Rare Planetary Alignment

Why in News?

Five planets - **Mercury,** Venus**,** Mars**,** Jupiter**, and Uranus** will align in the sky which is often called a **planetary parade or alignment**, and will be visible to the naked eye.

What are the Major Points Related to Planetary Alignment?

- **About:**
  - The **best viewing time is on March 28th 2023,** shortly after the sun sets below **the horizon.**
  - **Venus will be the most visible planet**, followed by Mars with its special **orange hue.**
    - **Uranus will be near Venus** but difficult to detect without proper equipment, while **Mercury and Jupiter will appear at the bottom.**
  - The last time these five planets aligned was in **2004.** The alignment is often referred to as a **planetary parade** and can be seen in the nighttime sky.
- **Factors Affecting Observability:**
  - Experts have pointed out that the visibility of certain planets in the alignment depends on certain conditions, such as light pollution **and the location of the viewer.**
- **Recent Planetary Alignments:**
  - A similar alignment occurred in **June 2022,** where five planets - **Mercury, Venus, Mars, Jupiter, and Saturn** - aligned.
    - However, this lineup will not occur again until 2040.

What is Light Pollution?

- **About:**
  - Light pollution is the **excessive use of artificial light that brightens the night sky** and disrupts the natural darkness.
  - This affects the **observability of celestial bodies.**
- **Other Impacts:**
  - **Disrupts Wildlife and Ecosystems:** Artificial light can interfere with the natural behaviours and **migration patterns of animals, birds, and insects.**
  - **Health Problems:** Exposure to artificial light at night can disrupt the human **circadian rhythm, leading to sleep disorders,** fatigue, and other health problems.
  - **Economic Costs:** Light pollution wastes energy, leading to **higher electricity bills** and unnecessary carbon emissions.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. On 21st June, the Sun (2019)

(a) does not set below the horizon at the Arctic Circle

(b) does not set below the horizon at Antarctic Circle
(c) shines vertically overhead at noon on the Equator
(d) shines vertically overhead at the Tropic of Capricorn

Ans: (a)

Source: ET