LESSON PLAN

Period	Date(tentative)	Topic	Unit no	Teaching methodology
1	05-12-16	Review of coordinate systems		Class room teaching
2	08-12-16			
3	09-12-16	Vector calculus		
ELECTROSTATICS				
4	09-12-16	Coulombs' law	I	Class room teaching
5	15-12-16	Different charge distributions(ρ_l , ρ_s , ρ_v)		
6	16-12-16	Electric field intensity due to ρ_l		
7	16-12-16	Electric field intensity due to ρ_s		
8	19-12-16	Electric field intensity due to ρ_v		
9	22-12-16	Electric flux density		
10	23-12-16	Gauss law		
11	23-12-16	Electric potential		
		Relation between E & V		
12	26-12-16	Maxwell two equations for E-fields		
13	29-12-16	Energy density		
14	30-12-16	Convection and conduction currents		
15	30-12-16	Dielectric constant		
16	02-01-17	Isotropic, homogeneous dielectrics		
		Continuity equation, relaxation time		
17	05-01-17	Poisson's & Laplace equations		
18	06-01-17	Capacitance –parallel plate,coaxial,spherical		
19	06-01-17			
20	09-01-17	Problems, assignment-1		

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MAGNETO STATICS				
21	19-01-17	Biot-savart law	II	Class room teaching
22	20-01-17	Ampere's circuital law & applications		
23	20-01-17	Magnetic flux density		
24	23-01-17	Maxwell two equations for H-fields		
25	27-01-17	Magnetic scalar& vector potentials		
26	27-01-17	Forces due to magnetic fields , Ampere's force law		
27	30-01-17	Inductances & magnetic energy		
MAXWELL'S EQUATIONS				
28	02-02-17	Faraday's law & transformer emf	III	Class room teaching
29	03-02-17	Inconsistency of ampere's law, displacement current density		
30	03-02-17	Maxwell equations-diff forms &word statements		
31	06-02-17	Boundary conditions dielectric-dielectric		
32	09-02-17			
33	10-02-17	Boundary conditions dielectric-conductor		
34	10-02-17			
35	13-02-17	Problems		

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EM WAVE CHARACTERISTICS				
36	16-02-17	Wave equations for conducting and perfect dielectric	IV	Class room teaching
37	17-02-17			
38	17-02-17	Uniform plane waves Definition All relations b/w E and H		
39	20-02-17			
40	23-02-17			
41	24-02-17			
42	24-02-17	Sinusoidal variations		
43	27-02-17	Wave propagation in conducting media		
44	02-03-17	Wave propagation in lossless media		
45	03-03-17	Conductors and dielectrics characterisation		
46	03-03-17	Wave propagation in good conductors		
47	06-03-17	Wave propagation in good dielectrics		
48	09-03-17	Polarization		
49	10-03-17	Problems		
50	10-03-17	Reflection and refraction of plane waves NORMAL incidence		
51	16-03-17			
52	17-03-17	Reflection and refraction of plane waves OBLIQUE incidence		
53	17-03-17			
54	20-03-17	Brewster angle, critical angle		
55	23-03-17	Total internal reflection, surface impedance		
56	24-03-17	Poynting vector ,poynting theorem		
57	24-03-17	Power loss,problems		

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TRANSMISSION LINES				
58	27-03-17	Types,parameters,equations	V	Class room teaching
59	30-03-17	primary , secondary constants		
60	31-03-17	Zo , Vp ,Vg ,propagation consts		
61	31-03-17	Infinite,lossless,lowloss lines		
62	03-04-17	Distortion,loading		
63	06-04-17	problems		
64	07-04-17	Zi , SC&OC Lines ,reflection coefficient		
65	07-04-17	VSWR,UHF lines		
66	10-04-17	λ/4, λ/2, λ/8 lines –impedance transformations		
67	13-04-17	Smith chart-single & double stub matching		
68		problems		