

UNIT-3

STATIC MAGNETIC FIELDS AND MAGNETIC FORCES

S. No	Questions	BT	CO	PO
Part – A (Short Answer Questions)				
1	Define Boit-savarts law?	BT1	CO3	PO1
2	Define Ampere law?	BT1	CO3	PO2
3	Define Stokes's theorem?	BT2	CO3	PO2
4	Write applications of Boit-savarts law?	BT2	CO3	PO2
5	Write about scalar & vector magnetic potential?	BT2	CO3	PO2
6	write about curl significance?	BT2	CO3	PO2
7	Define self & mutual inductance?	BT2	CO3	PO1
8	Define magnetic potential?	BT2	CO3	PO2
9	write about magnetic boundary conditions?	BT3	CO3	PO2
10	write equations for Tangential & Normal boundary condition?	BT3	CO3	PO3
Part – B (Long Answer Questions)				
11	a) Define & explain Biot savarts law, Obtain field intensity due to current filament of finite length?	BT3	CO3	PO2
	b) State Ampere's cirtual law, specify conditions to be met for determining magnetic field strength H based on Ampere's cirtual law?	BT3	CO3	PO3
12	a) Prove $H = \frac{U\phi}{2\Pi_e}$ Due to infinity long current element at point P	BT3	CO3	PO2
	b) Explain the concepts & significance of vector magnetic potential?	BT2	CO3	PO1
13	a) Write Maxwell's equations in point form & Integral form & explain?	BT3	CO3	PO2
	b) Explain about Force on differential current element?	BT3	CO3	PO2
14	a) Write difference between Electric & Magnetic circuit?	BT2	CO3	PO2
	b) Explain about self & mutual inductance?	BT2	CO3	PO2
15	a) Explain about self & mutual inductance?	BT2	CO3	PO2
	b) Explain about steady magnetic fields produced by current carrying conductor & force on moving charge?	BT2	CO3	PO2
16	a) Explain about scalar & vector magnetic potential with equations?	BT3	CO3	PO2
	b) Explain about Boit savart law with application?	BT3	CO3	PO2