

October - 27

TNPSC BITS

- ❖ The Plastic Surgery team at Rajiv Gandhi Government General Hospital (RGGGH) in Chennai performed a cross-hand replantation on a 28-year-old man.
 - This is the first such procedure in a government hospital, the second in India, and only the fourth reported case globally.
- ❖ TN Chief Minister inaugurated the renovated 58-acre Tholkappia Poonga in Raja Annamalai Puram, Chennai.
- ❖ Sunil Amrith, an Indian-origin historian and Yale University professor, won the 2025 British Academy Book Prize for his *The Burning Earth: An Environmental History of the Last 500 Years*.
- ❖ The Indian Air Force (IAF) is participating in Exercise Ocean Sky 2025, a multinational air combat exercise hosted by the Spanish Air Force at Gando Air Base, Spain.
 - India is the First Non-NATO Nation to participate in this.
- ❖ 'Mahe', the first of eight Anti-Submarine Warfare Shallow Water Crafts (ASW SWC) being built by Cochin Shipyard Limited (CSL), Kochi, was delivered to the Indian Navy.

TAMIL NADU NEWS

Copper Plates at Sirkazhi Temple



- ❖ The Tamil Nadu State Department of Archaeology (TNSDA) has begun studying 483 copper plates inscribed with Thevaram hymns.

- ❖ The plates and 23 panchaloha idols were unearthed near the west gopuram entrance of the Thoniappar Temple, also called Sattainathar Temple, in Sirkazhi, Mayiladuthurai district.
- ❖ Each plate has 10 to 12 lines of hymns, engraved by different scribes, with inscriptions on both sides and no specific sequence.
- ❖ The hymns correspond to Shiva and were composed by Shaivaite saint poets Thirunavukkarasar (Appar), Thirugnanasambandar, and Sundarar.

NATIONAL NEWS

AI Health Casebook

- ❖ The Ministry of Electronics and Information Technology and WHO have announced a global call for abstracts on Artificial Intelligence (AI) applications in health systems.
- ❖ Shortlisted entries will be invited to contribute a chapter to the Casebook on AI health use cases across the Global South.
- ❖ The Casebook aims to serve as a reference for policymakers, innovators, and researchers to replicate and scale successful AI solutions.



India's AI Growth

- ❖ India's cumulative and new investment in artificial intelligence has reached over \$20 billion in 2025.
- ❖ This includes both government and private sector contributions.

- ❖ India's total private investment in artificial intelligence between 2013 and 2024 was \$11.1 billion.
- ❖ With government support, the combined investment reached \$12.3 billion by the end of 2024.



INTERNATIONAL NEWS

Critical Mineral Supply Chain Framework



- ❖ The United States and Australia signed a non-binding framework for critical mineral supply chains.

- ❖ The agreement includes joint public and private investments in mining and processing essential minerals.
- ❖ It also aims to streamline permitting, adopt price floors, and protect domestic markets from unfair trade practices.

New Strategic EU-India Agenda

- ❖ The European Council approved the EU-India Strategic Agenda on October 22, 2025.
- ❖ The agenda identifies five priority pillars: prosperity and sustainability, technology and innovation, security and defence, connectivity and global issues, and enabling measures.
- ❖ India and the European Union (EU) established diplomatic relations in 1962 and upgraded to a Strategic Partnership in 2004.
- ❖ Bilateral trade reached €120 billion in 2024, with cumulative EU foreign direct investment in India at USD 107.27 billion from April 2000 to December 2023.



Italy's birth rate in 2025

- ❖ Italy is expected to have its lowest number of births this year, according to Italy's national statistics agency, ISTAT.
- ❖ In 2024, there were only 370,000 births, the lowest since Italy's unification in 1861, marking 16 consecutive years of decline.
- ❖ From January to July 2025, births fell nearly 6.3% to just under 198,000 compared to the same period in 2024.

- ❖ The fertility rate dropped to 1.13 children per woman in the first seven months of 2025, down from 1.18 in 2024.
- ❖ The 55-64 age group projected to rise to 70% by 2050 and the 65-74 group to 16%.



Elimination of Trachoma - Fiji

- ❖ Fiji has been validated by the WHO for eliminating trachoma as a public health problem.
- ❖ Trachoma is a neglected tropical disease (NTD) and the leading infectious cause of blindness worldwide.
- ❖ Fiji is the 26th country to eliminate trachoma and the 58th country to eliminate at least one NTD.
- ❖ Trachoma is caused by the bacterium Chlamydia trachomatis and spreads through personal contact, contaminated surfaces, and flies.

Fiji becomes the 26th country to eliminate trachoma as a public health problem

ECONOMY NEWS

New Nomination System for Depositors



- ❖ The Banking Laws (Amendment) Act, 2025 was notified on 15th April 2025.
- ❖ Sections 10, 11, 12, and 13 of the Act relating to nominations will come into effect from 1st November 2025.
- ❖ Depositors can nominate up to four persons for bank accounts, articles in safe custody, and safety lockers.
- ❖ Nominations can be made either simultaneously or successively, and the share of each nominee must be clearly specified.
- ❖ In successive nominations, the next nominee becomes effective only after the death of the higher nominee.
- ❖ The Act aims to strengthen governance, enhance depositor protection, and ensure transparency and efficiency in claim settlements.

SCIENCE AND TECHNOLOGY NEWS

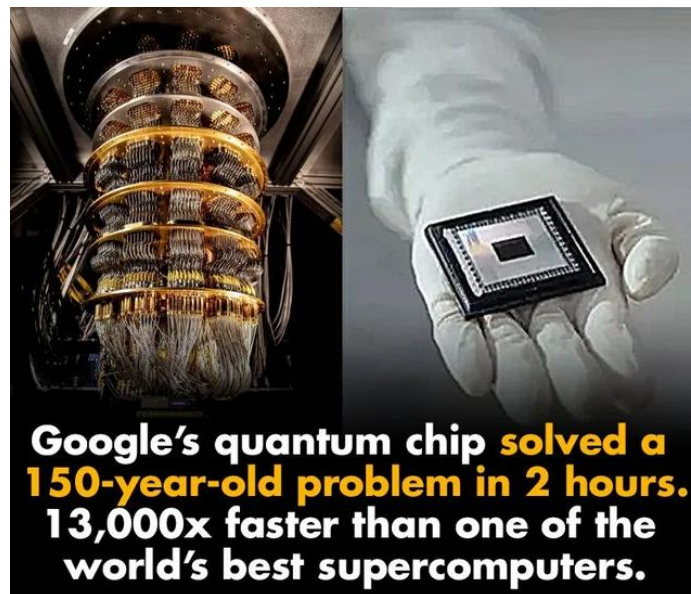
Double Comet

- ❖ Two rare comets, C/2025 R2 (SWAN) and C/2025 A6 (Lemmon), are visible over India.
- ❖ Comet SWAN will not return to the solar system for about 20,000 years, while Comet Lemmon's next appearance will be in 3175.
- ❖ Comet Lemmon is currently brighter, with a magnitude of 4.5.

- ❖ Lemmon appears in the northwest near the Bootes constellation, while SWAN is visible above the Sagittarius constellation in the southern sky.



Google's Willow Chip



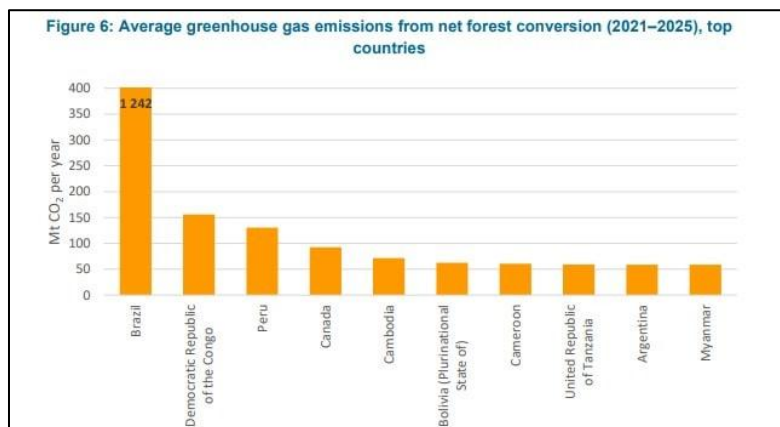
- ❖ Google Quantum AI's Willow chip has achieved the first-ever verifiable quantum advantage.
- ❖ Its Quantum Echoes algorithm is 13,000 times faster than the best classical supercomputer algorithm.
- ❖ The Quantum Echoes algorithm is an out-of-order time correlator (OTOC) that helps study atomic interactions in molecules using nuclear magnetic resonance (NMR).

- ❖ The results are verifiable, meaning they can be reproduced by other quantum computers or confirmed experimentally.

ENVIRONMENT NEWS

Largest forest carbon sinks in 2021–25

- ❖ Russia, China, and the United States led global carbon sequestration on forest land, recording annual removals of 1,150 Mt CO₂, 840 Mt CO₂, and 410 Mt CO₂, respectively, in 2021–25.
- ❖ Countries like Brazil (1,420 Mt CO₂), the Democratic Republic of Congo (160 Mt CO₂), and Peru (130 Mt CO₂) recorded the largest emissions due to net forest conversion.
- ❖ Collectively, the top ten countries accounted for more than 70 per cent of global deforestation during this period.
- ❖ India ranked fourth globally in forest carbon sequestration, removing an average of 150 Mt CO₂ per year between 2021 and 2025.
- ❖ Forests cover approximately 4.14 billion hectares, around one-third (32 per cent) of the Earth's land area.



Central Asian Mammals Initiative

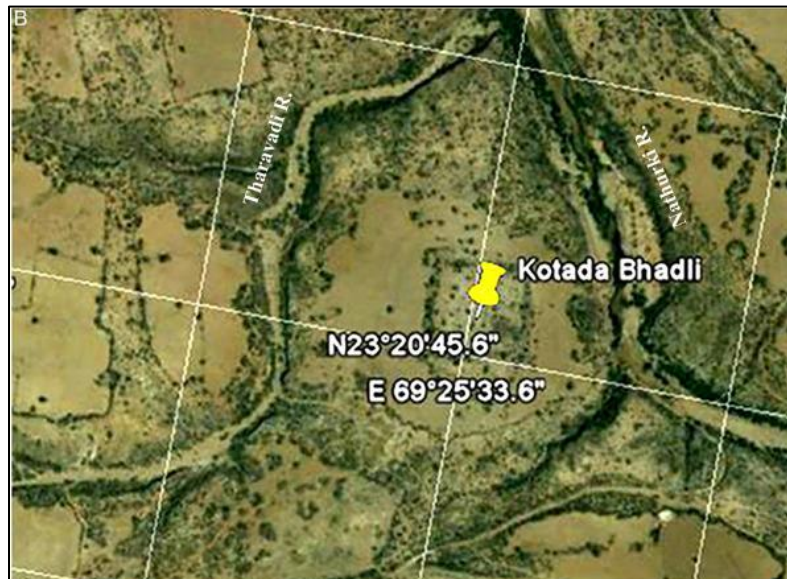
- ❖ The Central Asian Mammals Initiative (CAMI) is a transboundary conservation program under the Convention on the Conservation of Migratory Species of Wild Animals (CMS).
- ❖ It was launched in 2014 at the CMS Conference of the Parties 11 (COP11) in Quito, Ecuador, and revised in 2020 at COP13 in Gandhinagar, India.
- ❖ The initiative protects seventeen migratory and nomadic mammal species across Central Asia.

- ❖ Flagship species include the Snow Leopard, Saiga Antelope, Wild Camel, Bukhara Deer, and Persian Leopard.
- ❖ CAMI promotes cross-border cooperation, data sharing, and the removal of physical barriers to migration.



STATES' NEWS

Harappan Era Caravanserai in Gujarat



- ❖ Researchers have discovered a 4,000-year-old caravanserai at Kotada Bhadli in Kutch, Gujarat.
- ❖ The site dates back to 2300-1900 BCE, during the Indus Valley Civilisation.

- ❖ Excavations revealed fortified walls, bastions, courtyards, animal enclosures, and multiple rooms.
- ❖ The caravanserai served as a stopover for traders, offering food, shelter, and security.
- ❖ Items found include pottery, food remains, and goods from distant regions, showing trade activity.

Jammu and Kashmir Darbar

Darbar Move is Back in Jammu & Kashmir



SRINAGAR
Summer capital
(May-Oct)

JAMMU
Winter capital
(Nov-Apr)



153 ago
Annual darbar
initiated by Maha
Ranbir Singh

J&K Govt. revives the historic Darbar Move, introduced under Maharaja Ranbir Singh in 1872 and stopped in 2021, restoring the winter shift of the Civil Secretariat to Jammu.

- ❖ The Darbar Transfer is the seasonal shift of government offices between Srinagar, the summer capital, and Jammu, the winter capital.
- ❖ This tradition, over 150 years old, was introduced in 1872 by Maharaja Ranbir Singh.
- ❖ It was revived in 2025 after a four-year suspension.
- ❖ Srinagar offices will close on October 31 and reopen in Jammu on November 3.
- ❖ The practice ensures governance across Jammu, Kashmir, and Ladakh despite harsh weather.

- ❖ The annual cost is around ₹200 crore, and the move supports Jammu's economy while preserving heritage.
- ❖ Similar dual-capital systems exist in Maharashtra and Himachal Pradesh.

PERSONALITIES, AWARDS, AND EVENTS

Eknath Chitnis demise

- ❖ Professor Eknath Vasant Chitnis, a Padma Bhushan awardee, passed away.
- ❖ Chitnis was a close associate of Dr Vikram Sarabhai and helped shape the Indian National Committee for Space Research (INCOSPAR), which became ISRO.
- ❖ He selected Thumba in Kerala for India's first rocket launches and later helped establish a launch site at Sriharikota.
- ❖ Chitnis led the Satellite Instructional Television Experiment (SITE) in 1975–76, which brought educational programmes to 2,400 villages using NASA's ATS-6 satellite.
- ❖ He also chaired the Press Trust of India and lectured at Savitribai Phule Pune University.



IMPORTANT DAYS

International Lead Poisoning Prevention Week 2025 - October 19/25

- ❖ It was first observed in 2013 by the WHO and the UNEP.
- ❖ The aim is to raise global awareness and promote actions to prevent lead exposure.
- ❖ The theme for 2025 is "No safe level: act now to end lead exposure."

- ❖ Lead is a toxic metal that harms the brain and body, especially in young children.



Police Commemoration Day 2025 - October 21

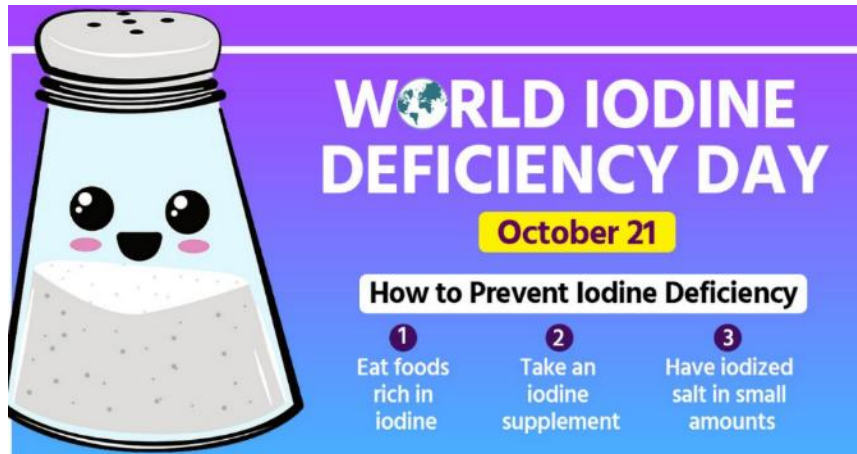
- ❖ It was first observed in 1960 to honour police personnel who sacrificed their lives in the line of duty.
- ❖ The day is observed in memory of ten Indian police personnel killed in an ambush by Chinese troops at Hot Springs, Ladakh, on October 21, 1959.
- ❖ The day highlights the courage, dedication, and service of police forces in maintaining internal peace and order.



World Iodine Deficiency Day 2025 - October 21

- ❖ It was first recognized after the 1990 World Summit for Children highlighted the need to prevent iodine deficiency disorders.
- ❖ The day aims to raise awareness about the importance of iodine for maintaining healthy thyroid function and overall growth.

- ❖ Iodine deficiency can cause goitre, hypothyroidism, mental retardation, and developmental delays in children.
- ❖ Nearly 2 billion people worldwide suffer from insufficient iodine intake, and the use of iodised salt helps prevent these disorders.



International Stuttering Awareness Day 2025 - October 22



- ❖ It was first established in 1998 by the International Stuttering Association (ISA), the International Fluency Association (IFA), and the European League of Stuttering Associations.

- ❖ The day aims to raise awareness about stuttering, a speech disorder involving disruptions in fluency and sound repetition.
- ❖ The 2025 theme is “A Diverse Stuttering Community – Meeting Challenges With Strengths.”

International Snow Leopard Day 2025 - October 23

- ❖ This day was proclaimed by UNGA in 2024.
- ❖ This day aims to enhance international and regional cooperation in support of efforts to conserve the snow leopard, given its role in the overall ecosystem.
- ❖ The snow leopard (*Panthera uncia*) is found in the high mountain regions of Asia.
- ❖ India observed this day with a unique initiative titled ‘#23for23’.

