

TOPICS COVERED

17.1 Universe: Moon, Stars and Solar System

17.2 Constellations and Artificial Satellites

IMPORTANT POINTS TO REMEMBER

- The stars, planets, the moon and many other objects in the sky are called **celestial objects**.
- **Moon** is the only natural planet of earth. The distance between moon and earth is 384,400 km. It takes about 27 days to complete one revolution around the earth.
- The bright part of the moon appears to be in different shapes on different days of a month. These are called **phases of moon**.
- Star is a massive celestial body which is composed of very hot gases. Stars are luminous bodies because they emit their own light.
- The distance traveled by light in one year is called a light year. The speed of light is 300,000 km per second. Light takes about 8 minutes to reach from sun to earth.
- Pole star appears in the north in the northern hemisphere. Pole star is in line with the axis of earth. Due to this, its apparent position does not change in the night sky. All other stars appear to be moving around the Pole star in the night sky.
- Some groups of stars form a recognizable shape. Such group of stars is called constellation. Ursa Major, Ursa Minor, Orion, Cassiopeia and Leo are some of the famous **constellations**.
- The Sun and the celestial bodies which move around the Sun make the **solar system**. The solar system is composed of eight planets, comets, asteroids and meteors. The eight planets in the solar system are; Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.
- A celestial body which moves around a star is called a **planet**. A planet should be massive enough to be rounded by its own gravity but it is not a luminous body.
- The movement of a celestial body in its orbit is called revolution.
- The movement of a celestial body around its axis is called rotation.
- A celestial body which moves around a planet is called satellite.
- Mercury, Venus, Earth and Mars are called inner planets because they come before the ring of asteroids. The inner planets have very few moons.
- Jupiter, Saturn, Uranus and Neptune are called outer planets because they come after the ring of asteroids. The outer planets have ring systems and a large number of moons.
- There is a large gap between the orbits of Mars and Jupiter. This gap has many small objects that revolve around the sun. These objects are called **asteroids**. This belt is called asteroid belt.

- Comets are celestial bodies that move around the sun in highly elliptical paths. When they pass from near the sun, they appear like a star with a tail.
- Sometimes, a part of an asteroid or star or any other celestial body enters the earth's atmosphere. When it enters the earth's atmosphere, it is burnt into small particles due to high heat created by friction. This is called meteor. It appears like a shooting star. Sometimes, the particle can be so large that most of it falls intact on the earth. In that case, it is called a **meteorite**.
- **Artificial satellites** are used for; remote sensing to collect data about minerals, cities, forests, etc. for collecting data about atmosphere which can be utilized for weather prediction, and for transmission of signals for telecommunication and television.

17.1 UNIVERSE: MOON, STARS AND SOLAR SYSTEM

Universe: The vast space which includes everything that exists on the Earth and around it is called universe.

Moon: A celestial body revolving around a planet is known as a satellite. All the planets except Mercury and Venus have natural satellites. Moon is the Earth's only natural satellite.

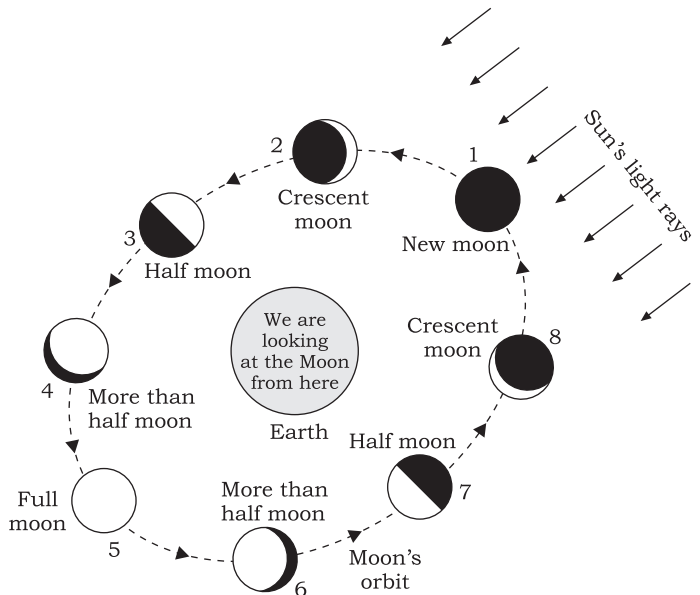
Distance of the Moon from the Earth: 384,400 km.

Time taken by the Moon to complete one revolution around the Earth is slightly longer than 29 days.

Moon's atmosphere: It has no air and no atmosphere.

Phases of the Moon: The Moon reflects sunlight falling on it towards the Earth.

1. *New moon:* When the Moon is between the Earth and the Sun, it is called new moon. It is very dark, and no Moon can be seen in the sky.
2. *Crescent moon:* A portion of the Moon which is seen is called crescent moon.
3. *Full moon:* After two weeks, the Moon is farthest from the Sun, and the whole sunlit side of the Moon is towards the Earth. This is called full moon.
4. *Waning moon:* After full moon day, the sunlit portion of Moon facing the Earth becomes smaller and smaller. This decreasing size is called waning of the Moon.



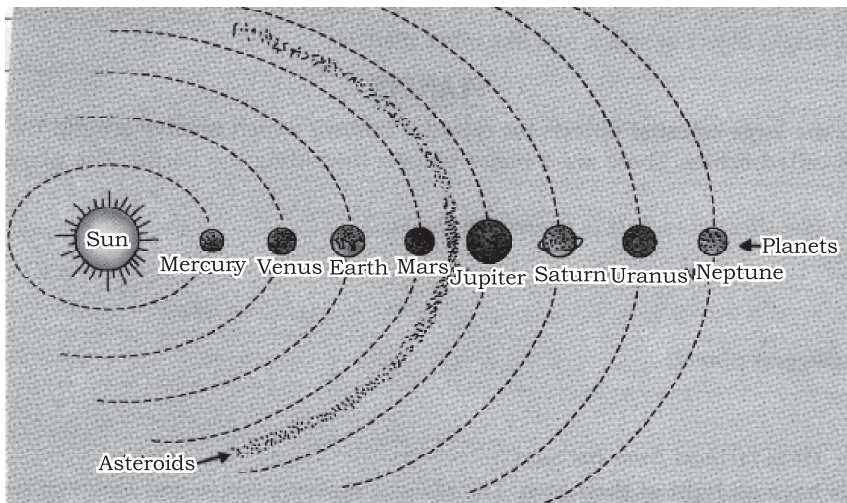
Stars: A star is a huge ball of glowing gases held together by gravity. Star consists of hydrogen and helium gases.

Solar System: The solar system consist of the Sun, eight planets and their satellites and thousands of other small heavenly bodies such as asteroids, comets and meteors.

Distance of the sun from the earth: 149.60 million km.

Planets: They are heavenly bodies which revolve around the Sun in closed elliptical orbits. There are eight planets – Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.

1. *Mercury:* (a) It is the smallest and nearest planet to the Sun.
(b) It has no natural satellite.
(c) It is visible first before the sunrise in the eastern sky and just after the sunset in the western sky near the horizon.
(d) It has almost negligible atmosphere.



2. *Venus:* (a) It is the brightest planet of the solar system. This brightness of Venus is due to the presence of cloudy atmosphere around it, which reflects almost three fourth of the sunlight.
(b) It is a very hot planet because of the high percentage of carbon dioxide in its atmosphere.
(c) It is visible for 1-3 hours before the sunrise in the eastern sky and 1-3 hours after the sunset in the western sky near the horizon. It is also called the morning and the evening star.
 3. *Earth:* (a) It is the only planet in the solar system on which life is known to exist.
(b) The axis of rotation of the Earth is tilted at an angle of 23.5° to the plane of its orbit. The tilt is responsible for the change of seasons on the Earth.
(c) The Earth takes $365\frac{1}{4}$ days for one revolution around the sun and 24 hours to rotate about its own axis.
 4. *Mars:* (a) It is reddish in colour. Its red colour comes from an iron-oxide (rust) in its soil. That is why Mars is known as the red planet.
(b) It is nearly half the size of the Earth.
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- (c) It possesses a thin atmosphere which contains traces of carbon dioxide, nitrogen, hydrogen and oxygen.
 - (d) It has two natural satellites: Phobos and Deimos.
 - (e) It is colder than the Earth.
5. *Jupiter*: (a) It is the largest planet of the solar system.
 - (b) The mass of Jupiter is about 318 times the mass of the Earth. It is so large that about 1300 Earths can be placed inside this giant planet.
 - (c) The thick atmosphere around the Jupiter reflects most of the sunlight falling on it. Due to this, it appears to be bright.
 - (d) It has faint rings around it.
 6. *Saturn*: (a) It has the most visible and beautiful rings that encircle the planet. The rings are composed of ice and rock particles.
 - (b) It appears yellowish in colour.
 - (c) It is the least dense among all planets.
 7. *Uranus*: It has a highly tilted rotational axis. Its axis of rotation is inclined at 97° . This means it rotates almost on its sides.
 8. *Neptune*: (a) It is very cold and it takes the maximum time to revolve round the sun.
 - (b) The storms occur all the time at Neptune.

Other Celestial Bodies

Asteroids: There is a large gap in between the orbits of Mars and Jupiter. This gap is occupied by a large number of small objects that revolve around the sun. These are called asteroids.

They are small irregular shaped heavenly bodies of rock and metals which revolve around the Sun in the gap between the orbits of Mars and Jupiter. The number of asteroids between Mars and Jupiter is so large that they appear as a belt in this region.

Comets: A comet is a small body of ice and dust that moves around the Sun in an elongated orbit. A comet appears generally as a bright head with a long tail. As a comet approaches the sun, it gets heated and leaves behind a stream of hot, glowing gases and dust particles. It appears as a tail of the comet. The tail of a comet always points away from the sun. One comet "Hartley's" appears after nearly 76 years. It is named after "Edmund Hartley", who calculated its orbit. It was last seen in 1986. It will be visible again in 2061-62.

Meteors and Meteorites

Meteors: When the small rocky, irregular heavenly body comes very close to a planet such as the Earth, the Earth's gravitation pulls them. As they enter the Earth's atmosphere, they get heated because of friction with the air and start burning and emitting light. As they fall towards the earth's surface, they are seen as bright streaks of light in the sky and called "meteors". They are also called shooting stars.

Meteorites: A meteor which does not burn up completely on entering the Earth's atmosphere and lands on Earth is known as meteorite. Meteorites are sort of stones falling from the sky.

Exercise 17.1

I. Very Short Answer Type Questions (1 Mark)

1. Give one word for the following:

- (a) A natural satellite revolving around the earth. _____
- (b) An unburnt piece of meteor which reaches the earth. _____
- (c) A gas chiefly found in the atmosphere of stars. _____
- (d) A planet which is called "evening star". _____
- (e) The planet with axis of rotation inclined at 97° _____

2. Fill in the blanks:

- (a) The unburnt part of a meteor which reaches the earth is called _____.
- (b) _____ comet appears after nearly 76 years.
- (c) _____ is the brightest planet in the sky.
- (d) _____ is the only satellite of earth.
- (e) When the moon is in between the earth and the sun, it is called _____.

3. State whether the following statements are 'True' or 'False'.

- (a) The planet nearest to us is Jupiter.
- (b) All the stars are at the same distance from us.
- (c) The planets do not emit light of their own.
- (d) The planets keep changing their position with respect to stars.
- (e) The planet Venus appears in the eastern sky before sunrise.
- (f) The plane in which the Earth revolves around the sun is called equatorial plane of Earth.

II. Short Answer Type Questions-1 (2 Marks)

- 4. Why does the sun appear to be larger and brighter than other stars?
- 5. Which planet is called red planet and why?
- 6. What is a comet? Give an example.
- 7. Suppose, the moon emits light of its own. Would it still have phases? Justify your answer.
- 8. Why is Venus regarded as the brightest planet?
- 9. Do stars emit light only during night?
- 10. John saw full moon on a particular day. After how many days will he be able to see the full moon again?
- 11. A star is ten light years away from the Earth. Suppose it brightens up suddenly today. After how much time shall we see this change?
- 12. Why does the moon change its shape daily?
- 13. Paheli saw the moon through a glass window at 8:00 p.m. She marked the position of the moon on the glass pane. She got up at 4 a.m. in the morning. Will the moon be visible at the same position?

III. Short Answer Type Questions-2 (3 Marks)

- 14. Meteors are not visible during the day-time. Give reason.
 - 15. Why does the moon change its shape daily?
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16. Paheli and Boojho observe a bright object in the night sky which was not twinkling. Paheli says, it is a star and Boojho says it is a planet. Who is correct? *(NCERT Exemplar)*
17. What is a planet? How many planets revolve around the sun?
18. What is the difference between a meteor and a meteorite?
19. Meteors are not visible during the daytime. Explain the reason.

IV. Long Answer Type Questions (5 Marks)

20. Explain the different phases of the moon.
21. What is a solar system? Explain.
22. Write short note on (i) Earth (ii) Jupiter (iii) Venus.
23. Give three differences between planets and stars.

ANSWERS

1. (a) Moon (b) Meteorite
(c) Hydrogen (d) Venus
(e) Uranus
2. (a) meteorite (b) Hartey's
(c) Venus (d) Moon
(e) new moon
3. (a) False – The next planet after Earth is Mars.
(b) False – The stars are at different distances.
(c) True (d) True (e) True
(f) False – The plane in which the Earth revolves round the Sun is known as orbital plane of the Earth.
4. Sun is very close to the Earth as compared to other stars.
5. Its red colour comes from iron-oxide in its soil, that is why it is known as “red planet”.
6. A comet is a small body of ice and dust that moves around the Sun in an elongated orbit. A comet appears generally as a bright head with a long tail. As a comet approaches the Sun, it gets heated and leaves behind a stream of hot, glowing gases and dust particles. It appears as a tail of the comet. The tail of a comet always points away from the sun. One comet “Hartey’s” appears after nearly 76 years. It is named after “Edmund Hartey”, who calculated its orbit. It was last seen in 1986. It will be visible again in 2061-62.
7. No, if Moon possessed its own light, it would not have phases. The Moon does not produce its own light, the sunlight falling on it gets reflected towards us. Therefore, only that part of the Moon is visible from which the light of the Sun is reflected towards us.
8. The brightness of Venus is due to the presence of cloudy atmosphere around it, which reflects almost three fourth of the sunlight falling on it.
9. The stars are present in the sky even during the day-time. But they are not visible during daytime because of the bright sunlight.
10. The time interval between one full moon to the next full moon is slightly longer than 29 days.
11. We will see the change after 10 years.
12. The moon does not produce its own light, the sunlight falling on it gets reflected towards us. Therefore, only that part of the moon is visible from which the light of the sun is reflected towards us.
13. No, because the position of the moon keeps changing during the night.
14. They are small rocky, irregular heavenly bodies which revolve around the sun. They were formed during the formation of the solar system. Its brightness is extremely small as compared to that of the sun due to which it is not visible during day-time.

15. The moon does not produce its own light, the sunlight falling on it gets reflected towards us. Therefore, only that part of the moon is visible from which the light of the sun is reflected towards us.
16. Boojho is correct, since planets do not have light of their own. They reflect the sunlight falling on them. As planets are near to the Earth as compared to stars thus, the reflected light coming from planets are not susceptible to atmospheric interference as that of light coming from stars at larger distance.
17. They are heavenly bodies which revolve around the sun in closed elliptical orbits. There are eight planets – Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.

18.

Meteors	Meteorites
Meteors burn completely before they reach the surface of the Earth.	Meteorites do not burn completely on entering the Earth's atmosphere and lands on the Earth's surface.
The size of this heavenly body is very small as compared to the size of meteorites.	The size of this heavenly body is very big.
It does not cause any damage.	It can create a large crater and cause a lot of damage on the Earth's surface.
Not yet possible to study it.	It helps the scientists to know about the nature of the matter in outer space.

19. In the night sky shooting stars shines but they are not stars. They are called meteors, which are a small object that occasionally enters into the earth's atmosphere with very high speed. The friction between the atmosphere and the meteor heats it up. It glows and evaporate quickly. But its brightness is extremely small compared to that of the sun due to which it is not visible during

day time.

20. (a) *New moon*: When the Moon is between the Earth and the Sun, it is called new moon. It is very dark, and no Moon can be seen in the sky.
- (b) *Crescent moon*: A portion of the Moon in seen is called crescent Moon.
- (c) *Full moon*: After two weeks, the Moon is farthest from the Sun, and the whole sun lit side of the moon is towards the Earth. This is called full moon.
- (d) *Waning moon*: After full moon day, the sunlit portion of moon facing the earth becomes smaller and smaller. This decreasing size is called waning of the moon.
21. The solar system consist of the sun, eight planets and their satellites and thousands of other small heavenly bodies such as asteroids, comets and meteors.
22. (i) *Earth*:
- (a) It is the only planet in the solar system on which life is known to exist.
- (b) The axis of rotation of the Earth is tilted at an angle of 23.5° to the plane of its orbit. The tilt is responsible for the change of seasons on the earth.
- (c) The earth takes $365\frac{1}{4}$ days for one revolution around the sun and 24 hours to rotate about its own axis.
- (ii) *Jupiter*:
- (a) It is the largest planet of the solar system.
- (b) The mass of Jupiter is about 318 times the mass of the Earth. It is so large that about 1300 Earths can be placed inside this giant plant.
- (c) The thick atmosphere around the Jupiter reflects most of the sunlight falling on it. Due to this, it appears to be bright.
- (d) It has faint rings around it.
- (iii) *Venus*:
- (a) It is the brightest planet of the solar system. This brightness of Venus is due to the presence of cloudy atmosphere around it, which reflects almost three fourth of the sunlight.

- (b) It is a very hot planet because of the high percentage of carbon dioxide in its atmosphere.
- (c) It is visible for 1-3 hours before the

sunrise in the eastern sky and 1-3 hours after the sunset in the western sky near the horizon. It is also called the morning and the evening star.

23. Planet	Star
They do not have their own light.	They have their own light.
They do not twinkle.	They appear to twinkle.
They change their position in the sky on a daily basis.	They do not change their position everyday.
They appear to rotate from west to east (except Venus) in the sky.	They appear to move from east to west in the sky.

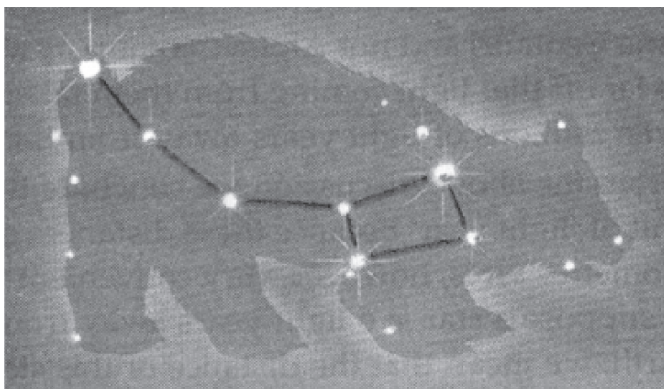
17.2 CONSTELLATIONS AND ARTIFICIAL SATELLITES

Constellations: The stars which appear in the form of closed groups and form recognisable shapes and patterns are known as **constellations**.

One of the most famous constellation that can be seen in the early part of night during summer is *Ursa-major*.

Ursa-Major (Great Bear Constellation)

- It is one of the most famous constellation which can be seen clearly in *summer season* in the northern part of the sky at night.



- It is also known as “Big Dipper” because of the seven prominent stars in the constellation form the shape of a dipper (a long-handled spoon). There are three stars in the handle of the ladle (long-handle spoon) and four in its bowl.
- *Pole star* can be located with the help of Ursa Major. Pole star is very useful in finding directions at night by sailors as it always points in the geographical north direction.

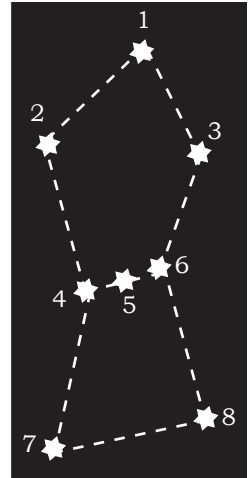
Ursa-Minor (Little Bear Constellation)

- It is clearly seen in the northern part of the sky in July during the summer season.
- It is also known as the “Little Dipper”, the Little Bear.
- There are seven prominent stars in this constellation which form the shape of a dipper.

- The stars in Ursa Minor are closer and less bright than those of Ursa Major.
- At the end of the tail of Ursa Minor is the Pole star.

Orion (Hunter Constellation)

1. This is one of the most prominent constellation in the sky. It is visible during the winter season.
2. It has seven or eight bright stars and several faint stars which form the body of a hunter. So *Orion* is called the “Hunter Constellation”.
3. The three middle stars represent the belt of the Hunter. The head and limbs of the hunter are formed from other faint stars.
4. The star “Sirius”, which is the brightest star in the sky. It is located close to Orion.



Orion constellation

Cassiopeia: This constellation is visible in the month of October in the northern sky. There are five stars in this constellation which are so arranged that they form the letter W.

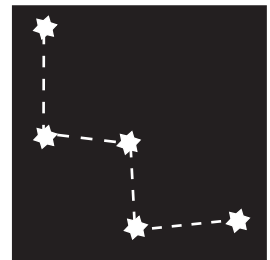
Artificial Satellites: An artificial satellite is a human-made object that has been placed into the orbit around the earth or some other planets to perform specific function.

Sputnik-I: It was the first artificial satellite that was launched by the Soviet-Union on October 4, 1957.

Aryabhata: The first Indian artificial satellite named Aryabhata was launched on 19 April 1975. Some other Indian Satellites are: INSAT Series, IRS (Indian Remote Sensing) Satellite Series, Kalpana-I, EDUSAT etc.

Uses of Artificial Satellites: They are used for:

- Forecasting weather
- Transmitting radio and television signals.
- *Telecommunication:* Cellular phones and long distance telephones, fax etc. are a few of the services provided by telecommunication.
- *Remote Sensing:* For locating mineral resources, underground water and for land mapping.
- For collecting information about other planets and about the outer space.
- *Navigation:* For providing geographical location of objects on the surface of the earth. System such as GPS (Global Positioning System). GNSS (Global Navigation Satellite System). GPS is used for finding and locating land, sea and air navigation.



Cassiopeia constellation

Exercise 17.2

I. Very Short Answer Type Questions (1 Mark)

1. Give one word for the following:

(a) A cluster of stars resembling some animal or known objects. _____

- (b) A group of stars which form the body of a hunter. _____
- (c) A brightest star which appears in the sky and is located close to Orion. _____
- (d) Constellation is visible in the month of October in the northern sky as five stars arranged in the form of W. _____
- (e) The first artificial satellite launched by the Soviet Union. _____

2. Fill in the blanks:

- (a) It is also known as Big Dipper _____.
- (b) _____ can be located with the help of Ursa-Major.
- (c) It is also known as little Bear constellation _____.
- (d) _____ was the first Indian Artificial satellite.
- (e) _____ is used for finding and locating land, sea and air navigation.

II. Short Answer Type Questions-1 (2 Marks)

3. Why is Ursa Major also called “Great Bear Constellation”?
4. Why does the pole star appear stationary?
5. What is IRS? What is its use?

III. Short Answer Type Questions-2 (3 Marks)

6. Write any three points about “Ursa Major” constellation.
7. Is constellation a part of our solar system? Give reason.

IV. Long Answer Type Questions (5 Marks)

8. Explain in detail about “Orion” with the help of a diagram.
9. Give uses of artificial satellites.
10. Explain with the help of a diagram how you can locate pole star with the help of a constellation “Great Bear” (Ursa Major)?

ANSWERS

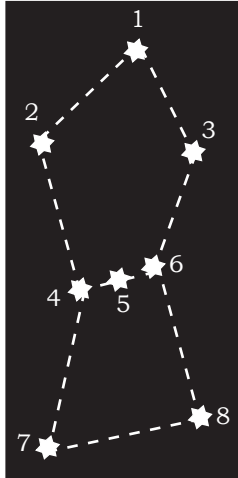
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| <p>1. (a) Constellations (b) Orion
 (c) Sirius (d) Cassiopeia
 (e) Sputnik-I</p> <p>2. (a) Ursa Major (b) Pole star
 (c) Ursa Minor (d) Aryabhata
 (e) GPS</p> <p>3. It is one of the most famous constellation which can be seen clearly in summer season in the northern part of the sky at night which looks like a bear in shape. It is also known as “Big Dipper” because of the seven prominent stars in the constellation form the shape of a dipper (a long-handled spoon).</p> <p>4. Because it is situated in the direction of Earth’s axis.</p> | <p>5. IRS (Indian Remote Sensing) is an artificial satellite of India. It is used for <i>remote sensing</i> i.e., for locating mineral resources, underground water and for land mapping.</p> <p>6. It is one of the most famous constellation which can be seen clearly in summer season in the northern part of the sky at night. It is also known as “Big Dipper” because of the seven prominent stars in the constellation form the shape of a dipper (a long-handled spoon). There are three stars in the handle of the ladle (long-handle spoon) and four in its bowl.</p> |
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Pole star can be located with the help of Ursa Major. Pole star is very useful in finding directions at night by sailors as it always points in the geographical north direction.

7. Yes, constellations are definitely a part of our solar system. Constellation are stars which appear in the form of closed groups and form recognisable shapes and patterns.

8. *Orion (Hunter Constellation)*

(a) This is one of the most prominent constellation in the sky. It is visible during the winter season.



(b) It has seven or eight bright stars and several faint stars which form the body of a hunter. So Orion is called the “Hunter Constellation”.

(c) The three middle stars represent the belt of the Hunter. The head and limbs of the hunter are formed from other faint stars.

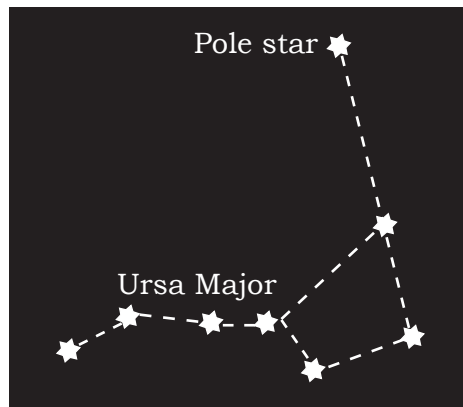
(d) The star “Sirius”, which is the brightest star in the sky. It is located close to Orion.

9. *Uses of Artificial Satellites*

- (a) Forecasting weather
- (b) Transmitting radio and television signals.
- (c) Telecommunication: Cellular phones and long distance telephones, fax etc. are a few of the services provided by telecommunication.
- (d) Remote Sensing: For locating mineral resources, underground water and for land mapping.
- (e) For collecting information about other planets and about the outer space.
- (f) Navigation: For providing geographical location of objects on the surface of

the earth. System such as GPS (Global Positioning System). GNSS (Global Navigation Satellite System). GPS is used for finding and locating land, sea and air navigation.

10. On a clear moonless night during early summer, you can identify Ursa Major in the northern part of the sky. Look at the two brightest stars at the end of Ursa Major. Imagine a straight line passing through these stars as shown in Fig. Extend this imaginary line towards the north direction (about five times the distance between the two stars). This line will lead to a star which is not too bright. This is the Pole Star. Observe the Pole Star for some time. You find that Pole Star does not move at all as other stars drift from the east to the west (in direction opposite to the rotation of the Earth). This is due to the fact that the Pole Star lies directly above the north pole on the axis of rotation of the Earth. The position of the Pole Star does not change with time when the Earth spins about its axis. The Pole Star is very useful in finding directions at night by sailors as it always points in the geographic north direction. It should be noted that Pole Star is not visible in southern hemisphere. So, it can't help in finding direction in southern hemisphere.



Did You Know?

- The largest crater on the moon is the **South Pole-Aitken** basin.
- The highest mountain range on the moon is called **Apenninies**.
- On September 24, 2009, ISRO reported that their first lunar mission – Chandrayaan-1 has found the evidence of large quantities of water on the moon's surface.
- When the Earth during its revolution, crosses the tail of a comet, swarms of meteors are seen. These are known as meteor showers. Some meteor showers occur at regular intervals each year.
- **Robots in Space:** Robots help to explore space. The spacecrafts that explore the space are actually robots. These robots include orbiters, landers and rovers on other planets. Some robots like 'Cassim' study the planets from space.
- Robonout is a robot which is being developed by NASA. It looks like the upperbody of a person with a chest, head and arms. It could work outside a spacecraft and help astronauts on the Moon or Mars.

HOTS & VALUE BASED QUESTION

1. Y is a group of stars which is visible during summer season in the early part of the night. It is clearly visible in April month in northern part of the sky. It resembles a bowl with a handle.
 - (a) What is the general name of group of stars like Y?
 - (b) Write any other two names for it.
 - (c) How many bright stars does it have?
 - (d) Is it a part of our solar system?
 - (e) Which famous star can be located in the sky with the help of Y? **(HOTS)**
2. The number of main stars in constellation A is 5, in constellation B is 7, in constellation C can be 7 or 8, whereas in constellation D is usually 9. Name the constellation A, B, C and D. **(HOTS)**
3. On a hot summer night, Rita's grandmother looks at the stars in the sky and tells her that her grandfather has become a star and is blessing us from above. All our ancestors have become stars and bless us from there. Rita explains to her grandmother that these stars are forming beautiful patterns and are called constellations.
 - (a) Has Rita correctly explained to her grandmother?
 - (b) What values are possessed by Rita? **(VBQ)**

ANSWERS

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|--|---|
| <ol style="list-style-type: none">1. (a) Y-Ursa Major
(b) Big dipper, Vrihat Saptarishi
(c) It has two bright stars called pointer stars.
(d) Yes, it is a constellation which is a part of our solar system.
(e) Pole star2. A – Cassiopeia
B – Ursa Major | <ol style="list-style-type: none">C – Orion
D – Leo Major Constellation3. (a) Rita is correct that these are constellations and explain to her grandmother about the pattern of stars in the sky.
(b) Rita is educated, sincere and has a scientific bent of mind. |
|--|---|
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