6th Social Science Lesson 5 Questions in English

5. The Universe and Solar System

- 1. The study of universe is called as_____
 - a) Cosmology
 - b) Astrology
 - c) Astronomy
 - d) None

Explanation

The study of the Universe is called Cosmology. The term Cosmos is derived from the Greek word 'Kosmos'.

- 2. Celestial bodies together are called____
 - a) Stars
 - b) Galaxies
 - c) Solar system
 - d) Universe

Explanation

Numerous stars and celestial bodies came into existence by a massive explosion called Big Bang. These celestial bodies together are called The Universe. It is also referred to as the Cosmos.

- 3. The Big bang is said to be took place about____ years ago
 - a) 15 billion
 - b) 10 billion
 - c) 25 billion
 - d) 5 billion

Explanation

Most astronomers believe that the Universe came into existence after the Big Bang explosion that took place about 15 billion years ago.

- 4. Which of the following unit is used to measure distance between celestial bodies?
 - a) Metre
 - b) Kilometre
 - c) Light year
 - d) Pascal

The Universe is a vast expanse of space. Light year is the unit used to measure the distance between the celestial bodies.

- 5. Which of the following statement is correct?
 - 1) Galaxy is a huge cluster of stars, held together by gravitational force
 - 2) Most of the galaxies are scattered in space
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

Galaxy is a huge cluster of stars which are held together by gravitational force. Most of the galaxies are scattered in space, but some remain in groups.

- 6. The light year in terms of velocity/sec is_____
 - a) 300,0000
 - b) 300,000
 - c) 30,000
 - d) 300,00000

Explanation

A Light year is the unit used to measure the distance between the celestial bodies. A light-year is the distance traversed by light in a year at a velocity of 300,000 km per second

- 7. The speed of sound is____ m/s
 - a) 330
 - b) 30
 - c) 3330
 - d) 300

Explanation

A light-year is the distance traversed by light in a year at a velocity of 300,000 km per second. Sound travels at a speed of 330 m per second.

- 8. The milky way galaxy is formed about____ year ago
 - a) 5 billion
 - b) 5 million

- c) 5 Trillion
- d) 10 Billion

Most of the galaxies are scattered in space, but some remain in groups. Milky Way Galaxy was formed about 5 billion years after the Big Bang explosion.

- 9. Which of the following is the nearest galaxy to Earth?
 - a) Milky way
 - b) Andromeda
 - c) Cosmomeda
 - d) None

Explanation

Our solar system is a part of the Milky Way galaxy. Andromeda galaxy is the nearest to the Earth apart from the 'Magellanic Clouds' galaxy.

- 10. The solar system is believed to have formed about____ years ago
 - a) 4.5 billion
 - b) 5 billion
 - c) 4 billion
 - d) 3.5 billion

Explanation

The word 'solar' is derived from the Roman word 'sol', which means 'Sun God'. The solar system is believed to have formed about 4.5 billion years ago.

- 11. Which of the following are parts of our solar system?
 - a) dwarf planets
 - b) comets
 - c) eight planets
 - d) all the above

Explanation

The solar system is a gravitationally bound system which comprises of the Sun, the eight planets, dwarf planets, satellites, comets, asteroids and meteoroids.

- 12. Which of the following statement is incorrect?
 - 1) The Sun is at the centre of the solar system.

- 2) Each member of the solar system revolves around the Sun.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

The Sun is at the centre of the solar system. Each member of the solar system revolves around the Sun.

- 13. The percentage of sun in total mass of solar system is____ %
 - a) 50
 - b) 99.8
 - c) 89.8
 - d) 75

Explanation

The Sun is a huge star. Sun is so huge that it accounts for 99.8 percent of the entire mass of the solar system.

- 14. How much time it takes for sunlight to reach earth?
 - a) 8.3 minutes
 - b) 8.3 seconds
 - c) 7.3 minutes
 - d) 7.3 seconds

Explanation

The Sun is the source of light and heat energy to the entire solar system. Sunlight takes about 8.3 minutes to reach the Earth.

- 15. Which of the following statement is correct?
 - 1) The Sun is made up of extremely hot gases like Hydrogen and Helium.
 - 2) The surface temperature of the Sun is about 6,000° C.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

The Sun is made up of extremely hot gases like Hydrogen and Helium. The surface temperature of the Sun is about 6,000° C.

- 16. Which of the following statement is incorrect?
 - 1) 4.3 million Earths fit inside the Sun.
 - 2) The Sun is self-luminous so it gives light on its own
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

The Sun is a star. It is self-luminous so it gives light on its own. 1.3 million Earths fit inside the Sun.

- 17. The word planet means_____
 - a) Sphere
 - b) Revolving
 - c) Wanderer
 - d) None

Explanation

The word planet means wanderer. There are eight planets in the solar system. They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

- 18. Which of the of the following planet rotate anti-clockwise?
 - a) Venus
 - b) Uranus
 - c) Neptune
 - d) Both a and b

Explanation

All the planets rotate anti-clockwise (from west to east) on their own axes except Venus and Uranus. Hence remaining Neptune

- 19. Which of the following statement is correct?
 - 1) The elliptical path in which the planets move around the Sun is known as orbit
 - 2) The eight planets revolve in their respective orbits because of the gravitational pull
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2

d) None

Explanation

The elliptical path in which the planets move around the Sun is known as orbit. The eight planets revolve in their respective orbits because of the gravitational pull of the Sun. They do not move out of their paths or away from the solar system.

- 20. Which of the following is not a Terrestrial Planet?
 - a) Mercury
 - b) Earth
 - c) Mars
 - d) Neptune

Explanation

The four planets nearer to the Sun are called Inner or Terrestrial Planets (Mercury, Venus, Earth and Mars).

- 21. Which of the following statement is incorrect?
 - 1) The inner planets are comparatively smaller in size and are composed of Gas
 - 2) The surface of inner planets has mountains, volcanoes and craters
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

The inner planets are comparatively smaller in size and are composed of rocks. The surface of inner planets has mountains, volcanoes and craters.

- 22. Which of the following is a Jovian Planets?
 - a) Mercury
 - b) Uranus
 - c) Pluto
 - d) Earth

Explanation

The last four planets are called as Outer Planets or Jovian Planets (Jupiter, Saturn, Uranus, and Neptune).

23. Which of the following statement is incorrect?

- 1) The last four planets are also called Gaseous Giants.
- 2) An asteroid belt is found between Mars and Saturn

The last four planets are also called Gaseous Giants. An asteroid belt is found between Mars and Jupiter.

- 24. Which of the following statement is correct regarding Mercury?
 - 1) Mercury is the smallest and closest planet to the Sun.
 - 2) It is named after the Roman deity 'Mercury', the messenger to the Gods.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

Mercury is the smallest and closest planet to the Sun. It is named after the Roman deity 'Mercury', the messenger to the Gods.

- 25. Which of the following statement is incorrect regarding Mercury?
 - 1) Mercury is an airless and waterless planet
 - 2) It has an atmosphere and so experiences extremes of temperature.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

Mercury is an airless and waterless planet. It does not have an atmosphere and so experiences extremes of temperature.

- 26. How many satellites does Mercury has?
 - a) 2
 - b) 1
 - c) 4
 - d) 0

Explanation

Mercury is the smallest and closest planet to the Sun. It has no natural satellites. It is an airless and waterless planet.

27. Which of the following planet can be viewed with naked eyes?

- a) Mercury
- b) Jupiter
- c) Saturn
- d) None

Explanation

Mercury can be viewed in the morning and evening with naked eye. It does not have an atmosphere and so experiences extremes of temperature

28. Which of the following planet is called as Earth's twin?

- a) Mercury
- b) Venus
- c) Mars
- d) Jupiter

Explanation

Venus is the second planet from the Sun. It is called Earth's twin, as it is almost the same size as the Earth.

29. Which of the following planet has longest rotation period?

- a) Venus
- b) Mercury
- c) Jupiter
- d) Uranus

Explanation

Venus (The Hottest Planet) has the longest rotation period (243 days) among the planets in the Solar system.

30. Which of the following statement is correct?

- 1) Venus rotates in the opposite direction to all other planets except Uranus.
- 2) It has no natural satellites like Mercury
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Venus rotates in the opposite direction to all other planets except Uranus. It has no natural satellites like Mercury.

- 31. Venus means_____
 - a) Roman goddess of love and beauty
 - b) Roman goddess of love
 - c) Roman goddess of beauty
 - d) None

Explanation

Venus is the second planet from the Sun. It is named after the Roman goddess of love and beauty.

- 32. Which of the following is called as Morning and evening star?
 - a) Mercury
 - b) Venus
 - c) Sun
 - d) Moon

Explanation

Venus is often visible in the mornings and the evenings and so it is frequently called as the Morning Star and the Evening Star. After the Moon, it is the brightest natural object in the night sky.

- 33. _____ of earth is covered with water
 - a) 2/3rd
 - b) 3/4th
 - c) $4/5^{th}$
 - d) 1/2nd

Explanation

The Earth is the third planet from the Sun and the fifth largest planet in the solar system. It is called 'blue planet' or 'watery planet' because three-fourth of the Earth is covered by water.

- 34. The polar diameter of earth is_____ Kms
 - a) 12,714
 - b) 12,756
 - c) 12,614
 - d) 12,765

Life is possible on Earth because of the presence of land, air and water. The polar diameter of the Earth is 12, 714 km and the equatorial diameter is 12, 756 km.

35. The Earth revolves around the Sun at a speed of about_____ Km/s

- a) 100
- b) 130
- c) 30
- d) 300

Explanation

The Earth revolves around the Sun at a speed of about 30 km per second. The only natural satellite of the Earth is the Moon.

36. The distance between Earth and sun is_____ kilometre

- a) 150 million
- b) 100 million
- c) 150 billion
- d) 100 billion

Explanation

The distance between the Sun and the Earth is about 150 million kilometres. A flight flying at a speed of 800 km per hour from the Earth would take 21 years to reach the Sun.

37. The second smallest planet in the solar system is_____

- a) Earth
- b) Mars
- c) Jupiter
- d) Saturn

Explanation

Mars is the fourth planet from the Sun and the second smallest planet in the solar system, after Mercury.

38. Which among the following is the only planet not named after Greek or Roman god?

- a) Mercury
- b) Mars
- c) Earth
- d) Saturn

Explanation

The Earth is the only planet in the solar system which is not named after any Greek or Roman deity. It is the only planet known to support life.

- 39. The red colour of mars is due to_____
 - a) iron oxide
 - b) copper oxide
 - c) Sulphur oxide
 - d) Magnus oxide

Explanation

Mars is named after the Roman God of war. It appears red in colour due to the presence of iron oxide on its surface. So, it is often described as The Red Planet.

- 40. Which of the following planet has polar ice caps like earth?
 - a) Mercury
 - b) Venus
 - c) Mars
 - d) None

Explanation

Mars has a thin atmosphere. It also has polar ice caps like the Earth. Mars has two natural satellites namely Phobos and Deimos. Many orbiters and rovers have been launched to explore this planet.

- 41. Which among the following is the largest planet in the solar system?
 - a) Saturn
 - b) Jupiter
 - c) Uranus
 - d) Earth

Explanation

Jupiter is the fifth planet from the Sun and the largest planet in the solar system. It is the third brightest object in the night sky, after moon and Venus.

- 42. Which of the following is/are of Jupiter's satellite?
 - a) Io
 - b) Europa
 - c) Callisto
 - d) All the above

Jupiter has the largest number of natural satellites. Io, Europa, Ganymede and Callisto are a few large satellites of Jupiter.

- 43. Which of following planet is spinning in solar system?
 - a) Mars
 - b) Mercury
 - c) Jupiter
 - d) Uranus

Explanation

Jupiter is the fastest spinning planet in the solar system. It is called a gas giant planet. Its atmosphere is made up of mostly Hydrogen and Helium like the Sun.

- 44. How many satellites does Saturn has?
 - a) 73
 - b) 63
 - c) 53
 - d) 43

Explanation

Saturn is the sixth planet from the Sun and the second largest planet in the solar system, after Jupiter. Saturn has 62 natural satellites around it.

- 45. Which of the following planet is named after roman god of agriculture?
 - a) Jupiter
 - b) Saturn
 - c) Uranus
 - d) Neptune

Explanation

Saturn is named after the Roman god of agriculture. Saturn has many rings around it. Saturn is the sixth planet from the Sun and the second largest planet in the solar system, after Jupiter.

- 46. The rings of Saturn are made of____
 - a) Ice
 - b) Rocks
 - c) dust particles
 - d) all the above

Explanation

Saturn has many rings around it. These rings are huge and are mostly made up of ice, rocks and dust particles.

- 47. Which of the following planet's specific gravity is less than water?
 - a) Jupiter
 - b) Uranus
 - c) Neptune
 - d) Saturn

Explanation

The specific gravity of Saturn is less than that of water. If you could put Saturn in a large enough ocean it would float.

- 48. Who among the following discovered Uranus?
 - a) William Herschel
 - b) John Herschel
 - c) William Hawkins
 - d) George Herschel

Explanation

Uranus is the seventh planet from the Sun. It was the first to be discovered with a telescope by the astronomer William Herschel in 1781.

- 49. The green colour of Uranus is due to_____
 - a) Ether
 - b) Methane
 - c) Sulphur dioxide
 - d) Iron oxide

Explanation

Uranus (The Somersaulting planet) appears green due to the presence of methane. Uranus is the seventh planet from the Sun.

- 50. Uranus is named after_____
 - a) Roman god
 - b) Greek god
 - c) Indian god
 - d) None

Explanation

Uranus (The Somersaulting planet) is named after the Greek god of the sky. It rotates on its axis from east to west like Venus.

- 51. The largest satellite of Uranus is_____
 - a) Ganymede
 - b) Callisto
 - c) Titania
 - d) Titan

Explanation

Uranus has 27 natural satellites, of which Titania is the largest. Its axis is tilted so much that, it appears to orbit the Sun on its sides like a rolling ball.

- 52. Neptune is named after_____
 - a) Roman god of sea
 - b) Greek god of sea
 - c) Roman god of agriculture
 - d) Greek god of agriculture

Explanation

Neptune is the eighth and the farthest planet from the Sun. There are strong winds in this planet. It is named after the Roman god of sea.

- 53. The largest satellite of Neptune is_____
 - a) Titan
 - b) Titania
 - c) Deimos
 - d) Triton

Explanation

Neptune has 14 natural satellites, the largest being Triton. Because of its distance from the Sun, Neptune is one of the coldest planets in the solar system.

- 54. Which of the following feature of Neptune is used to distinguish it from Uranus?
 - a) striking blue and white features
 - b) striking blue and green features
 - c) striking blue and red features
 - d) striking violet and white features

Explanation

The striking blue and white features of Neptune help to distinguish it from Uranus.

- 55. Which of the following statement is correct?
 - 1) Dwarf planets are small celestial bodies found beyond the planet Neptune
 - 2) They are extremely cold and dark
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

Dwarf planets are small celestial bodies found beyond the planet Neptune. They are extremely cold and dark. They are almost spherical in shape, but unlike planets they can share their orbit with other dwarf planets.

- 56. How many dwarf planets are found in our solar system?
 - a) 4
 - b) 5
 - c) 10
 - d) 8

Explanation

The five dwarf planets of the solar system are Pluto, Ceres, Eris, Makemake and Haumea. Dwarf planets are small celestial bodies found beyond the planet Neptune.

- 57. How much time does moon takes to revolve around earth?
 - a) 28 days 8hours
 - b) 27days 8 hours
 - c) 30 days 8 hours
 - d) 29 days 8hours

Explanation

Satellites are celestial objects, which revolve around the planets. The moon is the Earth's only satellite. It revolves around the Earth once in every 27 days and 8 hours.

- 58. which of the following statement is incorrect?
 - 1) The Moon has no atmosphere
 - 2) The surface of the moon is characterized by craters created by the impact of meteors.
 - a) 1 alone
 - b) 2 alone

- c) 1, 2
- d) None

The Moon - Earth's Satellite has no atmosphere. The surface of the moon is characterized by craters created by the impact of meteors.

- 59. Which of the following statement is correct?
 - 1) The size of the moon is one-quarter of the Earth.
 - 2) The Moon is the only celestial body where humans have landed.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

The distance between the moon and the Earth is about 3, 84,400 km. The size of the moon is one-quarter of the Earth. The Moon is the only celestial body where humans have landed.

- 60. In which year Chandrayaan 1 was launched?
 - a) 2008
 - b) 2007
 - c) 2010
 - d) 2009

Explanation

ISRO launched India's first ever Moon mission, Chandrayaan - 1 in 2008.

- 61. Which of the following are called as minor planets?
 - a) Asteroids
 - b) Comets
 - c) Dwarf planets
 - d) Natural satellites

Explanation

Asteroids are small solid objects that move around the Sun. They are found as a belt between Mars and Jupiter. They are too small to be called as planets. They are also known as Planetoids or Minor Planets.

62. Which of the following celestial body has head and tail?

- a) Comets
- b) Asteroids
- c) Meteorites
- d) Meteors

A comet is a celestial object made up of a head and a tail. The head of a comet consists of solid particles held together by ice and the tail is made of gases.

- 63. Halley's Comet will appear next in____
 - a) 2021
 - b) 2061
 - c) 2031
 - d) 2025

Explanation

Halley's Comet is the most famous comet which comes close to the Earth every 76 years. It last appeared in 1986 and will next appear in 2061.

- 64. Which of the following is called as shooting stars?
 - a) Meteors
 - b) Comets
 - c) Asteroids
 - d) None

Explanation

A meteor is a stone like or metallic body. As they often appear as streaks of light in the sky, they are also known as Shooting Stars.

- 65. Which of the following statement is correct?
 - 1) Meteorites which strike the Earth's surface are called meteors
 - 2) When entering into the Earth's atmosphere, most of meteors burn
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

A meteor is a stone like or metallic body. When entering into the Earth's atmosphere, most of them burn. Meteors which strike the Earth's surface are called meteorites.

66. The Earth's axis is always tilted or inclined from the vertical by an angle of_____

- a) 23½°
- b) 66½°
- c) 33½°
- d) 36½°

Explanation

The Earth's axis is always tilted or inclined from the vertical by an angle of 23½°. It makes an angle of 66½° with the plane of the Earth's orbit.

67. The velocity of the Earth's rotation at 60° N and S latitudes?

- a) 1670 Kmph
- b) 845 Kmph
- c) 945 kmph
- d) 1045 kmph

Explanation

The velocity of the Earth's rotation varies from 1670 km per hour at the equator to 845 km per hour at 60° N and S latitudes and zero at the poles.

68. Which of the following statement is correct?

- 1) The Earth rotates from west to east (anticlockwise) and takes 23 hours 56 minutes and 4.09 seconds to complete one rotation.
- 2) The time taken by the Earth to complete one rotation is called a day.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

Rotation is the spinning movement of the Earth on its axis. The Earth rotates from west to east (anticlockwise) and takes 23 hours 56 minutes and 4.09 seconds to complete one rotation. The time taken by the Earth to complete one rotation is called a day.

69. The Midnight Sun is a natural phenomenon that occurs in____

- a) north of the Arctic Circle
- b) south of the Antarctic Circle
- c) Greenwich
- d) Both a and b

The Midnight Sun is a natural phenomenon that occurs in the summer months in places north of the Arctic Circle or south of the Antarctic Circle, when the Sun remains overhead 24 hours a day.

- 70. Which of the following statement is correct?
 - 1) The illuminated portion of the Earth experiences day
 - 2) The line which divides the surface of the Earth into a lighted half and a dark half is called the Terminator Line.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

The illuminated portion of the Earth experiences day, whereas the darkened part of the Earth experiences night. The line which divides the surface of the Earth into a lighted half and a dark half is called the Terminator Line.

- 71. The Northern Hemisphere is inclined towards the Sun for six months_____
 - a) from 21st March to 23rd September
 - b) from 1st March to 23rd September
 - c) from 21st March to 3rd September
 - d) from 21st March to 23rd July

Explanation

The Northern Hemisphere is inclined towards the Sun for six months from 21st March to 23rd September while the Southern Hemisphere is tilted away from the Sun.

- 72. Which of the following statement is incorrect?
 - 1) From Sep 23rd to March 21st the Northern hemisphere is inclined towards the Sun and the southern hemisphere faces away from the Sun.
 - 2) The southern Hemisphere is inclined towards the Sun for six months from 21st March to 23rd September while the northern Hemisphere is tilted away from the Sun.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

The Northern Hemisphere is inclined towards the Sun for six months from 21st March to 23rd September while the Southern Hemisphere is tilted away from the Sun. From Sep 23rd to March 21st the southern hemisphere is inclined towards the Sun and the northern hemisphere faces away from the Sun.

- 73. Which of the following statement is correct?
 - 1) Perihelion is the Earth's closest position to the Sun.
 - 2) Aphelion is the farthest position of the Earth from the Sun.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

Perihelion is the Earth's closest position to the Sun. Aphelion is the farthest position of the Earth from the Sun.

- 74. Which of the following day is Equinoxes?
 - a) July 13
 - b) March 21
 - c) May 21
 - d) May 23

Explanation

The equator faces the Sun directly on 21 March and 23 September. These two days are called Equinoxes, during which the day and night are equal throughout the Earth.

- 75. On which day Summer Solstice occur?
 - a) July 13
 - b) 21st June
 - c) 22nd December
 - d) 21st march

Explanation

On 21st June, the Tropic of Cancer faces the Sun. This is known as Summer Solstice. It is the longest day in the Northern Hemisphere and longest night (shortest day) in the Southern Hemisphere.

- 76. Which day is winter solstice?
 - a) July 13
 - b) November 26

- c) December 22
- d) December 1

On 22nd December, the Tropic of Capricorn faces the Sun. It is called as Winter Solstice. It is the longest day in the Southern Hemisphere and longest night (shortest day) in the Northern Hemisphere.

77. The percentage of nitrogen in atmosphere is_____

- a) 68%
- b) 78%
- c) 88%
- d) 98%

Explanation

The major gases are Nitrogen (78%) and Oxygen (21%). The other gases like Carbon dioxide, Hydrogen, Helium, Argon, and Ozone are present in meager amounts.

78. The Gulf of Mannar Biosphere Reserve in the Indian Ocean covers an area of_____

- a) 1000 sq.km
- b) 10,500 sq.km
- c) 9500 sq.km
- d) 7550 sq.km

Explanation

The Gulf of Mannar Biosphere Reserve in the Indian Ocean covers an area of 10,500 sq.km in the ocean.

79. The term Bio is derived from_____

- a) Greek
- b) Roman
- c) Italic
- d) Sanskrit

Explanation

The narrow belt of interaction among the lithosphere, the hydrosphere and the atmosphere, where life exists is known as Biosphere. Bio means life in Greek.

80. The soil and rocks are covered in_____

- a) Lithosphere
- b) Hydrosphere
- c) Atmosphere
- d) Biosphere

The word lithosphere is derived from the Greek word Lithos, which means rocky. The Lithosphere is the land on which we live. It is the solid outer layer of the Earth consisting of rocks and soils.