Curriculum plan for Odd Sem 2022-23

Paper: Thermal Physics

Teacher : Dr. Seema Gupta

Course: Bsc (H) Physics Sem III

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| TOPICS | No. OF LECTURES | MONTH WISE SCHEDULE | Tutorial/Assignment/presentation |
| Introduction of basic concepts of thermodynamics, Zeroth law | 3 | August |  |
| First law of thermodynamics and its applications , Second law of thermodynamics, carnot cycle, carnot theorem,Thermodynamic scale of temperature, absolute zero temperature, Clausius clapeyron latent heat equation entropy, principal of increase in entropy | 16 | September | Numericals and problems on First law, second law, carnot cycle. Numericals on clausius clapeyron equation. Numericals based on Entropy, Assignments |
| Thermodynamic potentials, adiabetic lapse rate, carnot enequility, Third law of thermodynamics Maxwell relations, adiabetic demagnetization, First order and second order phase transition. Liquification of gases, Andrew experiment, Vanderwaals equation of state | 16 | October | Numericals and problems on Maxwell’s equation, Test |
| Joul’s free expansion, Joul Thompson throttling experiment, Maxwell Boltzman law, Mean free path, Experimental verification of Maxwell law, Transport phenomenon, Vscosity, Conductivity, Diffusion, | 16 | November | Class Test, Numericals on Joule Thompson effect, Numericals on transport mechanism, mean free path |
| Brownian motion, Einstein theory, application | 6 | December | Revision assignment |