

December - 21

## TNPSC BITS

- ❖ The Union Coal Ministry has allocated a North Dhadu (western part) Coal block in Latehar district of Jharkhand to NLC India Ltd.
  - Dhadu has reserves of 434.65 million tonnes and its peak rated capacity is three million tonnes per annum.
- ❖ A single Akash surface-to-air (SAM) missile system engaged and destroyed four unmanned aerial targets simultaneously during the Astrashakti exercise held by the Indian Air Force.
- ❖ Indian Prime Minister launched the Surat Diamond Bourse (SDB) at Gujarat, which is dubbed as the “world’s biggest workspace”.
- ❖ India’s first fully integrated school of sustainability was launched at the Indian Institute of Technology (IIT) Kanpur in association with the Kotak Mahindra Bank Limited.
- ❖ SGBS Unnati Foundation became the first entity to list on the social stock exchanges (SSE).
- ❖ Real Vision Homes Pvt Ltd Chairman, Dr. Srinivas Naik Dharavath, was honored with Visionary Leader Icon Award 2023 by AASRAA at 5th National Conventions at Delhi.
- ❖ Rijul Maini, a medical student from Michigan, recently was crowned Miss India USA 2023 in New Jersey.
  - Saloni Rammohan and Sneha Nambiar secured Miss Teen and Mrs India USA titles, respectively.
- ❖ Rio Tinto, a leading global mining and materials company celebrates its 150th anniversary with a special stamp by the Indian Department of Posts.
- ❖ Founders of Kerala-based Genrobotic Innovations, one of India’s leading robotics companies, have been featured in the prestigious ‘Forbes 30 Under 30 Asia 2023’ list.
- ❖ Aster Medcity, located in Kochi, Kerala has been ranked No.1 in the 'Best Multi-specialty Hospital Emerging' category by The Week-Hansa Research 2023.

## TAMIL NADU

### **T.N.’s outstanding liability from bonds**

- ❖ Tamil Nadu had an outstanding liability of about ₹5.38 lakh crore at the end of March 2023 on funds raised through the issue of bonds.

- ❖ About 38.5%, or ₹2.07 lakh crore, of the outstanding amounts are coming up for repayment in 1-5 years.
- ❖ 28.6% of the outstanding amount was coming up for repayments in 5-10 years.
- ❖ Of the outstanding liability from the issue of bonds at the end of March 2023, 16.4% matures after 20 years, 9.7% between 10-20 years and 6.9% within a year.
- ❖ At the end of March 2023, the total outstanding liabilities stood at ₹7.41 lakh crore.

### Fiscal deficit within limits



## NATIONAL

### Women voters in 2029

- ❖ A report by the SBI has claimed that women voters in India will surpass male voters from 2029 onwards.
- ❖ In the upcoming general election in 2024, it has projected a total voter turnout of around 68 crores, of which women voters could be at 33 crore (49%).
- ❖ From 2029 onwards, the women voters at 37 crores could be outstripping registered men voters at 36 crores.
- ❖ It further projected that in 2047, women's voter turnout might increase to 55% and men's voter turnout might fall to 45%.



- ❖ In the 1951 elections, only eight crores voted.
- ❖ In 2009 elections, this was 42 crores, of which 19 crores were women.
- ❖ In 2014, the voter turnout was increased by 13.7 crore to 55 crore of which 26 crores were women.
- ❖ It was 5.8 times higher for women and 5.2 times for men.
- ❖ In the 2019 Lok Sabha elections, female voter turnout rate was higher than males.
- ❖ As many as 67.18% of women voters cast a vote in the 2019 general election in contrast to 67.01% of males.

- 👤 More women than men voted in the **2019** Lok Sabha polls
- 👤 Participation of women voters at **67.18%** more than men's **67.01%**
- 👤 Number of women voters increased by **5.1%** from **2019** to **2022**
- 👤 The 3 years, saw number of male voters rise by **3.6%**
- 👤 Total number of voters rose by **4.3%** from **2019** to **2022**
- 👤 Total voters now at 95.1 crore against 91.2 crore 3 years ago
- 👤 There are 46.1 crore women voters now from 43.8 crore in **2019**
- 👤 Number of male electors up from 47.3 crore, now at 49 crore

### **Electronic Origin Data Exchange System (EODES)**

- ❖ The India-Korea Electronic Origin Data Exchange System (EODES) was launched recently.

- ❖ The system aims to facilitate the smooth implementation of the India-Korea Comprehensive Economic Partnership Agreement (CEPA).
- ❖ It enhances Customs cooperation, automates data exchange, and is expected to set a global standard in international Customs collaboration.



### **Flying Wing Technology Demonstrator**



- ❖ DRDO successfully flew the Autonomous Flying Wing Technology Demonstrator, an indigenous high-speed flying-wing Unmanned Aerial Vehicle (UAV).
- ❖ With this flight, India has joined the elite club of countries to have mastered the controls for the flying wing technology.

- ❖ It is par with the advanced bombers such as American Northrop Grumman's B-2 'Spirit' in the US military aviation fleet.

### **Bhashini AI Tool**



- ❖ Prime Minister used a real-time artificial intelligence-based tool – 'Bhashini' – during his address at Kashi Tamil Sangamam in Varanasi.
- ❖ 'Bhashini' was tailored to serve the Tamil-speaking audience specifically during the event.
- ❖ It operates as an AI-driven language translation system facilitating conversations among individuals speaking different Indian languages.
- ❖ It allows individuals to communicate in their native language, bridging language barriers.
- ❖ Bhasha Daan serves as an initiative within Project Bhashini, focusing on gathering language inputs across multiple Indian languages.

### **Logistics ease across different states 2023**

- ❖ The "Logistics Ease Across Different State (LEADS) 2023" report was released recently.
- ❖ LEADS was conceived on the lines of Logistics Performance Index of World Bank in 2018 and has evolved over time.
- ❖ This provides insights into improvement of logistics performance at State/UT level.

- ❖ The country's logistics cost is estimated in the range of 7.8 per cent to 8.9 per cent.
- ❖ Performance Highlights from LEADS 2023.

	Achievers	Fast Movers	Aspirers
Coastal Group	Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu	Kerala, Maharashtra	Goa, Odisha, West Bengal
Landlocked Group	Haryana, Punjab, Telangana, Uttar Pradesh	Madhya Pradesh, Rajasthan, Uttarakhand	Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand
North-East Group	Assam, Sikkim, Tripura	Arunachal Pradesh, Nagaland	Manipur, Meghalaya, Mizoram
Union Territories	Chandigarh, Delhi	Andaman & Nicobar, Lakshadweep, Puducherry	Daman & Diu/ Dadra & Nagar Haveli, Jammu & Kashmir, Ladakh

## INTERNATIONAL

### Threat to Wisent Conservation

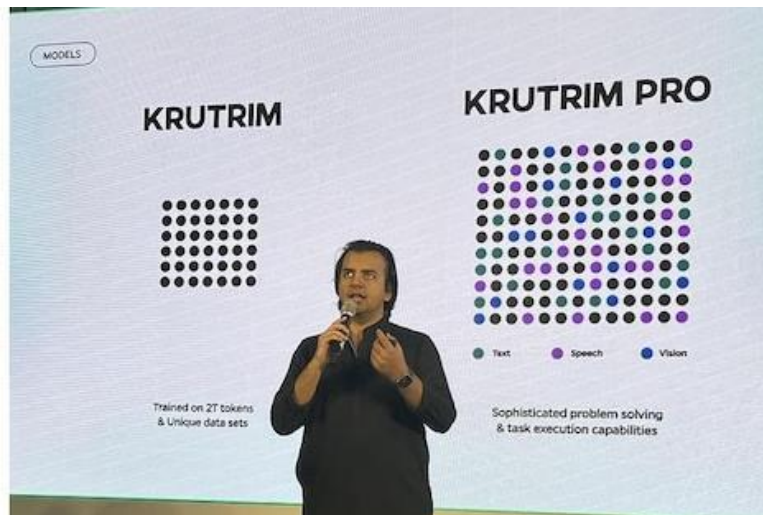


- ❖ The ongoing war in Ukraine could act as threat to Conservation efforts of wisent.
- ❖ The wisent, also known as the European wood bison, was almost wiped out by 1927 from Europe wild.

- ❖ Over 50 per cent of all free-living bison are in Ukraine.
- ❖ Approximately 7,300 free-ranging European bison exist today.

## SCIENCE AND TECHNOLOGY

### Krutrim AI



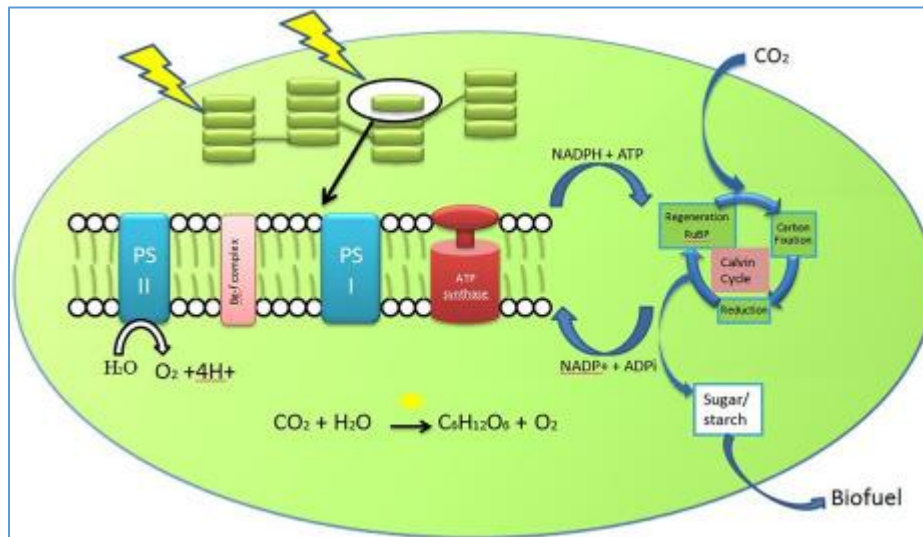
- ❖ Ola's CEO recently unveiled Krutrim (which means artificial in Sanskrit).
- ❖ This has also been touted as "India's first full-stack AI" solution.
- ❖ At first glance, the platform has a stark resemblance to ChatGPT.
- ❖ Krutrim AI is better than GPT-4 in various Indic languages.
- ❖ It can understand over 20 Indian languages and generate content in about 10 languages.
- ❖ It includes Marathi, Hindi, Bengali, Tamil, Kannada, Telugu, Odia, Gujarati, and Malayalam.
- ❖ It will be available in two classifications: the base Krutrim model, and Krutrim Pro, the more powerful one.

## ENVIRONMENT

### Algae assisted carbon capture

- ❖ IIT Jodhpur's innovative technology uses algae-assisted fuel cells to capture carbon dioxide, treat wastewater and generate power.
- ❖ Compared to the conventional method of bubbling flue gases into algal ponds, their indirect biochemical route proves more efficient.

- ❖ It converts CO<sub>2</sub> into carbonates, enhancing the solubility of inorganic carbon in water, thereby fostering increased carbon retention in the water.
- ❖ The use of closed systems like PBRs is highlighted as preferable to open ponds.
- ❖ They prevent decomposition of bicarbonates into CO<sub>2</sub> and maintain pH levels.
- ❖ Additionally, the technology utilizes wastewater, utilizing a thermo-tolerant algal strain (*Chlorella vulgaris*) capable of thriving in such conditions.



## STATES

### Food adulteration cases



- ❖ Hyderabad has ranked first in the country for food adulteration cases, according to the data released by the National Crime Records Bureau (NCRB).



- ❖ Telangana stands first, closely followed by Andhra Pradesh.
- ❖ In 2022, a total of 291 cases of food adulteration were reported across 19 major cities in India.
- ❖ Out of these cases, a staggering 246 were reported solely in Hyderabad.

### **Liquor introduction in Manipur**

- ❖ The Manipur cabinet has legalized the sale and consumption of liquor after 30 years in the state.
- ❖ It approved the manufacture, production, possession, export, import, transport, purchase, sale, and consumption of liquor.
- ❖ It also established the Manipur State Beverages Corporation Limited (MSBCL).
- ❖ This decision comes in the midst of an ongoing ethnic conflict and a campaign against drug and alcohol abuse.
- ❖ The state government expects to generate an annual revenue of around Rs 600-700 crore from this legalization.
- ❖ Manipur had enacted the 'Manipur Liquor Prohibition Act' in 1991 and partially lifted the prohibition last year.
- ❖ It gave exemptions for scheduled caste and scheduled tribe communities for brewing liquor under their traditional systems and customary laws.



## **PERSONALITIES, AWARDS, AND EVENTS**

### **2023 Falling Walls Prize for Science and Innovation Management**

- ❖ Abdoulaye Diabate was awarded the 2023 Falling Walls Prize for Science and Innovation Management for his research work.

- ❖ He developed an innovative technique that can wipe out malaria-causing female mosquitoes by altering their genes.
- ❖ Malaria is generally transmitted through the bite of female Anopheles mosquitoes.
- ❖ Under gene drive technology, female mosquitoes are prevented from producing new female offspring by releasing genetically modified male mosquitoes in the environment.
- ❖ This would lead to the depletion of female mosquitoes, thus bringing down malaria causes throughout the continent.
- ❖ Africa shoulders the world's largest malaria burden, with the continent constituting 96 per cent of the total 619,000 deaths worldwide in 2021.
- ❖ According to the WHO's latest data, of those 96 per cent, 80 per cent of deaths occurred in children aged under five.



### **Sheikh Nawaf Al-Ahmad Al-Jaber Al-Sabah**



- ❖ Kuwait's ruling emir Sheikh Nawaf Al Ahmad Al Sabah passed away recently.

- ❖ Crown Prince Sheikh Meshal al-Ahmad al-Sabah, was named as Sheikh Nawaf's successor.
- ❖ India declared state mourning across the country on December 17 as a mark of respect to Kuwait's Amir.

## IMPORTANT DAYS

### International Migrants Day 2023 - December 18

- ❖ On December 4, 2000, the UN General Assembly designated this day.
- ❖ This date commemorates the adoption of the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families by the UN General Assembly in 1990.
- ❖ In 2020, over 281 million people were international migrants.
- ❖ By the end of 2021, more than 59 million people were internally displaced.
- ❖ The theme for 2023 is "Promoting Safe Migration."



### Arabic Language Day 2023 - December 18

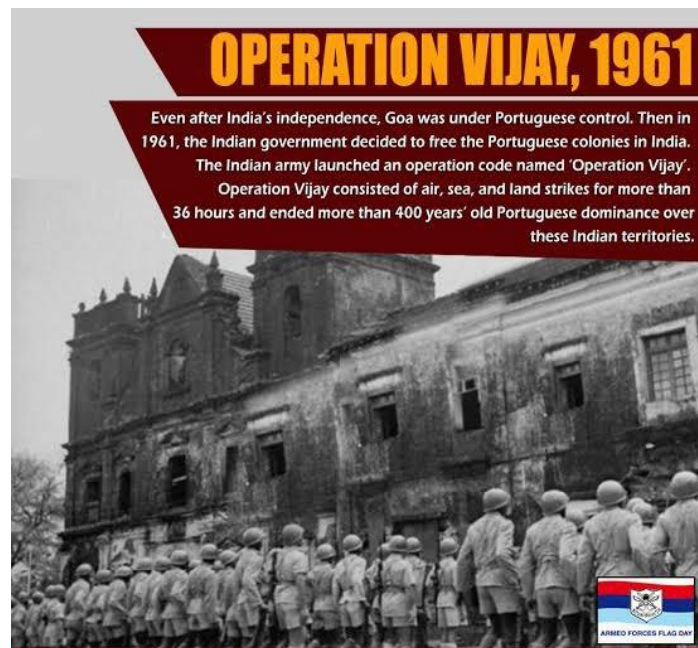


- ❖ On this day in 1973 that the UNGA adopted Arabic as the sixth official language of the Organization.

- ❖ It is used daily by more than 400 million people.
- ❖ This day is celebrated since 2012.
- ❖ The theme of 2023 is "Arabic - the Language of Poetry and Arts".

### **Goa's Liberation Day 2023 - December 19**

- ❖ It is celebrated to commemorate the liberation of the state from Portuguese rule in the year 1961.
- ❖ It is also celebrated to mark the success of 'Operation Vijay' undertaken by the Indian armed forces.
- ❖ The Portuguese colonial presence in Goa began in 1510.
- ❖ Goa had been under Portuguese rule for some 451 years.
- ❖ Goa and two other former Portuguese enclaves became the union territory of Goa, Daman and Diu.
- ❖ On 30th May, 1987, the territory was split and Goa was formed as 25<sup>th</sup> State of the India.



## **MISCELLANEOUS**

### **Joynagar moa**

- ❖ The makers of the Joynagar moa will sell their product in boxes bearing barcodes and QR codes in order to keep imitations in check.

- ❖ The moa is a popped-rice ball held together with fresh date-palm jaggery that is extracted from December to February.
- ❖ Its making is so synonymous with the town of Joynagar, located about 50 km from Kolkata.
- ❖ The confectionary earned the geographical Indication tag of Joynagar Moa in 2015.

