

## World Sparrow Day



- Every year March 20 is observed as World Sparrow Day to raise awareness about the bird.
  - The need for marking this day was felt due to the tremendous decrease in its population.
  - The house sparrow is on the verge of extinction.
  - The initiative was started by Nature Forever Society (NFS) of India, founded by Mohammed Dilawar, an Indian conservationist.
- He started his work helping the house sparrow in Nashik. He was also named one of the Heroes of the Environment for 2008 by Time magazine for his efforts.
  - The first World Sparrow Day was celebrated in 2010 in different parts of the world.
  - Increased use of pesticides, change in the pattern of buildings and gardens missing from the houses have become the main factors why the number of sparrows has declined sharply in the past few years. Also, the radiation from the mobile and the TV towers has also been a cause of death of sparrows.
  - Birds navigate by sensing the earth's magnetic fields and mobile radiations are known to disturb them and interfering with bird's ability to move around.

## Azadi Ka Amrut Mahotsav: Byculla Zoo undertakes conservation of Asian elephants & mass awareness about them through various programs



- Kick starting this unique initiative in Mumbai's Veermata Jijabai Bhonsale Udyan which is popularly known as the Byculla Zoo has undertaken conservation of Asian elephants and mass awareness about them through various programs and campaigns.
  - During the course various online competitions, programs, expert talks about Asian elephant, photography, T-shirt painting and live painting of elephant were organized in virtual mode.
- The campaign aims to generate awareness about the conservation of identified 75 wild animal species through continued public engagement for 75 weeks, culminating on 15th August.

- Series of events are lined up wherein one species will be celebrated each week showcasing its uniqueness along with information on its conservation status.

## Nicholson Cemetery



- Nicholson Cemetery's establishment is linked with the Indian Mutiny of 1857, which is considered the first war of Independence.
- The cemetery came up when the need for a burial place increased in Delhi, which was captured by rebel troops from Meerut and witnessed a series of battles over the summer of 1857.
- It was conquered again by the British in September 1857, as per INTACH.
- The cemetery is named after Brigadier-General John Nicholson, who was wounded during the storming of Kashmir Gate and died a few days later on September 23, 1857.
- His grave is near the entrance, protected by an iron grill and maintained by the Archaeological Survey of India (ASI)

## Deadly drug-resistant superbug found in the wild in Andamans



- AD deadly hospital pathogen, the Candida Auris, has for the first time been identified in the environment, off the coast of South Andaman district in the Andaman and Nicobar islands.
- This study was carried out by the Vallabhbhai Patel Chest Institute, Delhi in collaboration with the Department of Ocean Studies and Marine Biology, Pondicherry University.
- Candida Auris, or C.auris, is a multi drug resistant pathogen that presents "a serious global threat to human health," according to the US Centers for Disease Control and Prevention.
- First identified in 2009 in a patient in Japan, the fungus has now emerged in more than 40 countries across five continents in the last decade.
- Being an emerging pathogen, very little is known about the fungus so far
- The C. auris can be deadly for immune compromised patients.
- While incidence of patients dying from this fungal infection has been found to be higher in other countries, such as the US and the UK, its prevalence is less in Indian hospitals.
- But the research has found presence of the fungal infection in patients in ICUs across the country.

- The fungus is deadly when it enters the bloodstream, or inhabits the body of a patient suffering from a serious disease such as cancer

## Moscow summit



- Afghan govt, Taliban agree to accelerate peace talks following Moscow summit
- The Moscow Summit was a summit meeting between U.S. President Ronald Reagan and General Secretary of the Communist Party of the Soviet Union Mikhail Gorbachev.
- It was held on May 29, 1988 – June 3, 1988
- Reagan and Gorbachev finalized the Intermediate-Range Nuclear Forces Treaty (INF) after the U.S. Senate's ratification of the treaty in May 1988.
- Reagan and Gorbachev continued to discuss bilateral issues like Central America, Southern Africa, the Middle East and the pending withdrawal of Soviet troops from Afghanistan.
- Reagan and Gorbachev continued their discussions on human rights.
- The parties signed seven agreements on lesser issues such as student exchanges and fishing rights.
- A significant result was the updating of Soviet history books, which necessitated cancelling some history classes in Soviet secondary schools.
- In the end, Reagan expressed satisfaction with the summit

## DIATOM TEST

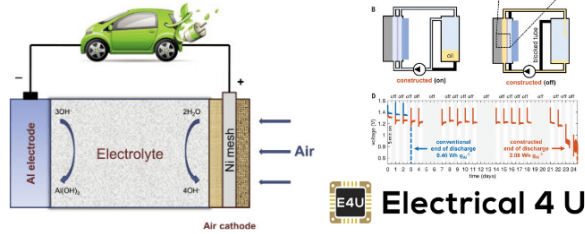


- Diagnosis of death by drowning is deemed as a difficult task in forensic pathology.
- A number of tests have been developed to confirm the cause of such deaths with the diatom test emerging as one of the most important tests.
- The test entails findings if there are diatoms in the body being tested.
- Diatoms are photosynthesizing algae which are found in almost every aquatic environment including fresh and marine waters, soils, in fact, almost anywhere moist.
- A body recovered from a water body does not necessarily imply that the death was due to drowning.
- If the person is alive when he enters the water, the diatoms will enter the lungs when the person inhales water while drowning.
- These diatoms then get carried to various parts of the body, including the brain, kidneys, lungs and bone marrow by blood circulation.

- If a person is dead when is thrown in the water, then there is no circulation and there is no transport of diatom cells to various organs.

## aluminium-air battery

### What is an Aluminum Air Battery?



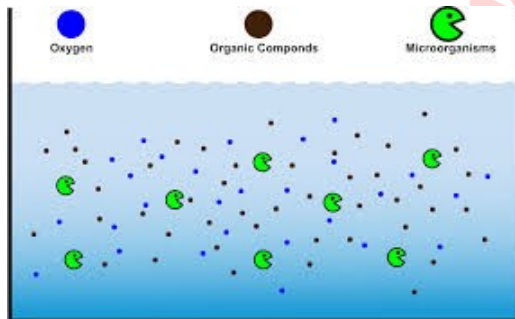
- Aluminium-air batteries are set to be a lower cost and more energy-dense alternative to lithium ion (Li-ion) batteries that are currently in widespread use for EVs in India.
- Aluminium- air batteries utilise oxygen in the air which reacts with an aluminium hydroxide solution to oxidise the aluminium and produce electricity.

- A down side of aluminium-air batteries is that they cannot be recharged like Li-ion batteries.
- Therefore, large scale use of aluminium-air battery based vehicles would require wide availability of battery swapping stations.
- Aluminium-air battery-based EVs are, however, likely to offer much greater range of 400 km or more per battery, as against 150-200 km per full charge by Li-ion batteries.

Why is this technology important for India's EV push?

- Currently, India is largely dependent on import of Li-ion batteries from China for EVs. While some Indian companies have started manufacturing Li-ion batteries locally, metal- air battery solutions including aluminium-air batteries may be an alternative.

## Biochemical Oxygen Demand (BOD)



- BOD refers to the amount of oxygen consumed by bacteria and other microorganisms while they decompose organic matter under aerobic (oxygen is present) conditions at a specified temperature.
- In other words, BOD is the amount of dissolved oxygen used by microorganisms in the biological process of metabolizing organic matter in water
- The more organic matter there is (e.g., in sewage and polluted bodies of water), the greater the BOD; and the greater the BOD, the lower the amount of dissolved oxygen available for higher animals such as fishes.
- The BOD is therefore a reliable gauge of the organic pollution of a body of water.
- The BOD value is most commonly expressed in milligrams of oxygen consumed per litre of sample during 5 days of incubation at 20 °C and is often used as a surrogate of the degree of organic pollution of water.
- Its sources include leaves and woody debris, dead plants and animals, animal manure, effluents from pulp and paper mills, wastewater treatment plants, feedlots, and food-processing plants, failing septic systems, and urban stormwater runoff.

## Krishnadevaraya



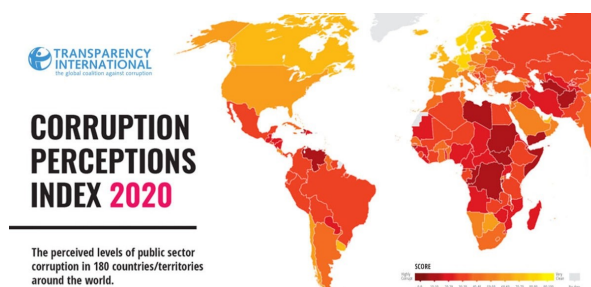
- In a landmark discovery in Indian history, the exact date of death of emperor Sri Krishnadevaraya of Vijayanagar empire is claimed to have been found on an inscription at Honnenhali village, Tumakur district in Karnataka.
- According to the inscription written in Kannada, Sri Krishnadevaraya, one of the most famous South Indian kings in history, died on October 17, 1529.
- The inscription was found engraved on a block of stone to the north side of Gopalakrishna Temple at Honnenahalli
- He is one of the greatest kings of Vijayanagara kingdom
- He consolidated and expanded the empire through astute use of his massive military, successfully campaigning against the kingdoms to his north.
- His titles: Rajya Rama Ramana, Moorurayaraganda (meaning “King of three kings”), Andhra Bhoja
- He was the ruler of Tuluva dynasty of Vijayanagara kingdom and son of Tuluva Narasa Nayaka, an army commander under Saluva Narasimha Deva Raya
- He was married to Srirangapatna’s princess Tirumala Devi and Coorg princess Chinna Devi.
- He was father to Tirumalumba (from Tirumala Devi), Vengalamba (from Chinna Devi) and Tirumala Raya (from Tirumala Devi).
- His daughters were married to Prince Aliya Rama Raya of Vijayanagara and his brother Prince Tirumala Deva Raya.
- He became the dominant ruler of the peninsula of India by defeating the Sultans of Bijapur, Golconda, the Bahmani Sultanate and the Gajapatis of Odisha, and was one of the most powerful Hindu rulers in India.
- Foreign travellers visit: Portuguese travellers Domingo Paes and Fernao Nuniz also visited the Vijayanagara Empire during his reign.
- The South Indian poet Muku Timmana praised him as the destroyer of the Turkics. He was assisted by the able prime minister Timmarasu, who was regarded by the emperor as a father figure and responsible for his coronation.
- The administration of the empire was carried along the lines indicated in his Amuktamalyada. He was of the opinion that the King should always rule with an eye towards Dharma

## Black-Necked Crane



- Recently, the rare Black-Necked Crane visited Assam for the first time
- It is a medium-sized crane in Asia that breeds on the Tibetan Plateau and remote parts of India and Bhutan
- Scientific name: *Grus nigricollis*
- Appearance: The upper long neck, head, primary and secondary flight feathers and tail are completely black and body plumage is pale gray/whitish.
- A conspicuous red crown adorns the head. The bill is greenish and the legs and feet are black.
- It is also found in China
- It is the state bird of union territory of Jammu and Kashmir
- The high altitude wetlands in the Tibetan plateau are the main breeding ground of the species.
- These birds winter at lower altitudes where they feed mainly on the leftovers in rice and potato fields.
- The black-necked crane summers mainly in the high altitude Tibetan Plateau.
- The breeding areas are alpine meadows, lakeside and riverine marshes and river valleys.
- Conservation:
  - IUCN: In 2020, a re-assessment of the crane's population led its status to change from Vulnerable to Near Threatened on the IUCN Red List.
  - Listed in Schedule I of Wildlife (Protection) Act 1972
  - These birds are legally protected in China, India and Bhutan
  - It is listed on Appendix I of CITES.

## Corruption Perceptions Index, 2020



- India's rank has slipped six places to 86th among 180 countries in Corruption Perception Index (CPI) released by Transparency International.
- Ranks 180 countries and territories by the perceived level of public sector corruption according to experts and business people.
- Scale of zero (highly corrupt) to 100 (very clean).

- CPI 2020 paints a grim picture of the state of corruption world wide.
- More than two-thirds of countries score below 50, with an average score of just 43.
- Corruption not only undermines the global health response to Cover-19 but contributes to a continuing crisis of democracy.
- Top Performers: Denmark and New Zealand, with scores of 88.
- Poor Performers: South Sudan and Somalia are the bottom Countries with scores of 12 each.
- India's Performance
- In 2020, India's score is 40 (41 in 2019).
- India experienced slow progress in anti-corruption efforts, with several government commitments to reform not yet materialising effectively.
- Transparency International is a global movement working in over 100 countries to end the injustice of corruption.
- Independent, non-governmental, not-for-profit and work with like-minded partners across the world to end the injustice of corruption.
- Focus on issues with the greatest impact on people's lives and hold the powerful to account for the common good.
- Through advocacy, campaigning and research, work to expose the systems and networks that enable corruption to thrive, demanding greater transparency and integrity in all areas of public life.
- Mission: Mission is to stop corruption and promote transparency, accountability and integrity at all levels and across all sectors of society.
- Vision: Vision is a world in which government, politics, business, civil society and the daily lives of people are free of corruption.

## Eastern Rajasthan Canal Project



- The Eastern Rajasthan Canal Project aims to harvest surplus water available during the rainy season in rivers in southern Rajasthan such as Chambal and its tributaries including Kunnu, Parvati, Kalisindh and use this water in south-eastern districts of the state where there is a scarcity of water for drinking and irrigation.
- According to the state Water Resources Department, Rajasthan, the largest state of India with a geographical area of 342.52 lakh hectares which amount to 10.4 per cent of the entire country, holds only 1.16 per cent of India's surface water and 1.72 per cent of groundwater.

- Among the state's water bodies, only the Chambal river basin has surplus water but this water cannot be tapped directly because the area around the Kota barrage is designated as a crocodile sanctuary.
- Through the help of diversion structures, intra-basin water transfers, linking channels and construction of pumping main feeder channels, the ERCP aims to create a network of water channels which will cover 23.67 per cent area of Rajasthan along with 41.13 per cent population of the state.
- According to the Rajasthan Water Resources Department, ERCP is estimated to create an additional command area of 2 lakh hectares and an area of 4.31 lakh hectare will get irrigation facilities because of this project.
- The ERCP also intends to improve the groundwater table in rural areas of the state, positively influencing the socio-economic conditions of people from these areas.
- It also adds special emphasis on the Delhi Mumbai Industrial Corridor (DMIC), hoping that sustainable water sources will enhance and help industries grow in these areas resulting in investment and revenue.
- There are multiple sub-projects under the ERCP with budgets allocated for each phase.