

Q Distinguish Solar & lunar Eclipse

Ans Eclipse

"An eclipse is an astronomical event where one celestial body partially or totally covers another celestial object." This happens when the eclipsing body comes between the observer and the eclipsed object.

Lunar Eclipse

The moon is a cold, rocky body about 2,160 miles (3,476 km) in diameter,

It has no light of its own but shines by sunlight reflected from its surface. The Moon orbits Earth about once every 29 and half days. As it circles our planet, the changing position of the Moon with respect to the sun causes our natural satellite to cycle through a series of phases. An eclipse of the Moon (or lunar eclipse) can only occur at full moon, and only if the Moon passes through some portion of Earth's shadow. This shadow is actually composed of two cone-shaped components, one nested inside the other. The outer or penumbral shadow is a zone where the Earth blocks part but not all of the Sun's rays from reaching the Moon. In contrast, the inner or umbral shadow is a region where the Earth blocks all direct sunlight from reaching the Moon.

Types of lunar eclipses:

* Penumbral Lunar Eclipse

The Moon passes through Earth's penumbral shadow.

These events are of only academic interest because they are subtle and hard to observe.

* Partial Lunar Eclipse

A portion of the Moon passes through Earth's umbral shadow.

* Total Lunar Eclipse

The entire moon passes through

Discuss the differences in tabular form and add 5-7 points in difference: also draw the diagrams of both

Earth's orbital shadow

Solar Eclipse

It just happens that the Moon & the Sun appear the same size in the sky as viewed from the Earth.

Ans. since the Moon orbits the Earth

in approximately the same plane as the Earth's orbit around

the Sun sometimes the Moon comes directly between the Earth and the Sun. This is called a solar eclipse.

Types of Solar Eclipse

Partial Eclipse

If the alignment is slightly imperfect then the moon covers only part of the sun's disk and the event is called a partial eclipse.

Total Eclipse

When it lines up perfectly the entire solar disk is blocked & it is called a total eclipse of the

Sun.

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