

### 1. M-SAND

**Context:** Tamil Nadu State Government has proposed to come up with a M-Sand policy

#### About M-Sand:

- ▶▶ Manufactured sand (M-Sand) is a **substitute of river sand for concrete construction.**
- ▶▶ Production: Manufactured sand is **produced from hard granite stone by crushing.**
- ▶▶ It is manufactured using technology like **High Carbon steel hit rock** and then **ROCK ON ROCK** process which is synonymous to that of natural process undergoing in river sand information.
- ▶▶ **Features:** The crushed sand is of cubical shape with grounded edges, washed and graded to as a construction material. The size of M-Sand is less than 4.75mm.
- ▶▶ **Why Manufactured Sand is Used?** Due to fast growing construction industry, the demand for sand has increased tremendously, causing deficiency of suitable river sand in most part of the world.
- ▶▶ Due to the depletion of good quality river sand for the use of construction, the use of manufactured sand has been increased. Another reason for use of M-Sand is its availability and transportation cost.

### 2. KONKAN-19

**Context:** The 14th Edition of Konkan series of annual bilateral exercises was recently held.

#### About Konkan Exercise:

- ▶▶ It is an annual bilateral exercise **between Indian Navy and Royal Navy of Britain.**
- ▶▶ It was recently held **off the South Coast of UK.**
- ▶▶ It aims to promote mutual understanding, provide exposure to operating procedures, communication measures and best practices.

### 3. GHARIALS

**Context:** More than 5,000 baby gharials (*Gavialis gangeticus*) were born in the latest hatching season (June-July, 2019) at the National Chambal Sanctuary on the tri-junction of Rajasthan, Madhya Pradesh and Uttar Pradesh.

## About Gharial:

- ▶▶ Gharials, sometimes called gavials, are a type of Asian Crocodylian distinguished by their long, thin snouts. Crocodylians are a group that includes crocodiles, alligators etc.,
- ▶▶ Once found from Pakistan to Myanmar (Burma), the reptiles, range has shrunk to two countries:
  1. India, along the Chambal, Girwa, and son Rivers;
  2. Nepal, along the Narayani River.

IUCN Red List	Critically Endangered
CITES	Appendix 1
Wildlife Protection Act 1972	Schedule 1

## 4. NEW EXOPLANET 'B Pictoris c'

**Context:** Astronomers at the Institute for Planetary sciences and Astrophysics, Grenoble (IPAG) have discovered a second giant planet—3,000 times more massive than Earth— in orbit around the star Beta Pictoris, located just over 63 light years away from Earth.

### About B Pictoris c:

- ▶▶ The new exoplanet 'B Pictoris c' **is nine times Jupiter's mass** and takes about 1,200 days to complete its orbit.
- ▶▶ Like its big sister B Pictoris B, discovered in 2009, it is a gassy giant.
- ▶▶ B Pictoris B spins at a breakneck speed of some 25 kilometres per second (90,000 kph).
- ▶▶ Located in the southern sky, **Beta Pictoris can be seen with naked eye** at latitudes between +26° and -90°, and is surrounded by a disk of stellar dust.
- ▶▶ It is relatively newborn—only 23 million years old.
- ▶▶ The Sun is more than 4.5 billion years old. Its name is Latin for painter, and is an abbreviation of the older name Equuleus Pictoris (the "painter's easel").

### About Beta Pictoris Planetary System:

- ▶▶ Beta Pictoris ( $\beta$  Pictoris or  $\beta$  Pic) is the second brightest star in the constellation Pictor.
- ▶▶ It is located 63.4 light years from the Solar System, and is 1.75 times as massive and 8.7 times as luminous as the Sun.
- ▶▶ The Beta Pictoris system is very young, only 20 to 26 million years old, although it is already in the main sequence stage of its evolution.
- ▶▶ Beta Pictoris is the title member of the Beta Pictoris moving group, an association of young stars which share the same motion through space and have the same age.