Course Code: PHS 1372 / 1472 / 1562   **Time: 3 Hours**
Course Title: Physics for Mathematics – II   **Max. Mark: 75**

PART – A

Answer Any FIVE Questions   **(5x 15 = 75)**

1. Explain the Kundz tube method to determine the velocity of sound in gas.

2. Describe the Magnetostriction method of producing ultrasonic wave

3. Write a detail note on intrinsic and extrinsic semiconductors with a neat sketch.

4. Explain about characteristics and biasing of p-n junction diode.

5. Derive Mayer's relation from first law of thermodynamics.

6. Prove that PV^{γ} = Constant in an adiabatic transformation.

7. Discuss the characteristics of sound waves in detail.

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