20100434

QP CODE: 20100434

Reg No : .....

Name : .....

BSc DEGREE (CBCS) EXAMINATION, MARCH 2020

Sixth Semester

Choice Based Core Course - PH6CBT05 - ASTRONOMY & ASTROPHYSICS

B.Sc Physics Model I,B.Sc Physics Model II Computer Applications,B.Sc Physics Model III Electronic Equipment Maintenance,B.Sc Physics Model II Applied Electronics

2017 Admission Onwards

3888E15C

Time: 3 Hours Marks: 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Explain Wien's law of radiation.
2. What is the function of eyepiece of a telescope?
3. What is f-number of a telescope?
4. How much is the inclination of earth's rotational axis?
5. When it is summer in the northern hemisphere, it is winter in the southern hemisphere. Why?
6. What is the International Date Line?
7. What are the features of the Chromosphere of Sun?
8. What is Jeans mass?
9. What is an isotropic universe?
10. According to the LambdaCDM Model, what is considered as the origin of universe?
11. State Hubble's law.
12. Is the expansion of the universe accelerated?

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Venus is about 10^4 times brighter than the dimmest visible star. If the magnitude of the dimmest visible star is +6, what is the magnitude of Venus?
14. Write a brief description about (a) Radio astronomy and (b) X-ray astronomy
15. Briefly describe about Sunspots.
16. Write down the nuclear reactions involved in p - p chain.
17. What are pulsars?
18. Even light cannot come out of a Black Hole. Why?
19. Briefly discuss the spectral classification of stars.
20. Draw the Hertzsprung Russel diagram.
21. How can we study about the expansion of the universe?

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Describe various astronomical distance sales. Explain the method of parallax to find distance to nearby stars.
23. Briefly discuss about the celestial coordinate systems.
24. Define the term Galaxy. Describe the Hubble's classification of galaxies.
25. Explain the star formation and life cycle of stars.

(2×15=30)