



KALPAVRUKSHA MODEL SCHOOL

Answers of Assignments-6

Class: VIII

Sub: Physics

Date: 25.06.2021

Topic: STARS AND SOLAR SYSTEM

I Answer the following questions:

- 1. Captain Zenon's spacecraft is passing through the region between Jupiter and Saturn. Suddenly, the entire spacecraft is shaken. 'What was that?' asks one of the crew members. 'We are passing through the Asteroid Belt. One of the asteroids must have hit us!' says Captain Zenon. What is wrong in this story?**

ANS: Asteroids are found orbiting between Mars and Jupiter not Jupiter and Saturn.

- 2. Why is Earth called a unique planet?**

ANS: The earth is called a unique planet because:

- a) It is the only planet which has favorable conditions that support life. It is neither too hot nor too cold.
- b) It has water and air, which are very essential for our survival.
- c) The air has life-supporting gases like oxygen.

- 3. What is an orbit?**

ANS: The curved path of a celestial object or spacecraft round a star, planet, or moon, especially a periodic elliptical revolution.

- 4. (a) Name the planet nearest to the Sun.**

ANS: Mercury the planet nearest to the Sun

- (b) Name the brightest planet in the sky.**

ANS: Venus is the brightest planet in the sky.

- (c) Which planet is often called a morning or an evening star?**

ANS: Planet Venus and Mercury are often called a morning or an evening star.

- (d) Name a planet which rotates from east to west.**

ANS: Planet Venus which rotates from east to west.

(e) Which planet is called the red planet?

ANS: Mars is called the red planet.

(f) Which is the largest planet in the solar system?

ANS: Jupiter is the largest planet of the solar system.

(g) What is the mass of Jupiter as compared to earth?

ANS: 318 times is the mass of Jupiter as compared to earth.

(h) Which planet has a density less than that of water?

ANS: Saturn planet has density less than that of water.

5. Why does earth appear blue-green from space?

ANS: The earth is largely (71 percent of the surface of the earth) covered by water and due to reflection of sunlight from water and land on its surface earth appear blue-green from the space.

6. What is responsible for the change of seasons on Earth?

ANS: The axis of rotation of the Earth is not perpendicular to the plane of its orbit. It is this tilt in its axis of rotation while it revolves around the sun that is responsible for the change of seasons on the Earth.

7. Write a short note on the planets Uranus and Neptune?

ANS: Uranus- is known as the “sideways planet” because it rotates on its side. Uranus was discovered in 1781 by William Herschel. Uranus was the first planet found using a telescope. Uranus is an Ice Giant planet and nearly four times larger than Earth. Uranus is the seventh planet from the Sun in the Solar System. It is an ice giant. It is the third largest planet in the solar system. The planet is made of ice, gases and liquid metal. Its atmosphere contains hydrogen, helium and methane.

Neptune- It is an ice giant. It is the fourth largest planet and third heaviest. Neptune has five rings which are hard to see from the Earth. It is seventeen times heavier than Earth and is a little bit heavier than Uranus. Neptune’s color is believed to be influenced by the presence of methane in its atmosphere. Neptune also has 14 known moons, the largest is called Triton.

