# Prelim Bits 09-05-2019

## Double Asteroid Redirection Test

- DART is a planetary defence technique developed by NASA.
- Its objective is to save the planet from Asteroid collision by changing its motion in space.
- The spacecraft will cause deliberately crashing itself into the asteroid at a speed of approximately 6 km/s.
- The collision will change the speed of the asteroid in its orbit around the main body by a fraction of one percent, enough to be measured using telescopes on Earth.
- It targets binary near-Earth asteroid Didymos, which pose a hazard to earth.
- It is going to be launched SpaceX Falcon 9 rocket that will hit Didymos in September 2022.
- **Near -Earth Asteroid (NEA)** - An asteroid when its trajectory brings it within 1.3 Astronomical Units (AU) from the Sun and hence within 0.3 AU of the Earth's orbit.
- The largest known NEA is Ganymed. NEA’s are also known Potentially Hazardous Asteroid.

## Hubble Space Telescope

- The telescope has recently imaged a “stunning spiral galaxy” located about 30 million light-years away from the earth in the constellation of Leo.
- The spiral galaxy named as NGC 2903 is similar to our own Milky Way galaxy.
- Hubble is the world's first large, space-based optical telescope with Sun as its energy source.
- It is a joint project between NASA and the European Space Agency.
- Since, the telescope is in space, its vision is not blocked by Earth’s atmosphere.
- It uses a digital camera to takes pictures like a cell phone. Then it uses radio waves to send the pictures through the air back to the earth.
- It makes one orbit around Earth every 95 minutes and it can spot stars and galaxies lights years away from the earth.

## Basel Convention

- The 14th conference of parties of Basel convention was recently held in Geneva, Switzerland.
- It is held jointly and back-to-back with Rotterdam Convention COP 9 and Stockholm Convention on COP 9.
- **Basel Convention** - It will discuss the control of trans-boundary movements of hazardous wastes and their disposal.
- It covers wide range of wastes defined as "hazardous wastes" that are explosive, flammable, poisonous, infectious, corrosive, toxic or eco-toxic including household and incinerator ash.
- **Rotterdam Convention** – It will deliberate on the Prior Informed Consent (PIC) procedure for certain hazardous chemicals and pesticides in international trade.
- The PIC procedure is the mechanism for formally obtaining and disseminating the decisions of importing Parties for receiving the chemicals under the convention and ensuring compliance by the exporting countries.
- The inclusion of chemicals under this convention does not ban the chemical.
- However, importing countries need to follow the PIC procedure and it may lead to an increase in the trade cost, as well as delay the import/export process.
- **Stockholm Convention** – It will discuss on the control of Persistent Organic Pollutants (POPs) which are,

i. Remain intact in the environment for long periods (persistent),
ii. Become widely distributed geographically (long range transport),
iii. Accumulate in the fatty tissue of humans and wildlife (bioaccumulation),
iv. Have a harmful impact on human health, or on environment (toxic).

- Under the Convention, the chemicals can be listed for complete elimination from production, use, export and import (Annex-A), restriction in use and production for specific purpose only (Annex-B) or unintentional production (Annex-C).
- Listing of chemicals under Stockholm convention bans/restrict the chemicals for trade, import, export and use along with minimizes unintentional release of POPs.
- India has ratified all the three conventions and the meetings of the COPs of BRS Conventions are generally held every alternate year.

## Grizzled Giant Squirrel

- For the first time, researchers have sighted nests of the grizzled giant squirrel at Pakkamalai Reserve Forests near Gingee in the Eastern Ghats region of Tamil Nadu.
- The species is usually known to nest in the Western Ghats in Southern India

ranging from Chinnar Wildlife sanctuary in Kerala to Anamalai Tiger Reserve and Palani hills in Tamil Nadu.
- It is an endangered species listed under Schedule I of the Wildlife Protection Act, 1972.
- It has been categorised as near threatened by the Red List and listed under Schedule II of CITES.

## Charminar

- Charminar (Four Minarets) is a historic monument in Hyderabad.
- It was built by Mohammad Quli Qutb Shah, 5$^{th}$ king of the Qutb Shahi dynasty (Golconda Sultnates).
- He shifted the capital from Golconda to Hyderabad at the time of devastating plague.
- He commemorated the end of plague by building mosque, which became known as Charminar because of its four towering and distinctive minarets, one on each of the building's four corners.
- It is a grand architectural composition in Indo-Saracenic style.
- It is built of granite and lime mortar with stucco ornamentation.
- It has recently suffered damage after a piece of lime stucco work on one of its minarets fell off.

**Source: The Hindu, The Indian Express**

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