SpaceX-NASA Dragon Demo-2 launch

Why in news?

- SpaceX's Falcon 9 rocket and Crew Dragon spacecraft, carrying two NASA astronauts, successfully blasted off from the Kennedy Space Center in Florida.
- Elon Musk's SpaceX has thus become the first private company to launch human beings into orbit.

What are the component parts?

- SpaceX is a company founded by billionaire entrepreneur Elon Musk.
- Elon Musk also heads Tesla Motors that produces new-age automobiles.
- The rocket, named Falcon 9, which carried the spaceship into the orbit, was built by SpaceX.
- Crew Dragon Capsule is the spaceship that carries the astronauts.
- The Florida launch facility used for the flight still belonged to NASA.



What is the mission plan?

- Veteran NASA astronauts Robert Behnken and Douglas Hurley flew onboard the spaceship named Crew Dragon.
- They have embarked on a 19-hour voyage to the orbiting International Space Station (ISS).
- [ISS is the world's only space-based laboratory. It is located about 400 km from the earth.]
- Crew Dragon Capsule will dock automatically into the docking port Harmony, with the help of sensors and cameras.
- They will perform tests on the Crew Dragon and conduct research.
- At ISS, they will spend 4 months before returning home.
- On atmospheric re-entry, the Crew Dragon capsule will splashdown in the Atlantic Ocean and will be recovered by the Go Navigator Recovery Vessel.
- The mission was called Demo-2, in keeping with the fact that it was still only a 'test flight.'
- If successful, this would lead to more missions in the coming years.

Why is the mission so special?

- For NASA, it was the first flight of its astronauts on an American spaceship, launched on American soil, since the STS-135 mission in 2011.
- Following the 2011 mission, all astronauts were flown to the ISS in Russia's Soyuz Capsule.
- With the launch of SpaceX's Crew Dragon space craft, NASA is heralding a new chapter in space exploration.
- It sets the precedence for private participation in space operations.
- There was an opinion that the government monopoly in space exploration was not sustainable.
- Inviting private players is expected to exponentially bring down the cost of space travel.
- SpaceX flight is a culmination of more than decade-long efforts to enable private players build and operate spaceflights.
- It will also allow NASA to concentrate on deep space exploration.
- NASA could now work more vigorously towards taking humans to moon, and Mars, and, possibly, on some asteroid, in between.

Source: Indian Express

SHANKAR IAS PARLIAMENT
Information is Empowering