

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2022
(First Semester)

Branch – PHYSICS

ASTROPHYSICS AND PHILOSOPHY OF PHYSICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. When did Robert Hooke discovered Hooke's law?
(i) 1645 (ii) 1648 (iii) 1652 (iv) 1660
2. Which of the following is indicated by the color of a star?
(i) Weight (ii) Distance (iii) Temperature (iv) Size
3. Stellar distance are measured in
(i) Kilometers (ii) Meters (iii) Nanometers (iv) light years
4. Which among the following planet is also known as veiled planet ?
(i) Venus (ii) Mars (iii) Jupiter (iv) Uranus
5. How much mass does a star need to end in a supernova?
(i) 8 solar masses (ii) 17 solar masses
(iii) 3 solar masses (iv) 1 solar mass

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

6. (a) Explain the work of Michael faraday.
(or)
(b) Outline and contribution of Newton's towards science.
7. (a) Write a note on spherical coordinates.
(or)
(b) Explain in details about the photoelectric method.
8. (a) What do you mean by moon planet?
(or)
(b) Write a note on Spectroscopic parallax.
9. (a) List out the properties of stars.
(or)
(b) Describe the necessary theory of expanding universe.
10. (a) Write a note on stellar structure.
(or)
(b) State and explain virial theorem.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11. (a) Discuss origin and development of 17 th century.

(or)

(b) Summaries the Philosophy of Sir C.V Raman.

12. (a) Explain the universal equatorial system.

(or)

(b) Outline measurement of apparent luminosity.

13. (a) Examine the measurement of distance with the solar system.

(or)

(b) Explain the concept of absolute magnitude.

14. (a) Discuss Radio telescope measurement of distances.

(or)

(b) Write any seven physical properties of stars.

15. (a) Explain the classification of Harvard or Draper.

(or)

(b) Analyze the effect of hydrogen depletion.

Z-Z-Z

END