DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Lesson Plan & Work-done Diary for AY:2025-26, ODD Semester

Course with Code: Electromagnetic Theory/BEC401				Faculty: Mrs. Swetha K T			Semester & Section: IV, A	
Class No.	**Date planned (DD/MM)**	**Topics to be covered**	**TLP Planned**	**Class No.**	**Date of Conduction (DD/MM)**	**Topics Covered**	**TLP Executed**	**Remarks if any deviation**
MODULE-1								
1	24.02.26	Bridge Course on Vector Calculus	Chalk and talk					
2	25.02.26	Bridge Course on Coordinate System	Demonstration through videos and chalk and talk					
3	26.02.26	Bridge Course on Coordinate System	Demonstration through videos and chalk and talk					
4	27.02.26	Problems based on above topics	Chalk and talk					
5	03.03.26	Introduction to Electromagnetics, Coulomb's Law and Electric Field Intensity	Chalk and talk					

6	04.03.26	System of Charges and Problems	Chalk and talk					
7	05.03.26	Electric Field due to a several point charges	Chalk and talk					
8	06.03.26	Electric Flux density and its relationship with E	Chalk and talk					
9	10.03.26	Problems	Chalk and talk					

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MODULE-2								
10	11.03.26	Gauss law, Application of Gauss Law to point charge,	Chalk and talk					
11	12.03.26	Application of Gauss Law to line charge and surface and volume charge	Chalk and talk					
12	13.03.26	Application of Gauss Law to volume charge and problems	Chalk and talk					

13	17.03.26	Divergence and Maxwell's first equation	Chalk and talk					
14	18.03.26	Divergence Theorem and Problems	Demonstration through videos and chalk and talk					
15	20.03.26	Energy and Potential	Chalk and talk					
16	24.03.26	Relation between E and V and problems	Chalk and talk					
17	25.03.26	Current and Current Density	Chalk and talk					
18	26.03.26	Continuity of current and problems	Chalk and talk					
19	27.03.26	Problems	Chalk and talk					
20	08.04.26	Revision of Module 1	Chalk and talk					
21	09.04.26	Revision of Module 2	Chalk and talk					

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MODULE 3								
22	15.04.26	Poisson and Laplace equation	Chalk and talk					
23	16.04.26	Solutions of Laplace equation	Chalk and talk					
24	17.04.26	Problems on Laplace and Poisson equation	Chalk and talk					
25	21.04.26	Uniqueness theorem	Chalk and talk					
26	22.04.26	Biot- Savart Law, Applications of Biot Savart Law	Chalk and talk					
27	23.04.26	Ampere's Circuital Law, Problems	Chalk and talk					
28	24.04.26	Curl and Stoke's Theorem Derivation	Demonstration through videos and					

			chalk and talk					
29	28.04.26	Problems	Chalk and talk					
30	29.04.26	Magnetic flux and magnetic flux density.	Chalk and talk					
31	30.04.26	Problems	Chalk and talk					

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MODULE 4								
32	05.05.26	Lorentz Force equation, Force between differential current element	Chalk and talk					
33	06.05.26	Magnetization and Permeability	Chalk and talk					

34	07.05.26	Problems	Chalk and talk					
35	08.05.26	Magnetic Boundary Conditions	Chalk and talk					
36	13.05.26	Problems	Chalk and talk					
37	14.05.26	Magnetic Circuits	Chalk and talk					
38	15.05.26	Problems	Chalk and talk					

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MODULE 5								
39	19.05.26	Faraday's Law, Modified Ampere's Law	Chalk and talk					
40	20.05.26	Displacement Current and Conduction Current	Chalk and talk					

41	21.05.26	Maxwell's equation in point and integral form for different media	Chalk and talk					
42	22.05.26	Wave propagation in free space,	Demonstration through videos and chalk and talk					
43	26.05.26	Uniform plane wave,	Chalk and talk					
44	27.05.26	Derivation of plane waves equations from Maxwell's equations.	Chalk and talk					
45	29.05.26	Poynting's Theorem and wave power.	Chalk and talk					
46	02.06.26	Skin effect or Depth of Penetration.	Chalk and talk					
47	03.06.26	Problems	Chalk and talk					
Revision								
48	04.06.26	Revision	PPT					
49	05.06.26	Revision	PPT					

	Activity	Planned	Actual	Remarks
1	Theory Classes	49		
2	Assignments (Individual/Group)	05		
3	Quizzes (SRS/MS Forms)	05		
4	Tutorials/ Extra classes	05		
5	Internal Assessments	03		
6	ICT based Teaching. (% of usage in Curriculum)	20%		
Planning			**Execution**	
Faculty Signature:			**Faculty Signature:**	
HoD Signature:			**HoD Signature:**	