Lesson plan 2024-25
B.Sc.I (2nd Sem.) Physics
Amar Singh (Extension Lecturer)
SMSD GOVT COLLEGE NANGAL CHAUDHARY

1st week of January
Time varying electromagnetic fields : electromagnetic induction
2nd week of January
Faraday‟s laws of induction and Lenz‟s Law,
3rd week of January
Self-inductance, Mutual inductance,
4rth week of January
Energy stored in a Magnetic field,
1st week of February
Derivation of Maxwell‟s equations,
2nd week of February
Displacement current, Maxwell‟s equations in differential and integral form
3rd week of February
physical significance of Maxwell‟s equations
4rth week of February
Electromagnetic Waves, Transverse nature of electromagnetic wave,
1st week of March
energy transported by electromagnetic waves, Poynting vector, Poynting‟s theorem.
2nd week of March
Propagation of Plane electromagnetic waves in free space & Dielectrics
3rd week of March
DC current Circuits: Electric current and current density,
4rth week of March
Electrical conductivity and Ohm‟s law (Review), Kirchhoff‟s laws for D.C. networks
1st week of April
Network theorems: Thevenin‟s theorem, Norton theorem, Superposition theorem.
2nd week of April
Alternating Current Circuits: A resonance circuit,Phasor, Complex Reactance and Impedance,
3rd week of April
Analysis for RL, RC and LC Circuits,
4rth week of April
Series LCR Circuit: (1) Resonance,(2) Power Dissipation (3) Quality factor and (4) Band width,
Parallel LCR Circuit