

* Choose The Right Answer From The Given Options.

[21]

1. Which one of the following is arranged in order from biggest to smallest?

- (A) Galaxy, Universe, solar System, Star, Planet
- (B) Universe, Solar System, Galaxy, Planet, Star
- (C) Solar System, Universe, Galaxy, Star, Planet
- (D) Universe, Galax, Solar System, Star, Planet

Ans. : Universe, Galax, Solar System, Star, Planet

2. Which of the following is not a member of our Solar System?

- (A) Sirius
- (B) Comets
- (C) Asteroids
- (D) Pluto

Ans. : Sirius

3. Which of the following is not a planet of the Sun?

- (A) Jupiter
- (B) Pluto
- (C) Neptune
- (D) Saturn

Ans. : Pluto

4. _____ is the scientific study of the universe.

- (A) Astronomy
- (B) Astrology
- (C) Science
- (D) Cosmology

Ans.: (A) Astronomy

5. Which planet is called the stormy planet?

- (A) Mercury
- (B) Jupiter
- (C) Mars
- (D) Venus

Ans. : (B) Jupiter

6. The Sun is _____

- (A) a star
- (B) a celestial body
- (C) the head of the solar system
- (D) all of these

Ans. : (D) all of these

7. The term 'blue planet' indicate presence of

- (A) land
- (B) water
- (C) oxygen
- (D) all of these

Ans. : (B) water

8. The moon moves around the earth in about days.

- (A) 21
- (B) 23
- (C) 27
- (D) None

Ans. : (C) 27

9. Which of the following does not belong to the family of solar system?

- (A) Planet
- (B) Galaxy
- (C) Meteors
- (D) Comet

Ans. : (B) Galaxy



10. The Halley's Comet is seen after every

- (A) 76 months (B) 76 years (C) 56 months (D) 56 years

Ans. : (B) 76 years

11. Ursa Major is a _____

- (A) star (B) constellation
(C) seen only with telescope (D) satellite

Ans. : (B) constellation

12. Which planet has the largest number of satellites?

- (A) Jupiter (B) Saturn (C) Mercury (D) Mars

Ans. : (B) Saturn

13. Which unit is used to measure astronomical distances?

- (A) Leap year (B) Light year (C) Century (D) Sound year

Ans. : (B) Light year

14. The stars forming a recognizable shape is called

- (A) constellation (B) system (C) galaxy (D) asteroids

Ans.: (A) constellation

15. Which star is nearest to Earth?

- (A) Pole star (B) Cassiopeia (C) Orion (D) Sun

Ans. : (D) Sun

16. What term is used for celestial bodies that revolve around the Sun in highly elliptical orbit?

- (A) Comet (B) Meteors (C) Asteroids (D) Planets

Ans.: (A) Comet

17. Which small objects revolve between the orbits of Mars and Jupiter?

- (A) Satellites (B) Comets (C) Asteroids (D) Meteorites

Ans. : (C) Asteroids

18. Which planet is called morning star or evening star?

- (A) Venus (B) Mars (C) Jupiter (D) Mercury

Ans.: (A) Venus

19. Orion is a _____

- (A) constellation (B) star (C) planet (D) satellite

Ans.: (A) constellation

20. Shooting stars are called _____

- (A) asteroids (B) galaxies (C) meteors (D) andromeda

Ans. : (C) meteors

21. The planet farthest from the Sun _____
(A) Uranus (B) Neptune (C) Saturn (D) Mercury

Ans. : (B) Neptune

*** Fill In The Blanks With Correct Alternative.**

[13]

22. There are planets in _____ our solar system.

Ans. : Eight

23. There is a star and it is _____ the center of the solar system.

Ans. : Sun

24. The inner planets have a _____ surface.

Ans. : Rocky

25. A large group of stars and other celestial bodies is called a _____.

Ans. : Galaxy

26. Satellites are the celestial bodies that move around _____

Ans. : Planets

27. _____ is called the windy planet because of the continuous strong winds that blow on it.

Ans. : Neptune

28. The colour of stars changes according to their _____ temperature.

Ans. : Surface

29. A/An _____ is made of ice, dust and rocky material.

Ans. : Comet

30. A/An _____ is made of metals and rocky material.

Ans. : Asteroid

31. A group of forming various patterns is called a _____

Ans. : Stars, constellation

32. A huge system of stars is called _____

Ans. : Galaxy

33. _____ is the third nearest planet to the sun.

Ans. : Earth

34. Planets do not have their own _____ and _____

Ans. : Heat, light

[9]

*** State Whether The Sentences Are True Or False.[1 Marks Each]**

35. Pole star is a member of the solar system.

Ans. : False

36. Uranus is the farthest planet in the solar system.

Ans. : False

37. Earth is our home planet.

Ans. : True

38. Sun is a satellite.

Ans. : False

39. The Moon has its own light; it does not reflect light from the Sun.

Ans. : False

40. The Sun is a planet in our solar system.

Ans. : False

41. The Earth is the only planet in our solar system that has liquid water on its surface.

Ans. : True

42. The atmosphere on Mars is similar to that on Earth.

Ans. : False

43. The Milky Way is the name of our solar system.

Ans. : False

*** Answer The Following Questions In One Sentence.[1 Marks Each]**

[62]

44. What is a constellation?

Ans. : A constellation is a group of stars that form a recognizable pattern in the sky.

45. What is a shooting star?

Ans. : A shooting star is actually a meteor burning up in Earth's atmosphere, causing a streak of light in the sky.

46. Which is the closest star to the Earth?

Ans. : The Sun is the closest star to the Earth.

47. Which star is nearest to us after the Sun?

Ans. : Proxima Centauri is the star nearest to us after the Sun.

48. Which is the brightest star in the night sky?

Ans. : Sirius is the brightest star in the night sky.

49. 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?

Ans. : We will see the change seen after 10 years

50. Which device is used to observe faint stars which are not visible to the naked eye?

Ans. : Powerful telescopes are used to observe faint stars that are not visible to the naked eye.

51. Which are the four main stars we know?

Ans. : Sun, Proxima Centauri, Alpha Centauri and Sirius.

52. What is the distance between the Sun and the Earth?

Ans. : The distance of the Sun from the Earth is about 150 million km.

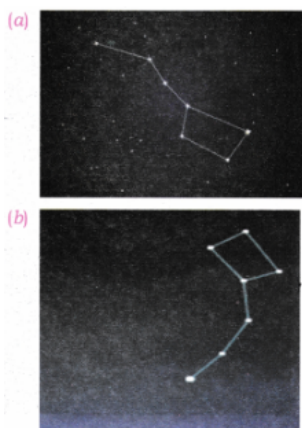
53. What is Universe?

Ans. : The Universe is a large space consisting of celestial bodies like the stars, planets, galaxy, dust and gases.

54. What causes stars to rise and set?

Ans. : This occurs due to Earth's rotation which is spinning around its own axis.

55. Identify the following constellations:



Ans. : (a) Ursa Major/Big Dipper

(b) Ursa Minor/Little Dipper

56. What are the other names of Pole Star?

Ans. : Polaris/Dhruv Tara/ North Star/ Guiding Star are the other names of Pole Star.

57. How do astronomers use constellations?

Ans. : Astronomers use constellations as a way to identify and- locate stars and other celestial objects in the night sky, aiding navigation and observation.

58. Do stars emit light only during night?

Ans. : No, they emit light all the time.

59. What is meant by the 'Solar System'?

Ans. : The sun, eight planets, satellites and some other celestial bodies known as asteroids and meteoroids form the solar system.

60. Why is the Earth called a blue planet?

Ans. : From the outer space, the earth appears blue because its three- fourths surface is covered by water. It is, therefore, called a blue planet.

61. What is revolution?

Ans. : The motion of the earth around the sun in its orbit is known as revolution.

62. Which galaxy is our solar system part of?

Ans. : Our solar system is in the Milky Way Galaxy.

63. Which planet is the hottest in our solar system?

Ans. : Venus is the hottest planet in our solar system.

64. How many planets in the solar system are made of gas? Name them.

Ans. : Four planets are made out of gas and they are also referred to as gas giants. They are Jupiter, Saturn, Uranus, and Neptune.

65. What do planets in the solar system orbit around?

Ans. : The planets orbit around the Sun.

66. Why is Moon not considered a planet?

Ans. : The Moon isn't a planet because it orbits the Earth.

67. Which planet is known as the "Red Planet" and why?

Ans. : Mars is called the Red Planet because it appears red. This is because the soil on Mars is reddish in colour.

68. Which planet is called "morning or evening star and why?

Ans. : Venus is usually seen shining brightly at dawn and dusk, and is commonly called the Morning Star or the Evening Star, even though it is not a star,

69. What is a Dwarf Planet?

Ans. : A small sized celestial body that revolves independently around the sun is called the dwarf planet.

70. When is 'National Space Day' celebrated in India?

Ans. : 'National Space Day' is celebrated on August 23rd every year.

71. Why is Jupiter called the Stormy Planet?

Ans. : Jupiter revolves around itself with a great speed; hence Jupiter is called the Stormy planet.

72. What are artificial satellites used for?

Ans. : Artificial satellites are used for weather forecasting, long distance communication and remote sensing.



73. What is the other name of inner planets and name them?

Ans. : Inner planets are also called Terrestrial planets, They are - Mercury, Venus, Earth and Mars.

74. What is the other name of outer planets and name them?

Ans. : Outer planets are also called Jovian planets. They are- Jupiter, Saturn, Uranus and Neptune.

75. Why is Venus called the Twin Planet?

Ans. : Venus is considered as 'Earth's-twin' because its size and shape are very much similar to that of the earth.

76. What is a galaxy?

Ans. : A galaxy is a huge system of billions of stars, and clouds of dust and gases.

77. What is the shape of the Milky Way Galaxy?

Ans. : Our Milky Way Galaxy is a spiral galaxy having a whitish broadband. It looks like a spinning pinwheel when viewed from top or bottom.

78. What is the other name of Milky Way Galaxy?

Ans. : Milky Way galaxy is often known as Akash Ganga.

79. Why is our galaxy called Milky Way?

Ans. : Our galaxy is called the Milky Way because it appears as a milky hand of light in the sky when we see it in a really dark area.

80. Define Universe.

Ans. : The Universe is a large space consisting of celestial bodies like the stars, planets, galaxy, dust and gases.

81. What is the scientific study of universe called?

Ans. : The scientific study of universe is called Astronomy.

82. What Is the name of the successful mission by India which demonstrated end-to-end capability in safe landing and roving on the lunar surface?

Ans. : Chandrayaan-3 demonstrated end-to-end capability in safe landing and roving on the lunar surface.

83. What Is the name of Chandrayaan3 mission's lander and the rover?

Ans. : Chandrayaan 3 mission's lander is named Vikram and the rover Pragyan.

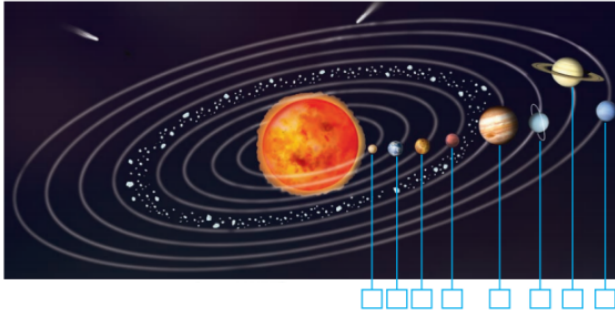
84. What is electric circuit?

Ans. : The diagram that shows the path of electric current is called electric circuit.

85. Which is the brighter star, the Pole Star or Sirius?

Ans. : Sirius

86. An artist's representation of the Solar System is given in Figure. Is the order of the planets correct? If not, write the correct order in the boxes in the figure.



Ans. : The order of the planets in the figure is not correct. The correct order from the Sun is: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

87. You can see stars fading away at dawn and appearing f at dusk. During the day we do not see the stars. Explain why?

Ans. : During the day, the Sun's bright light outshines the stars, making them invisible to our eyes. The atmosphere scatters the sunlight, creating the blue sky and masking the faint light of the stars.

88. During a clear night, try to observe the Big Dipper 3-4 times at , an interval of 2 to 3 hours. Also try to locate the Pole Star each time. Does the Big Dipper appear to move? Draw a rough sketch to illustrate this, mentioning the time in each case.

Ans. : The Big Dipper appears to move around the Pole Star due to the rotation of the Earth. Over a few hours, its position changes, making it seem as if it is rotating around the Pole Star.

89. Think about the night sky and write a poem or a story on it.

Ans. : Do it yourself.

90. Bltie planet of the solar system.

Ans. : Earth

91. Two planets between which Saturn lies.

Ans. : Jupiter and Uranus

92. Evening Star.

Ans. : Venus

93. The galaxy which is our neighbour.

Ans. : Andromeda

94. Planet with the largest number of satellites.

Ans. : Saturn

95. A celestial body that carries a tail along.

Ans. : Comet

96. Stormy planet

Ans. : Jupiter

97. Winds blow with extremely high speed on

Ans. : Neptune

98. A dwarf planet.

Ans. : Pluto

99. Nearest planet to Sun.

Ans. : Mercury

100. Second; farthest planet from Sun.

Ans. : Uranus

101. Largest planet in our Solar System.

Ans. : Jupiter

102. Planet having rings.

Ans. : Saturn

103. Farthest planet from Sun.

Ans. : Neptune

104. Solve the riddles: Eight of us travel around the sun, you live on one. What am I?

Ans. : Planet

105. Solve the riddles: I'm the planet that everyone calls "Red," But really my soil is rust-colored instead. Look up and you may spot me in the sky, I'm the orange-colored dot, way up high. Which planet am I?

Ans. : Mars

*** Answer The Following Questions In Short.[2 Marks Each]**

[12]

106. Why is the Earth called a unique planet?

Ans. : The earth is a unique solar system planet because:

- (a) Conditions favorable to supporting life are only to be found on earth.
- (b) The earth is neither too hot nor too cold.
- (c) There are water and air in it, which are very important for our survival.

107. Why is the Sun important to our life?

Ans. : Sunlight is essential for plants to grow, which provide food and oxygen to animals, including humans. The Sun is responsible for climate, seasons, weather, water cycle, winds—all of which are important for sustaining life on the Earth.

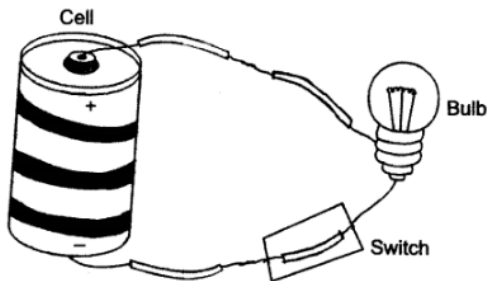
108. Suppose the distance between earth and sun becomes half of its present distance. What is likely to happen to life?



Ans. : Life as we know it would cease. Radiation hitting the earth, including sunlight would increase by a factor of 4. Perhaps there would be a small area near the poles where some life could exist, but everywhere else would be lifeless due to the quadrupled radiation.

109. Draw a diagram to show the closed circuit for switch, bulb and dry cell.

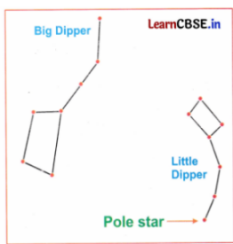
Ans. :



110. A portion of night sky with stars is shown in Figure. Look carefully and identify the groups of stars that form the patterns—the Big Dipper and the Little Dipper. Draw lines to connect the stars for these patterns and label them. Also, identify and label the Pole Star. You may refer to Fig. 12.4 for help.



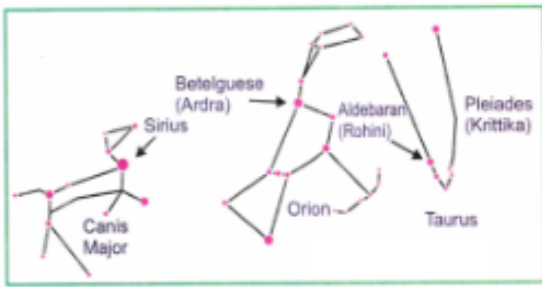
Ans. :



111. A portion of the night sky is shown in Figure. Draw lines to connect the stars for Orion and label the star Sirius. You may refer to Fig. 12.3.



Ans. :



* Answer The Following Questions In Brief.

[3]

112. How does a planet differ from a star?

Ans. :

Planet	Star
The celestial bodies which revolve around the sun in certain orbit are called planets.	Stars are the celestial bodies which can emit heat and light continuously.
Planets do not twinkle in the sky.	Stars twinkle in the sky.
They do not have their own light.	They have their own light.
They revolve around the sun.	They are fixed at a point.
Planets are small as compared to stars.	They are very big in size.

* Match the following.

[5]

Column A	Column B
113. Biggest Planet	A. Venus
114. Coldest Planet	B. Orion
115. Smallest Planet	C. Uranus
116. Hottest Planet	D. Mercury
117. Constellation	E. Halley
	F. Jupiter

Ans. :

Column A	Column B
1. Biggest Planet	F. Jupiter
2. Coldest Planet	C. Uranus
3. Smallest Planet	D. Mercury
4. Hottest Planet	A. Venus
5. Constellation	B. Orion
