

Super Blue Moon

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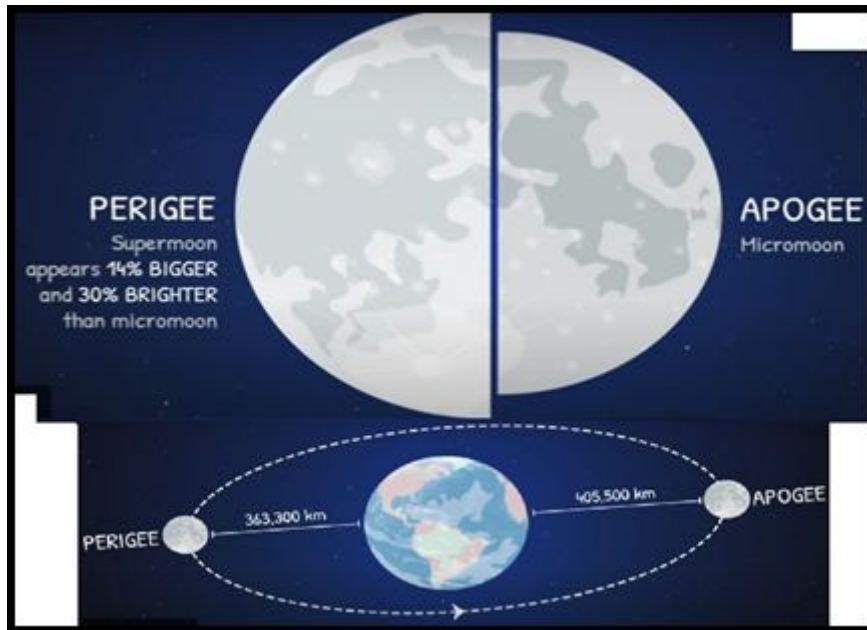
What's in today's article?

- Why in news?
- What is a super moon?
- What is a blue moon?
- How rare is a blue supermoon?

Why in news?

- The Raksha Bandhan full moon on August 30-31 will be unusual: it will be both a “blue moon” and a “super moon.”
 - Rakhi is celebrated on the Purnima of the month of Shravan.
- Hence, it will witness the occurrence of a “**Super Blue Moon**,” an extraordinary convergence of three celestial phenomena.

What is a super moon?



- The orbit of the moon around the earth is not circular; it is elliptical, that is, an elongated or stretched-out circle. It takes the moon 27.3 days to orbit the earth.
 - It is 29.5 days from **new moon to new moon**, though.
 - This is because while the moon is orbiting the earth, both the earth and the moon are also moving around the sun.
 - Hence, it takes additional time for the sun to light up the moon in the same way as it does at the beginning of every revolution around the earth.
 - The **new moon is the opposite of the full moon** — it is the darkest part of the moon's invisible phase, when its illuminated side is facing away from the earth.
- The point closest to earth in the moon's elliptical orbit is called perigee, and the point that is farthest is called apogee.
- A super moon happens when the **moon is passing through or is close to its perigee, and is also a full moon**. This happens with a new moon as well, just that it is not visible.
 - A full moon occurs when the moon is directly opposite the sun (as seen from earth), and therefore, has its entire day side lit up.
 - The full moon appears as a brilliant circle in the sky that rises around sunset and sets around sunrise.
 - According to NASA, a full moon at perigee (super moon) is about 14% bigger and 30% brighter than a full moon at apogee (called a "micro moon").

What is a blue moon?

- Blue moon describes the situation when a **full moon is seen twice in a single month**.
- Because the new moon to new moon cycle lasts 29.5 days, a time comes when the full moon occurs at the beginning of a month, and there are days left still for another full cycle to be completed.

- Such a month, in which the full moon is seen on the 1st or 2nd, will have a second full moon on the 30th or 31st.
- According to NASA, this happens every two or three years.
- It is important to note that the term Blue Moon has nothing to do with the actual colour of the moon.
- Moons can appear in various shades depending on atmospheric conditions, but a Blue Moon is not necessarily blue in colour.
 - Sometimes, smoke or dust in the air can scatter red wavelengths of light, as a result of which the moon may, in certain places, appear more blue than usual.
 - But this has nothing to do with the name “blue” moon.

How rare is a blue supermoon?

- According to NASA, the blue supermoons are a very rare phenomenon. It mentions that these moons often only appear once every ten years due to astronomical conditions.
- But occasionally, the interval between blue supermoons can be as long as twenty years.
- The following super blue moons will take place in pairs in 2037, in January and March.

Q1) What is apogee?

Apogee is a term used in astronomy and orbital mechanics to describe the point in an object's orbit around a celestial body, such as a planet or a moon, where it is farthest from that body. In simpler terms, it is the highest point or the farthest distance in an object's path from the celestial body it is orbiting.

Q2) What is Perigee?

Perigee is a term used in astronomy and orbital mechanics to describe the point in an object's orbit around a celestial body, such as a planet or a moon, where it is closest to that body. In simpler terms, it is the lowest point or the closest distance in an object's path to the celestial body it is orbiting.

Source: [Super Blue Moon of Raksha Bandhan: will it be blue in colour and super in size? | Hindustan Times](#)

Source: <https://vajiramandravi.com/current-affairs/super-blue-moon/>

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