D. Answer the following questions in 10-20 words:

Q1. What are celestial bodies?

Answer: All the objects that we see in the sky are called celestial bodies or heavenly bodies. These celestial bodies include stars, planets, satellites, asteroids, meteoroids and comets. The celestial bodies that do not have their own light and heat are called planets. On the other hand, stars are the celestial bodies that are made up of gases and have their own heat and light, which they emit in large amounts.

Q2. To which galaxy does our solar system belongs?

Answer: The Milky Way is the galaxy that contains our solar system. It is also known as *Akash Ganga*. The word 'milky' signifies a bright band of light in the night sky where it is almost impossible to distinguish between stars. *Akash Ganga* can be seen as a faint band of light in a clear night sky.

Q3. Which are the two types of movement of the planets?

Answer: Planets have two types of movement: rotation and revolution.

1. Rotation is the movement caused when a planet rotates on its axis; for example, the Earth rotates from west to east on its axis.

2. Revolution is the movement when a planet revolves around the Sun in a fixed path. The path of revolution of each planet is either egg-shaped or elliptical; this path is known as an orbit.

Q4. What does the solar system consist of?

ANSWER: The solar system consists of the Sun, eight planets, satellites and other celestial bodies known as asteroids and meteoroids. We often call it a solar family, with the Sun as its head. All the planets and celestial bodies revolve around the Sun in their respective orbits and, in turn, get influenced by the gravitational pull and heat of the Sun.

Q5. Write the names of the eight planets in order of their distances from the sun.

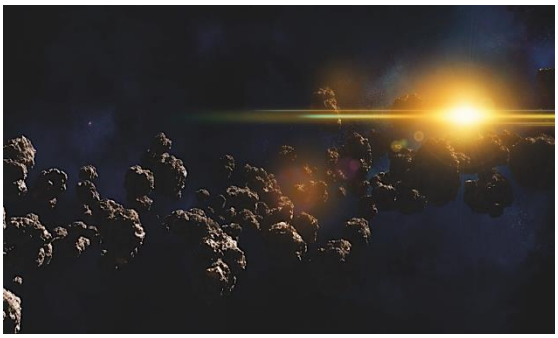
Answer:

Name	**Distance from the Sun (In Million Kilometres)**
Mercury	58
Venus	108

Earth	150
Mars	228
Jupiter	778
Saturn	1427
Uranus	2870
Neptune	4497

E. Answer the following questions in 50-70 words:

Q1. What are asteroids?
Answer:



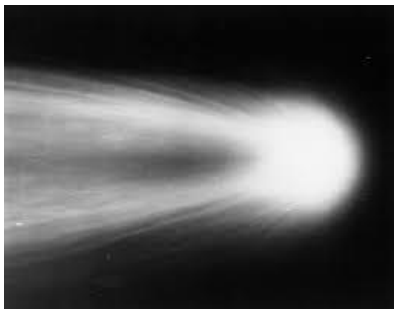
Apart from stars, planets and satellites, there are several other tiny bodies that move around the Sun. These bodies are known as asteroids. They are found between the orbits of Mars and Jupiter. The largest known asteroid is named Ceres.

Q2. How is a meteor formed?
Answer: A meteor is a streak of light in the sky caused by a meteoroid crashing through Earth's atmosphere.

Meteoroids are lumps of rock or iron that orbit the sun. Most meteoroids are small fragments of rock created by asteroid collisions. Comets also create meteoroids as they orbit the sun and shed dust and debris.

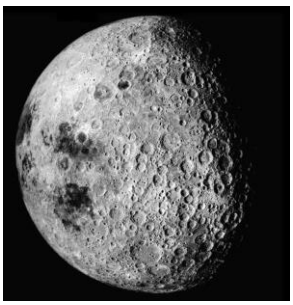
When a meteoroid enters Earth's upper atmosphere, it heats up due to friction from the air. The heat causes gases around the meteoroid to glow brightly, and a meteor appears. Meteors are often referred to as shooting stars or falling stars because of the bright tail of light they create as they pass through the sky.

Q3. What are periodical comets? Give an example.



Answer: Periodical comets are the comets that orbit around the Sun and return to the innermost point of their orbits after a regular interval of time. A good example of a periodical comet is Halley's Comet, which returns to its original position after 75-76 years.

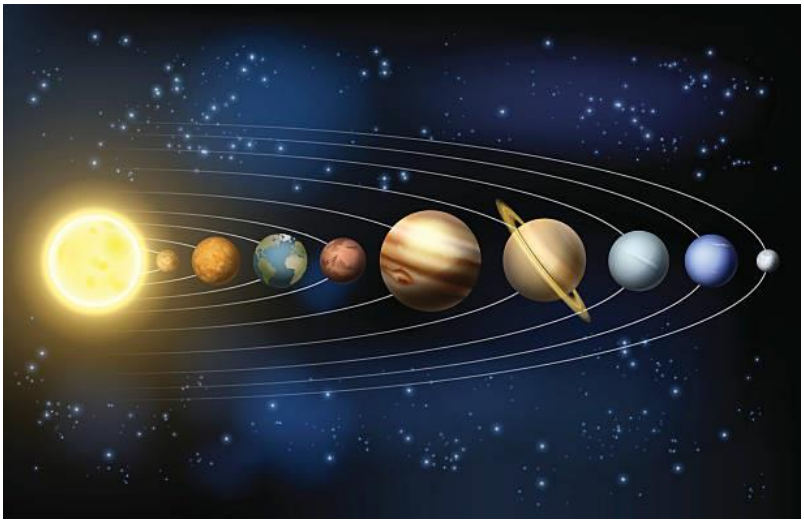
Q4. Why there is no life in the moon?



Answer: There is no possibility of life on the Moon because of the absence of the essentials of life on it, i.e. air and water. Also, there is no atmosphere around it, due to which days are very hot and nights are very cold. This makes the conditions unfavourable for the existence of life on the Moon.

E. Answer the following questions in 80-100 words:

Questions: Differentiate between the star and planet.



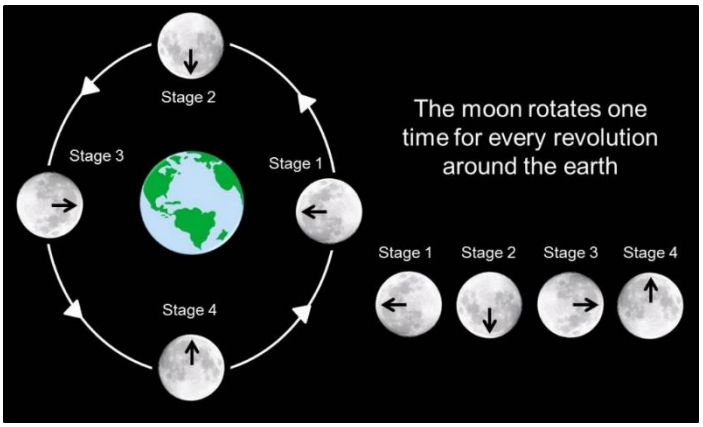
Answer: Difference between Stars and Planets

S.No.	Attributes	Stars	Planets
1.	Meaning	Stars are the most widely acknowledged astronomical objects, and they are the most fundamental building blocks of galaxies.	The planet is comparatively, a large natural body that revolves around the Sun or the star, and that is not radiating energy from nuclear fusion reactions.
2.	Light	Stars give off their own light produced due to thermonuclear fusion, coming about its core.	Planets have no light of their own and reflect the light of the Sun.
3.	Position	The position of stars changes due to substantial distance, it can be seen after a long time.	Planets tend to change their position as they move about the Sun.

4.	Size	Bigger in size	Small in size
5.	Shape	They are dot sized	Round-shaped
6.	Temperature	Star is a huge ball of gas, with a very high temperature.	They have a low temperature.
7.	Twinkle	They twinkle as a result of atmospheric refraction.	They do not twinkle
8.	Matter	Consisting of Hydrogen, and helium and other light elements	Made of Solids, liquids or gasses, or by compounding these three.
9.	Period of Revolution	Stars move in their own separate orbit with significant distance, and their motion can be seen after a long time.	Planets have a precise path in which it revolves around the Sun. This path is known as Orbit (Elliptical orbit).
10.	Number	There is one star in the solar system, but trillions of stars in the galaxy.	There are eight planets in the solar system.

G. Think and Answer:

Questions: Why do we always see the same side of the moon?



Answer: The Moon takes 27 days and 8 hours to revolve around the Earth. This period coincides with the rotation period of the Earth on its axis, i.e. 24 hours. This is the reason we always see the same side of the Moon.

Other Questions:

Q. What are the favourable conditions that make life possible on earth?

Answer: The Earth is the only planet where conditions are favourable to support life. It is neither too hot nor too cold and thus have an optimum temperature to support human existence. It has water and air, which very much essential for the survival of humans. The air is composed of life-supporting gases like oxygen, carbon dioxide and ozone. Because of these factors, the Earth is regarded as a unique planet of our solar system.

Q. Differentiate between Planet and satellite.

Answer:

Planets	Satellites
These are celestial bodies that do not have their own heat and light; they lit by the light of stars.	Satellites are celestial bodies that move around planets in the same way planets move around the Sun.
They are made up of solid materials and gases.	They do not have their own light.
For example, the Earth is a planet.	For example, the Moon is a natural satellite of the Earth.

Q. Differentiate between Comets and Meteors.

Answer:

Comets	Meteors
Comets are heavenly bodies that revolve around the Sun in an elongated orbit.	Meteoroids are small rock pieces that revolve around the Sun.
They are usually made up of dust, ice particles and gases.	Some meteoroids enter the Earth's atmosphere with a great velocity.
Most comets have a head, a nucleus and a tail. When they approach the Sun, the gases get heated up; as a result they glow.	They get heated up due to the friction of the atmosphere. This causes the meteoroids to glow.
Example: Halley	Example: Leonid

Q. Mercury is the hottest planet while Neptune is the coldest.

Answer: Mercury is the hottest planet because it is nearest to the Sun and stands at a distance of 58 million kilometres from the Sun. Hence, Mercury receives the maximum amount of sunlight.

On the other hand, Neptune is the coldest planet because it is farthest from the Sun and stands at a distance of 4,497 million kilometres from the Sun. Hence, Neptune receives the least amount of sunlight among all planets in our solar system.

Q. Draw the diagram of solar system?

Answer: