

Topic: Our Earth and the Solar System



• Introduction: The Sun, the eight planets with their satellites and some other heavenly bodies like asteroids, meteors and comets form the solar system. The Sun is at the centre of the solar system. All objects like stars, planets, satellites, comets, asteroids and meteors in the sky are called celestial or heavenly bodies and these are collectively known as the Universe.

(a) Universe: The Universe is vast and limitless. It is also called space. All the heavenly bodies as well as dust and gases found in space are included in the universe. Nobody knows exactly how the universe was formed. Most astronomers think that the universe started with a very Big Bang about 13.7 billion years ago.

(b) Stars: Stars are huge heavenly bodies made up of hot gases. They emit their own heat and light in huge amount. They twinkle at night. They look small because they are far away from us.

(c) The Sun: The Sun is the largest member of the solar system. All the planets, satellites, asteroids and comets revolve around it. It is about 150 million km away from the earth. It produces a lot of heat and light which is necessary for all forms of life on the earth.

(d) The Planets: The Planets are celestial bodies that do not have their own heat and light they are spherical in shape they revolve around the sun in fixed path called orbits. Most of them revolve from west to east. While revolving around the Sun, the planets also rotate on their own axes.

Solved Questions:

Q1. The Sun is most important source. Why is it so?

Ans: The Sun is the largest member and centre of the solar system. All the planets, satellites, asteroids and comets revolve around it. It produces a lot of heat and light which is necessary for all forms of life on the earth.

Q2. Write a short note on formation of Universe.

Ans: The Universe is vast and limitless. It is also called space. Nobody knows exactly how the universe was formed. Most astronomers think that the universe started with a very big explosion called the big bang about 13.7 billion years ago.

Q3. Stars are heavenly bodies like planets but they look small. Comment.

Ans: Stars are huge heavenly bodies made up of hot gases. They emit their own heat and light in huge amount. They twinkle at night, they look small because they are far away from us.

Q4. Define the term Planets.

Ans: The planets are celestial bodies that do not have their own heat and light. They are spherical in shape. Most of them revolve from west to east.

Q5. Stars are huge heavenly bodies made up of hot gases.

Q6. The Sun is 150 million km away from the Earth.

Q7. The planets revolve from west to east.

Q8. Which one is not a Planet?

- (a) Jupiter
- (b) Saturn (c) Comet

Ans: Comet

Q9. Planets revolve around the sun in fixed paths called

- (a) Pathway
- (b) Orbits
- (c) Galaxy

Ans: Orbits

Q10. Universe started with a very big explosion called

- (a) Blast
- (b) Big bang
- (c) Big explosion

Ans: Big bang

• Practice Questions:

Q1. What do you understand by the term 'Universe'?

Q2. How are stars different from Planets?

Q3. Draw a neat and clean diagram of our solar system.

Q4. What do you understand by celestial bodies?

Q5. With the help of an Atlas, Mark the following on a physical map of India.

- a) Island groups
- b) Northern Plains

c) Thar Desert