



December - 31

### TNPSC BITS

- ❖ NASA has launched a campaign called "Message in a Bottle" and invited the public to send their names that will travel to Jupiter's moon along with a poem dedicated to Europa Clipper mission.
- ❖ Gujarat topped in the rooftop solar capacity with 10.4 GW as of November this year.
- ❖ PM Modi's personal YouTube Channel reaches two crore subscribers.
  - o He became the first world leader whose personal YouTube Channel has reached two crore subscribers.

#### TAMIL NADU

# Welfare board for Gig Workers



- ❖ The labour welfare and skill development department has constituted the Tamil Nadu Platform Based Gig Workers Welfare Board.
- ❖ It will cater to workers in e-commerce services including online food delivery and cab aggregators.





❖ The labour department expects more than one lakh workers to register in the welfare board.

#### **NATIONAL**

# **Extended Version of Mission Karmayogi**

- ❖ On the occasion of Good Governance Day, the Extended Version of Mission Karmayogi has been launched.
- ❖ Three new features launched on the iGOT Karmayogi platform are My iGOT, Blended Programs and Curated Programs.
- ❖ A new blended learning programme named VIKAS (Variable & Immersive Karmayogi Advanced Support) also launched.



# **India Skills Report 2024**

- ❖ The India Skills Report-2024 has put Andhra Pradesh in the third place in terms of having the highly employable resource pool.
- ❖ Haryana and Maharashtra took the first and second positions respectively.
- ❖ The overall young employability in India has shown improvement, reaching 51.25%.
- ❖ States like Haryana, Maharashtra, Andhra Pradesh, Uttar Pradesh, Kerala, and Telangana demonstrate a high concentration of highly employable youth.
- ❖ Haryana has the highest employable youth concentration.





- ❖ Pune came first with 80.82% of candidates found highly employable, followed by Bengaluru, and then Trivandrum.
- ❖ Telangana has the highest concentration of employable talent in the age group of 18-21 with 85.45% found employable.
- ❖ It followed by Kerala 74.93% employable resources in this age group.
- ❖ Gujarat has the highest availability of employable resources in the age group of 26-29 with 78.24% in this age group found employable.



#### **SCIENCE AND TECHNOLOGY**

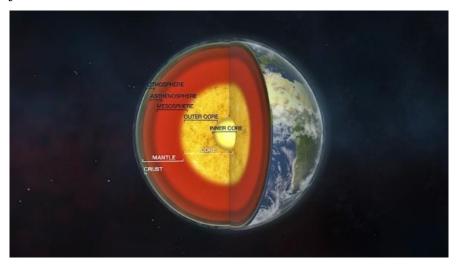
# E prime layer of earth

- ❖ The formation of new enigmatic layer E prime layer at the outermost part of Earth's core is a result of "surface water penetrating deep into the planet.
- ❖ Tectonic plates carrying surface water have transported it deep into the Earth over billions of years.
- ❖ Subducted water reacts chemically with core materials under high pressure.
- ❖ This reaction leads to the formation of a hydrogen-rich, silicon-depleted layer at the outer core.
- ❖ Silica crystals generated by this process ascend and blend into the mantle, impacting the overall composition.

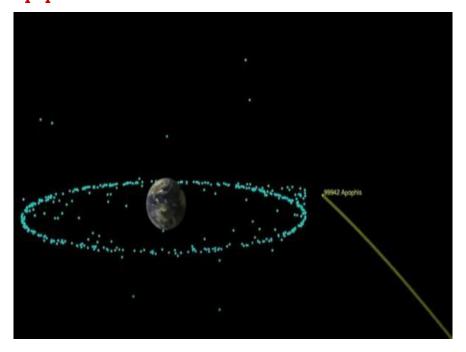




❖ These modifications in the liquid metallic layer could potentially result in reduced density and altered seismic characteristics.



# **Mission to Apophis**



- ❖ NASA relaunched a mission to study the "God of Chaos" asteroid as it started coming closer to the orbit of Earth.
- Apophis, also called the "God of Chaos", is likely to fly close to Earth on April 13, 2029, and will be only 20,000 miles away.
- ❖ The space rock, which measures nearly 370 yards across, approaches the Earth every 7,500 years.

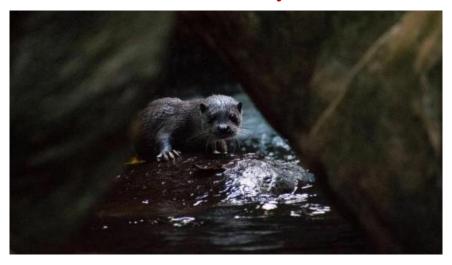




- ❖ Bennu is the most prominent asteroid among them which has a 1/2700 chance of hitting Earth between 2175 and 2195.
- Dust and rock samples collected from Bennu were recently brought back to Earth by NASA.

#### **ENVIRONMENT**

### **Eurasian otter in Chinnar Wildlife Sanctuary**



- ❖ Team of researchers have discovered Eurasian otter in the Chinnar Wildlife Sanctuary in Idukki, a first in Kerala.
- ❖ The scientific name of the Eurasian otter is Lutra lutra.
- ❖ With this, there are three species of otters found in Kerala, including smooth-coated otter and small-clawed otter.

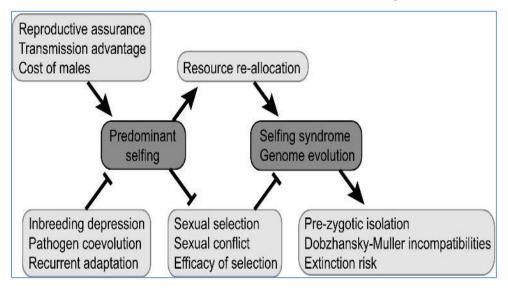
#### **Selfing Syndrome**

- Scientists have discovered a flower growing in Paris, France, which is producing less nectar and smaller flowers to attract fewer pollinators.
- ❖ The plant evolved to self-pollinate in order to attract fewer pollinators due to the decreasing availability of insects.
- ❖ This convergent evolution of a selfing syndrome threatens plant pollinator interactions.
- Self-pollination is the process by which plants reproduce themselves.
- ❖ The behaviour is contrary to the convention of angiosperms, which rely on insects to pollinate in order to reproduce an interconnected relationship in nature.

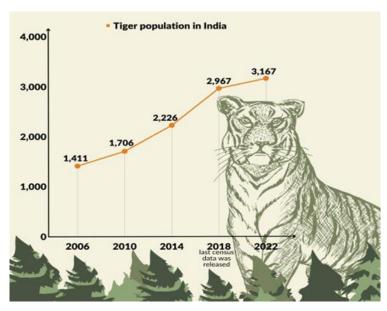




- \* This disruption of 100 million years of evolution is likely to have serious consequences.
- ❖ It may cause insect declines to accelerate, as well as making plant populations less diverse and more vulnerable to environmental change.



# 204 tigers lost in 2023



- ❖ India lost a record 204 tigers this year from January 1-December 25.
- ❖ Maharashtra, with 52 deaths, topped the list of Indian states.
- ❖ It was followed by India's top tiger state, Madhya Pradesh with 45 deaths. Uttarakhand came next with 26 deaths.
- ❖ Tamil Nadu and Kerala recorded 15 deaths each.





- ❖ The deaths this year have been termed in some media reports to be the highest in a decade.
- ❖ India's tiger population was increased by 200 from 2018 to 2022.
- ❖ The number of tigers in India was 3,167 in 2022, up from 2,967 in 2018.

# PERSONALITIES, AWARDS, AND EVENTS

#### DMDK founder Vijayakanth



- ❖ Vijayakanth, actor and the founder of Desiya Murpokku Dravida Kazhagam (DMDK) passed away recently.
- ❖ Vijayakanth made his debut through Inikkum Ilamai, and has since then gone on to do more than 150 movies in his career.
- ❖ In 2005, Vijayakanth formed his political party, Desiya Murpokku Dravida Kazhagam (DMDK) in Madurai.
- ❖ In the assembly election in 2006, a year after its launch, the DMDK got 8.4% votes.
- ❖ In the 2011 Assembly elections DMDK coming second, with 29 seats, leading party founder Vijayakanth to become the Leader of the Opposition.

#### **IMPORTANT DAYS**

### **International Biodiversity Day 2023 - December 29**

- ❖ This date commemorates the Convention on Biological Diversity came into force in 1993.
- ❖ From 1993 till 2000, World Biodiversity Day was celebrated on 29th December.



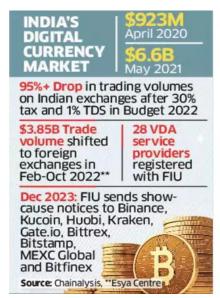


❖ It was on December 20 in 2000 that May 22 was designated as the new date for celebrating International Day for Biological Diversity.



#### **MISCELLANEOUS**

# India's Crypto Portfolio 2023



- ❖ More than 20% of India's total crypto investments are concentrated in the three major metropolitan areas: Delhi (9%), Bangalore (8%) and Mumbai (5%).
- Ghaziabad claimed the 10th position in the list of the top invested cities, replacing Patna from the spot
- ❖ About 75% of the invested users are below the age of 35.
- ❖ Top invested cryptos were Dogecoin (DOGE), Bitcoin (BTC), and Ethereum (ETH) contributing to 26% of the total value.
- Solana (SOL) was the best-performing crypto in India's portfolio, with 633% growth year-to-date.





❖ Delhi and Hyderabad saw the highest participation of women investors; 9% of India's crypto investors are women.

