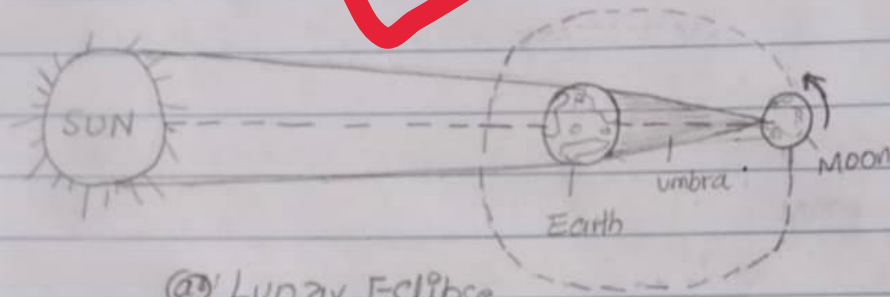


Q: Explain the formation of the Lunar Eclipse?  
**Formation of Lunar Eclipse:-**

The term "Eclipse" means the obscuring of one astronomical object by another. While Lunar eclipse; also known as eclipse of the moon, it happens when the earth comes in between the sun and the moon. As a result, earth blocks the sun's light from reaching the moon's surface and casts its shadow on the moon.



(a) Lunar Eclipse

**Types of Lunar Eclipse:-**

Depending on how the sun, the moon and the earth lineup, lunar eclipse can be categorized as:-

(i) **partial Lunar Eclipse:-**

When only a part of the moon moves into the shadow of the earth. It occurs due to imperfect alignment of the sun, earth and moon.

(ii) **complete Lunar Eclipse:-**

It happens when the moon passes between sun and earth completely blocking the face of sun.

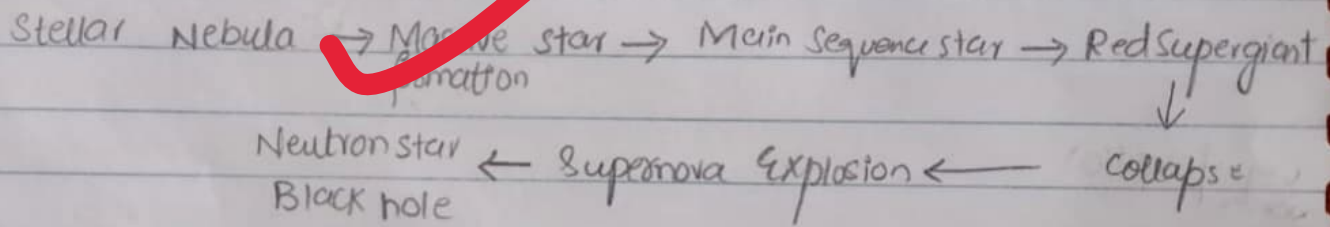
(iii) **penumbral lunar Eclipse:-**

It happens when the moon travels only through the outer, fainter part of earth's shadow.

Q2: Define the term Black hole. what's expected to be inside it?

### Black Hole:-

A black hole is a place where gravity pulls so much that even light cannot get out. The gravity and density inside the black hole are so strong that it attracts everything coming toward it. Hence, the black hole cannot be observed directly, it can be observed by its gravitational influence on nearby matter.



a. Formation of Black hole.

Example:-

Sagittarius A\* is a big black hole.

Add more details in this part