DR. M.K.K. ARYA MODEL SCHOOL, MODEL TOWN, PANIPAT

CLASS-VIII (ASSIGNMENT)

CH-STARS AND THE SOLAR SYSTEM

ONE MARK QUESTIONS

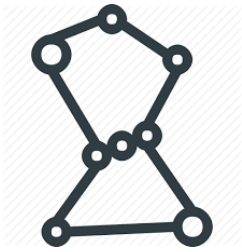
1. What are celestial objects ?
   The stars, planets, moon and many other objects in the sky are called celestial objects.
2. Define light year. Is this a unit of time?
   Light year is the distance covered by light in one year. No, it is not a unit of time. It is a unit of distance.
3. What is a constellation? Give examples.
   Constellation is a group of stars that has a recognizable shape. Examples are –the ursa major, the orion, the Cassiopeia etc.
4. Which star does not appear to move like other stars and why?
   Pole star does not appear to move like other stars because it is situated in the direction of axis of rotation of earth.
5. Which is the brightest star in the sky?
   The sun is the brightest star in the sky.
6. Which planet is known as Morning or Evening star?
   Venus is known as morning or evening star.
7. Which planet is known as Red planet?
   Mars is known as Red planet
8. What is a full moon day?
   The day on which the whole disc of the moon is visible is known as the full moon day.
9. What is a new moon day?
   On the fifteenth day after the full moon day, the moon is not visible. This day is called the new moon day.
10. Define satellite.
    A celestial body that revolves around another celestial body is called its satellite.
11. Define orbit.
    The definite path along which a planet revolves around the Sun is called its orbit.
12. Why does the Earth appear blue green when viewed from space?
    The earth appears blue green due to reflection of light from water and landmass on its surface.

TWO MARKS QUESTIONS

1. What is period of revolution? What is the relation between period of revolution and the distance of a planet from a sun?
   The time taken by a planet to complete one revolution is called its period of revolution. The period of revolution increases as the distance of the planet increases from the sun.
2. What is period of rotation?
   The time taken by a planet to complete one rotation is called period of rotation.

3. What is the main reason behind different seasons on the Earth?
   The axis of rotation is not perpendicular to the plane of its orbit. The tilt is responsible for the change of seasons on the earth
4. What is artificial satellite? Write its applications.
   Satellite which is made by man is known as artificial satellite. Examples of some Indian satellites are INSAT, IRS Kalpana-1, EDUSAT etc.
   Applications of artificial satellites are-
   1. Weather forecasting
   2. Telecommunication
   3. Transmission of television and radio signals
   4. Remote sensing
5. Write a note to describe on our nearest star.
   The sun is the nearest star from us. It is the main source of energy on the earth and also for other planets. It continuously emits large amount of heat and light.
6. Describe the Ursa Major.
   It is one of the most important constellations seen during summer time in the early part of the night. It is also known as the Big Dipper, the Great Bear, or the Saptarshi
   There are seven prominent stars in this constellation. It appears like a big ladle or question paper with three stars in the handle of the ladle and four in its bowl.

7. Describe the Orion.
   Orion, also called the Hunter, can be seen in late evenings during winter. It has seven or eight stars. Three stars in the middle represent the belt of the hunter, the four bright stars appear to be arranged in the form of a quadrilateral.

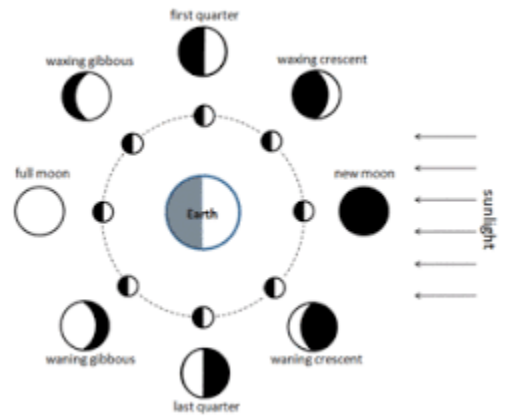


8. Describe the Cassiopeia.
   It is prominent constellation in the northern sky. It is visible during winter in the early part of the night. It looks like a distorted letter W or M.
9. Explain how we can locate Sirius with the help of the Orion.
   Imagine a straight line passing through the three middle stars of Orion. Look along this line towards the East. This line will lead you to a very bright star. It is called the Sirius.
10. What are Asteroids?
    The gap between Mars and Jupiter is occupied by large number of small objects that revolve around the Sun. These are called Asteroids.

11. What are comets?
    Comets are also members of solar system. They revolve around the Sun in highly elliptical orbits. It has a bright head with a long tail. The length of the tail grow in size that as it approaches the Sun. The tail of comet is always directed away from the Sun.
12. What are Meteors?
    A meteor is usually a small object that occasionally enters the earth's atmosphere with high speed. The friction due to atmosphere heats it up and make it glow. They are also known as shooting star, although they are not stars.
13. What are meteorites?
    Some meteors are large and so they can reach the Earth before they evaporate completely. The body that reaches the Earth is called a meteorites.

THREE MARKS QUESTIONS

1. Write a note to describe the solar system.
   The Sun, and the celestial bodies that revolve around it constitute the solar system. There eight planets in our solar system. These are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Apart from the planets, the solar system consists of other bodies also such as comets, asteroids and meteors. It is the gravitational force between the Sun and all the celestial objects that make them revolve around the Sun.
2. Why do we see the different phases of Moon?
   The moon does not emit its own light, we see the moon due to sunlight reflected from it. Therefore, only the portion of moon from which light is reflected can be seen by us. The different shapes of the bright portion of the moon seen during a month are called the phases of the moon. The full moon day is that day on which the complete moon is seen. After this day, the size of the bright portion of the moon decreases each day until the new moon day. On this day, moon is not seen at all. From the day after the new moon day, the sunlit part keeps increasing until the next full moon day.



3. What are Inner planets? Explain them.
   The first four planets Mercury, Venus, Earth, and Mars are nearer to the Sun. They are called inner planets
   MERCURY

- Smallest planet and nearest to the Sun
- Can be observed just before sunrise and just after sunset near the horizon.
- No natural satellite

VENUS

- Brightest planet in the night sky.
- Called morning or evening star.
- Rotates from east to west.
- No natural satellite

EARTH

- Life is possible because of right temperature, presence of water, atmosphere and blanket of ozone
- Appears blue-green from space
- Its tilted axis is responsible for change of season
- One moon

MARS

- Called red planet
- Two natural satellite

4. What are Outer planets? Explain them.

   Jupiter, Saturn, Uranus and Neptune are farther from sun. They are called outer planets.

   JUPITER

   - Largest planet of solar system.
   - Its mass is about 318 times that of earth.
   - Faints ring around it
   - Large number of satellites

   SATURN

   - Least dense planet
   - Yellowish in colour
   - Beautiful rings around it
   - Large no. of satellites

   URANUS AND NEPTUNE

   - Outermost planets
   - Can be seen only with the help of large telescope.