



QP CODE: 19102439



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Reg No :

Name :

UNDERGRADUATE (CBCS) EXAMINATION, OCTOBER 2019

Fifth Semester

(Offered by the Board of Studies in Physics)

Open Course - PH5OPT01 - OUR UNIVERSE

2017 Admission Onwards

9E62826C

Maximum Marks: 80

Time: 3 Hours

Part A

Answer any ten questions.

Each question carries 2 marks.

1. What is epicycle and deferent in Ptolemaic model of universe?
2. What is cosmology?
3. What is a red giant?
4. What do you mean by equinoxes in celestial sphere?
5. What do you mean by winter solstice?
6. What is the International Date Line?
7. True or False: "Orion is a zodiac constellation"
8. What do you mean by resolving power of a telescope?
9. What are Sunspots?
10. Distinguish between Terrestrial and Jovian planets
11. What is Jupiter's atmosphere made of?
12. What is the angle of tilt between earth's axis and its orbital plane? What is the effect of this tilt?
(10×2=20)

Part B

Answer any six questions.

Each question carries 5 marks.

13. Mention any four important observations of Galileo.





14. Explain Doppler effect and red shift.
15. What are the properties of a black hole?
16. Describe the equatorial coordinate systems.
17. How does a telescope's light gathering ability change in response to change in diameter of its objective?
18. Discuss the specifications of HST.
19. Give the definition of Planet.
20. Briefly discuss about meteors.
21. State and explain the law of Gravitation.

(6×5=30)

Part C

Answer any two questions.

Each question carries 15 marks.

22. Define the term Galaxy. Describe the Hubble's classification of galaxies.
23. State and explain Hubble's law of expansion of the universe and the concept of cosmological redshift.
24. Define stellar parallax. Explain how parallax method can be used to determine stellar distances.
25. Describe the internal structure and atmosphere of Sun.

(2×15=30)

