

Curriculum plan for Odd Sem 2024-25

Paper: Thermal Physics

Teacher : Prof. Seema Gupta

Course: Bsc (H) Physics Sem III

TOPICS	No. OF LECTURES	MONTH WISE SCHEDULE	Tutorial/Assignment/presentation
Introduction of basic concepts of thermodynamics, Zeroth law , First law of thermodynamics and its applications , Second law of thermodynamics, carnot cycle, carnot theorem,Thermodynamic scale of temperature, absolute zero temperature	12	August	Numericals and problems on First law, second law, carnot cycle.
Clausius clapeyron latent heat equation entropy, principal of increase in entropy, Thermodynamic potentials, adiabatic lapse rate, carnot equilibrium, Third law of thermodynamics Maxwell relations, adiabatic demagnetization, First order and second order phase transition.	12	September	Numericals on clausius clapeyron equation. Numericals based on Entropy, Assignments, Numericals and problems on Maxwell's equation
Liquification of gases, Andrew experiment, Vanderwaals equation of state , Joul's free expansion, Joul Thompson throttling experiment, Maxwell Boltzman law, Mean free path, Experimental verification of Maxwell law	12	October	Class Test, Numericals on Joule Thompson effect
Transport phenomenon, Viscosity, Conductivity, Diffusion, Brownian	12	November	Numericals on transport mechanism, mean free path, Revision assignment

motion and its application			