demons, animals and birds — Ravana, Garuda, Narasimha, Hanuman, Varaha Surpanakha all feature among the masks.
- They can range in size from those covering just the face (mukh mukha), to those covering the whole head and body of the performer (cho mukha).
- **Material used:** The masks are made of **bamboo, clay, dung, cloth, cotton**, wood and other materials available in the riverine surroundings of their makers
- Traditional practitioners are working to take the art out of their **traditional place in sattras,** or monasteries, and give them a new, contemporary life.
    - **Sattras are monastic institutions** established by Srimanta Sankardev and his disciples as centres of religious, social and cultural reform.

Key facts about Majuli manuscript painting

- It is a form of painting — also originating in the **16th century** — done on **sanchi pat, or manuscripts** made of the bark of the **sanchi or agar tree**, using homemade ink.
- The earliest example of an illustrated manuscript is said to be a rendering of the Adya Dasama of the Bhagwat Purana in Assamese by Srimanta Sankardev.
- This art was **patronised** by **the Ahom kings**. It continues to be practised in every sattra in Majuli.

FRONTIER TECHNOLOGY LAB

Recently, Atal Innovation Mission (AIM), NITI Aayog and Meta have announced the launch of Frontier Technology Labs (FTLs).

About Frontier Technology Lab:

- It is an advanced version of **Atal Tinkering Lab.** It aims to advance the government's agenda of digital inclusion, skilling and growth.
- **Collaboration: Atal Innovation Mission and Meta** will partner to set up FTLs **in schools** of strategic importance to ensure that students from diverse backgrounds across India will have equal opportunities to learn and engage with **frontier technologies.**
- **Funding:** The FTLs will be **funded by Meta** and Atal Innovation Mission will be the **knowledge partner.**
- It is equipped with state-of-the-art infrastructure, including all components of the Tinkering Lab to empower students to innovate using technologies like Artificial Intelligence, Augmented & Virtual Reality, Blockchain, Cybersecurity, Robotics, 3D Printing and Internet of Things.
- **Significance:** The labs support the Government's focus on equipping youth with digital skills to succeed in the evolving landscape of technology and the global economy.

SECOND ROCKET LAUNCHPORT OF ISRO

Why in news?

- Recently, PM Modi laid the foundation stone of the second rocket launch port of the ISRO at Kulasekarapattinam.
- It is situated at a geographically advantageous location in coastal Tamil Nadu's Thoothukudi district.
- It will be extensively and exclusively used for commercial, on-demand, and small satellite launches in the future.

Need for a new launchport

- With the Union government's recent policy announcing the opening of the space sector to private players, a sharp rise in the number of commercial launches is expected.

- To ensure that ISRO's first launchport, the **Satish Dhawan Space Centre (SDSC) SHAR in Sriharikota**, is not overburdened with a high number of launches, the space agency has decided to build another facility.
    - SHAR is situated along the east coast of Andhra Pradesh and is located 80 km off Chennai.
    - It currently provides launch infrastructure to all ISRO missions.
- While SHAR will be only used for launching bigger and heavy-lift-off missions, the new launchport will be used to launch smaller payloads.
    - SHAR will also be available for India's big ticket missions to the Moon, Venus, and much touted human-flight mission, the Gaganyaan.
- Private players could develop space-qualified sub-systems, build satellites, and even launch vehicles using the new launchport.
- It will also facilitate dedicated launch infrastructure for all the on-demand commercial launches.

Small Satellite Launch Vehicle (SSLV)

- SSLV is the new small satellite launch vehicle developed by ISRO to cater for the launch of small satellites.
- It has a three-stage launch vehicle, having a lift-off weight of about 120 tonnes and is 34 metres in length and 2 metres in diameter.
- SSLV is designed with a three-stage solid propulsion and a liquid propulsion stage, which is the terminal stage.
- The SSLV missions are useful to launch small-sized satellites weighing anywhere between 10 to 500kg into the Low Earth Orbit.
- Going by their size and weight, these are typically referred to as mini, micro or nano satellites.
- They are low on cost and intended satellite insertion into orbits takes a shorter flight time.
- SSLV are best suited for commercial and on-demand launches.