1. **Virtual Digital Assets (VDAs):** For the first time in India, the Income Tax Bill, 2025, explicitly treats Virtual Digital Assets (VDAs) **as property and capital assets**.
   - This classification enables **taxation, regulation & seizure of crypto assets** to prevent illicit financial activities.
   - Aligns India's tax structure with global practices followed by the **U.K., U.S., Singapore, Australia, New Zealand & UAE**.
   - **About Virtual Digital Assets (VDAs):** As per Section 2(111) of the Income Tax Bill, 2025, VDAs include crypto assets, Non-Fungible Tokens (NFTs), and similar digital assets.
   - **VDAs as Property**: Classified as property (Section 92 (5) (f)) and capital assets (Section 76(1)), impacting taxation, compliance, and legal recognition.
   - **Taxation of VDAs**:
     - **Capital Gains Tax**: Any gains from sale, transfer, or exchange of VDAs will be taxed under capital gains provisions, similar to real estate, stocks, and bonds.
     - **Flat 30% Tax**: Income from VDA transfers is taxed at 30%, with no deductions allowed (except for the cost of acquisition).
     - **Example**: Buying Bitcoin at ₹10 lakh and selling at ₹20 lakh incurs a ₹10 lakh profit, taxed at 30%.

2. **World Food Program:** The United Nations' World Food Program (WFP) is closing its southern Africa office in Johannesburg following aid cuts by the Trump administration.
   - **About UN World Food Program:** Established in 1961 to provides food assistance to over 150 million people in 120 countries worldwide.
     - **Recognition**: Won the **Nobel Peace Prize in 2020**.
   - **About United Nations:** Founded on October 24, 1945, after World War II.
     - **Purpose**: Maintains international peace and security, promotes sustainable development, and provides humanitarian aid.
     - **Regulation**: Governed by the **UN Charter**, with key bodies like **UNGA, UNSC, ICJ, and specialized agencies**.

3. **Bose Metal:** A research team from China and Japan has reported strong signs that niobium diselenide ($NbSe_2$) can become a Bose metal.
   - **About:** The metals conduct electricity with finite conductivity, which changes with temperature.
   - **Superconductivity:** Some metals, like zinc, exhibit infinite conductivity at very low temperatures due to Cooper pairs formation, leading to superconductivity.
   - **Bose Metal Concept:** Some metals don't become superconducting at low temperatures but still form Cooper pairs.
     - These metals conduct electricity with Cooper pairs instead of electrons but fail to establish long-range superconducting coherence.
     - This state is called a Bose metal, an anomalous metallic state (AMS).
   - **Scientific Importance:** Challenges traditional theories predicting metals should be either insulators or superconductors at absolute zero.
     - Helps in understanding disordered metals, which have irregular atomic structures, impurities, or alloyed formations.
   - **$NbSe_2$ & Bose Metal Study:** $NbSe_2$ is a type-II superconductor, expelling magnetic fields but allowing them in isolated pockets.
     - A 2D $NbSe_2$ layer under a specific magnetic field was studied, showing Cooper pairs without superconductivity.
     - Hall resistance vanished, indicating Cooper pairs as charge carriers.
4. **Bollgard-3:** Farmers are demanding the approval of Bollgard-3, a **pest-resistant GM cotton variety** developed by Monsanto.
   - **About Bollgard-3:** It contains three Bt proteins – Cry1Ac, Cry2Ab, and Vip3A, which kill insects by disrupting gut function.
     - Bacillus thuringiensis (Bt) is a soil-dwelling bacterium with insecticidal properties.
     - Bt genes have been inserted into crops like cotton to provide insect-repellent properties.
     - Bollgard-1 was introduced in India in 2002, followed by Bollgard-2 in 2006, which is still in use.
     - However, Bollgard-2 is ineffective against whitefly and pink bollworm, which emerged in Punjab in 2015-16 and 2018-19, respectively.

- Bollgard-3 is particularly effective against lepidopteran pests like pink bollworm.

- **BG-2RRF: A More Likely Option**
  - Bollgard-3 is not yet available in India, but Bollgard-2 Roundup Ready Flex (BG-2RRF) is closer to approval.
  - BG-2RRF trials were conducted in 2012-13, but its commercial use is still pending regulatory approval.
  - BG-2RRF makes cotton more tolerant to herbicides, helping farmers control weeds without harming the crop, leading to better yields.
- **Global Advances in Cotton Technology:** Brazil is using Bollgard-5, which protects against multiple pests, weeds, and insects, leading to yields of 2400 kg per hectare (compared to 450 kg in India).

5. **PUNCH Mission:** NASA is set to launch the Polarimeter to Unify the Corona and Heliosphere (PUNCH) Mission from Vandenberg Space Force Base, California, on March 6, 2025, linked to the solar cycle reaching its maximum phase.
   - **About the Solar Cycle:** The Sun has a magnetic field similar to a bar magnet, generated by the movement of electrically charged particles.
     - Every 11 years, the Sun's magnetic field flips completely, causing the north and south poles to switch places. This periodic change is known as the **solar cycle.**
     - The **solar maximum** occurs when the Sun's activity is at its peak, leading to more frequent and intense bursts of radiation and particles.
     - The **solar minimum** follows when solar activity decreases and a new cycle begins.
     - Scientists track the solar cycle by counting the number of sunspots, which increase during the solar maximum.
     - Giant solar eruptions such as **solar flares and coronal mass ejections (CMEs)** increase during the solar cycle, affecting satellite communication and power grids on Earth.
   - **Why are More Solar Missions Being Launched Now?**
     - Current solar activity and sunspot numbers suggest the cycle is nearing its maximum.
     - NOAA (National Oceanic and Atmospheric Administration) has observed above-normal solar activity since May 2022, continuing through 2024.

- The solar maximum provides the best observation window for solar physicists.
- Missing this window would mean waiting until 2035-2036 for the next peak.

- **Recent Solar Missions:** Aditya L1 (India), Proba-3 (European Space Agency) & PUNCH (NASA).

6. **Dramatic Performances Act:** Indian Prime Minister has recently highlighted the repeal of the colonial-era **Dramatic Performances Act, 1876**, questioning why such an outdated law persisted for 75 years post-independence.
   - **About Dramatic Performances Act, 1876:** Enacted by the British government to suppress Indian nationalist sentiments, especially after the **visit of Prince of Wales (1875-76)**.
   - Other Colonial Laws of the Era: **Vernacular Press Act, 1878, and Sedition Law, 1870**.
   - **Provisions under the Act:**
     - **Restrictions on Public Performances:** Allowed authorities to prohibit plays, pantomimes, or dramas deemed scandalous, defamatory, seditious, or obscene.
     - **Power of Magistrates:** Permitted magistrates to search and seize venues where prohibited performances were being held.
   - **Status Post-Independence:** Declared **unconstitutional** by **Allahabad High Court (1956)** in State vs. Baboo Lal & Ors, as it violated **Article 19(2)** of the Constitution.
7. **Gangetic Dolphins:** The first-ever estimate of Gangetic dolphins, the only riverine dolphins in India, has recorded 6,327 dolphins in the Ganga and its tributaries.
   - The survey, conducted since 2021, covered 8,507 km across Uttar Pradesh, Bihar, West Bengal, and Assam.
   - Maximum number of dolphins were found in **Uttar Pradesh, followed by Bihar, West Bengal, and Assam**.
   - The study relied on **acoustic hydrophones and triangulation methods** for dolphin detection.



   - **About Gangetic Dolphins:**
     - **Common Names:** Ganges river dolphin, **blind dolphin, Ganges susu, Hihu, Bhagirath**.
   - **Conservation Status:** IUCN – Endangered, WPA - Schedule – I, CITES - Appendix - I

- **Distribution:** Historically found in Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of India, Nepal, and Bangladesh.
  - Restricted to disjunct stretches in India's Ganga-Brahmaputra-Barak river system, Nepal's Karnali, Sapta Koshi, Narayani Rivers, and Bangladesh's Meghna, Karnaphuli, Sangu rivers.
  - Recorded in mainstream Ganga River and tributaries like Ghaghra, Kosi, Gandak, Chambal, Rupnarayan, and Yamuna.
- **Characteristics, Habitat, and Behaviour:**
  - **Physical features**: Long thin snout, rounded belly, stocky body, large flippers, and a slit-like blowhole.
  - **Sexual dimorphism:** Females larger than males; give birth once every 2-3 years to a single calf.
  - **Coloration:** Calves have chocolate brown skin at birth; adults have grey-brown, smooth skin.
  - **Freshwater species, essentially blind**, using **ultrasonic sound waves (echolocation)** to hunt.

8. **Dramatic Performances Act:** Prime Minister of India recently asked why a colonial law that "allowed the arrest of people dancing in public places" had continued to exist even 75 years after independence.
   - **About:** The Dramatic Performances Act, 1876, gave the (then British) government powers to **"prohibit public dramatic performances** which are scandalous, defamatory, seditious or obscene".
     - This law was among those enacted by the British **to clamp down on the budding Indian nationalist sentiment** following the visit of the Prince of Wales, Albert Edward, to India from October 1875 to May 1876.
     - Under this, "any play, pantomime or other drama performed or about to be performed in a public place" could be banned if the government was of the "opinion" that the play was "of **a scandalous or defamatory nature",** was "likely to excite feelings of disaffection to the Government established by law", or "to deprave and corrupt persons present at the performance".
     - Other laws enacted during this period were the **draconian Vernacular Press Act, 1878, and the sedition law of 1870.**