

November - 28

TNPSC BITS

- ❖ India's first Constitution Museum was inaugurated at OP Jindal Global University in Sonapat, Haryana.
- ❖ The IIT Bombay have introduced AroTrack, an economical and portable device to accurately detect harmful pollutants such as phenol or benzene in water.
- ❖ The Viksit Bharat Young Leaders Dialogue would be organised in New Delhi in 2025 to connect youth from non-political backgrounds to politics.
- ❖ The Uttar Pradesh government is developing India's inaugural night safari within the Kukrail forest in Lucknow.
- ❖ The 11th ASEAN Defence Ministers' Meeting Plus (ADMM-Plus) was convened in Vientiane, Lao PDR.
- ❖ The Solar Energy Corporation of India (SECI) has signed a MoU with H2Global to enhance knowledge exchange on market mechanisms and foster international cooperation in green hydrogen.
- ❖ Gwalior in Madhya Pradesh unveils India's First Self-Sufficient Gaushala with a State-of-the-Art Compressed Bio-Gas Plant.
- ❖ The Coal India Limited has been honoured with the prestigious Green World Environment Award and the prestigious title of Green World Ambassador in the Corporate Social Responsibility category.
- ❖ India and the Caribbean Community (CARICOM) summit was held in Georgetown, Guyana.
- ❖ The fourth edition of the pan-India Coastal Defence Exercise Sea Vigil 24 was conducted across all coastal States and union territories of India.
- ❖ Africa Industrialization Day is celebrated annually on November 20th to recognise the importance of industrialisation in Africa's development.

TAMIL NADU

One Health and Climate Hub – Tamilnadu

- ❖ The state is set to establish 'One Health and Climate Hub' under the Health Department.
- ❖ It aims to address the region-specific challenges such as rising temperature, increased vector-borne diseases, biodiversity loss, antimicrobial resistance and coastal vulnerability, in the context of climate change.

- ❖ The hub will develop AI-based models to predict disease trends based on climate scenarios.
- ❖ It will create and update a state-level database to track climate-sensitive diseases, with a focus on vulnerable communities.
- ❖ It will conduct comprehensive studies to map health risks and the diseases.



Highest number of open access consumers



- ❖ Tamil Nadu had the highest number of open access consumers buying electricity from the power exchanges.
- ❖ The concept of open access allows large users of power to buy power directly from private generators rather than depending on the State utility.

- ❖ There were 5,244 open Access consumers at Indian Energy Exchange Ltd (IEX) and these consumers were mostly located in Tamil Nadu, Gujarat, Andhra Pradesh, Haryana and Punjab.
- ❖ Tamil Nadu had a total of 1,247 open access consumers on IEX.

NATIONAL

VISION Portal

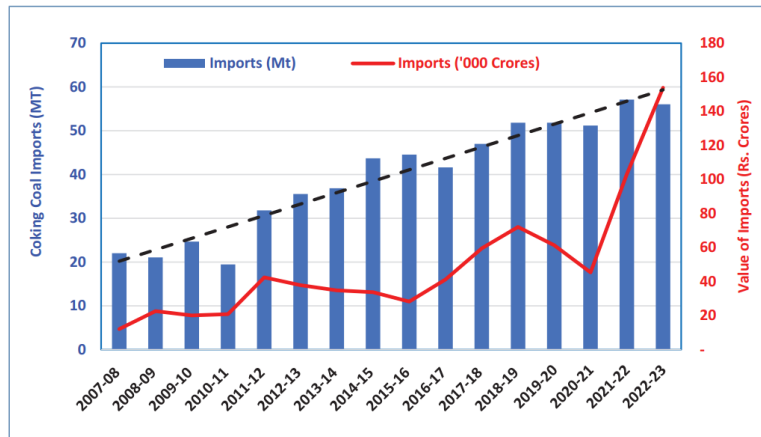
- ❖ The Centre inaugurated the 'Viksit Bharat Initiative for Student Innovation and Outreach Network' (VISION).
- ❖ The initiative aims to nurture education, skill development, and innovation among underprivileged children.
- ❖ India has the third-largest startup ecosystem, growing from 350 startups in 2014 to 1.67 lakh in 2024.



Coking Coal in Critical Minerals List

- ❖ Niti Aayog report asked the government to include coking coal in the list of critical minerals.
- ❖ Coking coal constitutes approximately 42 per cent of the cost of steel.
- ❖ The European Union has declared coking coal as a critical raw material along with 29 other raw materials.

- ❖ India's import dependence on coking coal is about 85 per cent, which is much higher than that of the EU (approximately 62 per cent).



INTERNATIONAL

Russia - nuclear doctrine



- ❖ President Vladimir Putin has approved the changes to Russia's nuclear weapons policy.
- ❖ Moscow sees nuclear weapons as a means of deterring its enemies and sets out the scenarios under which it would consider using them.
- ❖ Its nuclear deterrent is aimed not only at other nuclear states but also at other countries that allow their land, water or airspace to be used to prepare or conduct aggression against it.

- ❖ Russia is officially placing close ally Belarus under its nuclear umbrella.
- ❖ Now it may use nuclear weapons in the event of a conventional attack against itself or Belarus that “creates a critical threat to their sovereignty or territorial integrity”.

SCIENCE AND TECHNOLOGY

Magnetic North Pole



- ❖ The Earth's magnetic North Pole is moving toward Russia at an accelerating pace.
- ❖ It has a significant increase in its speed over the past few decades.
- ❖ It was previously moving at 15 km/h, its rate has surged to 50-60 km/h between 1990 and 2005.
- ❖ The pole has moved approximately 2,250 kilometres from Canada towards Siberia.
- ❖ Unlike the fixed geographic North Pole, where all longitudinal lines converge, the magnetic North Pole constantly shifts.
- ❖ If the current trend continues, the magnetic North Pole is expected to move 660 kilometres within the next decade.
- ❖ By 2040, this will likely cause compasses to point eastward of true north, affecting global navigation.

- ❖ These movements are part of a natural cycle, occurring every 300,000 years, the last full pole reversal happened 780,000 years ago.

India's Nafithromycin



- ❖ India has launched the first indigenous antibiotic "Nafithromycin" for resistant infections.
- ❖ It has been developed with the support of "Biotechnology Industry Research Assistance Council" (BIRAC).
- ❖ This has been brought to the market under the trade name "Miqnaf" by pharma company "Wolkardt".
- ❖ Nafithromycin marks a historic breakthrough as the first new antibiotic in its class to be developed globally in over 30 years.

MECHS – Bioplastic

- ❖ The Researchers at Northeastern University, in Boston, have developed a new bioplastic - MECHS, that dissolves in water.
- ❖ MECHS consists of engineered E. coli bacteria with a fibre matrix to create a paper- or film-like material.

- ❖ MECHS can stretch like plastic wrap, can be genetically engineered by adding proteins or peptides to make it more or less stiff.



MeerKAT Radio Telescope

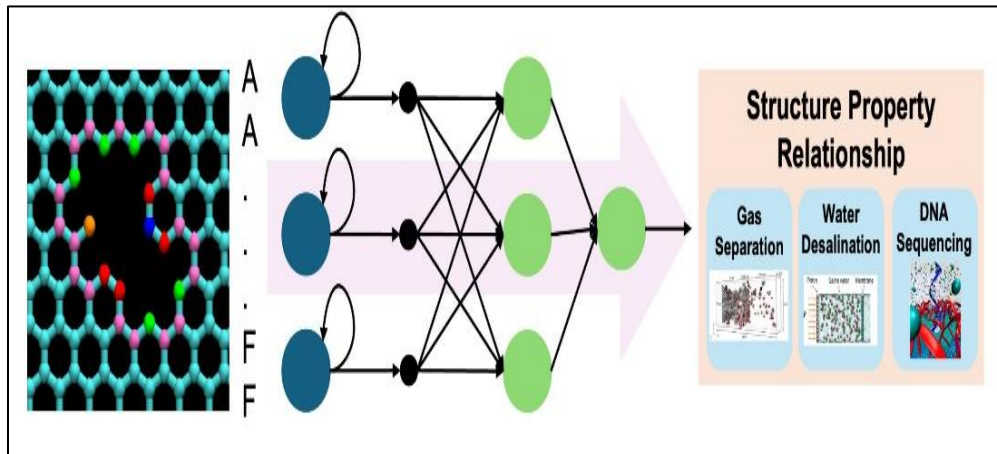


- ❖ An international team of astronomers has employed the MeerKAT radio telescope to investigate giant radio galaxies in the field of the Cosmological Evolution Survey.
- ❖ They found a new giant radio galaxy that had not been reported before.
- ❖ MeerKAT is located in the South Africa's Northern Cape province and has 64 receptors.
- ❖ It is part of the South Africa's contribution to the Square Kilometre Array (SKA) project.

STRONG – New language


- ❖ Indian Institute of Science researchers have devised a new language that encodes the shape and structure of nanopores in the form of a sequence of characters.

- ❖ The language called STRONG (SString Representation of Nanopore Geometry).
- ❖ This language facilitates training machine learning models.



ENVIRONMENT

Reducing Methane from Organic Waste Declaration

 **#COP29Delivers**

Countries Representing Nearly 50% of Global Methane Emissions From Organic Waste Pledge to Reduce Emissions From Sector

- COP29 declaration on reducing methane from organic waster, endorsed by **over 30 countries**, which are collectively responsible for nearly 50% of global methane from organic waste emissions.
- Harmoniya initiative for farmers launched with Food and Agriculture Organisation of the United Nations (FAO), introducing a new platform to harmonise support and funding programmes for farmers.
- Ministry of Agriculture of Azerbaijan announces new cooperation with UNEP-convened Climate and Clean Air Coalition on development of methane reduction roadmap for Azerbaijan's agricultural sector.

- ❖ The COP29 Presidency - Azerbaijan has launched the Reducing Methane from Organic Waste Declaration.
- ❖ Over 30 states are the initial signatories.
- ❖ They are combinedly represent 47 per cent of the global methane emissions from organic waste.
- ❖ Also, Azerbaijan in partnership with the FAO, has officially launched the Baku Harmoniya Climate Initiative for Farmers.

- ❖ It aims to acknowledge the fundamental role of farmers as agents of climate action.

REPORTS AND INDICES

Asia-Pacific regional report on Beijing+30 review



- ❖ The report is titled 'Charting new paths for gender equality and empowerment: Asia-Pacific regional report on Beijing+30 review'.
- ❖ Beijing Declaration and Platform for Action has evolved since its adoption of in 1995.
- ❖ The Countries in North and Central Asia and the Pacific provided a relatively high level of effective coverage of children (aged 0 to 18) in social protection benefits (57.4 per cent and 47.0 per cent, respectively).
- ❖ It was surpassing the regional average (18.3 per cent).
- ❖ There has been a 218% decadal increase in gender budgeting in India.
- ❖ Apart from India, it mentioned Philippines as one of the countries which have successfully adopted gender-responsive budgeting (GRB).
- ❖ India struggles with the limited effectiveness of its GRB due to the exclusion of key programmes that benefit women and the lack of sex-disaggregated data.

IMPORTANT DAYS

Women's Entrepreneurship Day 2024 - November 19

- ❖ It aims to recognise the achievement of women entrepreneurs and to support the efforts of women to build their business ventures.

- ❖ This global initiative was established by Women's Entrepreneurship Development Organization (WEDO).
- ❖ This day was first observed in New York City in 2014.



International Day for the Elimination of Violence against Women 2024 - November 19



- ❖ This is a global effort to raise an awareness about the pervasive issue of violence against women and girls.
- ❖ In 1979, the UN General Assembly adopted the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW).



- ❖ In 2008, the UN took another significant step by launching the UNiTE to End Violence against Women campaign.
- ❖ Globally, an estimated 736 million women have experienced physical and/or sexual violence.
- ❖ This year campaign Theme is “Every 10 Minutes, a woman is killed. #NoExcuse. UNiTE to End Violence against Women”.

MISCELLANEOUS

World’s Most Expensive Passport 2024

- ❖ Mexico has the most expensive passports in the world.
- ❖ The fee for a 10-year passport in Mexico costs around Rs 19,464.
- ❖ Australia has the second-most expensive passport, costing around Rs 19,023 and valid for 10 years.
- ❖ It is followed by the United States, which costs Rs 13,899.
- ❖ The United Arab Emirates offers the cheapest passport worldwide, with just Rs 1,492.
- ❖ The Indian passport, which costs Rs 1,523 for 10 years of validity, ranks as the second cheapest passport worldwide.

Rank	Nation	Valid for (years)	Visa free countries	Cost of passport (AUD)
1	UAE	5	183	\$27.13
2	India	10	62	\$27.70
3	Hungary (5-year-passport)	5	188	\$31.78
4	South Africa	10	108	\$48.44
5	Kenya	10	76	\$49.28
6	Spain (for over 30-year-olds)	10	194	\$49.49
6	Spain (for under 30-year-olds)	5	194	\$49.49
8	Poland	10	189	\$53.38
9	Brazil	10	173	\$55.59
10	Sweden	5	193	\$58.88

