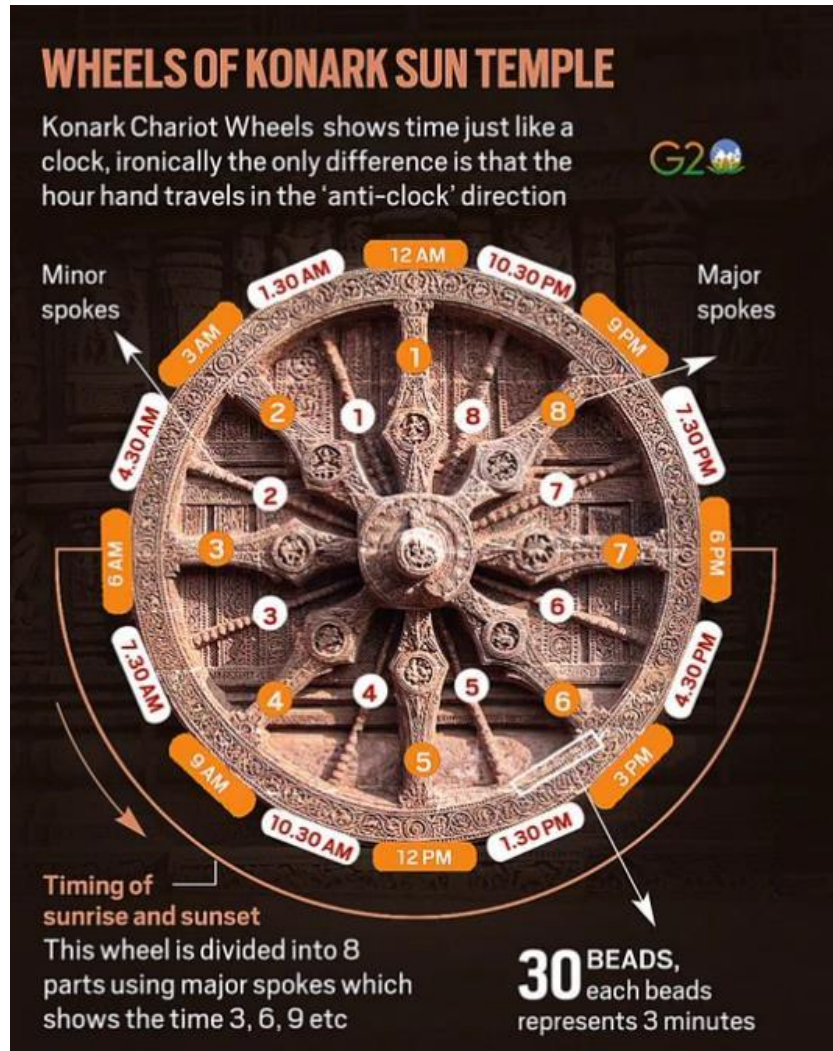# NATIONAL

Konark wheel in G20

❖ The iconic Konark Sun Temple wheel took centre stage at the G20 Summit in Delhi.

❖ The Konark Wheel was built during 13th century under the reign of King Narasimha deva-I of the Eastern Ganga Dynasty.

❖ The wheel of 24 spokes is also adapted into India's national flag

❖ It embodies India's ancient wisdom, advanced civilisation and agricultural excellence.

❖ The rotating movement of the Konark Wheel symbolises time as well as progress and continuous change.

❖ It serves as a symbol of the wheel of democracy that reflects the resilience of democratic ideals, and commitment to progress in society.
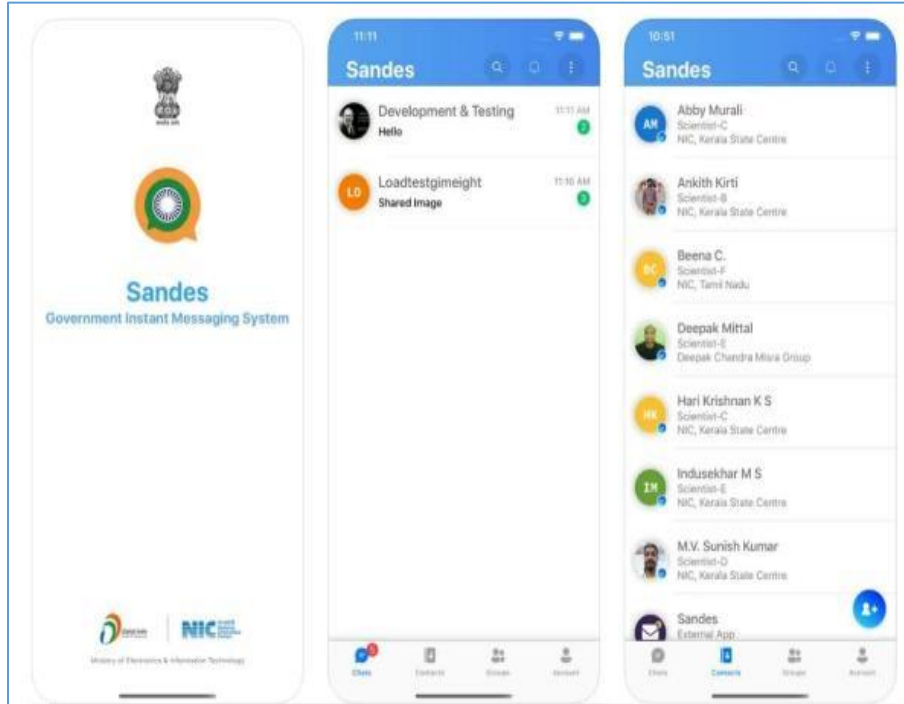
G20 India mobile app

❖ Indian government has released a G20 India mobile app for all visitors including ministers.

❖ This app offers complete information about the Summit in 10 languages including Hindi, German, Portuguese and Japanese.

❖ It will also offer a virtual tour of the venue that will be helpful for delegates, officials, media personnel and more.

Sandes app

❖ Delhi Police is using a Sandes app to communicate securely during G20 summit.

❖ It was Developed by the National Informatics Centre (NIC).

- This app is being used by inspectors and commissioners to share documents and other important texts.
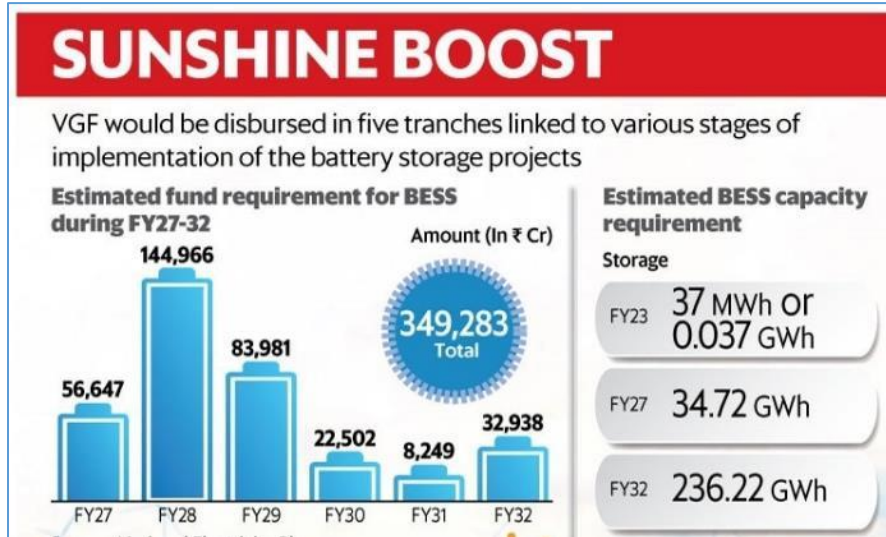- The app follows a secure internet protocol for docs and can only be viewed on the app.

Central Empowered Committee

- The central government notified the formation of a "permanent" Central Empowered Committee (CEC) in response to the Supreme Court order.
- The committee on environment issues, which has been ad hoc so far, will now be recognised as a permanent statutory body.
- The Central Empowered Committee (CEC) was initially established by the apex court in 2002.
- It was directed to be constituted at national level for monitoring the apex court orders pertaining to forests and wildlife cases.

VGF Scheme for BESS

- The Union Cabinet approved a ₹3,760 crore viability gap fund (VGF) for battery energy storage systems (BESS).
- This grant is aimed at enhancing the viability of infrastructure projects.

❖ Under the scheme, the government will provide financial support of up to 40% of the capital cost of BESS projects totalling 4,000 megawatt-hours (MWh) till FY31.

SUNSHINE BOOST

VGF would be disbursed in five tranches linked to various stages of implementation of the battery storage projects

Estimated fund requirement for BESS during FY27-32

Amount (In ₹ Cr)

349,283 Total

FY27 — 56,647
FY28 — 144,966
FY29 — 83,981
FY30 — 22,502
FY31 — 8,249
FY32 — 32,938

Estimated BESS capacity requirement

Storage

FY23 — 37 MWh or 0.037 GWh
FY27 — 34.72 GWh
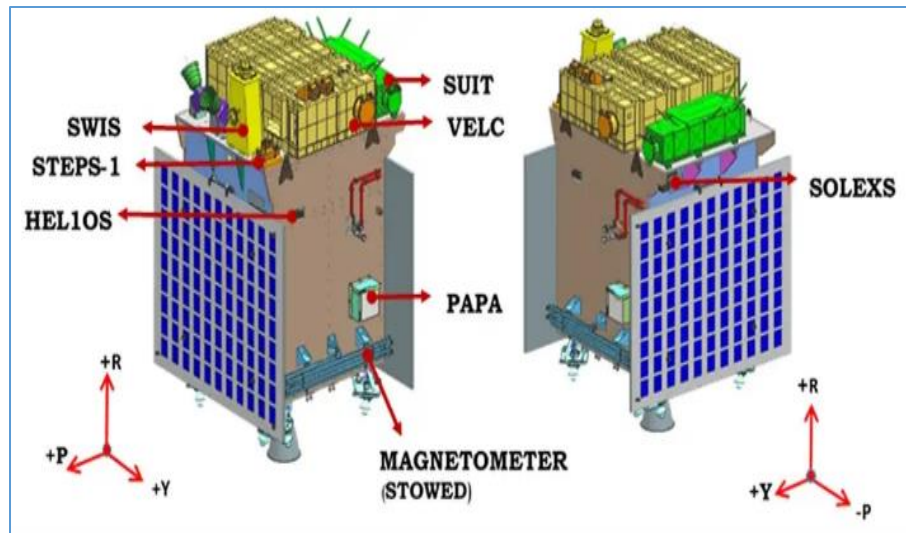FY32 — 236.22 GWh

INTERNATIONAL

India and US talks 2023

❖ The Indian Prime Minister engaged in bilateral talks with US President Joe Biden in New Delhi.

❖ India welcomes the US President to the next Quad Leaders' Summit to be hosted by India in 2024.

❖ Both countries have agreed to set up a Renewable Infrastructure Investment Fund with up $1 billion worth of investments ($500 million each).

- ❖ Both announced the settlement of their World Trade Organisation (WTO) poultry dispute.

- ❖ New Delhi has agreed to reduce tariffs on a range of American products.

- ❖ These include the following: frozen turkey, frozen duck and fresh, frozen, dried and processed blueberries and cranberries.

SCIENCE AND TECHNOLOGY

Visible Line Emission Coronagraph (VELC)

- ❖ It is the largest payload which attached with the Aditya-L1 mission.

- ❖ VELC's mission aim to provide a wealth of solar images daily, contributing to the understanding of the Sun's corona and its behavior.

- ❖ VELC's imaging channel will provide one image per minute, totalling around 1,440 images over 24 hours.
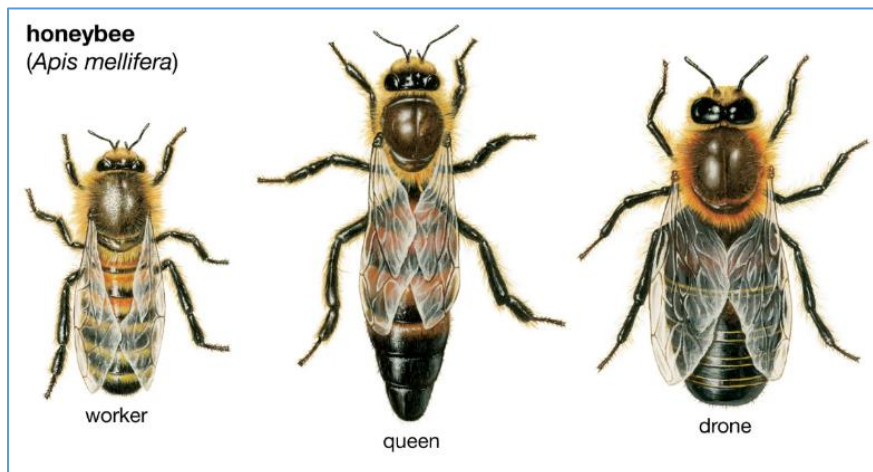
XRISM Mission

- ❖ Japan has launched H-IIA rocket which carried the XRISM (X-Ray Imaging and Spectroscopy Mission) into space.

- ❖ It is a collaboration between NASA and JAXA (Japan Aerospace Exploration Agency).

- ❖ The XRISM mission has two instruments—Resolve and Xtend.

- ❖ Resolve instrument can measure each individual X-ray's energy to provide information about the source including composition, motion and physical state.

❖ Xtend observes an area that corresponds to 60 per cent larger than the average apparent size of the full moon.

ENVIRONMENT

Apis Mellifera

❖ European honeybees (Apis mellifera) can serve as effective biomonitoring agents.

❖ They help to detecting the spread of antimicrobial resistance (AMR) in urban neighbourhoods.

❖ Honeybees can carry genetic elements associated with key AMR drivers in their digestive tracts.

❖ AMR is the ability of bacteria and other microbes to resist the drugs used to inhibit or kill them.

❖ The dangerous rise of AMR could lead to up to 10 million deaths annually by 2050.

Mega congregation of firefly species

❖ Mega congregation of the insects and their synchronised bioluminescence is observed during summer every year in the Anamalai Tiger Reserve, Tamil Nadu.

❖ The researchers recorded the flashing patterns of fireflies (whether ascending or descending) in individual trees and the timing of flashing events.

❖ They analysed their synchronisation phenomenon.

❖ They also observed mating behaviours such as rapid pulsations and the duration of flashing sequences.

❖ Three species of fireflies — Asymmetrica humeralis, Abscondita genus (species unknown) and Curtos sp — were identified from the ATR.

STATES

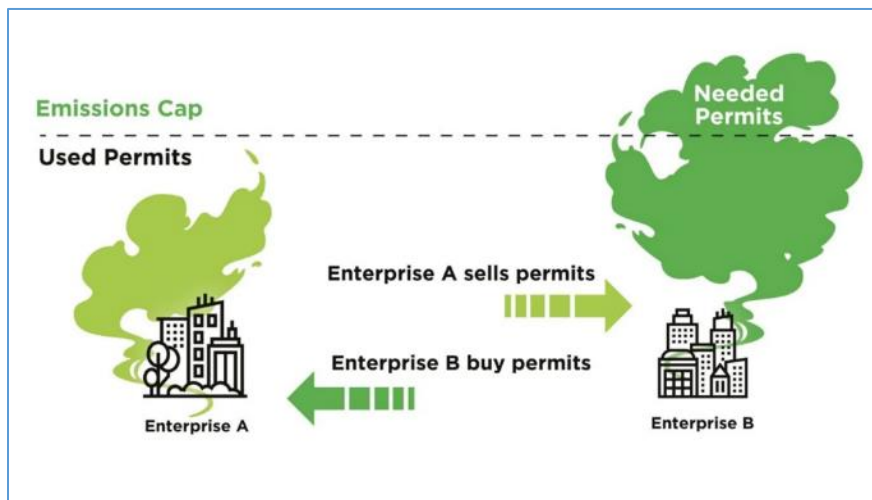## 500 KVA underground power transformation station

❖ The first underground transformer in the country was inaugurated at Malleswaram, Bengaluru.

❖ The transformer is expected to bring down the impact due to accidents and reduce losses during transmission.

❖ Further, it will also help clear the footpaths and make it safe for pedestrian movements.

Emissions Trading Scheme

❖ Ahmedabad has become the second city in the country to implement an emission trading scheme (ETS) for particulate pollution.

❖ It will help in regulating industrial emissions and reduce the state's pollution levels.

❖ The Live trading involving 118 industries within the scheme commenced on September 1.

❖ An ETS, or "cap-and-trade" system, caps the amount of pollution allowed from regulated industries and allots permits to plants.

❖ Under ETS, industries with low abatement costs can make larger reductions in emissions and thus profit by selling excess permits.

❖ Industries with high abatement costs can save money by buying permits instead of installing expensive equipment.

❖ The scheme was first introduced in 350 highly polluting solid fuel burning industries in Surat in August 2019.

❖ The "cap-and-trade" system, similar to ETS, was introduced by the United States in the 1980s.

❖ It aims to reduce emissions of pollutants like sulphur dioxide and nitrogen oxides (NOx).

IMPORTANT DAYS

National Forest Martyrs Day 2023 - September 11

❖ It primarily serves as a tribute to all environmental activists and individuals who have sacrificed their lives to protect forests and wildlife.

❖ However, the day's history can be traced back to the Khejarli Massacre in 1730.

❖ In 1730, the historic Khejarli massacre occurred within the Marwar Kingdom.

❖ The Maharaja Abhai Singh of Rajasthan has ordered the cutting of trees in the Bishnoi village of Khejarli to obtain timber for a new palace.

❖ The Bishnoi community vehemently opposed this action and were willing to lay down their lives to protect the forest.

✮ ✮ ✮ ✮ ✮ ✮ ✮ ✮ ✮ ✮