

Hour	Unit	Topic	Teaching Methodology	Remarks
1	I	First Order & First Degree Differential Equations	Whiteboard	
2	I	Exact Equations	Whiteboard	
3	I	Equations Reducible to Exact Form	Whiteboard	
4	I	Linear Differential Equations	Whiteboard	
5	I	Bernoulli's Equations	Whiteboard	
6	I	Newton's Law of Cooling	Whiteboard	
7	I	Law of Natural Growth and Decay	Whiteboard	
8	I	Electrical Circuits Applications	Whiteboard	
9	II	Linear Differential Equations (Constant Coefficients)	Whiteboard	
10	II	Homogeneous and Non-Homogeneous Equations	Whiteboard	
11	II	Complementary Function and General Solution	Whiteboard	
12	II	Particular Integral	Whiteboard	
13	II	Method of Variation of Parameters	Whiteboard	
14	II	Application: L-C-R Circuits	Whiteboard	
15	II	Problems on L-C-R Circuits	Whiteboard	
16	III	Formation of Partial Differential Equations	Whiteboard	
17	III	Elimination of Arbitrary Constants	Whiteboard	
18	III	Elimination of Arbitrary Functions	Whiteboard	
19	III	Lagrange's Method for First Order Linear PDE	Whiteboard	
20	III	Homogeneous Linear PDEs with Constant Coefficients	Whiteboard	
21	III	Problems on Homogeneous Linear PDEs	Whiteboard	
22	IV	Scalar and Vector Point Functions	Whiteboard	
23	IV	Del Operator and Its Application to Scalars (Gradient)	Whiteboard	
24	IV	Del Applied to Vectors – Divergence	Whiteboard	
25	IV	Del Applied to Vectors – Curl	Whiteboard	
26	IV	Vector Identities – Introduction	Whiteboard	
27	IV	Problems on Gradient, Divergence, Curl	Whiteboard	

28	V	Line Integral, Circulation	Whiteboard	
29	V	Work Done Using Line Integral	Whiteboard	
30	V	Surface Integral and Flux	Whiteboard	
31	V	Green's Theorem in the Plane (Statement and Problems)	Whiteboard	
32	V	Stoke's Theorem (Statement and Problems)	Whiteboard	
33	V	Volume Integral and Divergence Theorem (Statement)	Whiteboard	
34	V	Problems on Divergence Theorem	Whiteboard	
35	All	Recap of Units I & II	Whiteboard	
36	All	Recap of Units III, IV & V	Whiteboard	
37	All	Practice Problems on DE and PDE	Whiteboard	
38	All	Practice Problems on Vector Calculus	Whiteboard	
39	All	Model Test – Differential Equations	Whiteboard	
40	All	Model Test – Vector Calculus	Whiteboard	
41	All	Previous Year Questions Discussion – DE & PDE	Whiteboard	
42	All	Previous Year Questions Discussion – Vector	Whiteboard	
43	All	Group Activity: Solve Real-world Problems	Whiteboard	
44	All	Concept Mapping and Formula Recap	Whiteboard	
45	All	Revision Session 1	Whiteboard	
46	All	Revision Session 2	Whiteboard	
47	All	Student Q&A Session	Whiteboard	
48	All	Final Review & Feedback	Whiteboard	