



15. If two stars have the same luminosity, the cooler star must have a ____
a. Larger diameter b. bluer colour c. smaller radius d. larger doppler effect
16. The spectral lines of a star are observed to be shifted toward smaller wavelengths. This shows that
a. The star is rather cool b. the star is approaching us
c. The star is receding from us d. the star is very hot.
17. A continuous spectrum is formed by _____
a. A hot frying pan b. a glowing steel ingot in a blast furnace
c. The photosphere of sun d. all of the above options.
18. The discovery that planets move in elliptical orbits with the sun at the focus was made by _____
a. Halley b. Tycho Brahe c. Kepler d. Galileo
19. The correct arrangement of light at different wavelengths, in order from smallest to largest wavelength, is:
a. Radio-infrared-visible-x rays
b. Infrared-ultraviolet – microwaves-visible light
c. Gamma rays – x rays – ultraviolet – visible light
d. Radio waves – visible – infrared – x rays.
20. The particles found in the nucleus of an atom are _____
a. Electrons and protons b. Protons and neutrons
c. Electrons and photons d. photons and neutrons
21. What sort of light does the Chanda telescope measure?
a. Infrared b. X-rays c. Ultraviolet d. Gamma rays
22. The largest telescopes used for observation in the visible region of the spectrum are
a. Refracting telescopes b. Radio telescopes
c. Reflecting telescopes d. telescopes that have chromatic aberrations
23. The speed of light in a vacuum is
a. 300,000 km/s b. 30,000 km/s
c. 3,000,000 km/s d. 3000 km/s
24. Orbits of comets are _____
a. Elliptical b. Aero-centric
c. Geocentric d. Galactocentric
25. What type of Galaxy is the Milky way?
a. Elliptical galaxy b. Irregular Galaxy
c. Barred spiral galaxy d. Spiral galaxy without bars.

PART B

Answer any 3 questions. Each question carries 5 marks.

3x5=15

26. Match the following and write a short note on the moon and the sun.

i. Shooting star	a. Ursa Major
ii. Constellation	b. Milky Way
iii. Brightest planet	c. Moon
iv. Artificial satellite	d. Halley
v. Galaxy	e. Meteors
vi. Periodic comet	f. Sun
vii. Natural satellite	g. Venus
viii. Star	h. INSAT

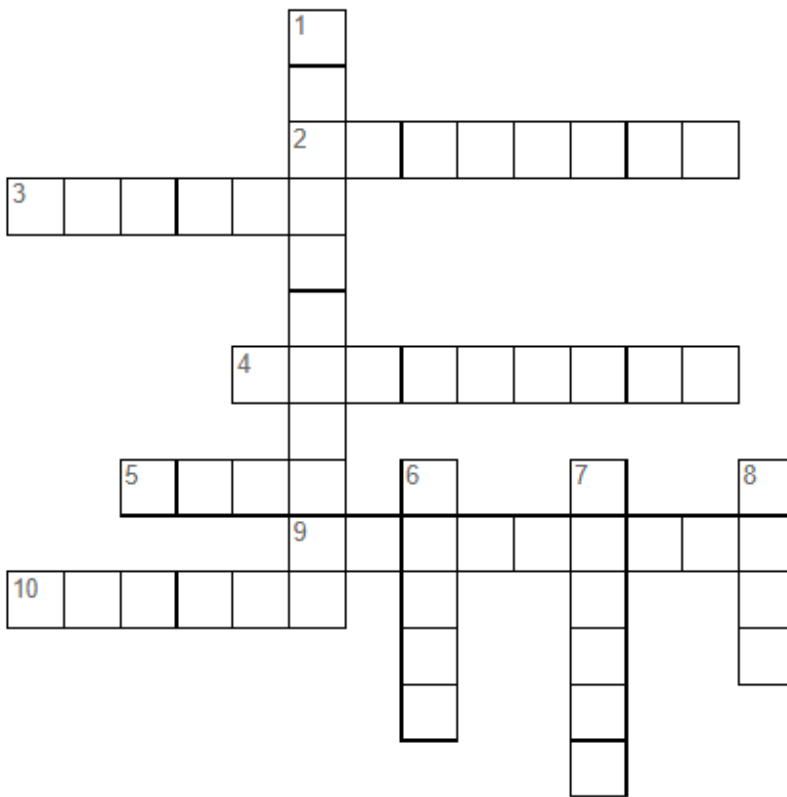


27. With neat labeled diagrams differentiate the working of a refracting and reflecting telescope.
28. Briefly explain the need for space-based observations.
29. What is an eclipse? Draw a neat diagram for the formation of the solar eclipse.
30. Define the following terms
- a. Constellation b. Galaxies c. Stars d. Planets

PART C

31. This is a compulsory question that carries 10 marks. Solve the below astronomy crossword puzzle. The clues are given on the next page.

1x10 = 10





Across

- 2 A small body that orbits the Sun but cannot be classified as a dwarf planet or a planet.
- 3 A great star-like celestial object that emits massive amounts of energy.
- 4 A star that has collapsed in on itself and has so much gravity that nothing can escape from it once it has come close enough.
- 5 A body that orbits a planet.
- 9 A body that orbits a star that is not our Sun, has a clear orbit, and is round.
- 10 A body that orbits a star, is round and has a clear orbit.

Down

- 1 A body that orbits the Sun, is round but does not have a clear orbit.
- 6 A small, icy body that heats up and leaves a trail of gas when close enough to the sun.
- 7 A large collection of stars, most likely with a supermassive black hole in the center.
- 8 A ball of gas where inside the core nuclear reactions are constantly occurring.