SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.E/B.Tech – Common to ALL Branches
Title of the paper: Applied Physics
Semester: I Max. Marks: 80
Sub.Code: 6C0003 Time: 3 Hours
Date: 04-12-2008 Session: FN

PART – A (10 x 2 = 20)

Answer All the Questions

1. Define term Coefficient of Thermal Conductivity.

2. Give the reasons for the Higher Thermal Conductivity of metals.

3. What is meant by the Power of a Lens?

4. What is Chromatic Aberation?

5. State Weber-Fechner law.

6. Define intensity of Sound. What is its units?

7. Define bending moment of a beam.

8. Define uniform bending and non-uniform bending of a beam.

9. What are Matter waves?

10. State the Physical significance of the wave function.

PART – B (5 x 12 = 60)

Answer All the Questions

11. Describe the Forbe's method to determine the Thermal Conductivity of good conductors.

(or)

12. Describe Lee's Disc method for finding the thermal Conductivity of the bad conductor.

13. Discuss the conditions for Achromatism of two lenses in contact an the two lenses separated by a distance.

(or)

14. Explain the Spherical aberration. How this defect can be minimized in lenses?

15. Derive Sabine's formula for reverberation Lime.

(or)

16. Write an essay on the factors affecting acoustics of building and their remedy.

17. If one end of the Cantilever is fixed and a loud is applied to the other end, Calculate the depression at the free end.

(or)

18. Describe an experiment to determine Young's modulus of a beam by Uniform bending.

19. Describe the Davission and Germer's experiment on electron diffraction.

(or)

20. Describe Schrödinger Time independent wave equations.