

TB145640C

Reg. No: .....

Name: .....

**B. Sc. DEGREE (C.B.C.S.S.) EXAMINATION, APRIL 2017**

**Supplementary – 2014 Admission**

**SEMESTER V - OPEN COURSE (PHYSICS)**

**PHY5AA(O) – AMATEUR ASTRONOMY**

**Time: Three Hours**

**Maximum Marks: 80**

**PART A**

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

1. Define Ecliptic and Zodiac.
2. Briefly explain GMRT.
3. Write a short note on solar flares.
4. Which is the tallest known volcano and mountain in the solar system and name the planet in which it is situated?
5. State Keplers laws.
6. What is SETI?
7. What do you understand by the term moon illusion?
8. Who is the author of the book “Starry Messenger”?
9. Name the official calendar of India.
10. How Copernican model of the universe was different from that of Ptolemy?

**(10x1=10)**

**PART B**

**II. Answer any eight questions. Each question carries 2 marks.**

11. What is the difference between apparent solar time and mean solar time?
12. Give an account of Hubble space telescope.
13. Differentiate between apparent and absolute magnitude.
14. Briefly discuss the features of any circumpolar constellation.
15. Explain about spiral and barred spiral galaxies.
16. Explain the term sunspots seen in the surface of the sun?
17. Why Venus is called the twin of earth?
18. Describe Open Cluster of stars.
19. Distinguish between Novae and Super Novae.
20. What is Big Bang theory? Describe the evidences for it?
21. Distinguish between apparent solar day and mean solar day?
22. What is summer solstice? In which month of the year it occurs?

**(8x2=16)**

**PART C**

**III. Answer any six questions. Each question carries 4 marks.**

23. Give an account of stellar classification.
24. Bring out the features of different types of optical telescope. Also give a comparison among them.

25. "All planets except earth cannot have life in them"- Do you agree with the statement? Justify your answer.
26. Give a description of the core of the Sun and explain how energy is produced in Sun.
27. Describe about the minor members of the solar system? Why are they called so?
28. Compare the internal structure of the Jovian planets.
29. Explain seasonal variations in earth?
30. Describe (a) Black hole (b) Neutron star
31. What are the advantages of reflecting type telescopes over refracting type telescopes?  
(6x4=24)

#### **PART D**

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

32. Explain the cardinal points on Celestial sphere. Describe equatorial and horizontal co-ordinate system?
33. What are terrestrial planets? Give a comparison of the terrestrial planets, bringing out the similarities and differences between them.
34. Describe Ptolemy's model of universe. What are the drawbacks of this model? Explain how Ptolemy explained retrograde motion of planets?
35. Discuss Stellar evolution.  
(2x15=30)