

## Detailed Teaching Plan

Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
L-01	1	Rules of simple integration, Integration of standard functions				
L-02	1	Methods of integration: Integration by substitution: Concept & Formula				
L-03	1	Integration by substitution: Exercise				
L-04	1	Integration by Parts: Concept & Formula				
L-05	1	Integration by Parts: Exercise				
L-06	1	Integration by Partial Fraction: Concept & Formula				
L-07	1	Integration by Partial Fraction: Exercise				
L-08	2	Definite Integration: Definition, Basic concepts of upper & lower limit				
L-09	2	Definite Integration: Formulae, Simple examples				
L-10	2	Properties of definite integral with examples				
L-11	2	Properties of definite integral with some exercise				
L-12	2	Applications of integration: Concept, Discussion of Basic rules				
L-13	2	Area under the curve: Concept & Examples				

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L-14	2	Area under the curve: Simple Exercise				
L-15	2	Area under the curve: Difficult Exercise				
L-16	2	Area between two curves: Concept & Examples				
L-17	2	Area between two curves: Simple Exercise				
L-18	2	Area between two curves: Difficult Exercise				
L-19	3	Differential equation: Concept, Fundamental rules				
L-20	3	Differential equation: Order, degree of differential equation with examples				
L-21	3	Differential equation: Formation of Differential equation with examples				
L-22	3	Formation of differential equation: Exercise				
L-23	3	Solution of differential equation: Different forms				
L-24	3	Variable separable form: Definition & concept with some examples				
L-25	3	Variable separable form: Exercise				
L-26	3	Homogeneous differential equation: Definition & concept with some examples				

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L-27	3	Homogeneous differential equation: Exercise				
L-28	3	Linear differential equation: Definition & concept with some examples				
L-29	3	Linear differential equation: Exercise				
L-30	4	Numerical Methods: Concept				
L-31	4	Bisection Method: Introduction & Geographical representation				
L-32	4	Bisection Method: Exercise				
L-33	4	Regula Falsi Method: Introduction & Geographical representation				
L-34	4	Regula Falsi Method: Exercise				
L-35	4	Newton Raphson Method: Introduction & Geographical representation				
L-36	4	Newton Raphson Method: Exercise				
L-37	5	Introduction to Numerical Integration				
L-38	5	Methods of Numerical Integration				
L-39	5	Integration by Trapezoidal Rule: Basic concept				

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L-40	5	Integration by Trapezoidal Rule: Examples				
L-41	5	Integration by Trapezoidal Rule: Exercise				
L-42	5	Integration by Simpson's 1/3 Rule: Basic concept				
L-43	5	Integration by Simpson's 1/3 Rule: Examples				
L-44	5	Integration by Simpson's 1/3 Rule: Exercise				
L-45	5	Integration by Simpson's 3/8 Rule: Basic concept				
L-46	5	Integration by Simpson's 3/8 Rule: Examples				
L-47	5	Integration by Simpson's 3/8 Rule: Exercise.				
L-48	5	Exercise to find Area of cross-section and Volume of a solid using Simpson's Rule				

Signature of Lecturer

*Amit*

Signature of HOD

*Amit*