

November - 18

TNPSC BITS

- ❖ The 5th National EMRS Cultural & Literary Fest and Kala Utsav was organized by the National Education Society for Tribal Students (NESTS), in Bhubaneswar.
- ❖ The fish production in India has been increased from 96 lakh tonnes to 176 lakh tonnes in 10 years (2014-2024).
- ❖ Amul will enter the European market by the end of this month after launching its products in the USA.
- ❖ Japan's Scarecrow Incorporated has obtained the world's first patent for animal supplement Pinfenon (S)®.

NATIONAL

India and Philippines - 75 years of diplomatic ties



- ❖ India and the Philippines have celebrated 75 years of diplomatic relations, and unveiled a special logo to commemorate the milestone.
- ❖ The joint logo symbolizes the enduring friendship, cultural bonds and shared values between the two countries



- ❖ India and the Philippines formally established diplomatic relations on November 26, 1949, shortly after both countries gained independence.

SC on Illegal Property Demolitions



- ❖ The Supreme Court laid down a series of guidelines to ensure that due process is followed for demolishing the properties of citizens.
- ❖ The SC placed emphasis on transparency and giving the accused and their family sufficient time to handle their affairs.
- ❖ These guidelines will not apply to “an unauthorised structure in any public place such as road, street, footpath, abutting railway line or any river body or water bodies and also to cases where there is an order for demolition made by a Court of law”.
- ❖ The SC said a minimum of 15 days prior notice must be given for a person to respond to before demolition is carried out.
- ❖ These 15 days starting from the date that the owner or the occupier receives the notice.
- ❖ This notice must contain details of the structure, why it is being demolished, and a date for a “personal hearing” to allow owners to contest the demolition.
- ❖ The court has also held that violation of these guidelines could lead to contempt proceedings and along with compensation

DRDO's LRLACM

- ❖ The DRDO successfully conducted the maiden flight test of its Long-Range Land Attack Cruise Missile (LRLACM).

- ❖ The LRLACM is designed to be launched from both mobile ground-based systems and frontline ships.
- ❖ The LRLACM is equipped with the state-of-the-art avionics and software that enhances its performance and reliability.



INTERNATIONAL

COP 29 - New Collective Quantified Goal (NCQG)



- ❖ The UN summit on climate change (COP29) has released a new draft of the new collective quantified goal (NCQG).

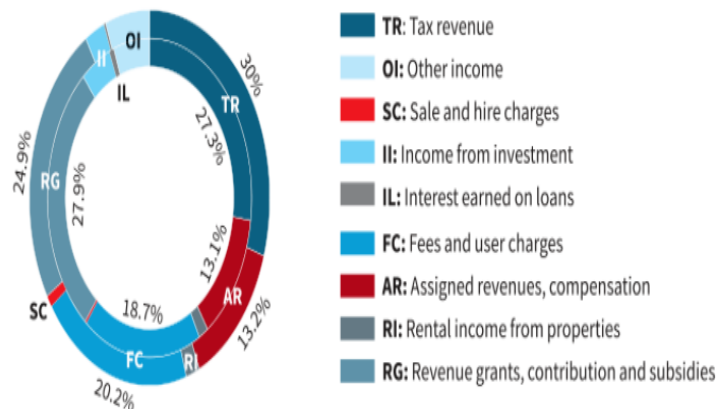
- ❖ It aims to secure \$5-6.8 trillion for developing countries by 2030.
- ❖ Earlier the first version was rejected by the developing countries.
- ❖ The Developing countries require up to \$1.5 trillion a year for their unique climate needs and net zero transition.
- ❖ The actual climate action funding requirement, however, could be several times higher than the estimates of \$1-1.5 trillion.
- ❖ The UNFCCC Standing Committee on Finance estimates that a total of \$5.8-5.9 trillion will be needed by 2030 to cover the needs of 153 developing countries.
- ❖ The group of 10 MDBs, including the World Bank, have said their overall climate finance provision is projected to reach \$170 billion a year by 2030.
- ❖ Over 70% of the money (\$120 billion) is anticipated to go to low—and middle-income countries.

ECONOMY

Report on Municipal Finances

Chart 1:

Components of revenue receipts of all municipal corporations. The inner circle corresponds to figures for 2019-20 while the outer circle corresponds to 2023-24 (BE)



- ❖ The Reserve Bank of India (RBI) released the Report on Municipal Finances.
- ❖ The theme of the Report is "Own Sources of Revenue Generation in Municipal Corporations: Opportunities and Challenges".
- ❖ Own tax revenue, inclusive of property tax, water tax, electricity tax, education tax, and other local taxes, constituted 30 per cent of total revenue during 2023-24
- ❖ It had noted that the demand for high-quality public services in urban areas is growing rapidly with a rising urban population.
- ❖ The growth in the revenue receipts moderated to 3.7 per cent in 2022-23 (revised estimate) and was budgeted to increase by 20.1 per cent in 2023-24.

- ❖ The surplus in 2023-24 was budgeted at above Rs 1,000 crore in states like Maharashtra, Gujarat, Karnataka, Madhya Pradesh, Haryana, and Telangana, led by Maharashtra (Rs 11,104 crore).
- ❖ The surplus in MCs in Delhi, Andhra Pradesh, Rajasthan, Odisha, West Bengal, and Tamil Nadu was placed in the range of Rs 100 crore (Tamil Nadu) to Rs 687 crore (Delhi).
- ❖ MCs in Tripura, Jharkhand, Himachal Pradesh, Bihar, Chhattisgarh, Jammu & Kashmir, Uttar Pradesh, and Kerala have budgeted for a revenue deficit in the range of (-) Rs 2 crore (Tripura) to (-) Rs 789 crore (Kerala) for 2023-24.

SCIENCE AND TECHNOLOGY

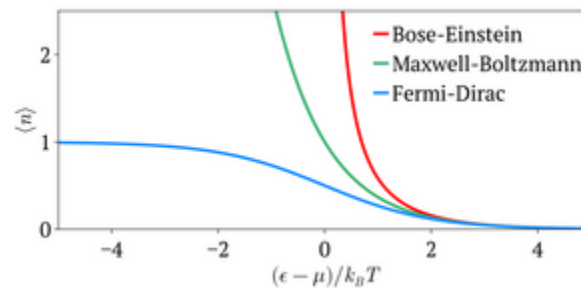
Mystifying Magnetic Field of Uranus



- ❖ NASA's robotic spacecraft Voyager 2 conducted a five-day flyby over Uranus in 1986.
- ❖ The Voyager 2 observations left a misimpression about the magnetosphere of Uranus.
- ❖ During the fly, it is lacking in plasma and possessing uncommonly intense belts of highly energetic electrons.
- ❖ The probe visited at a time of unusual conditions - an intense solar wind event - that led to misleading observations about Uranus, and specifically its magnetic field.
- ❖ So, this event compressed Uranus's magnetosphere during the observation.
- ❖ The absence of plasma had previously led scientists to believe the moons were dormant.

- ❖ But the new findings suggested that the Uranus's five major moons may not be geologically inactive.
- ❖ Magnetosphere is a region of space surrounding a planet where the planet's magnetic field dominates.
- ❖ It is creating a protective zone against solar and cosmic particle radiation.
- ❖ Uranus is big enough to fit 63 Earths inside it.
- ❖ It orbits almost 20 times further from the sun than Earth does and has 28 known moons and two sets of rings.

Bose-Einstein statistics - 100th year



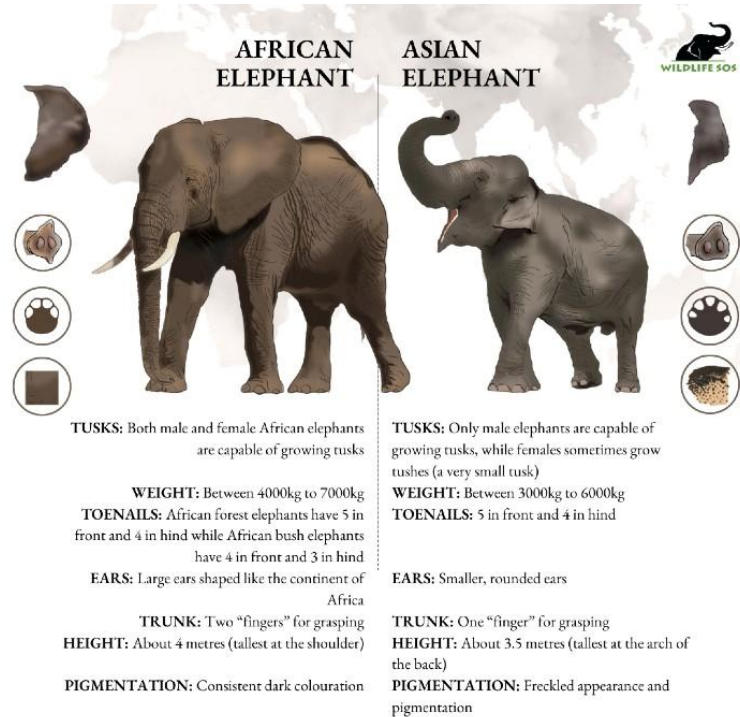
- ❖ In 1924, Satyendra Nath Bose, had discovered the correct set of equations to use to work out the behaviour of collections of photons (particles of light).
- ❖ Albert Einstein translated it to German, and sent it to a journal himself.
- ❖ This year marks 100 years of Bose's discovery.
- ❖ His collaboration with the Albert Einstein had eventually led to postulation of B-E statistics.
- ❖ It explains how particles distribute themselves in an available energy state.
- ❖ The Particles which obey B-E statistics principle is referred as "Bosons", named after S. N Bose.

ENVIRONMENT

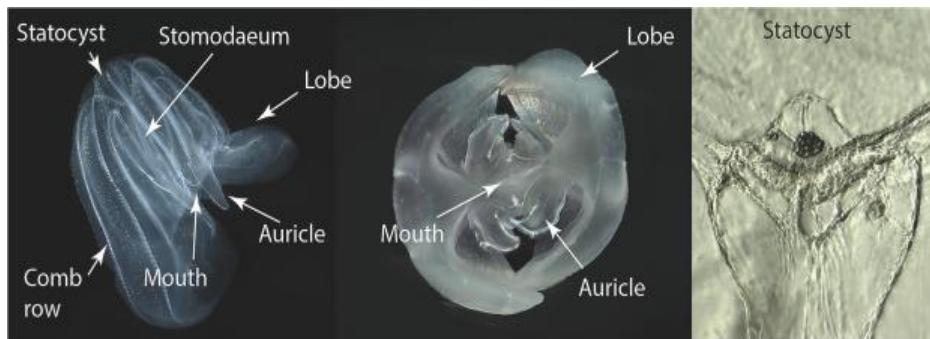
Report on African Elephant

- ❖ The recent study found that savanna elephant populations fell by about 70% on average at the surveyed sites across the sub-Saharan African region.
- ❖ The forest elephant populations were dropped by about 90%, with poaching and habitat loss as the main drivers.

- ❖ Overall, there was an average population decrease of 77% across the surveyed sites for both species.
- ❖ In southern Africa, the savannah elephant population saw an average increase of 42 percent.
- ❖ Only 10 percent of surveyed populations in eastern Africa showed growth.



Comb jellies



- ❖ Scientists have discovered a new species of marine invertebrate that breaks the traditional cycle of birth, ageing, and death.
- ❖ They are also known as ctenophore *Mnemiopsis leidyi*, can defy age and revert to younger versions of themselves.



- ❖ The adult comb jelly can regress and reach a larval stage if they are subjected to extreme stress.
- ❖ Comb jellies could also be one of the first animals to have existed as their origin can be traced back to an estimated 700 million years ago.

