

## ASSIGNMENT

### C-6 : Thermal Physics

**DUE DATE: 30/9/2023**

1. What do you mean by adiabatic demagnetization? (2 marks)
2. Show that Clausius-Claperyron equation represents equilibrium between p (4 marks)
3. What is the law of equipartition of energy? Based on this law, show that for a diatomic molecule, the specific heat  $C_v = \frac{5}{2}R$  per mole. (2+2=4 marks)
4. Derive an expression for coefficient of viscosity using kinetic theory. (4 marks)