

---

## **1. Long March 5B' Rocket**

### **Context:**

- The China has recently launched the Long March 5B' rocket and prototype spacecraft.
- It is being considered as China's successful step to operate a permanent space station and send astronauts to the Moon.

### **About Long March 5B' Rocket:**

- It was launched from the Wenchang launch site in the southern island of Hainan, which weighs 849 tonnes.
- The Unmanned Prototype Spaceship is expected to transport astronauts to a space station that China plans to complete by 2022 — and eventually to the Moon. It will have capacity for a crew of six. China plans to send an astronaut to the Moon in about a decade and then build a base there. The United States is so far the only country to have successfully sent humans to the Moon.

### **About International Space Station (ISS):**

- It is a habitable artificial satellite - the Single Largest Man-made structure in low earth orbit. Its first component was launched into orbit in 1998.
- It circles the Earth in roughly 92 minutes and completes 15.5 orbits per day.
- It is a joint project between five participating space agencies: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada) but its ownership and use has been established by intergovernmental treaties and agreements.
- It serves as a microgravity and space environment research laboratory in which crew members conduct experiments in biology, human biology, physics, astronomy, meteorology, and other fields. It has resulted in the longest continuous human presence in the low earth orbit. It is expected to operate until 2030.

## **2. Pulitzer Prize**

### **Why in News?**

- Recently, the 2020 Pulitzer Prize for featured photography is won by five Indian photojournalists.

### **About Pulitzer Prize:**

- It is awarded for outstanding public service and achievement in American journalism, letters, and music.

- It is awarded in the name of Joseph Pulitzer, a newspaper publisher who gave money in his will to Columbia University to launch a journalism school and establish the Prize.
- It was established in 1917 and is administered by Columbia University and Pulitzer Prize Board.
- Each winner receives a certificate and a US\$15,000 cash award. The winner in the public service category is Awarded a Gold Medal.

### **3. Operation Samudra Setu**

#### **Why in News?**

- Indian Navy has launched Operation “Samudra Setu” - meaning “Sea Bridge”, as a part of National Effort to repatriate Indian citizens from overseas.

#### **Highlights:**

- This operation is being progressed in close coordination with Ministries of Defence, External Affairs, Home Affairs, Health and various other agencies of the Government of India and State governments.
- Indian Naval Ships Jalashwa and Magar are presently enroute to the port of Male, Republic of Maldives to commence evacuation operations.
- In view of the unique challenges associated with COVID-19 stringent protocols have also been stipulated.
- The evacuated personnel will be disembarked at Kochi, Kerala and entrusted to the care of State authorities.
- The Indian Mission in Republic of Maldives is preparing a list of Indian nationals to be evacuated by Naval ships and will facilitate their embarkation after requisite medical screening.
- The Government has been closely monitoring the situation with respect to the effect of COVID-19 pandemic on Indian citizens abroad. The Indian Navy has been directed to make suitable preparations for their evacuation by sea.

---

## **4. China to Send Astronauts to Moon**

### **Why in News?**

- In a major development, China has launched a new rocket and a prototype deep-space spacecraft.
- The state media reported the launch successful which paves the way for the country's ambitions to operate a permanent space station and sending astronauts to Moon.

### **Highlights:**

- As per Xinhua, a Long March 5B rocket took off from the Wenchang launch site on the southern island of Hainan.
- The rocket is a massive vehicle with four strap-on boosters that provide extra thrust at liftoff.
- Aboard the Long March 5 was a special prototype spacecraft that is somewhat akin to the deep-space Orion capsule NASA has been developing to people to the Moon and beyond. Eight minutes after the launch, the unmanned prototype spacecraft separated successfully and entered its planned orbit.
- A test version of a cargo return capsule also separated from the rocket successfully. China hopes the craft will transport astronauts to a space station by 2022— and eventually to the Moon.
- The United States is so far the only country to have sent humans to the Moon but so far, China has also not only successfully sent satellites into orbit and astronauts into space but also landed a rover to the far side of the Moon last year.
- The successful maiden flight of the 849 tonnes and 54-metre Long March 5B should pave way for its future plans.
- The next big mission for China is to land a probe on Mars that is expected to liftoff this year.
- China space exploration plans include sending an astronaut to the Moon in about a decade and build a base on the lunar surface. Meanwhile, its lunar rover on the far side has driven about 450 metres so far.

---

## **5. NSafe Mask**

### **Why in News?**

- An IIT-Delhi start-up named 'Nanosafe Solutions' has launched an antimicrobial and washable face mask called 'NSafe'.

### **What is NSafe Mask?**

- NSafe mask is reusable up to 50 wash, thus Greatly Cutting down the cost of use.
- It is a triple-layered product consisting of Inner Hydrophilic Layer for comfort, middle layer having antimicrobial activity and outer most layer having water and oil repellent behaviour.
- It will also provide a solution to disposal issues of Single use Masks.
- The mask has 99.2% bacterial filtration efficiency along with Breathability and Splash Resistance

