ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT (AITAM) TEKKALI

(Approved by AICTE, Accredited by NBA Affiliated to JNTU, Kakinada)

STUDENT ATTENDENCE REGISTER

Name	: S.NAGARAJU
Subject	: E.M.F.
Class	: II/I-C.
Year	: 2014-15

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LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
3	1/9/14	Introduction to EMFT	—	C.R		
4	2/9/14	Vector, Scalar, vector addition, Subtraction, unit vector	1	C.R		
2	3/9/14	scalar, vector products - 2,3 vectors; Problems	1	C.R		
3	8/9/14	Component of a vector; cartesian; cylindrical co-ordinate system	1	C.R		
4	9/9/14	Spherical Co-ordinate System.; constant surfaces	1	C.R		
2	10/9/14	constant surfaces in spherical; dl, ds, dv in cartesian; Cylindrical co-ordinate,	1	C.R		
1	11/9/14	dl, ds, dv in spherical co-ordinates; operator ∇ in cartesian; cylindrical; spherical	1	C.R		
3	15/9/14	Gradient G, Problems.	1	C.R		
4	16/9/14	Divergence, curl, its importance	1	C.R		
2	17/9/14	Laplacian of a Scalar; Coulomb's law : $\bar{E}$ definition	1	C.R		
1	18/9/14	Problems on coulomb's law	1	C.R		
3	22/9/14	$\bar{E}$ due to line & charge; sheet of charge	1	C.R		
4	23/9/14	Problems on $\bar{E}$; Faraday's experiment	1	C.R		
2	24/9/14	displacement flux $\bar{D}$, rel. b/w $\bar{D}$ & $\bar{E}$; Gauss's law	1	C.R		
3	29/9/14	Gauss's law application to line & charge; sheet of charge	1	C.R		
4	30/9/14	Electric potential; Work done. Problems	1	C.R		
3	6/10/14	relation b/w E & V; Problems	1	C.R		
4	7/10/14	Energy density in electric field; Problems	1	C.R		
2	8/10/14	Laplace & poisson eq; Laplace eq. solution in cartesian & cylindrical	2	C.R		
3	13/10/14	Laplace eq. sol. in spherical co-ordinate system.	2	C.R		

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Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
4	28/10/14	$\bar{E}$, V due to dipole	2	C.R		
2	29/10/14	Torque on a dipole; Problem	2	C.R		
4	4/11/14	Types of materials; conduction & convection currents	2	C-R		
2	5/11/14	Behaviour of conductor in $\bar{E}$, Rel b/w R, σ, l, S.	2	C-R		
3	10/11/14	Polarisation in dielectrics; $\bar{D}, \bar{E}, \bar{P}$ relationship	2	C-R		
4	11/11/14	Boundary condition types; Dielectric-Dielectric boundary Problem.	2	C-R		
2	12/11/14	Conductor-dielectric; Conductor-free space	2	C-R		
3	17/11/14	Capacitance; Parallel plate; Co-axial capacitor	2	C.R		
4	18/11/14	Series; Parallel capacitance; Problems;	2	C-R		
2	19/11/14	Fundamentals of magnetism	3	C-R		
3	24/11/14	Biot-Savart's law; its app. to line & conductor; circular current loop.	3	C.R		
4	25/11/14	$\bar{H}$ due to solenoid; Problems	3	C-R		
2	26/11/14	Ampere's law; $\bar{H}$ due infinite line & current; Sheet of current	3	C-R		
3	1/12/14	$\bar{H}$ due to co-axial conductor using Ampere's law; $\nabla \cdot \bar{B} = 0$	3	C-R		
4	2/12/14	magnetic force types; Force on a charged particle; Problems	4	C-R		
2	3/12/14	Force b/w two P. conductors & Problems	4	C.R		
3	8/12/14	Torque eq; Problems	4	C.R		
4	9/12/14	Self inductance; mutual inductance; self inductance of solenoid	5	C.R		
2	10/12/14	L of Toroid; Energy stored in magnetic field	5	C.R		
3	15/12/14	Time varying fields – Faradays law	5	C.R		

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Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
4	16/12/14	static & dynamic emf; Faraday's law; Lenz law.	5	C.R		
2	17/12/14	Displacement current, Problem	5	C.R		
3	22/12/14	maxwell's eqn; Poynting theorem; Problems.	5	C.R		
4	23/12/14	Topic beyond syllabus	–	C.R		
2	24/12/14	Topic beyond syllabus	–	C.R		

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