

TB245180W

Reg. No : .....

Name : .....

**BACHELOR'S DEGREE (C.B.C.S.) EXAMINATION, FEBRUARY 2024**

**2021 ADMISSIONS SUPPLEMENTARY (SAY)**

**SEMESTER V - OPEN COURSE**

**PH5D01AB18 - Amateur Astronomy**

**Time : 3 Hours**

**Maximum Marks : 80**

**Part A**

**I. Answer any Ten questions. Each question carries 2 marks**

**(10x2=20)**

1. Define ecliptic and zodiac.
2. Define zenith and celestial horizon.
3. Define spherical aberration. Mention how to rectify spherical aberration.
4. Discuss the features of Milky way galaxy.
5. Identify the spectral type of Sun and locate it in H-R diagram.
6. Briefly discuss a in-direct method of determination of distance of far away galaxies.
7. Briefly explain about the Cepheid variables.
8. What are sunspots?
9. Write a short note on the surface features of Triton.
10. Explain briefly Phobos and Deimos.
11. Explain the features of harvest moon.
12. Give the explanation by Ptolemy on the retrograde motion of planets.



**Part B**

**II. Answer any Six questions. Each question carries 5 marks**

**(6x5=30)**

13. Sketch and explain global celestial coordinates.
14. Outline the working of a radio telescope. Also discuss the significance of radio interferometer.
15. Discuss the features of any three types of galaxies.
16. Write a short note on black hole.
17. Discuss about the ring system in Saturn with the help of a diagram.
18. Explain the special effects in Moon.
19. Explain cosmic background radiation.
20. Explain briefly extraterrestrial life.
21. Write a short note on interstellar travel.

**Part C**

**III. Answer any Two questions. Each question carries 15 marks**

**(2x15=30)**

22. Cite and explain the features of northern circumpolar, southern circumpolar and equatorial constellations.
23. Illustrate the evolution of a sun-like star in H-R diagram and explain.
24. Differentiate between Asteroids, comets and meteors.
25. Describe the structure of the Universe, and explain the idea that it is expanding. Explain the big bang theory and steady state theory.