

UNIT-IV- ELECTRODYNAMIC FIELDS**PART – A**

1. State Faraday's law of induction
2. State lenz's law
3. Give the equation of transformer emf
4. What is motional electric field?
5. What is motional emf ?
6. What is the emf produced by moving loop i
7. What is time harmonic field?
8. Give time harmonic maxwell's assume time equation factor in $e^{-j t}$
9. Distinguish between Field theory and Circuit
10. Write Maxwell's equation in point and in conductors.
11. What is the significance of displacement current
12. In a material $\epsilon_r=1$ and which $E=250^{10t} = (V/m)5s/m \sin 10$ and find the conduction and displacement current

PART- B

1. What are the different ways of EMF generating the governing equations and suitable practical examples
2. With necessary, derive explanation the Maxwell's equation for differential and integral forms
3. What do you mean by displacement current for the total current density
4. Find the total current radius 4mm in air circulate the current densit varies according to $J=10^4 R A m^2$
5. Given the conduction current density in $J_c=0.02t \sin A/m^2$. find the displacement current density $\epsilon=10mho/m$ $r=6$ and 5
6. Explain the relation between field theory
7. The magnetic field intensity A/min free space where $H = t- z$ and ϵ_0 is a constant quantity. Determine the displacement current density.
8. Write short notes on faradays law of electrostatics
9. Show that the ratio of the amplitudes of density and displacement H / E , for current the applied density is field amplitude ratio ϵ^{-1} if where E is the applied field
10. Derive General field relation for time varying Maxwell's equations