

February - 18

TNPSC BITS

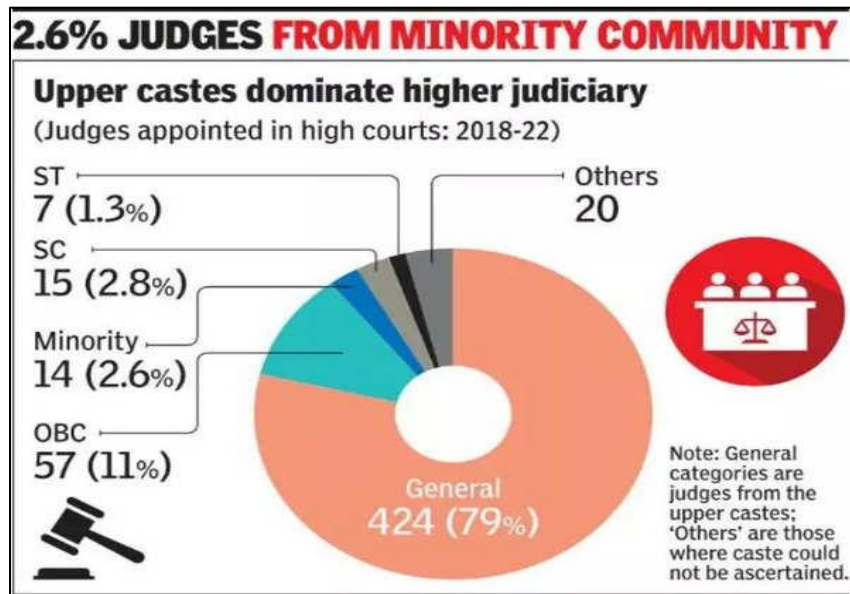
- ❖ India, with its Indian Ocean partners like Singapore and Oman, is hosting the Eighth Indian Ocean Conference (IOC) in Muscat, the capital of Oman.
- ❖ To mark the 10-year anniversary of the International Day of Women and Girls in Science, UNESCO launches the campaign "Imagine a world with more women in science".
- ❖ Madhya Pradesh has unveiled a Global Capability Centre (GCC) Policy 2025 to attracting multinational companies and establishing Madhya Pradesh as a digital and technological hub.
- ❖ The Central Consumer Protection Authority (CCPA) issued notices to Ola and Uber for allegedly charging different rates from consumers based on their mobile phone operating systems.
- ❖ SEBI introduced a new digital platform, MITRA, to assist investors in tracking and reclaiming inactive or unclaimed mutual fund folios.
- ❖ The Ministry of Fisheries is organising a special nationwide campaign for the registrations on the National Fisheries Digital Platform (NFDP) for encouraging eligible stakeholders to avail themselves of the numerous benefits under the PMMKSSY (Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana).
- ❖ The Department of Pension and Pensioners' Welfare has conducted 12th Nationwide Pension Adalat with focus on resolution of long outstanding Pension Cases pending for more than 120 days in 16 Departments/Ministries.
- ❖ NTPC Ltd has been conferred with the prestigious Forward Faster Sustainability Award 2025 in the Water Resilience category.
- ❖ The President of India has graced in the inaugural session of the International Women's Conference organized by The Art of Living in Bengaluru.

NATIONAL

Reservation in appointments in higher judiciary

- ❖ A DMK MP P. Wilson introduced a private member's bill in Rajya Sabha revives debate on reservation in appointments in higher judiciary.
- ❖ It is seeking reservation for the SC/ST and OBCs in the appointment of judges to the Supreme Court and high court.
- ❖ It also sought consultation by the Government of India with the respective State Governments while appointing Chief Justice or judge of any HC.

- ❖ In the 84th Report on Demand for Grants, the Committee had recommended the strength of women judges should be around 50% of the total strength.
- ❖ The Law Ministry had then said there is no proposal for amendment to Articles 124 and 217 of the Constitution.
- ❖ Of the 604 judges appointed since 2018 to various HCs, 454 belonged to the general category.
- ❖ Only 18 belonged to the SCs, nine to the STs and 72 to the OBCs and 34 belonged to the minority category.



50 Future Skills Centers



- ❖ The National Skill Development Corporation (NSDC) announced a set-up 50 new Future Skills Centres (FSCs) and 10 NSDC International Academies.

- ❖ It aims to bridge the gap between the theoretical knowledge and practical skills by aligning education with emerging technologies and industry needs.
- ❖ So far, 33 global corporations have partnered, and 21 Future Skills Centres have been established in Higher Education Institutions (HEIs).

INTERNATIONAL

First deep-sea water space station

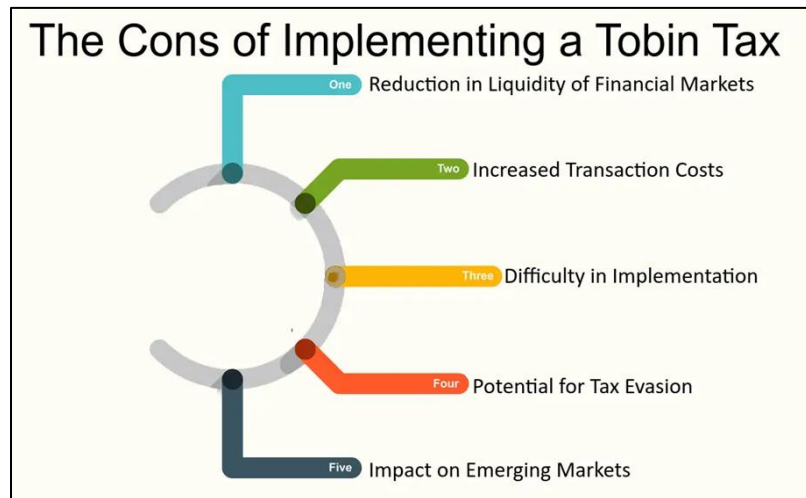


- ❖ China has approved a deep-sea research facility that could redefine the marine exploration.
- ❖ The “cold seep” ecosystem research facility will be anchored 2000 meters (6560 feet) below the surface of the strategically significant South China Sea.
- ❖ The facility will be one of the most technologically advanced scientific underwater facilities.
- ❖ China will be the world’s third country after the United States of America and the Soviet Union to build and operate a deep-sea space station.
- ❖ The American deep-sea space station NR-1 was a nuclear-powered submarine that was retired in 2008.
- ❖ The Soviet AS-12 Losharik, powered by a nuclear reactor reached a depth of 2000 meters.
- ❖ It was abandoned by the Russians in 2019 after a major fire.

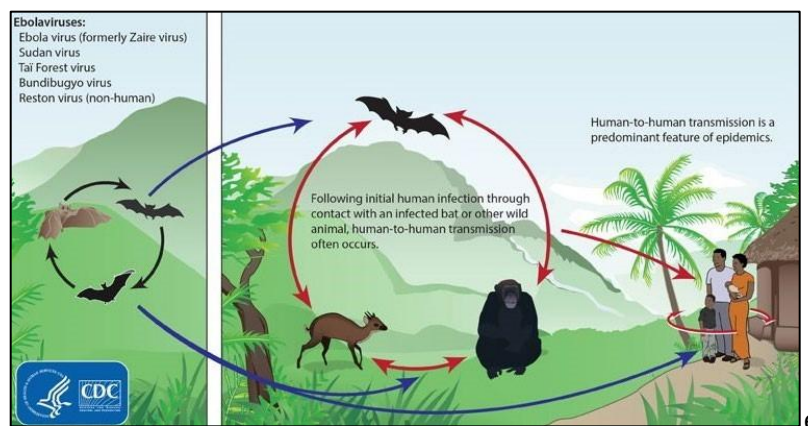
Tobin Tax by USA

- ❖ Trump’s administration is considering imposing a Tobin Tax on capital flows, a move that could disrupt global financial markets.

- ❖ Applying Tobin's idea of a 0.0005% tax on currency transactions in a global market could raise the huge amounts of revenue and likely wouldn't reduce the transactions or flows.
- ❖ The Tobin Tax is a tax on foreign exchange transactions aimed at discouraging short-term speculative trading.
- ❖ It was proposed in 1972 by James Tobin, a Nobel Prize-winning economist, in response to currency market fluctuations after the collapse of the Bretton Woods system.
- ❖ India's Securities Transaction Tax - 2004, acts as a Tobin-like tax on the stock market transactions.



Sudan Virus Outbreak



- ❖ The Ugandan government and the World Health Organization recently confirmed an outbreak of Sudan virus disease.
- ❖ It is a severe and often fatal illness with case fatality rates ranging from 41% to 100%.

- ❖ Uganda has had seven previous outbreaks, with the most recent occurring in 2022.
- ❖ A 2022 Sudan virus outbreak also in Uganda resulted in 164 cases and 77 deaths (a fatality rate of 47%).
- ❖ There are no treatments or vaccines against the Sudan virus.
- ❖ The Sudan and Ebola viruses have both come from the orthoebolavirus family, but they have different proteins and genetic components.

ECONOMY

New Guidelines for ESG Rating Providers



- ❖ SEBI proposed stronger measures for ESG rating providers to deal with rating withdrawals, disclosures, audits and government norms.
- ❖ These measures aim to enhance the transparency and accountability in the Environmental, Social, and Governance (ESG) rating process.
- ❖ The guidelines clarify the conditions under which ERPs can withdraw ratings and disclose their rationale.
- ❖ This initiative reflects the growing importance of ESG factors in the investment decisions.

SCIENCE AND TECHNOLOGY

R-37M Missile

- ❖ Russia has offered India to replace the R-77 air-to-air missile under the wings of the Su-30MKI with the R-37M missile.
- ❖ The R-37M is also known by its NATO reporting name AA-13 Axe head.

- ❖ It is a long-range air-to-air missile developed by Russia.
- ❖ The R-77 has a maximum engagement distance of about 100 kilometers, significantly less than the R-37M's 300-400 kilometers.
- ❖ Speed-wise, the R-77 reaches up to Mach 4-5, while the R-37M can hit Mach 6.



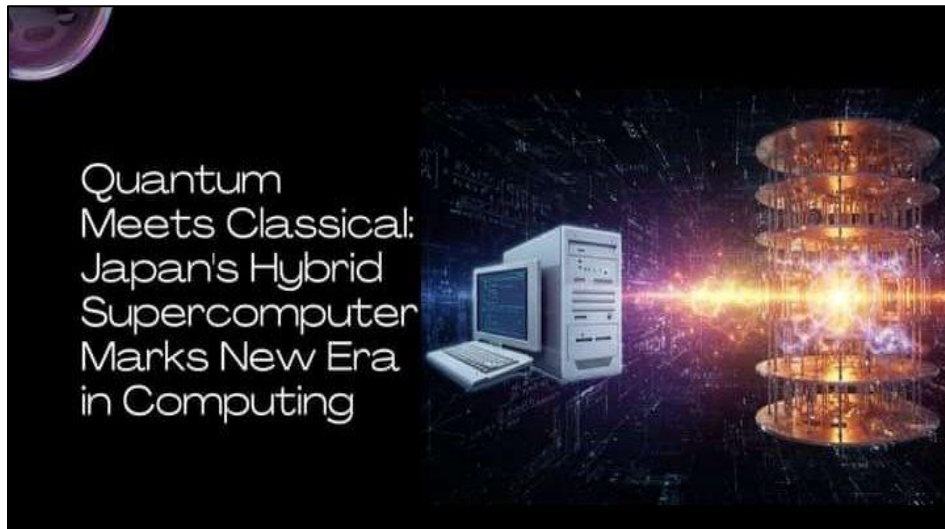
BrahMos NG Cruise Missile



- ❖ India's BrahMos NG (Next Generation) missile system development is in advanced stages.
- ❖ BrahMos NG is a sleeker missile with the same capabilities as its predecessor.

- ❖ Brahmos NG being lighter, smaller and compact, will be compatible to be fitted into the Russian-origin Sukhoi-30MKI fighter aircraft and indigenously developed Light Combat Aircraft Tejas.
- ❖ The missile has a range of 290 km and a speed of up to 3.5 Mach.
- ❖ After Philippines, Indonesia will become the second foreign buyer of the missile systems.

Reimei computer

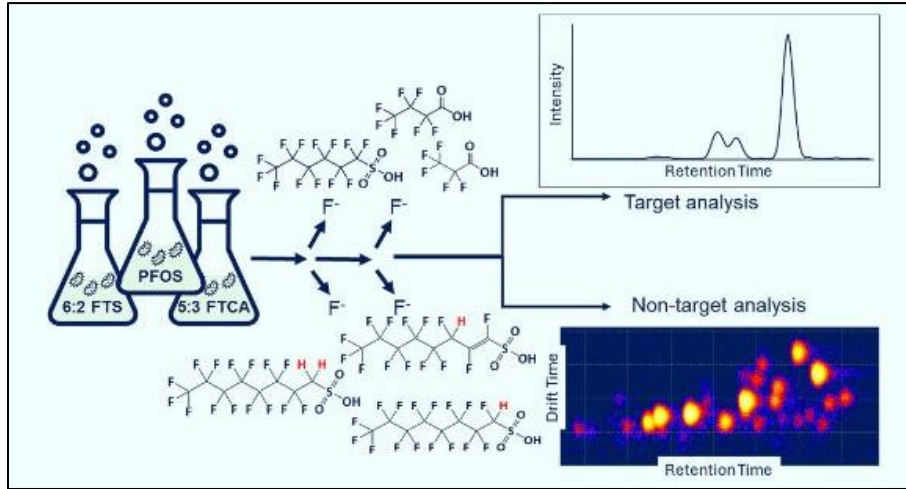


- ❖ The 20-qubit quantum computer, called Reimei, has been integrated into Japan's Fugaku.
- ❖ Fugaku is the world's sixth-fastest supercomputer.
- ❖ It is the first fully operational hybrid quantum supercomputer, combining the quantum and classical computing for advanced problem-solving.

F11 Bacteria

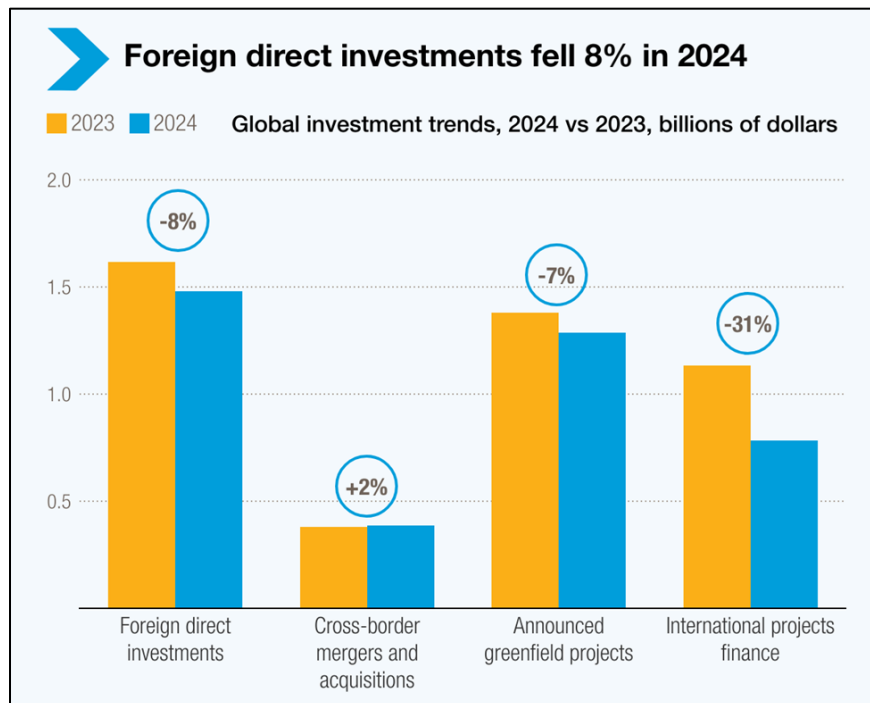
- ❖ A research team has discovered a strain of bacteria capable of breaking down and transforming at least three types of PFAS.
- ❖ Notably, this strain can also degrade some of toxic byproducts produced during the breakdown process.
- ❖ The bacterium *Labrys portucalensis* F11 (F11) metabolized more than 90% of perfluoro octane sulfonic acid (PFOS) over 100 days.
- ❖ PFOS is one of the most prevalent and persistent PFAS compounds, was classified as hazardous by the U.S. Environmental Protection Agency in 2022.

- ❖ F11 bacteria were originally isolated from the contaminated industrial soil in Portugal.



REPORTS AND INDICES

Global Investment Trends Monitor report 2024

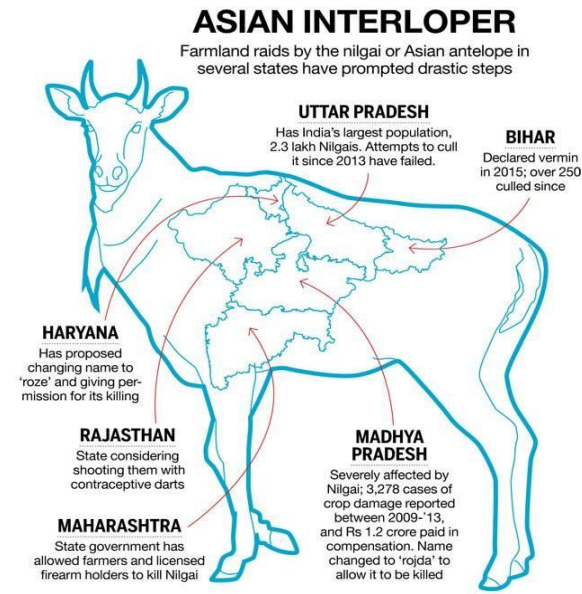


- ❖ The United Nations Conference on Trade and Development (UNCTAD) released its Global Investment Trends Monitor for 2024.
- ❖ The Global Foreign Direct Investment (FDI) flows are increased by 11% reaching about USD 1.4 trillion in 2024.

- ❖ However, when excluding flows through the European conduit economies, FDI was decreased by around 8%.
- ❖ FDI into developed economies was surged by 43%.
- ❖ FDI flows to developing economies declined by 2% in 2024, following a 6% drop in 2023.
- ❖ Greenfield investment announcements decreased by 6% in number.
- ❖ FDI in Africa was surged by 84% to the USD 94 billion, mainly driven by a large project in Egypt.
- ❖ FDI flows to the developing Asia was decreased by 7%, with China experiencing a 29% decline.
- ❖ ASEAN members saw a 2% increase and India saw a 13% rise.
- ❖ India experienced growth in greenfield projects.
- ❖ The international project finance in India dropped by 23% in number and 33% in value.
- ❖ The Investments in sectors related to the SDGs, including infrastructure, agrifood systems, and water and sanitation, decreased by 11% in 2024.

STATES

Nilgai Shooting - Haryana

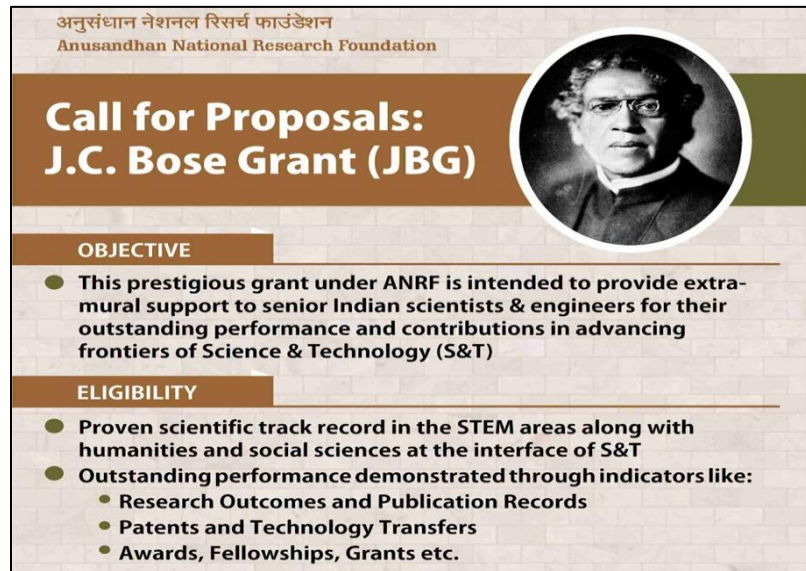


- ❖ The state Cabinet recently, allows the controlled culling of nilgais, a species often blamed for extensive damage to crops in rural areas.

- ❖ Despite their increasing numbers, nilgais remain an essential part of Haryana's biodiversity and food chain.
- ❖ The nilgai population has been a long-standing concern for Haryana's farmers.
- ❖ The alternative solutions offered are translocating nilgais to other habitats, and implementing fencing techniques like 'Chara Bandhi' and 'Samuhik Taarbandhi' to protect crops.
- ❖ On Nov 7, 1996, the government allowed culling of nilgai.
- ❖ For the last 28 years, permissions were given.
- ❖ From 1996 till now, negligible permissions were given for culling of nilgais across Haryana.
- ❖ Usually, people do not seek permissions because of religious beliefs.
- ❖ Bihar has classified Nilgais as vermin, allowing their legal hunting.

PERSONALITIES, AWARDS, AND EVENTS

The J. C. Bose Grant



अनुसंधान नेशनल रिसर्च फाउंडेशन
Anusandhan National Research Foundation

**Call for Proposals:
J.C. Bose Grant (JBG)**

OBJECTIVE

- This prestigious grant under ANRF is intended to provide extra-mural support to senior Indian scientists & engineers for their outstanding performance and contributions in advancing frontiers of Science & Technology (S&T)

ELIGIBILITY

- Proven scientific track record in the STEM areas along with humanities and social sciences at the interface of S&T
- Outstanding performance demonstrated through indicators like:
 - Research Outcomes and Publication Records
 - Patents and Technology Transfers
 - Awards, Fellowships, Grants etc.

- ❖ The Anusandhan National Research Foundation (ANRF) has announced the launch of the J. C. Bose Grant (JBG).
- ❖ This a new scheme, to recognize the outstanding performance and contributions of senior Indian scientists and engineers through this extra-mural funding opportunities.
- ❖ It aims to enhance their research in the cutting-edge scientific and technological areas.

- ❖ Participants must be active, senior Indian scientists or researchers with a proven track record of excellence.
- ❖ They must hold at least a professor-level position or equivalent at an Indian institution/university.
- ❖ This grant provides an annual research funding of Rs. 25 lakhs for a duration of five years.
- ❖ Additionally, an annual overhead amount of Rs. 1.0 lakh will be provided to the implementing institution.

Grammy Awards 2025

- ❖ Beyoncé, who led the nominations with 11 nods, set a new record as the most-nominated artist in Grammy history, surpassing her previous tie with Jay-Z.
- ❖ Her album Cowboy Carter won Best Country Album, making waves in the genre.
- ❖ The winners were announced across 94 categories.
- ❖ However, it was Kendrick Lamar who dominated the night with his hit Not Like Us, which won Record of the Year, Song of the Year, Best Rap Performance, Best Rap Song, and Best Music Video.
- ❖ Meanwhile, Charli XCX and Post Malone secured the eight nominations each and Billie Eilish received seven.



Commemorative Coin for Mohammed Rafi

- ❖ To mark the birth centenary of legendary playback singer late Mohammed Rafi, Government has decided to issue a commemorative coin with the denomination of ₹100.

- ❖ The inscription “Mohammed Rafi Ki Janam Shatabdi” shall be written in Deva Nagari script on the upper periphery.
- ❖ He was a legendary Indian playback singer who recorded more than 25,000 film songs in a career spanning almost 40 years.
- ❖ He was known for his versatility and vocal range.



SPORTS

9th Asian Winter Games 2025

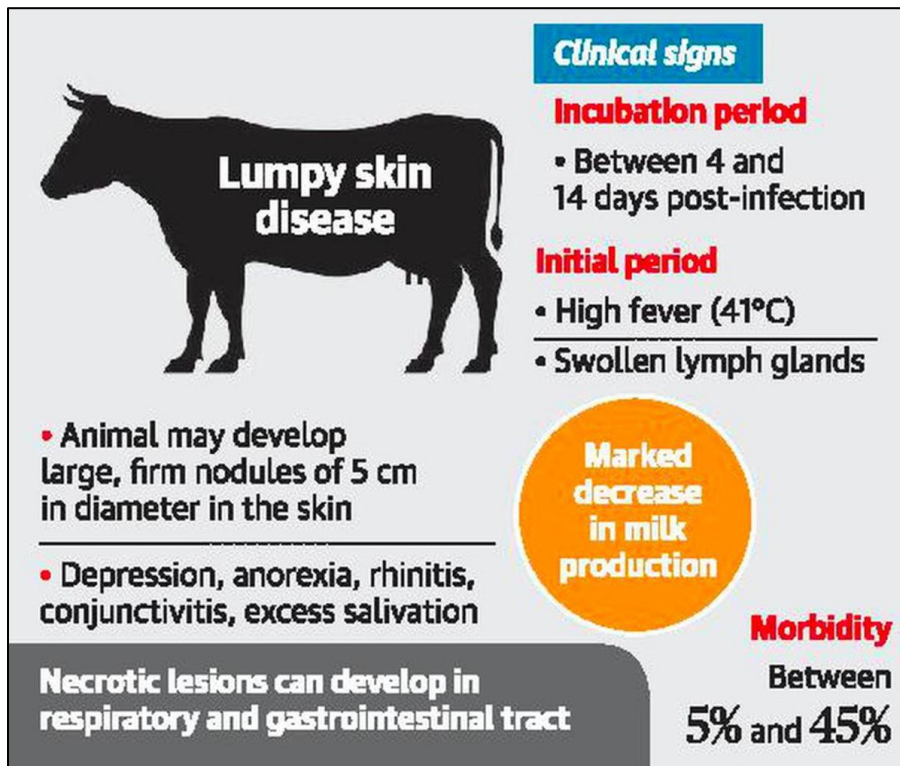
FINAL MEDAL TALLY					
Rank	Name of the NOC	🥇	🥈	🥉	Total
1	People's Republic of China	32	27	26	85
2	Republic of Korea	16	15	14	45
3	Japan	10	12	15	37
4	Kazakhstan	4	9	7	20
5	Philippines	1	0	0	1
5	Uzbekistan	1	0	0	1
7	DPR Korea	0	1	0	1
8	Chinese Taipei	0	0	1	1
8	Thailand	0	0	1	1

- ❖ The 9th Asian Winter Games were held in Harbin, China.

- ❖ The official mascots are “Binbin” and “Nini” (tigers), and the motto was “Dream of Winter, Love among Asia”.
- ❖ China topped the medal tally with 85 medals (32 Gold, 27 Silver, 26 Bronze).
- ❖ Republic of Korea finished second with 45 medals (16 Gold, 15 Silver, 14 Bronze).
- ❖ Japan secured third place with 37 medals.
- ❖ Kazakhstan and the Philippines completed the top five rankings.
- ❖ India sent its largest-ever contingent of 59 athletes but did not win any medals.

MISCELLANEOUS

Lumpy Skin Disease Vaccine – Biolumpivaxin



Lumpy skin disease

Clinical signs

- Incubation period**
 - Between 4 and 14 days post-infection
- Initial period**
 - High fever (41°C)
 - Swollen lymph glands

• Animal may develop large, firm nodules of 5 cm in diameter in the skin

• Depression, anorexia, rhinitis, conjunctivitis, excess salivation

Marked decrease in milk production

Morbidity
Between 5% and 45%

Necrotic lesions can develop in respiratory and gastrointestinal tract

- ❖ The Bharat Biotech group firm Biovet has received the Central Drug Standards Control Organization (CDSCO) licence for the lumpy skin disease (LSD) vaccine – BIOLUMPIVAXIN.
- ❖ It was developed in collaboration with the Indian Council of Agriculture Research (ICAR).
- ❖ It is used for dairy cattle and buffaloes Biolumpivaxin.
- ❖ This is the first Differentiation of Infected from Vaccinated Animals (DIVA) marker vaccine globally for LSD.

- ❖ Lumpy Skin Disease (LSD) was first detected in India in July 2019 in Odisha and later spread to 20 states by the end of 2020.
- ❖ The disease affects cattle and Asian water buffaloes.
- ❖ It is spread by insects and causes a significant loss of milk production.
- ❖ India is the world's largest milk producer, contributing over 22% of global milk production, followed by the EU-28 and the United States.

Ratnagiri Buddhist Excavations



- ❖ Archaeological Survey of India (ASI) has discovered significant Buddhist remains during renewed excavations at Ratnagiri site in Jajpur district, Odisha.
- ❖ They recently discovered three colossal Buddha heads, a giant palm, an ancient wall, and some inscriptions.
- ❖ ASI has now decided to take up fresh surveys at the Ratnagiri Buddhist heritage site more than 60 years after it was first excavated.
- ❖ Ratnagiri, literally “Hill of Jewels”, is located between two rivers, the Brahmani and its tributary Birupa.
- ❖ It is one of the three points of Odisha's famous Diamond Triangle along with Udayagiri and Lalitgiri.
- ❖ The earliest historical structures excavated at the Diamond Triangle sites date to the 5th century CE, during the reign of Narasimha Gupta Baladitya (c.495-530 CE).
- ❖ The Ratnagiri monastery is the only one of Buddhist monastery in India with a curvilinear roof.

- ❖ The first excavations were carried out between 1958 and 1961 by Debala Mitra, an archaeologist who eventually served as the ASI's first woman director general (1981-83).

Jurassic Fossil Discovery in China



- ❖ A short-tailed bird fossil, stated to be the oldest dating back about 150 million years, was discovered in east China.
- ❖ Its short tail ends in a compound bone called the pygostyle, a feature uniquely present in modern birds.
- ❖ This indicates that the body structure of the modern birds emerged in the Late Jurassic Period, 20 million years earlier than previously known.
- ❖ This suggests that birds might have originated earlier than previously thought.
- ❖ The emergence of the earliest birds could be traced back to an even earlier time, possibly 172 million to 164 million years ago.

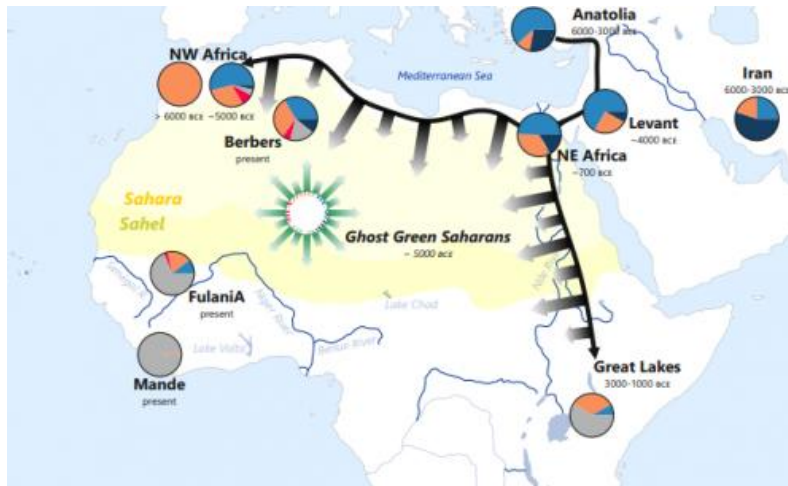
Starship Heatshield Tile

- ❖ During the meeting of the Indian Prime Minister with Elon Musk, Musk gifted a heatshield tile from his behemoth Starship spacecraft that went to space.
- ❖ The Starship's heatshield tiles are hexagonal ceramic tiles designed to protect the SpaceX's Starship during atmospheric re-entry.
- ❖ They are made of the silica-based ceramic, similar to the Space Shuttle's tiles but stronger and more heat-resistant.

- ❖ Unlike the Space Shuttle's square tiles, the hexagonal design eliminates straight-line gaps, reducing weak points for heat to penetrate.
- ❖ The tiles radiate heat away very efficiently, keeping the underlying spacecraft structure cool.



Fulani Community - 'Green Sahara' period



- ❖ The Fulani, one of Africa's largest pastoral populations, have a history going back to the 'Green Sahara' period (12,000–5,000 years before the present).



- ❖ The Fulani number 40 million people and are spread from the Atlantic coast of West Africa to Lake Chad in Central Africa.
- ❖ They are concentrated principally in Nigeria, Mali, Guinea, Senegal, and Niger but can also be found in several other countries.
- ❖ Fulani are divided into three groups: Makiyaya (herders), Fulanin Soro (those living in towns) and Bararo, which refer to Fulani living in forests.
- ❖ They mostly followed a nomadic lifestyle and use temporary camps or mobile tents, which do not leave traceable archaeological evidence.

