1. **Jarawa tribe :** Recently, the Government of India announced plans to conduct the 16th Census. Experts are confident that the enumeration process will proceed smoothly, even for the sensitive task of counting the **Jarawa tribe** along with the five other major indigenous tribes of the Andaman and Nicobar Islands.
   - **About Jarawa tribe:** Classified as a **Particularly Vulnerable Tribal Group (PVTG)** by the GoI.
     - The term "Jarawa" means **"stranger" or "outsider"** in their native language.
     - **Ancient Origins:** Believed to be among the earliest human populations in Asia.
       - ✓ Thought to be descendants of the now-extinct **Jangil tribe**, and possibly part of the first successful migrations out of Africa.
       - ✓ They are of **Negrito origin**, with dark skin, curly hair, and short stature.
     - **Habitat & Territory:** Inhabit the **dense tropical forests** of **South and Middle Andaman Islands**, primarily along the **western coast**.
       - ✓ Reside within the **Jarawa Reserve Forest**, a legally protected area to ensure their survival and limit external interference.
     - **Lifestyle & Culture:** Hunter-Gatherers and semi-nomadic, known for their **territorial nature** and have historically defended their land from intrusions.
       - ✓ Their small, isolated population makes them **extremely vulnerable to extinction**.
       - ✓ Belongs to the **Great Andamanese language family**.
   - **About PVTGs :** Most marginalized and vulnerable among the Scheduled Tribes (STs) in India.
     - These groups require **focused attention and targeted development efforts**, as more dominant tribal communities often receive a larger share of tribal welfare resources.
     - Introduced in **1975** based on the recommendations of the **Dhebar Commission**.
     - **75 PVTGs** out of the **705 Scheduled Tribes** recognized in India.
     - Found across **18 states** and **1 Union Territory** in India (as per the 2011 Census).
     - **Odisha** has the **largest PVTG population**, with over **2.5 lakh individuals**.
2. **Talisman Sabre Exercise :** Recently, India joined 18 other nations in participating in **Talisman Sabre 2025**, a major multinational military exercise led by **Australia**.
   - **Key highlights :** Largest **bilateral** military exercise between **Australia** and **the United States**, featuring **multinational** participation and held **biennially** since **2005.**

- **Its 11th edition includes :** Three-week-long exercise with **over 35,000 military personnel** from participating nations.
- Training activities are being held across **Queensland, Northern Territory, Western Australia, New South Wales**, and **Christmas Island**.
- **Participating Nations: Full Participants (19 Nations):** Australia, United States, India, Japan, France, Germany, the United Kingdom, Canada, Indonesia, South Korea, New Zealand, Singapore, the Philippines, Thailand, Fiji, Tonga, Papua New Guinea, Norway, and the Netherlands.
  - ✓ **Observers:** Malaysia and Vietnam.

- **Military Activities**: Live-fire exercises, Field training, Force preparation drills, Amphibious landings, Ground manoeuvres and Air combat and maritime operations.
- **New Capabilities Featured**: UH-60M Black Hawk helicopters and Precision Strike Missiles

3. **3I/ATLAS :** Recently, scientists using the **ATLAS survey telescope in Chile** announced the detection of a new interstellar object, **3I/ATLAS**.
   - This marks just the **third recorded instance** of an interstellar object passing through our solar system, after **1I/'Oumuamua** in 2017 and **2I/Borisov** in 2019.
   - **About 3I/ATLAS** : An **active comet**, showing a **coma** (dust & gas halo) and likely forming a **tail**.
     - Appears **reddish**, with a **spectral slope of 1.3% per 100 nm**, hinting at **complex organics or water ice**.
     - The **nucleus is likely 10–30 km wide**, larger than both 'Oumuamua and Borisov.
     - Believed to be over **3 billion years old**, possibly **older than our solar system**.
   - **Identified It as Interstellar because :** Follows a hyperbolic, highly elliptical orbit around the Sun.
     - Travels at an **extremely high velocity** of **57–68 km/s** relative to the Sun.
     - **Trajectory simulations** trace its path back to the **constellation Sagittarius**, indicating it came from **outside our solar system**.
     - **NASA has confirmed** it poses **no danger** to our planet.
   - **About ATLAS** : An asteroid impact early warning system developed by the University of Hawaii and funded by NASA. It consists of four telescopes (Hawaii ×2, Chile, South Africa), which automatically scan the whole sky several times every night looking for moving objects.

- **Objective:** To detect and track small to medium-sized asteroids on collision courses with Earth, giving time to evacuate or respond if necessary.
- **Key Features and Capabilities:** Wide-Field Coverage: Each ATLAS Capable of detecting 100-meter asteroids days to weeks before impact and smaller ones hours to days ahead

4. **Mucormycosis :** Recently, a large-scale study by the **Indian Council of Medical Research** revealed that survivors of **mucormycosis** continue to suffer from severe post-recovery complications.
   - Published in **Clinical Microbiology and Infection**, this is the **first national prospective study** in India assessing the long-term outcomes of mucormycosis patients.
   - **Key Findings:** The study recorded a **14 % one-year mortality rate**, with most deaths occurring during the initial hospitalisation. Risk factors included **brain or eye involvement**, **ICU admission**, **uncontrolled diabetes**, and **multiple comorbidities**.
     - Over **70% of survivors** experienced at least one serious post-recovery complication, such as **facial disfigurement**, **speech difficulties**, **mental health distress**, or **loss of employment**.
   - **About Mucormycosis** : A **rare but serious fungal infection** caused by a group of molds known as **mucormycetes**. It is commonly referred to as **'Black Fungus'**.
     - It primarily affects individuals with weakened immune systems or underlying conditions such as : Uncontrolled diabetes mellitus, Prolonged ICU stay, Use of steroids or immunosuppressants, Organ transplant recipients and Patients on voriconazole therapy
     - **Mode of Infection**: Most commonly acquired by **inhaling spores** present in the air.
       - ✓ Can also infect through **wounds**, **burns**, or **skin injuries**.
       - ✓ In severe cases, it may spread to the **brain or other internal organs**.
     - **Types : Rhinocerebral**: Sinus infection that can reach the brain; common in diabetics.
       - ✓ **Pulmonary**: Lung infection in cancer or transplant patients.
       - ✓ **Gastrointestinal**: Affects the gut; seen in premature infants.
       - ✓ **Cutaneous**: Skin infection through wounds; occurs in healthy individuals.
       - ✓ **Disseminated**: Spreads via blood to organs; seen in severely ill patients.
5. **Sanchar Mitra Scheme**: Recently, the **Sanchar Mitra Scheme** was launched nationwide by the Department of Telecommunications (DoT), Government of India to empower youth as digital ambassadors and raise public awareness on key telecom issues.

- **About Sanchar Mitra Scheme** : Focuses on engaging **student volunteers**, known as **Sanchar Mitras**, to promote awareness on telecom-related concerns.
  - **Objectives** to educate communities on: Digital safety, Cyber fraud prevention, Electromagnetic field radiation concerns, Responsible mobile use and digital literacy
  - Participants will gain exposure to **cutting-edge technologies** such as **5G, 6G, Artificial Intelligence, and Cyber Security** through structured learning and real-world projects.
  - Sanchar Mitras will be trained by experts from the **National Communications Academy–Technology (NCA-T)** and **DoT's Media Wing**.
  - **Community Engagement**: Sanchar Mitras will conduct grassroots **awareness drives**, collaborate with **NGOs**, and work to foster informed digital behaviour in their communities.
    - ✓ Volunteers will be **periodically assessed** on parameters such as **innovation, consistency**, and **impact**.
- **Top performers may receive:** Internships, Opportunities to contribute to national telecom projects, Participation in platforms like India Mobile Congress and Engagements with international standard-setting bodies like the ITU.

6. **Mapping the Application of Artificial Intelligence in Traditional Medicine :** Recently, the **World Health Organization (WHO)** recognized **India's** pioneering efforts in integrating Artificial Intelligence (AI) with traditional medicine.
   - In its latest technical brief titled **"Mapping the Application of Artificial Intelligence in Traditional Medicine",** WHO highlights India's innovative digital advancements in the **Ayush sector** and their potential to influence the future of global healthcare.
- **Key Highlights :** India is the **first country** to launch a **Traditional Knowledge Digital Library (TKDL)**—a global model for preserving indigenous medical heritage. India's **Ayush market** has reached **US$43.4 billion**, contributing significantly to economic growth.
  - **AI-Driven Innovations** : **Ayurgenomics**: Integrates **Ayurveda and genomics** for predictive diagnostics and personalized health.
    - ✓ **Prakriti-based machine learning models** for early diagnosis.
    - ✓ **AI analysis of pulse, tongue, and Prakriti assessments** using neural networks.
    - ✓ **Decoding molecular basis** of herbal drugs for modern use.

- ✓ **Artificial chemical sensors** to assess Ayurvedic parameters like **Rasa**, **Guna**, and **Virya**.
- o **Major Digital Platforms**: **Ayush Grid (2018)**: Foundation of India's digital traditional medicine ecosystem.
  - ✓ **SAHI Portal**, **NAMASTE Portal**, and **Ayush Research Portal**: Used for awareness, research, and practitioner engagement.

7. Counterfeit Or Substandard Fertilizers: Recently, the Union Agriculture Minister urged all States and UTs to launch campaigns ensuring fertilizer quality and eliminating fake agricultural inputs to protect farmers.

- **About Counterfeit fertilizers**: Fake products that are **fraudulently labeled** to appear as genuine, branded fertilizers but **do not contain the claimed nutrients** or ingredients.
  - o **Substandard fertilizers**: Products that may be genuine but **fail to meet the required quality standards**, such as **lower nutrient content**, **improper formulation**, or **expired shelf life**, making them **ineffective or harmful** to crops and soil.
- **Key Directives Issued to States and Uts: Ensure Timely Availability**: Fertilizers must be made available on time and in region-specific quantities to prevent hoarding and diversion.
  - o **Strengthen Quality Checks**: Conduct regular sampling and testing to identify spurious or substandard fertilizers.
  - o **Stop Forced Bundling**: Prohibit the mandatory sale of nano or bio-stimulants with traditional fertilizers.
  - o **Enforce Legal Action**: File FIRs, cancel licenses, and ensure convictions against those dealing in fake fertilizers.
  - o **Promote Farmer Involvement**: Engage farmers through feedback systems and awareness drives to help them detect genuine products.
- **Legal Framework:** Supported by the **Fertilizer (Control) Order (FCO), 1985**, under the **Essential Commodities Act, 1955**, making the sale of counterfeit or substandard fertilizers a punishable offence,
  - o **FCO defines:** → Substances allowed as fertilizers →Product-wise specifications.
    → Licensing/registration procedures for manufacturers and dealers.
    → Conditions for fertilizer trade and distribution.