Sri Bhagawan Mahaveer Jain First Grade College

Geetha Road, Robertsonpet, Kolar Gold Fields.

ELECTROMAGNETIC THEORY

On succcessful completion of course student will:

- Derive general wave equationusing Maxwell's equations
- Derive Laplace equations for electrostatic potential in Cartesian, spherical and cylindrical
- coordinates
- Obtain scalar and vector magnetic potentials
- Understand the propagation of EM waves in different media
- Understand the propagation of EM waves in bounded and unbounded media and
- Boundary conditions for EDB and H.
- Derive poynting theorem
- Derive Fresnel relations- Reflection (R) and Transmission(T) coefficients Brewester's angle
- Understand the concept of EM radiation of Inhomogeneous wave equation ,harmonically oscillating source& from accelerated charges