

CHAPTER – 1

THE EARTH IN THE SOLAR SYSTEM

Q. 1 A Answer the following questions briefly.

How does a planet differ from a star?

Answer:

Some celestial bodies do not have their own heat and light. They are lit by the light of the stars and such bodies are called Planets. On the other hand, stars are those celestial bodies that are made of gases and have their own heat and light. Sun is a star and Earth is a planet.

Q. 1 B What is meant by the ‘Solar System’?

Answer:

The Sun, eight planets, the satellites and some other celestial bodies known as asteroids and meteoroids form the solar system. We often call it a solar family with the Sun as its head.

Q. 1 C Name all the planets according to their distance from the sun.

Answer:

Mercury - 57.9 million km

Venus - 108.2 million km

Earth - 149.6 million km

Mars - 227.9 million km

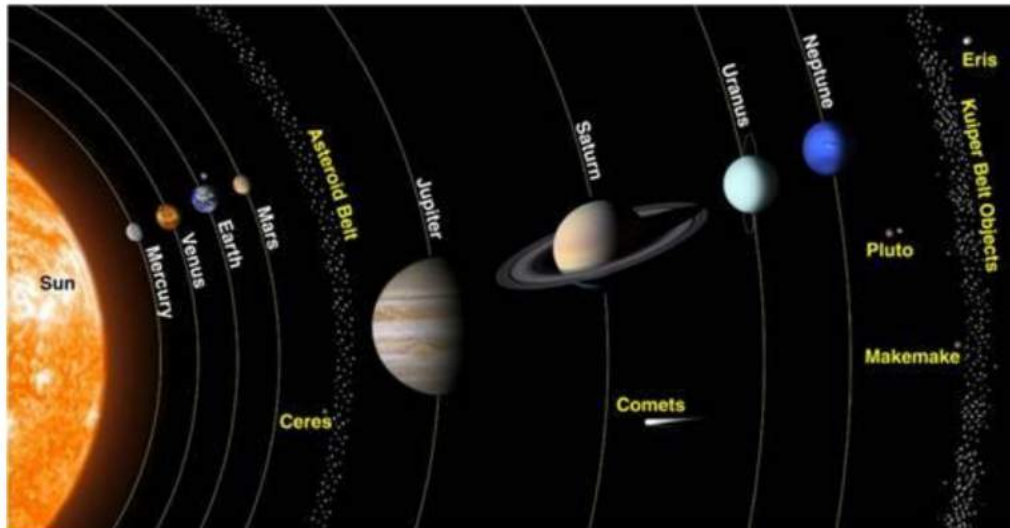
Jupiter - 778.3 million km

Saturn - 1,427.0 million km

Uranus - 2,871.0 million km

Neptune - 4,497.1 million km

These are the eight planets in our solar system.



Q. 1 D Why is the Earth called a unique planet?

Answer:

The Earth is the third nearest planet to the sun. Conditions favourable to support life are probably found only on the earth because it is neither too hot nor too cold. The Earth has water and air, which are essential for our survival. The air has life-supporting gases like oxygen. This makes earth a unique planet in the solar system.

Q. 1 E Why do we see only one side of the moon always?

Answer:

The moon moves around the earth in about 27 days. It takes exactly the same time to complete one spin. That is, the **Moon** rotates **on** its axis at

the same rate that the **Moon** orbits the Earth. As a result, only one side of the moon is visible to us on the earth.

Q. 1 F What is the Universe?

Answer:

A galaxy is a huge system of billions of stars, and clouds of dust and gases. Millions of such galaxies make up the universe.

Q. 2 A The planet known as the “Earth’s Twin” is

- A. Jupiter
- B. Saturn
- C. Venus

Answer:

Venus is considered as Earth’s twin because its shape and size are very much similar to that of the Earth.

Q. 2 B Which is the third nearest planet to the sun?

- A. Venus
- B. Earth
- C. Mercury

Answer:

The Earth is the third nearest planet to the sun. In size, it is the fifth largest planet.

Q. 2 C All the planets move around the sun in a

- A. Circular path

- B. Rectangular path
- C. Elongated path

Answer:

All the eight planets of solar system move around the sun in fixed paths. These paths are elongated and are called orbits.

Q. 2 D The Pole Star indicates the direction to the

- A. South
- B. North
- C. East

Answer:

In ancient times, people used to determine directions during the night with the help of stars. The North Star, also called the Pole star indicates the north direction.

Q. 2 E Asteroids are found between the orbits of

- A. Saturn and Jupiter
- B. Mars and Jupiter
- C. The Earth and Mars

Answer:

Apart from stars, planets and satellites, there are numerous tiny bodies that move around the sun. These tiny bodies are called asteroids. Scientists are of the view that asteroids are parts of planets which exploded many years back.

Q. 3 Fill in the blanks.

- (a) A group of _____ forming various patterns is called a _____.

- (b) A huge system of stars is called_____.
- (c) _____is the closest celestial body to our earth.
- (d) _____is the third nearest planet to the sun.
- (e) Planets do not have their own _____ and _____.

Answer:

- (a) A group of **star** forming various patterns is called a **constellation**.

Stars form various patterns known as constellation. Ursa Major or Big Bear is a constellation and Saptarishi is the most easily recognizable constellation.

- (b) A huge system of stars is called **galaxy**.

There are billions of galaxies that forms the Universe. Our solar system is a part of Milky Way galaxy, which is also known as Akash Ganga.

- (c) **Moon** is the closest celestial body to our earth.

Earth has only one satellite that is the moon. Its diameter is only one quarter that of the earth. It's about 3, 84,400 km away from the earth.

- (d) **Earth** is the third nearest planet to the sun.

Life supporting conditions are found only on the earth. From the outer space, earth appears blue because its two-thirds surface is covered with water. It is therefore, called a blue planet.

- (e) Planets do not have their own **heat** and **light**.

Planets are lit by the light of the stars. The word 'planet' comes from the Greek word '*Planetal*' which means '*wanderers*'. The Earth gets its heat and light from the Sun.