

### Assignment - 3

Question - I : What is Pointing Vector ? What direction does it represents ?

Question - II : Derive the Velocity of Electromagnetic waves while propagating through Vacuum.

Question - III : Derive Energy Density of an Electromagnetic Field.

Question - IV : Derive the equation of Continuity of Current.

Question - V : What is Ampere's Circuital law ? Derive the law mathematically.