

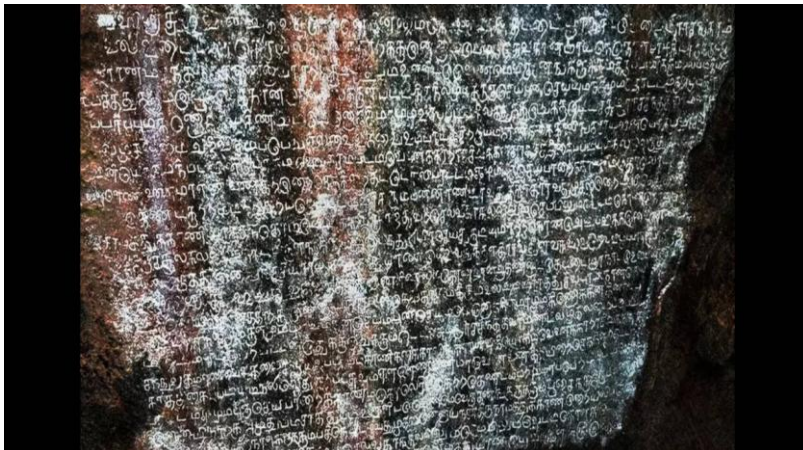
August - 21

## TNPSC BITS

- ❖ Neeraj Ghaywan's drama "Homebound" won best film and best director at the Indian Film Festival of Melbourne 2025.
- ❖ Ikshak (Yard 3027), the third of four Survey Vessel (Large) ships built by GRSE, Kolkata, was delivered to the Indian Navy.
  - The first two ships, INS Sandhayak and INS Nirdeshak, were commissioned in 2024.
- ❖ Minister H.D. Kumaraswamy unveiled the logo, website, and brochure of Bharat Steel in New Delhi.
  - Bharat Steel is the flagship international conference-cum-exhibition organised by the Ministry of Steel and Heavy Industries.
- ❖ The government approved the first cadre review of BSF Group B and C personnel, enabling 23,710 immediate promotions.
  - Over 8,000 promotion orders were issued after Operation Sindoor.
- ❖ World Steelpan Day is observed on August 10 to celebrate the steelpan, a musical instrument invented in Trinidad and Tobago.

## TAMIL NADU NEWS

### Chola-era Inscriptions - Karur



- ❖ Three Chola-period inscriptions were discovered on Sankaranmalai hillock in Karur district.
- ❖ The inscriptions date back to the 12th century during the reign of Kulothunga Chola III (1178–1218).

- ❖ The Tamil inscriptions contain 38 lines.
- ❖ Details of land donations for temple maintenance, including boundaries, well, and trees, were mentioned.
- ❖ Names of sculptors like Kalingarayan, Kachirayan, and Vizhupathrayan were inscribed.
- ❖ The site had carvings of a bull and humans, possibly older, with signs hinting at human sacrifice.
- ❖ The hill is located in Sithalavai panchayat, Krishnarayapuram taluk, Karur district.

### **Mudhalvarin Kaakkum Karangal Scheme**

- ❖ Tamil Nadu's CM launched this scheme on August 19, 2025.
- ❖ The scheme supports ex-servicemen and their wards to start businesses.
- ❖ Loan assistance up to ₹1 crore is provided for capital needs.
- ❖ A 30% capital subsidy and 3% interest subsidy are offered.
- ❖ Skill training in entrepreneurship is also included in the scheme.
- ❖ Around 400 retired personnel are expected to benefit in two years.



- ❖ ஓய்வுபெற்ற முன்னாள் ராணுவ வீரர்களின் வாழ்வாதாரத்தை மேம்படுத்த 'முதல்வரின் காக்கும் கரங்கள்' என்ற புதிய திட்டம் அறிமுகப்படுத்தப்படும்
- ❖ இத்திட்டத்தின்கீழ் முன்னாள் ராணுவ வீரர்கள் தொழில் தொடங்க ரூ.1 கோடி வரை வங்கிகள் மூலம் கடன் பெற வழிவகை செய்யப்படும்; அந்த கடன் தொகையில் 30% மூலதன மானியமும், 3% வட்டி மானியமும் வழங்கப்படும்
- ❖ ராணுவப் பணியின்போது உயிரிழந்தவர்களின் குடும்பத்தினரும் இத்திட்டத்தின் மூலம் பயன்பெறலாம்
- ❖ அடுத்த 2 ஆண்டுகளில் 400 முன்னாள் ராணுவத்தினர் பயன்பெறும் வகையில், ரூ.400 கோடி மதிப்பிலான திட்டங்களுக்கு, ஏறத்தாழ ரூ.120 கோடி முதலீட்டு மானியம், 3% வட்டி மானியம் சேர்த்து வழங்கப்படும்



## NATIONAL NEWS

### Property rating framework 2025

- ❖ The Telecom Regulatory Authority of India (TRAI) launched India's first property rating framework for digital connectivity.
- ❖ The Manual for Rating of Properties for Digital Connectivity sets a standard to assess buildings' readiness for high-speed internet.
- ❖ Over 80% of mobile data in India is consumed indoors, where 4G and 5G signals often weaken.
- ❖ The framework evaluates fibre readiness, mobile coverage, Wi-Fi access, broadband speeds, and user experience.
- ❖ TRAI aims to make digital connectivity an essential service alongside electricity and water.

#### Digital Connectivity Property Rating Framework

- ❖ TRAI launched the country's first property rating framework, which standardizes the digital connectivity capability of buildings.
- ❖ The rating is based on fiber readiness, indoor mobile coverage, Wi-Fi access, broadband speed and user experience.
- ❖ It emphasizes on high speed 4G/5G network coverage and preparing buildings for digital services.
- ❖ This framework will help buyers, tenants and businesses understand the digital performance of a property.



### Sarvottam Yudh Seva Medal 2025

- ❖ Top military officers will receive the Sarvottam Yudh Seva Medal for Operation Sindoor on August 15.
- ❖ Operation Sindoor was launched on May 7 in response to the Pahalgam terror attack.
- ❖ This year marks the first-ever awarding of the Sarvottam Yudh Seva Medal to Air Force officers.

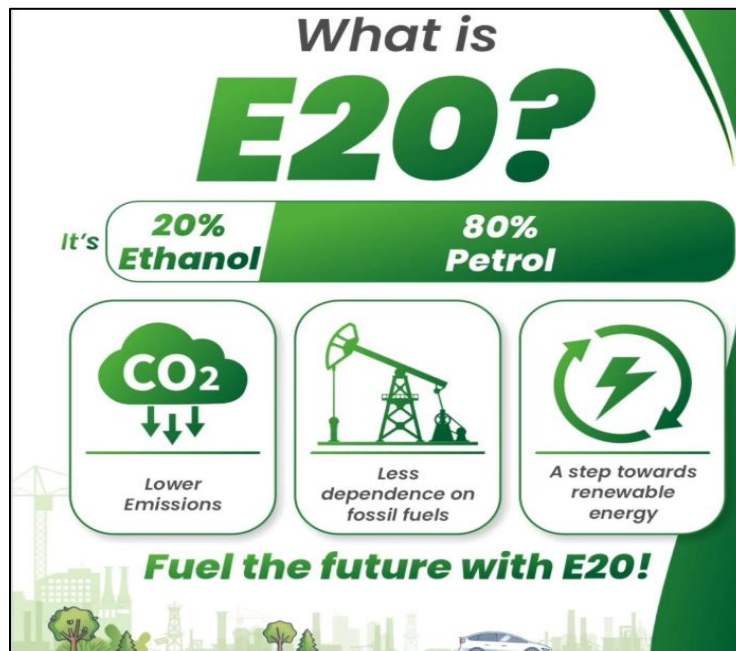


- ❖ Recipients include Lt Gen Pratik Sharma, Lt Gen Rajiv Ghai, Vice Admiral Sanjay Jasjit Singh (Retd), Air Marshal Narmdeshwar Tiwari, Air Marshal Nagesh Kapoor, Air Marshal Jeetendra Mishra, and Air Marshal A.K. Bharti.
- ❖ A total of 36 air warriors involved in the operation have been honoured for their bravery and skill.

### 7 military officers awarded Sarvottam Yudh Seva Medal for Op Sindoor



### E20 Petrol in India 2025



- ❖ India fast-tracked E20 petrol (20% ethanol blend) nationwide, aiming for economic benefits and reduced emissions.
- ❖ Ethanol, mainly from sugarcane and grains, boosts farmer incomes and saves foreign exchange (Rs 43,000 crore estimated in 2025).
- ❖ E20 reduces carbon emissions by up to 30% compared to E10; higher octane improves combustion and reduces engine knocking.
- ❖ Fuel efficiency may drop 5-7% in modern cars; older vehicles (BS3/BS4) may see drops up to 20%.
- ❖ Ethanol can damage rubber seals and parts in non-compatible vehicles, but replacement costs are low.
- ❖ Newer cars (BS6 Phase 2, post-April 2023 models) are mostly E20-ready.
- ❖ Regular maintenance and use of ethanol-compatible parts are recommended during transition.
- ❖ Authorities call E20 a “bridge fuel” towards cleaner electric mobility.

## INTERNATIONAL NEWS

### India-UK Trade Compact 2025



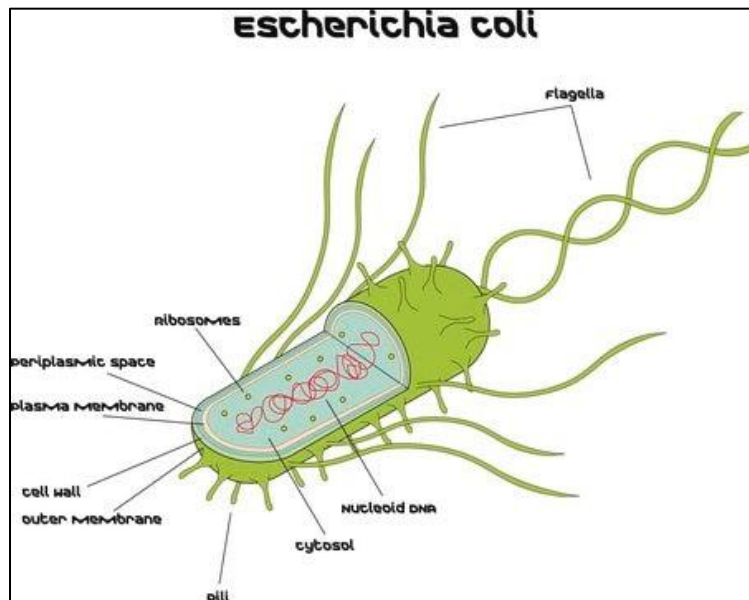
- ❖ India and the UK signed the Comprehensive Economic and Trade Agreement (CETA) on July 27, 2025.
- ❖ Also, this pact includes a dedicated chapter on digital trade.

- ❖ The agreement recognises electronic signatures and contracts and commits both sides to work towards mutual recognition.
- ❖ This reduces paperwork and facilitates smoother software exports.
- ❖ The agreement commits to zero customs duties on electronic transmissions, protecting a \$30 billion software export market.
- ❖ But there is a concern that, India has limited its regulatory control by banning routine source-code inspections.
- ❖ The UK is India's 4th largest export market, with export growth of 25% in 2024-25 over the previous year.

## SCIENCE AND TECHNOLOGY NEWS

### Escherichia coli bacteria

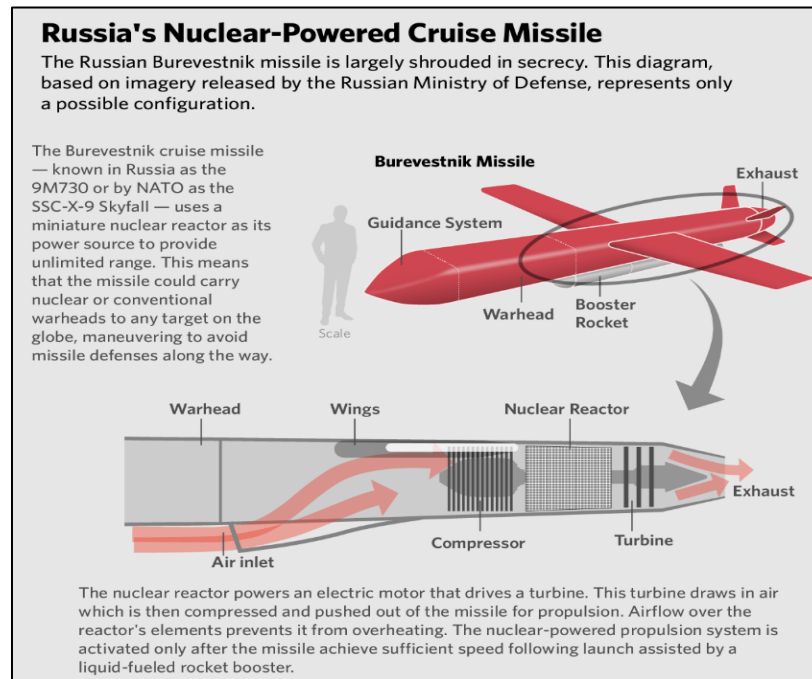
- ❖ Scientists have genetically engineered Escherichia coli bacteria to function as self-powered chemical sensors that produce electrical signals.
- ❖ The bacteria detect specific chemicals, process the signals, and generate phenazines that create measurable currents.
- ❖ This breakthrough enables low-cost, programmable biosensors integrated directly with electronics.



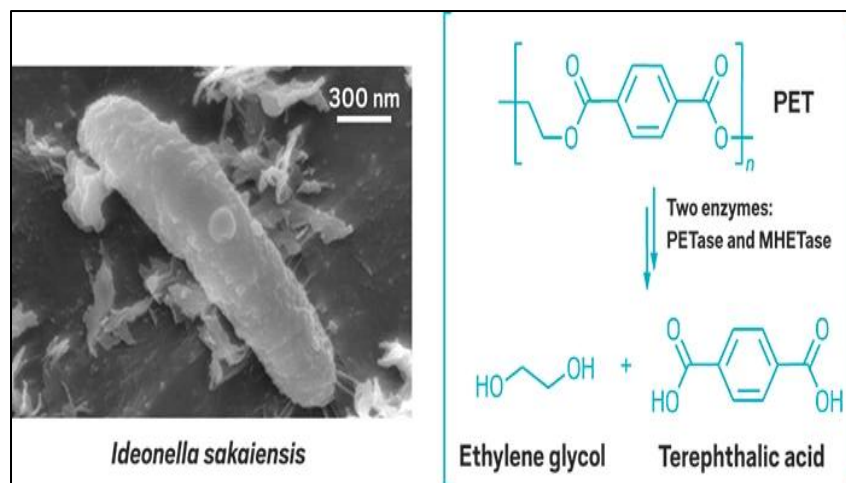
### Nuclear Cruise Missile - Russia

- ❖ Russia is preparing to test the 9M730 Burevestnik nuclear-powered cruise missile in Novaya Zemlya.

- ❖ The missile uses a nuclear reactor for propulsion, giving it unlimited range and global strike capability.
- ❖ Rosatom vessels deployed to monitor the test.
- ❖ The U.S. sent its WC-135R “nuke sniffer” to track radiation and activity near the test zone.
- ❖ The test comes ahead of a Putin–Trump meeting on the Ukraine war.



## Ideonella sakaiensis



- ❖ *Ideonella sakaiensis* is a Gram-negative, rod-shaped bacterium from the genus *Ideonella* and family Comamonadaceae.



- ❖ It can break down and consume polyethylene terephthalate (PET) plastic as its carbon and energy source.
- ❖ The bacterium was discovered in Japan in PET-contaminated soil and thrives in oxygen-rich, moist environments like soil and sewage sludge.
- ❖ It degrades PET into environmentally benign monomers, which it and other microbes can then consume.

### **Password-Protected Brain data**

- ❖ Scientists at Stanford of USA have developed a brain-computer interface (BCI) that activates only when users think of a preset password.
- ❖ The BCI decodes internal speech—sentences users imagine into text or audio using AI models trained on brain signals.
- ❖ It focuses on signals from the motor cortex, where both spoken and imagined speech originate, though internal speech produces weaker signals.
- ❖ The system interpreted 74% of imagined sentences correctly and recognized the thought-password “Chitty-Chitty-Bang-Bang” with 98% accuracy.



## **ENVIRONMENT NEWS**

### **Two New damselfly species**

- ❖ Two new damselfly species were discovered in the Western Ghats of Maharashtra and Kerala.



- ❖ The Konkan Shadowdamsel was found in Sindhudurg district, Maharashtra.
- ❖ The Crimson Shadowdamsel (*Protosticta sanguinithorax*) was discovered in the Thiruvananthapuram district, Kerala.
- ❖ Both species were previously mistaken for the Red-spot Shadow damsel (*Protosticta sanguinostigma*).
- ❖ These shadow damsels thrive in well-shaded, pristine forest habitats but face threats from habitat loss and plantations.



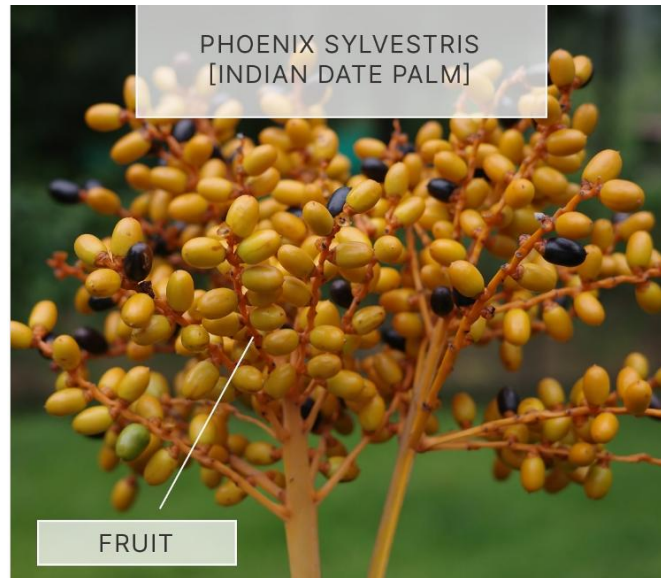
***Antitrisuloides catocalina***



- ❖ A rare nocturnal moth, *Antitrisuloides catocalina*, was discovered for the first time in the Western Ghats.
- ❖ The specimen was found at Choolannur Peafowl Sanctuary in Palakkad district, Kerala.

- ❖ This moth belongs to the Noctuidae family and was previously known only from Northeast India.
- ❖ Detailed analysis identified it as the subspecies *Antitrisuloides catocalina cyclica*.

### **New palm species**



- ❖ Revisiting Hortus Malabaricus led to the discovery of a new palm species in India.
- ❖ The palm Katou-Indel, described in the 17th century, is confirmed as *Phoenix sylvestris*.
- ❖ *Phoenix sylvestris* is native to Kerala and Sri Lanka and grows 3.5 to 5.5 metres tall.
- ❖ A new species, *Phoenix roxburghii*, was identified in eastern India, Bangladesh, and Pakistan.
- ❖ *Phoenix roxburghii* grows 12 to 16 metres tall with a solitary trunk and larger fruits.
- ❖ The study reclassified *P. pusilla*, *P. farinifera*, and *P. zeylanica* as *Phoenix sylvestris*.
- ❖ The species name *Phoenix roxburghii* honours botanist William Roxburgh.

## **STATES' NEWS**

### **Consumer Disputes Redressal Rate**

- ❖ Ten states and the National Consumer Disputes Redressal Commission (NCDRC) achieved over 100% case disposal rate in July.

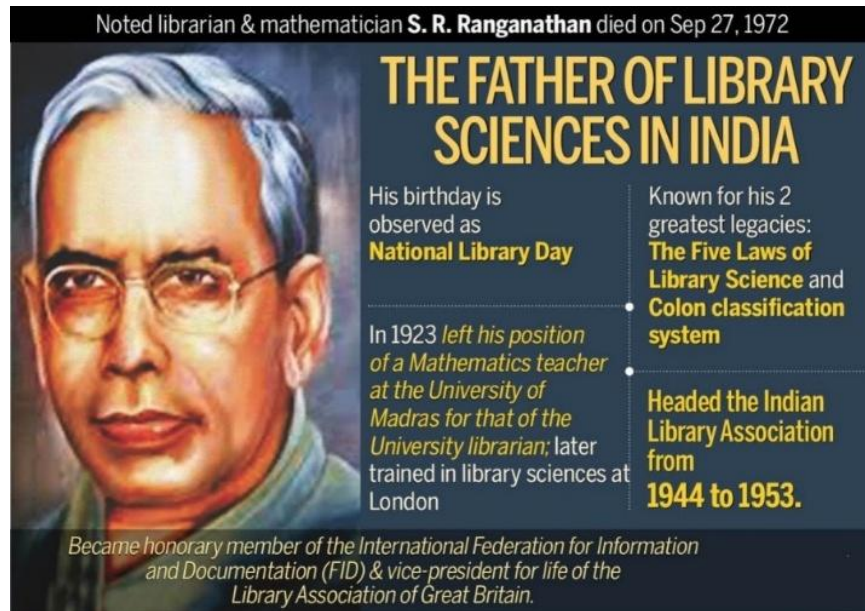
- ❖ NCDRC recorded a disposal rate of 122%.
- ❖ Tamil Nadu led with 277%, followed by Rajasthan at 214% and Telangana at 158%.
- ❖ Himachal Pradesh and Uttarakhand each achieved 150%, while Meghalaya recorded 140%.
- ❖ Over two lakh users, including NRIs, have registered on the e-Jagriti platform since its launch.
- ❖ This year, 85,531 cases were filed through the platform.
- ❖ The e-Jagriti platform, launched by the Department of Consumer Affairs on January 1, 2025, has further transformed the grievance redressal landscape.



## IMPORTANT DAYS

### National Librarian's Day 2025 - August 12

- ❖ National Librarian's Day, first observed in 1962, marks the birth anniversary of Dr. S.R. Ranganathan, the father of library science in India.
- ❖ He was born on August 9<sup>th</sup> in 1892 at Sirkali, Tanjavur.
- ❖ His autobiography, published serially during his life, is titled A Librarian Looks Back.
- ❖ He also wrote a book "The Five Laws of Library Science".
- ❖ The day honours librarians' role in promoting literacy, education, and access to information.



## World Humanitarian Day 2025 - August 19



- ❖ This day honours the courage and dedication of humanitarian workers worldwide.
- ❖ It was established by the United Nations in 2008, following the 2003 bombing of the Canal Hotel in Baghdad, Iraq.
- ❖ This year's theme will be "Strengthening global solidarity and empowering local communities."

## MISCELLANEOUS NEWS

### Australopithecus Fossil

- ❖ Fossilised teeth found in Ethiopia's Afar Region reveal that two human ancestor species coexisted about 2.6 million years ago.
- ❖ The discovery includes 10 teeth from a previously unknown Australopithecus species and 3 teeth from early Homo genus members.



- ❖ This challenges the old view that the Australopithecus species disappeared before Homo appeared.
- ❖ The findings suggest at least five hominin species lived together in eastern Africa during this time.

