

## **TIANHE MODULE**

**China launched the core module of its space station, kicking off a series of key launch missions that aim to complete the construction of the station by the end of next year.**

### **About:**

- The Long March-5B Y2 rocket, carrying the Tianhe module, blasted off from the Wenchang Spacecraft Launch Site on the coast of the southern island province of Hainan.
- The Tianhe module will act as the management and control hub of the space station Tiangong, meaning Heavenly Palace, with a node that could dock with up to three spacecraft at a time for short stays, or two for long
- Tianhe has a total length of 16.6 meters, a maximum diameter of 4.2 meters and a take-off mass of 22.5 tonnes, and is the largest spacecraft developed by China.
- The space station will be a T shape with the core module at the centre and a lab capsule on each side.
- The station will operate in the low-Earth orbit at an altitude from 340 km to 450 km. It has a designed lifespan of 10 years, but experts believe it could last more than 15 years with appropriate maintenance and repairs.

### **Important Info :**

- The Chinese space station is expected to be a competitor to the aging International Space Station (ISS) which is a modular space station in low Earth orbit.
- It is a multinational collaborative project involving five participating space agencies which included NASA, (US), Roscomos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada).

## **NEW SEBI RULE FOR FUND MANAGER COMPENSATION**

**The Securities and Exchange Board of India (SEBI) has said that a minimum 20% of the compensation of mutual fund managers and other key personnel in an asset management company (AMC) should be in the form of units of the mutual fund schemes they manage.**

### **About:**

- Key personnel here refers to the likes of chief executive officer, chief investment officer, research head and their direct reportees.
- The compensation of fund managers — at least the variable pay component — is linked to performance. What SEBI has done here is crystallise the rules and extend it beyond fund managers to so-called key employees. Moreover, SEBI has specified the rules of allocation of this 20% by saying that it should be proportional to the assets under management of the schemes in which an employee has a role or oversight.
- The regulator has also specified that these units offered by way of compensation are locked-in for three years.

## **AUTONOMOUS VEHICLES**

**The UK has become the first country to announce regulation of the use of self-driving vehicles at slow speeds on motorways.**

**About:**

- Britain's transport ministry said that it was working on specific wording to update the country's highway code for the safe use of self-driving vehicle systems.
- The ministry will start with Automated Lane Keeping Systems (ALKS) - which use sensors and software to keep cars within a lane, allowing them to accelerate and brake without driver input.
- The use of ALKS would be restricted to motorways, at speeds under 60 km per hour.
- The UK government wants to be at the forefront of rolling out autonomous driving technology and the transport ministry forecasts by 2035 around 40% of new UK cars could have self-driving capabilities, creating up to 38,000 new skilled jobs.
- However, the dangers of drivers apparently misunderstanding the limits of technology has been an issue in the United States, where regulators are reviewing about 20 crashes involving Tesla's driver assistance tools, such as its 'Autopilot' system.

**KAREN PEOPLE****Ethnic Karen guerrillas said they captured a Myanmar army base today near the border with Thailand.****About:**

- The KNU, which controls territory in eastern Myanmar near the Thai border, is a close ally of the resistance movement against the military takeover that ousted the elected government of Aung San Suu Kyi. Its armed wing is called the Karen National Liberation Army.
- There is a similar situation in northern Myanmar, where the Kachin minority claims to have captured several government outposts and been the target of air attacks.
- The Karen and the Kachin are two of the bigger minority groups that have been seeking greater autonomy for decades, during which there have been periods of armed conflict punctuated by ceasefires.
- The Karen are an ethnolinguistic group of Sino-Tibetan language-speaking peoples. These Karen groups reside primarily in Kayah State, southern and southeastern Myanmar.

**GLOBAL IMMUNIZATION STRATEGY****WHO unveils global immunization strategy to save 50 million lives by 2030.****About:**

- A UN-led global immunization strategy was unveiled to reach more than 50 million children who have missed lifesaving jabs against measles and other diseases because of COVID-19 disruption.
- WHO, along with UNICEF and the vaccine alliance Gavi, said their new global strategy has the potential to save 50 million lives within less than a decade.
- WHO chief Tedros Adhanom Ghebreyesus said, to avoid multiple outbreaks of life-threatening diseases like measles, yellow fever and diphtheria, it must be ensured that routine vaccination services are protected in every country in the world.

- A WHO survey showed more than one third of countries were still seeing disruptions to their routine immunisation services.
- The joint statement said, around 60 mass vaccination campaigns were currently postponed in 50 countries, putting 228 million people, mostly children, at risk of diseases such as measles and polio.

### **NET ZERO PRODUCERS FORUM**

**Saudi Arabia will join the United States, Canada, Norway, and Qatar in forming 'Net Zero Producers Forum' for oil and gas producers to discuss how they can support the implementation of the Paris Agreement on climate change.**

#### **About:**

- Saudi Arabia, the world's biggest crude exporter, will be part of the new platform, which will discuss ways to achieve net zero carbon emission targets to limit global warming.
- In the past, Saudi Arabia's Crown Prince Mohammed bin Salman has said the kingdom aims to reduce its carbon emissions by generating 50% of the country's energy from renewables by 2030.
- US President Joe Biden unveiled plans to cut emissions by 50%-52% from 2005 levels at the two-day climate summit kicked off on Earth Day and attended virtually by leaders of 40 countries.

### **MACS 1407**

**Indian Scientists have developed a high-yielding and pest-resistant variety of soybean.**

#### **About:**

- This newly developed variety called MACS 1407 is suitable for cultivation in the states of Assam, West Bengal, Jharkhand, Chhattisgarh and North-Eastern states and its seeds will be made available to farmers for sowing during the 2022 Kharif season.
- In 2019, India produced around 90 million tons of soybean, widely cultivated as oil seeds as well as a cheap source of protein for animal feed and many packaged meals and is striving to be among the world's major producers of soybean.
- High-yielding, disease resistant varieties of the legume can help achieve this target.
- Scientists from MACS- Agharkar Research Institute (ARI), Pune, an autonomous institute of the Department of Science & Technology, Government of India in collaboration with Indian Council of Agricultural Research (ICAR), New Delhi have developed this variety.

### **FIRST-EVER ELECTRIC TRACTOR**

**Central Farm Machinery Training & Testing Institute, Budni (Madhya Pradesh) has tested the first-ever electric Tractor in the Institute.**

#### **About:**

- The institute received the application for an electric tractor under Confidential Test initially.

- Accordingly, the institute has tested the tractor & released the Draft Test Report in February, 2021.
- Central farm Machinery Training & Testing Institute, Budni (MP) has obtained the NABL Certificate of Accreditation for CMVR Test Laboratory on 30th March, 2021.
- Electric tractor will be more environment friendly than other types of tractors.

## **WORLD'S OLDEST WATER**

### **World's Oldest Water Found in Canada Sheds Light on the Beginning of Life.**

#### **About:**

- A 2016 study by Canadian geologists is eliciting significant interest, for the clues it offers in the search for alien life, especially on Mars.
- The research is based on a discovery made by Dr Barbara Sherwood Lollar of the University of Toronto, who in 2009 extracted from a Canadian mine water that is 1.6 billion years old– the oldest to be found on our planet.
- The discovery of the water 2.4 km below the Earth's surface has since been heralded as one of great importance, given its ramifications on what we know about the origin and evolution of our planet, the nature of water and life, as well as the possibility of finding life on Mars.
- Sherwood Lollar had been carrying out research at the Kidd Creek mine, located on the 2.7 billion-year-old Canadian Shield, one of the world's largest continental shields – meaning the oldest and least tectonically active parts of the Earth's crust.
- Researchers then conducted studies on the sample, finally settling at the 1.6 billion years figure.
- Investigations into the highly saline water led to a pathbreaking discovery: scientists found that chemolithotrophic microbes– bacteria that can thrive in the most extreme surroundings– had been able to survive in the subterranean liquid.
- The Canadian Shield, on which the Kidd mine is located, in the past used to form an ocean floor, as per the report. Over millions of years of flux, however, its horizontal seabed became vertical, now preserved in the mine's rock walls from which the water sample was extracted.

## **AYUSH 64**

### **Ayush Ministry has said that scientists have found that AYUSH 64 is useful in the treatment of asymptomatic, mild and moderate COVID-19 infection as an adjunct to standard care.**

#### **About:**

- AYUSH 64 is a poly herbal formulation developed by the Central Council for Research in Ayurvedic Sciences.
- Initially the drug was developed for Malaria in the year 1980 and now is repurposed for COVID-19.