

TB245695A

28.11

Reg. No : .....

Name : .....

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

**2022 ADMISSIONS REGULAR**

**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. Mention the stars used in navigation. Justify your answer.
2. Define zenith and celestial horizon.
3. Explain the reason for the twinkling of stars while the planets do not.
4. Illustrate stellar classification in H-R diagram.
5. Explain parallax method in the determination of distances to stars.
6. Examine the process involved in Helium flash.
7. Define event horizon.
8. Explain the features of solar wind.
9. Venus is called an evening star and morning star. Justify
10. Explain about the Saturn's largest and very intriguing moon.
11. Explain occultations.
12. Differentiate between perigee and apogee.

**Part B**

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

**(6x5=30)**

13. Explain declination and right ascension with the help of a diagram.
14. Write an account of Hubble Space Telescope.
15. Outline the features and classification of spiral galaxies.
16. Compare and classify variable stars.
17. Describe the origin, properties and cyclic nature of sunspots and explain how they are related to solar activity.
18. Briefly explain the concept of Lunar Eclipse.
19. Write a short note on Starry Messenger.
20. Explain the importance of receiving intelligent radio signals in the search for life in planets other than earth.
21. Describe how we can estimate the age and size of the universe.

**Part C**

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

**(2x15=30)**

22. Discuss the significance of a constellation. Classify and outline the features of different kinds of constellations citing examples.
23. Elaborate on the stellar evolution of an average mass star.
24. With the help of a neat diagram, discuss the internal structure of the sun. Explain how energy production occurs in the sun.
25. Discuss the theories about the evolution of the universe.