

SEMESTER-III
THERMODYNAMICS

BLOCK-I: LAWS OF THERMODYNAMICS

UNIT-1: Kinetic Theory of Gases
UNIT-2: Zeroth law & First law of Thermodynamics
UNIT-3: Reversible and irreversible processes
UNIT-4: Carnot's cycle & Carnot's Theorem

BLOCK-II: LAWS OF THERMODYNAMICS

UNIT-5: Second Law of Thermodynamics
UNIT-6: Entropy

BLOCK-III: THERMODYNAMIC POTENTIALS

UNIT-7: Thermodynamic Potentials
UNIT-8: Maxwell's Thermodynamic equations & Applications

BLOCK-IV: QUANTUM THEORY OF RADIATION

UNIT-9: Low temperature Physics
UNIT-10: Black body Radiation

SEMESTER –III

LAB -3: THERMODYNAMICS

1. Co-efficient of thermal conductivity of a bad conductor by Lee's Method.
2. Measurement of Stefan's constant.
3. Specific heat of a Liquid by applying Newton's law of cooling correction.
4. Heating efficiency of electrical kettle with varying voltage.
5. Calibration of thermo couple.
6. Cooling Curve of a metallic body.
7. Resistance the Thermometer.
8. Thermal expansion of solids.
9. Study of conversion of mechanical energy to heat.
10. Determine the Specific of a solid (graphite rod).