

Subject- S. S. T Class-6 Topic- Our Universe
Learn and Write

1. Choose the correct options.

(a) A star shines
(i) through its own light ☒ (ii) through the light of others ☐
(iii) through the light of the moon ☐ (iv) through the light of the planets ☐

(b) The direction denoted by the Pole Star is
(i) North ☒ (ii) South ☐ (iii) East ☐ (iv) West ☐

2. Match the following.

(a) the Sun	(i) a planet (c)
(b) a comet	(ii) a large group of millions of galaxies (d)
(c) the Earth	(iii) a star (a)
(d) the universe	(iv) a larger group of millions of stars (e)
(e) a galaxy	(v) a tailed celestial body (b)

3. Fill in the blanks.

(a) The group of seven stars is named as Saptarishi Mandal in India.

(b) All the planets and the satellites illuminate due to the light of the Sun.

(c) Sun is the nearest star to the Earth.

(d) Different Tarikhya Mandal are located inside various Nakshatra Mandals.

4. What is Halley's comet? Describe its characteristics. P-9

5. What are celestial bodies? What are they formed of? P-8

6. How and when did the universe originate? P-9

7. Define a galaxy. P-9

8. Why can't we see the twinkling stars of night in the day time? P-8

9. Explain the 'Big Bang Theory'.

Additional Questions For Practice

A. Multiple Choice Questions (MCQs) – Tick (✓) the correct options.

1. The group of seven stars in the sky is known as Great Bear.

(a) Charpai ☐ (b) Scorpius ☐ (c) Great Bear ☒

2. Constellations were named after Animals.

(a) humans ☐ (b) birds ☐ (c) animals ☒

3. The celestial bodies remain hung in space due to the

(a) gravitational force ☒ (b) friction ☐ (c) vacuum ☐

4. Stars produce a large amount of heat and energy.

(a) electricity ☐ (b) fire ☐ (c) heat ☒

5. The Space contains our universe.

(a) space ☒ (b) galaxy ☐ (c) solar system ☐

B. Fill in the blanks.

1. During night, the sky is filled with beautiful twinkling stars.
2. The Pole Star can be found with the help of the Saptarishi Mandal.
3. Satellites reflect the light of the Sun.
4. The group of countless galaxies is called Universe.

C. Very Short Answer Questions

1. What is the Saptarishi Mandal recognised as in Britain? Plough
2. What were the seven stars of the Saptarishi Mandal regarded as by ancient Indians?
3. How are stars formed? They are formed by the collision of
4. What is space? P-8

D. Short Answer Questions

1. Why were the constellations named after animals? P-8
2. How can we locate north direction with the help of stars? P-8
3. What is Akash Ganga? P-9

E. Long Answer Questions

1. What are constellations? Explain how they came to be known by their present names.
2. Write four features of the celestial bodies. are as follows P-8/12
3. List the heavenly bodies found in our universe. are - stars, planets

1. Our Universe

Exercise

1. Choose the correct options.
(a) (i) through its own light (b) (i) North
2. Match the following.
(a) (iii) a star (b) (v) a tailed celestial body
(c) (i) a planet (d) (ii) a large group of millions of galaxies
(e) (iv) a large group of millions of stars
3. Fill in the blanks.
(a) Saptarishi Mandal (b) the sun
(c) The sun (d) Tarkiya Mandals
4. Halley's comet is the most famous comet. It can be seen once in every 76 years. It was last seen in 1986.
5. All the stars, meteors, natural satellites, comets, planets, including our earth, the sun and the moon are called celestial bodies. The celestial bodies are made from solid substances and some are made from solid, liquid and gaseous substances.
6. It is said that the Universe originated through a Big Bang. According to this theory, around 13.7 billion years ago, an explosion took place which led to the formation of the universe and the celestial bodies.
7. A galaxy includes various planets, gases, remnants of stars and dust bound together by the force of gravity.
8. We can't see twinkling stars in the day time because the stars become invisible due to the bright light of the sun.
9. The Big Bang Theory states that around 13.7 billion years ago, there was a huge explosion which led to the formation of the universe and celestial bodies.

Additional Questions For Practice

A. Multiple Choice Questions (MCQs) – Tick (✓) the correct options.

- | | | |
|----------------------------|----------------|--------------|
| 1. (c) Great Bear | 2. (c) animals | |
| 3. (a) gravitational force | 4. (c) heat | 5. (a) space |

B. Fill in the blanks.

- | | | | |
|--------------|---------------|--------|-------------|
| 1. twinkling | 2. Saptarishi | 3. Sun | 4. Universe |
|--------------|---------------|--------|-------------|

C. Very Short Answer Questions

1. The *Saptarishi Mandal* is recognised as a plough in Britain.
2. The seven stars of the *Saptarishi Mandal* are known as seven sages.
3. They are formed by the collision of helium and hydrogen.
4. All celestial bodies appear to be sculptured and hanging in the sky.
This infinite sky is known as space.

D. Short Answer Questions

1. Since the ancient people were mostly dependent on agriculture and animal husbandry, so these constellations were named after the animals whose images were observed in the group of stars.
2. The stars were earlier used to determine directions. It was a popular Indian belief that the Pole Star always shines at the North Pole since it points towards the north direction.
3. Different stars, planets, gases, remnants of stars and dust, particles are bound together by the force of gravity. They are called galaxies. Our solar system is a part of the Milky Way Galaxy. In ancient India, it was presumed to be a river of light in the sky. That is why it was named *Akash Ganga*.

Long Answer Questions

1. Several stars cluster together to form various shapes known as constellations. These constellations in Ancient India were known as *Nakshatra Mandal* (Lamp). They are known by different names throughout the world according to their groups and accreditations. In India, the group of seven stars as seen in the sky is recognised as *Saptarishi Mandal* (Ursa Major) because ancient people regarded these stars as seven sages who light up this Earth through their knowledge. In France, it is recognised as a sauce pan, in India as a plough. In other parts of India, the group of four stars of this constellation were known as Charpai and in Greece, it is called Little Bear which is a part of Ursa Major.

- The celestial bodies are actually huge in size but appear tiny as they are far away from the Earth.
- Some of the celestial bodies shine brighter.
- Celestial bodies such as stars have their own light.
- Celestial bodies appear to be sculptured and hanging in the sky.

All the stars, meteors, natural satellites, comets, planets, including our Earth, the Sun and the moon are called heavenly bodies.