

Judicial Custody

❖ Context

- Recently, Delhi's Rouse Avenue Court sent former Delhi Deputy Chief Minister to **judicial custody** till March 20 in connection with a corruption case related to alleged irregularities in the now-scraped excise policy.



❖ Custody:

- "Custody" is **undefined in Indian law**.
- It refers to the state of being kept by the police while awaiting trial.
- **Section 57** of the Code of Criminal Procedure (CrPC) :
 - It says that any person arrested without a warrant cannot be detained for more than 24 hours unless there is a special order of a Magistrate under section 167 to that effect.
- **Section 167 of CrPC** :
 - It says that if an investigation cannot be completed within 24 hours, the detainee can still be kept in custody when there are "**well-founded grounds**" for believing the accusations against him.
 - The process for this requires a police officer, not below the rank of sub-inspector, to transfer a copy of the diary entry in a detainee's case to the Judicial Magistrate.
 - Judicial Magistrate will decide whether he can authorize the accused's detention for a **period of 15 days** or forward it another magistrate who has jurisdiction to try the case.
 - The general rule is that judicial custody can extend up to **90 days in cases punishable by death, life imprisonment, or imprisonment for 10 years** or more.
 - **Section 167** of the Code talks about custody during the stage of the investigation.
- Custody can either be judicial custody or police custody.

❖ Judicial Custody:

- Judicial custody means that the person detained by a judicial magistrate is **lodged in central or state prison**.
- In some cases, investigation agencies may not seek police custody immediately and one of the reasons can be the judicious use of the maximum of 15 days at their disposal.

- **In some cases**, courts may directly remand a person to judicial custody, if the court concludes that there is no need for police custody or extension of police custody.
- The judicial custody can extend up to **60 or 90 days** as a whole, depending upon the maximum punishment prescribed for the offense.
- **Section 436A of CrPC** :
 - A person in judicial custody, who has served half the maximum punishment that can be given for an offense, can apply for default bail, if their trial is pending.

❖ Police Custody:

- Police custody refers to when a person is detained in a police station or lock-up when he is believed to have committed a crime.
- Police custody **requires the accused to be furnished before the magistrate in 24 hours**.

❖ Judicial Custody vs Police Custody:

- In police custody, the investigating authority can **interrogate a person while in judicial custody**, officials need the permission of the court for questioning.
- In police custody, the person has the right to legal counsel, and the right to be informed of the grounds which the police have to ensure.
- In judicial custody, the person is under the responsibility of the magistrate, while the Prison Manual comes into the picture for the routine conduct of the person.

Antarctic Sea Ice

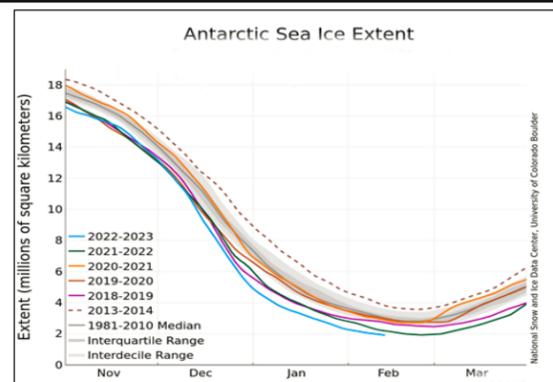
❖ Context:

- Antarctic sea ice hit a record low in February 2023, with satellite measurements revealing only 66% of the usual sea ice extent during the peak southern summer.



❖ Key Highlights:

- The European environment-monitoring agency Copernicus reported this record low out of a series of measurements dating back to 1979.
- The agency's Sentinel satellites discovered below-average sea ice concentrations in all Southern Ocean regions.
- These low sea ice conditions could have important implications for the stability of Antarctic ice shelves and global sea level rise.
- Antarctic sea ice dropped as low as 691,122 square miles (1.79 million square km) on Feb. 25, below the annual low of around 772,200 square miles (2 million square km).
- February 2023 was the fifth warmest February globally, with most of Europe warmer than usual.



- The Arctic, too, is experiencing a similar trend with its second-lowest February sea ice extent since satellite measurements began.
- Climate change is affecting the Antarctic, and scientists are warning about the future of Antarctic sea ice, as the ice sheets and glaciers hold enough water to cause a significant rise in global sea levels if they were to melt.

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Bio Computers

❖ Context

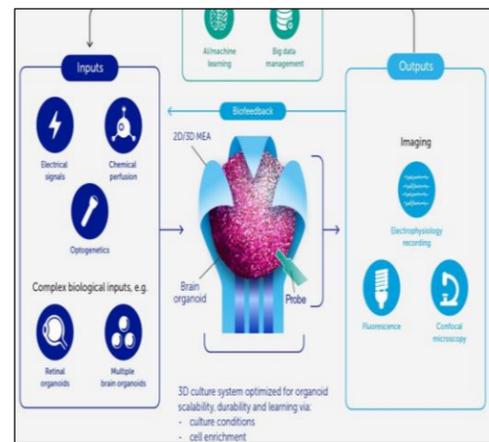
- Scientists at Johns Hopkins University (JHU) recently outlined a plan for a **potentially revolutionary new area of research called “organoid intelligence”**.

❖ Key Highlights:

- It aims to create **“biocomputers”** where brain cultures grown in the lab are coupled to real-world sensors and input/output devices.
- In a quest to develop systems that are more relevant to humans, scientists are building 3D cultures of brain tissue in the lab, also called brain organoids.
- These **“mini-brains”** (with a size of up to 4 mm) are built using human stem cells & capture many structural and functional features of a developing human brain.
- Researchers are now using them to study human brain development and test drugs to see how they respond.
- The scientists expect the technology to harness the processing power of the brain and understand the biological basis of human cognition, learning, and various neurological disorders.

Bio Computers:

- The JHU researchers’ scheme will combine brain organoids with modern computing methods to create “bio-computers”.
- They have announced plans to couple the organoids with machine learning by growing the organoids inside flexible structures affixed with multiple electrodes (similar to the ones used to take EEG readings from the brain).
- These structures will be able to record the firing patterns of the neurons and also deliver electrical stimuli, to mimic sensory stimuli.
- The response pattern of the neurons and their effect on human behaviour or biology will then be analysed by machine-learning techniques.



News in Between the Lines

Strategic Trade Dialogue



❖ Context

- India and US have agreed to launch a Strategic Trade Dialogue.

❖ Key Highlights:

- The India-US Strategic Trade Dialogue will be led by Foreign Secretary from Ministry of External Affairs of India and Under Secretary, Bureau of Industry and Security in US Department of Commerce.
- The Strategic Trade Dialogue will address -
 - export controls, explore ways of enhancing high-technology commerce,
 - and facilitate technology transfer between the two countries.

❖ Bilateral Trade between India and US:

- The US surpassed China to become India’s top trading partner in FY 2021-22, reflecting stronger economic ties between the two countries.
- Bilateral trade between India and the US stood at US\$119.42 billion, or 11.5% of India’s total trade.
- Among India’s top 10 trading partners, the US is the only country with which India has a positive trade balance.

Gender Gap’ in STEM



❖ Context

- Recently, **International Women’s Day 2023 (IWD)** was commemorated on March 8 under the theme **“DigitALL: Innovation and technology for gender equality”**.

❖ Key Highlights:

- Women’s lack of access to technology and digital tools makes them less likely to be a part of the wider domains of Science, Technology, Engineering and Mathematics – collectively termed the STEM fields.
- **Gender Gap’ in STEM** : Globally, 18% of girls in higher-level education are pursuing STEM studies, compared with 35% of boys.
 - Even within the STEM fields, there lies a gender divide, with similar numbers of boys and girls pursuing natural sciences while far more boys looked to engineering, manufacturing and construction.
 - In India, the enrolment of girls in engineering programmes is significantly lower when compared to their male counterparts.
 - Overall in UG, PG, MPhil and PhD engineering programmes, the total enrolment is 36,86,291 where 71% of enrolled students were males & 29% were females.

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Inclusive Elections & Elections Integrity



❖ Context:

- Election Commission hosted recently the 3rd International Conference on the theme 'Inclusive Elections and Elections Integrity' in the virtual format.

❖ Key Highlights:

- ECI is leading the Cohort on Elections Integrity which was established as a follow-up to the 'Summit for Democracy' held in 2021.
- Over 46 Participants from 25 Countries as well as representatives from the International Foundation for Electoral systems and Civil Society Organisations participated in the Conference.
- The first international conference of the Cohort was organized on the topic 'Role, Framework and Capacity of Election Management Bodies.
- The 2nd Conference on the theme 'Use of Technology and Elections Integrity' was organised by the Election Commission in January this year.
- India has 460 million women voters, which is almost equal to the number of men voters.
- In the last General Election to Parliament in 2019, more women than men voted.

Tree Pruning



❖ Context:

- Recently, The Delhi High Court stayed the pruning of over 800 trees in the city's upscale Vasant Vihar neighbourhood.
- In doing so, the High Court set aside an order passed by the National Green Tribunal (NGT) on January 19, observing that a more detailed assessment needs to be carried out before trees are trimmed.

❖ Tree Pruning:

- **About :**
 - Pruning is when **selectively branches are removed from a tree.**
 - The goal is to remove unwanted branches, improve the tree's structure, and direct new, healthy growth.
- **Benefits of Pruning :**
 - Each cut can **potentially change the growth of the tree.**
 - Some common reasons for pruning include, removal of dead branches to **improve form and increase safety, to increase light and air penetration** for plants below the tree's crown, or corrective and preventative measures.
 - A **clean, polished look** that elevates the whole landscape.
 - Set the tree up with a **good foundation for long-term health.**

The National Assessment and Accreditation Council (NAAC)



❖ Context

- The **National Assessment and Accreditation Council (NAAC)**, is facing allegations of irregularities in the way it operates.

❖ NAAC

- NAAC is an autonomous body under the **University Grants Commission (UGC).**
- It was set up in **1994.**
- **Function:**
 - It is entrusted with assessing the quality of India's higher educational institutions.
 - Following a multi-layered assessment process, it awards grades to colleges and universities.
 - Its parameters include curriculum, faculty, infrastructure, research and financial well-being.
 - The grades issued by NAAC range from **A++ to C.** If an institution is graded D, it means it is not accredited.

• Rate your Institution

The questionnaire is based on the Likert type scale that means the students will have to give responses on a scale of 0 to 4, with the most positive response being rated as 4 and the most negative response being rated as 0. Analysis of the survey is done using software which will aggregate the responses and generate the score of Student Satisfaction Survey which is important Key Indicator in overall grade of institution.

• Identity Not Disclosed

Students are randomly selected for the survey by system. Except particular student nobody will know which student has received the SSS email and what they have responded. Thus the students will remain anonymous throughout the process.

More details on survey are available on NAAC website <http://www.naac.gov.in/apply-now>

• Suggest Improvements

In SSS, twenty of the twenty one questions will be objective in nature, while one question is open ended to elicit observations and suggestions for improvements thereby providing an opportunity to the student to give suggestions and criticisms in their own words. The questionnaire consists of several facets of the teaching learning process.

Student Survey has 30 to 50 weightage in the scoring of institutional Grade and hence responses from students can play a critical role in determining institutional grade. It is desired that active participation of students in survey will not only empower the students but also help institutions in continuous quality improvement through student engagement.

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- **Side Note:**
 - While the UGC has over the years issued many circulars directing institutes to mandatorily undergo NAAC's assessment, the process still remains largely voluntary.
 - The **National Education Policy (2020)** has set an ambitious target of getting all higher educational institutes to obtain the highest level of accreditation over the next 15 years.

Legally-Binding treaty to protect Earth's orbit



- ❖ **Context**
 - Scientists are calling for a legally-binding treaty to protect Earth's orbit.
- ❖ **Key Highlights:**
 - The number of satellites orbiting the planet is set to increase to 60,000 by 2030, up from the current 9,000.
 - Over 100 trillion untracked pieces of old satellites are also in orbit, with more than 27,000 pieces of space debris being tracked.
 - The researchers argue that the treaty should enforce collective international legislation, fines, and incentives to make countries and companies accountable for their actions.
 - They also suggest that countries using the Earth's orbit should commit to global cooperation.
 - Without a global agreement, the Earth's orbit could become unusable due to the increasing amount of space debris.

No School Can Be Without Playground

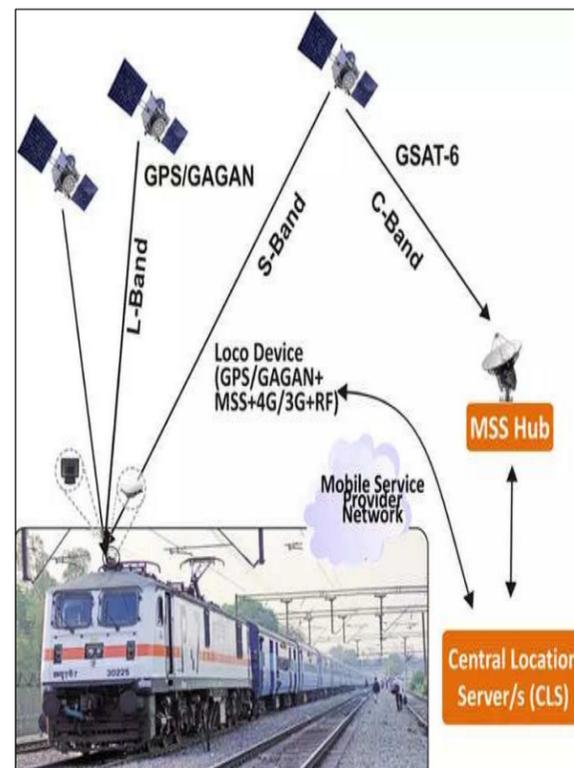


- ❖ **Context**
 - The Supreme Court of India has overturned a 2015 Punjab and Haryana High Court judgment that allowed encroachment upon land reserved for a school playground in Haryana's Yamunanagar district.
- ❖ **Key Highlights:**
 - The encroachers had taken 0.26 hectares of land out of the 0.58 hectares reserved for the school, and the High Court had directed the authorities to legalize their occupation and let them provide another piece of land to the school.
 - The SC ruled that there cannot be any school without a playground, and the encroachment could not be allowed.

Real-Time Train Information System



- ❖ **Context**
 - Indian Railways has commenced a project which will now enable real-time tracking of train movements with the assistance of satellite imagery under the Real Time Train Information System (RTIS) project.
- ❖ **Key Highlights:**
 - The Indian Railways is harnessing the power of data analytics for integrated transportation.
 - The Centre for Railway Information Systems (CRIS), has collaborated with Indian Space Research Organization (ISRO) for live tracking to help Railways run trains efficiently.
 - Automatic acquisition of train movement information through satellites and provision to relay the received information to Control Office Application (COA) for automatic plotting of control charts.
 - Installation of a device in the locomotives to detect position and speed using Geo-Positioning system-GAGAN (GPS-aided GEO augmented navigation).
 - Middleware / Application Software to send the train movement updates(Arrival/Departure/Run-through/Un-Scheduled stoppages and mid-section updates) to Central Location Server (CLS).
 - Provision of transferring updates over a dedicated satellite-based communication channel.



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