TB205390V

Reg. No :.....

Name :.....

BACHELOR'S DEGREE (C.B.C.S.) EXAMINATION, NOVEMBER 2022

2020 ADMISSIONS REGULAR AND 2019, 2018 ADMISSIONS SUPPLEMENTARY

SEMESTER V - OPEN COURSE (PHYSICS)

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 constellations. List down its purpose.
2. Write your inference on apparent diurnal and annual motion of stars.
3. List down the limitations of Earth bound instruments.
4. Explain parallax method in the determination of distances to stars.
5. Briefly explain dark matter.
6. Explain the formation of a protostar.
7. Briefly discuss a in-direct method of determination of distance of far away galaxies.
8. Explain the features of solar wind.
9. Explain the surface feature of Ganymede.
10. Why the planet Mars is called a red planet?
11. Explain occultations.
12. Explain briefly the cosmological principle.

Part B

II. Answer any Six questions. Each question carries 5 marks **(6x5=30)**

13. Sketch and explain global celestial coordinates.
14. Discuss various kinds of radio telescopes.
15. Explain the features of lenticular galaxy. How it is different from spiral and elliptical 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 origin of comets.
19. Explain the features of Aristotle model of the Universe.
20. Write a short note on Starry Messeneger.
21. Specify the reasons for the idea that the universe is expanding.

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. Discuss the stellar evolution of a massive star.
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.