



# 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 28<sup>th</sup> 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 21<sup>st</sup> 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**

PDF Refernece URL: <https://www.drishtias.com/printpdf/rare-planetary-alignment>

