LESSON PLAN FOR BSc 1st Sem

NAME OF ASSISTANT : MR. JAI KUMAR

SESSION : 2023-2024

SUBJECT : PHYSICS

FOR THE WEEK 1ST FEB -15TH FEB	VACTORTORBACKGROUNDANDELECTRICFIELD Gradient ofa scalar andits physical significance, Line, Surface and Volume integrals of a vectorand their physical significance,Fluxof avector field, Divergenceand curl ofa vector and their physicalsignificance,Gauss's divergence

16TH FEB – 29TH FEB	Derivation of electricfield E from potential asgradient.Derivation ofLaplaceand Poisson equations, Electric flux, Gauss'sLaw, Mechanical force of chargedsurface, Energyperunitvolume.

FOR THE WEEK 1ST MAR-15TH MAR	MAGNETISM Magnetic induction, Magneticflux, Solenoidal natureof vector field of induction, propertiesof B (i) . B = 0 (ii) ×B = μoJ, Electronictheoryofdiaandparamagnetism, Domaintheoryofferromagnetism(Langevin'stheory),CycleofMagnetization-Hysteresis loop(Energydissipation, Hysteresisloss and importance of Hysteresis Curve).

16TH MAR - 31TH MAR	
	ELECTROMAGNETISM Maxwellequations and their derivations, Displacement current, Vector and Scalar potentials,Boundaryconditionsatinterfacebetweentwodifferentmedia, Propagation of electromagneticwave(Basicidea,noderivation), PoyntingvectorandPoynting theorem.

FOR THE WEEK 1ST APRIL – 15TH APRIL	A.C. ANALYSIS A.C. circuitanalysis using complexvariablewith(a)Capacitance and Resistance (CR) (b) ResistanceandInductance (LR)(c)Capacitanceand Inductance (LC) and (d) Capacitance,Inductanceand Resistance(LCR), Series and parallel resonancecircuit, Qualityfactor (sharpness of resonance).