

Q-1 Though Mercury is the planet closest to the sun but why Venus is considered as the hottest planet?

Ans. Mercury is the closest planet to the Sun but has no atmosphere and it spins slowly as compared to the other planets. Its temperature can reach 465°C and can also drop to -180°C. On the other side Venus is the second closest planet to the Sun with 460°C temperature. It is so hot because of its proximity to the Sun and its thick atmosphere

Q-2 "The earth is a unique planet." Explain.

- Ans.**
1. The Earth has nitrogen and oxygen which are essential for breathing, plant growth, the burning etc.
 2. It has right kind of temperature.
 3. It has a protective blanket of ozone around it.
 4. Presence of water for all types of life.

Q-3 What is a Constellation? What is the Indian name of the constellation Ursa Major?

Ans. A group of star forming a particular pattern or design is called Constellation. The Indian name of Ursa Major constellation is Saptarishi.

Q-4 Name the head of the Solar family? Discuss about it.

- Ans.**
1. The Sun is the head of the Solar family.
 2. It is the nearest star to the earth.
 3. It is the source of heat and light. It is million times bigger than our Earth.
 4. The earth would be cold and lifeless without the solar energy.
 5. It is made up of hydrogen and helium.

Q-5 Describe the composition of the solar system.

Ans The sun, the eight planets, satellite and other celestial bodies known as asteroids and meteoroids form the solar system.

Q-6 Write a short note on the phases of the moon?

Ans 1. The moon's appearance changes periodically.

2. The changes in the moon's visible shape are known as the phases of The moon.

3. When the moon is between the earth and the sun, the part of the Moon which faces the earth is in complete darkness. This phase of the moon is called the New Moon.

4. When the moon shows its fully lighted surface. This phase of the moon is known as the Full Moon.

Q-7 Over the past 50 years, humans have changed ecosystem more rapidly and extensively. Mention any four factors responsible for this.

Ans Over the past 50 years, humans have changed ecosystem more rapidly and extensively to meet growing demands for food, fresh water, timber fiber and fuel etc.

Q-8 What role can you play in saving the Earth? Explain by giving two examples.

Ans 1. Grow more trees.

2. Avoid using non-biodegradable products.

3. Avoid pollution of every kind.

4. Unplug appliances when not in use.

5. Save water resources.

Q-9 Distinguish between:

a) A planet and star

b) Universe and galaxy

a) A planet- it is lit by the light of stars. The earth on which we live is a planet and it gets heat and light from the sun. There are eight planets in the solar system.

Star- A star has its own heat and light. It look small because it is very far away from us. It is made up of burning gases.

b) Universe-The Universe is the body of the stars, planets, dust or gases. It is difficult to imagine how big the Universe is.

Galaxy- Millions of stars together form a group called galaxy. There are millions of galaxies in the universe. Sun and Earth belong to Milky way galaxy.

Q10 Describe Asteroids and Meteoroids.

Ans. Asteroids-The heavenly bodies found between the orbits of Mars and Jupiter are called Asteroids. They also revolve around the Sun. They are the parts of a planet which were separated many years back.

Meteoroids-Small pieces of rocks which revolve round the Sun are called Meteoroids. When they enter the Earth's atmosphere, they begin to burn. These burning rocks are called Meteors. They cause a flash of light.

Q11. Discuss the main functions of man-made satellites.

Ans. 1) They are used to get information about the solar system.

2) They are used for communication.

3) They are used to get weather monitoring and forecasting.

Q12 Why is the Moon known as the Earth's companion?

Ans.1) The Moon is known as the natural satellite of the Earth.

2) It revolves around the Earth.

3) Its diameter is only $\frac{1}{4}$ of the Earth.

4) It appears so big because it is nearer to the Earth (about 3,84,400 km away).

5) It moves around the Earth in about 27 days and 8 hours. The Moon takes exactly the same time to complete one spin on its axis.

Q13. Distinguish between:

a) A planet and a satellite

b) Full moon and New moon

a) A planet- it is lit by the light of stars. The earth on which we live is a planet and it gets heat and light from the sun. There are eight planets in the solar system.

Satellite-it is a solid heavenly body that revolves around a planet. There are more than 50 satellites in our solar system. They reflect the light received from the Sun.

New Moon- When the moon is between the Earth and the Sun, the part of the Moon which faces the Earth is in complete darkness. This phase of the moon is called the New Moon.

Full Moon- When the moon shows its fully lighted surface. This phase of the moon is known as the Full Moon.