TB165390F

Reg. No.: .....

Name : .....

B. Sc. DEGREE (C.B.C.S.S.) EXAMINATION, JANUARY 2019
(2016 Admission Supplementary)
SEMESTER V- OPEN COURSE (PHYSICS)
PH5D01ATB – AMATEUR ASTRONOMY

Time: Three Hours **Maximum Marks: 80**

PART A

I. Answer all questions. Each question carries 1 mark.

1. Briefly give the purpose of constellations.
2. What is GMRT?
3. Define the term luminosity.
4. What is meant by asteroid belt?
5. Briefly discuss the rotation of moon.
6. What do you mean by retrograde motion of planets?

(6 x 1 = 6)

PART B

II. Answer any seven questions. Each question carries 2 marks.

7. What are the different kinds of constellations?
8. Define the terms equinoxes and solstices.
9. Briefly explain about planetary nebula.
10. What is a black hole?
11. Explain about the Stellar Parallax and its significance.
12. Discuss the surface features of the planet mercury.
13. Why Venus is called the twin of earth?
14. Give any two differences between Ptolemy's model of the Universe and Copernican model of the universe.
15. Comment on the statement "Universe is expanding".
16. What are the major observations made by Galileo using telescope?

(7x 2= 14)

PART C

III. Answer any five questions. Each question carries 6 marks.

17. Differentiate between solar and sidereal day.
18. Explain about the features of any equatorial constellation.
19. Discuss about the life cycle of a Sun-like star.
20. Sketch and explain the significance of H-R diagram.
21. What do you mean by Giants of the solar system? Give a comparison of them bringing out the similarities and differences between them.
22. Write a short note on the ring system in Saturn with the help of a diagram

23. Discuss the drawbacks of Ptolemy's model .
24. Discuss how one can estimate the age of the universe using Hubble's law.

(5 x 6 = 30)

PART D

IV. Answer any two questions. Each question carries 15 marks.

25. Explain the features of a telescope. Hence discuss and compare various kinds of optical telescopes.
26. Write an account of stellar and galactic classification.
27. Discuss the structure of the sun. Explain the different features seen on the surface of the sun
28. Discuss how big bang theory explains the evolution of the universe. What are the evidences in support of it?

(2 x 15 = 30)