

## Prelim Bits 27-12-2019

### Solar Eclipse

- A solar eclipse is a phenomenon that occurs when the moon comes in the way of the sun's light.
  - The moon's shadow casts itself on Earth, blocking out the sun's light (as seen from Earth).
  - The moon's shadow has two parts: a central region (umbra) and an outer region (penumbra).
  - Depending upon which part of the shadow passes over the Earth, one of three types of solar eclipses could be observed:
1. **Total Solar Eclipse-** The entire central portion of the sun is blocked out by the moon.
  2. **Partial Solar Eclipse-** Only part of the sun's surface is blocked out.
  3. **Annular Solar Eclipse-** The sun is covered in such a way that only a small ring-like sliver of light is seen from the sun's disc. This ring is known as the ring of fire.
- An annular eclipse happens when the moon is farthest from Earth.
  - As the moon is farther away from Earth, it seems smaller and is unable to block the entire view of the sun, because of which the ring-like structure could be observed.

### Eclipse Magnitude

- Eclipse magnitude is the fraction of the Sun's diameter which is covered by the Moon.
- It is strictly a ratio of diameters and should not be confused with eclipse obscuration, which is a measure of the Sun's surface area covered by the Moon.
- Eclipse magnitude may be expressed as either a percentage or a decimal fraction (e.g., 50% or 0.50).
- By convention, its value is given at the instant of greatest eclipse.

### Saptamatrika Inscription

- The Archaeological Survey of India (ASI) has discovered the earliest Sanskrit inscription issued by Satavahana King Vijaya in 207 A.D. in South India.

- It is an earliest epigraphic evidence for the Saptamatrika cult.
- So far the Nagarjunakonda inscription of Ikshavaku king Ehavala Chantamula issued in the 4th century A.D. was considered the earliest Sanskrit inscription in South India.
- Saptamatrikas are a group of seven female deities worshipped in Hinduism as personifying the energy of their respective consorts.
- Another inscription in Prakrit language and of Brahmi characters belonging to the 1st century A.D. was also found.
- The found inscription records the construction of a Prasada (temple), a mandapa and consecration of images by a person named Kartika at the temple of Goddess Saptamatrika at Tambrape.
- Tambrape is the ancient name of Chebrolou, Andhra Pradesh.
- Earlier references to Saptamatrika worship have been found in the early Kadamba copper plates and the early Chalukyas and Eastern Chalukya copper plates dated around 600 A.D.
- All the available records proved that the found inscription (also known as Chebrolu inscription) is in Sanskrit and in Brahmi characters.

## Satavahanas

- In the Deccan, the Satavahanas established their independent rule after the decline of the Mauryas. Their rule lasted for about 450 years.
- They were also known as the Andhras.
- The Puranas and the Nasik and Nanaghad inscriptions remain important sources for the history of Satavahanas.
- The founder of the Satavahana dynasty was Simuka. The greatest ruler of the Satavahana dynasty was Gautamiputra Satakarni.
- There was remarkable progress in the fields of trade and industry during the Satavahana rule. The greatest port of the Satavahanas was Kalyani on the western Deccan and Gandakasela, Ganjam on the east coast were the other important seaports.
- The Satavahanas patronized Buddhism and Brahmanism. Brahmanism was revived by the Satavahanas along with the performance of asvamedha and rajasuya sacrifices.
- They also patronized the Prakrit language and literature.

**Source:** The Hindu