

Koyana Education Society's
Balasaheb Desai College, Patan
Monthly Teaching Plan
2023-2024

Subject Name: Mathematics

Class: B. Sc-I

Paper Name: Differential Equations

Month: July

Date	Unit/Subunit	Teaching Method
03/07/23	Introduction: Syllabus, nature of question paper, practical's etc	Lecture
04/07/23	Unit 1: Differential equations of first order and first degree: Introduction, def, types	Lecture
05/07/23	Order, degree, formation of differential equation	Lecture
06/07/23	Solution of differential equation and its types	Lecture
07/07/23	Variable separable type: method of solution & examples	Problem solving
08/07/23	Homogeneous differential equation: method of solution & examples	Problem solving
10/07/23	Non-Homogeneous differential equation: method of solution & examples	Problem solving
11/07/23	Exact Differential equation: Definition	Lecture
12/07/23	Necessary & sufficient condition for exactness	Lecture
13/07/23	Working rule for solving exact differential equation	Lecture
14/07/23	Examples on exact differential equation	Problem solving
15/07/23	Examples on exact differential equation	Problem solving
17/07/23	Integrating factor (I. F.) & I. F. by inspection & examples	Problem solving
18/07/23	Rules for finding I. F. (With out proof)	Lecture
19/07/23	Examples on non-exact differential equations	Problem solving
21/07/23	Examples on non-exact differential equations	Problem solving
22/07/23	Linear differential equation: Definition & method of solution	Lecture
24/07/23	Examples on linear differential equations	Problem solving
25/07/23	Examples on linear differential equations	Problem solving
26/07/23	Bernoulli's Equation: Definition & method of solution	Lecture
27/07/23	Examples on Bernoulli's differential equations	Problem solving
28/07/23	Examples on Bernoulli's differential equations	Problem solving


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Koyana Education Society's
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Monthly Teaching Plan
2023-2024

Subject Name: Mathematics

Class: B. Sc-II

Paper Name: Elements of Differential Equations

Month: July

Date	Unit/Subunit	Teaching Method
03/07/23	Introduction: Syllabus, nature of question paper, practical's etc	Lecture
04/07/23	Unit 1:1.1 Homogeneous linear Differential equations: Introduction, def (Cauchy Euler differential equation)	Lecture
05/07/23	Method of solution	Lecture
06/07/23	Examples on Cauchy Euler differential equation	Problem solving
07/07/23	Examples on Cauchy Euler differential equation	Problem solving
08/07/23	Examples on Cauchy Euler differential equation	Problem solving
10/07/23	Definition: Legendre's linear differential equation	Lecture
11/07/23	Method of solution: Legendre's linear differential equation	Lecture
12/07/23	Examples on Legendre's linear differential equation	Problem solving
13/07/23	Examples on Legendre's linear differential equation	Problem solving
14/07/23	1.2 Second order linear differential equations: Introduction, Def	Lecture
15/07/23	Methods of solution of second order differential equation	Lecture
17/07/23	Type I: Complete solution when one integral is known	Lecture
18/07/23	Examples on Type I	Problem solving
19/07/23	Examples on Type I	Problem solving
21/07/23	Examples on Type I	Problem solving
22/07/23	Type II: Removable of first order derivative	Lecture
24/07/23	Examples on Type II	Problem solving
25/07/23	Examples on Type II	Problem solving
26/07/23	Examples on Type II	Problem solving
27/07/23	Type III: Change of independent variable	Lecture
28/07/23	Examples on Type III	Problem solving


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Subject Name: Mathematics

Class: B. Sc-III

Paper Name: Optimization Technique

Month: July

Date	Unit/Subunit	Teaching Method
03/07/23	Unit 1 Network optimization models: Introduction, formulation of L. P. P.	Lecture
04/07/23	Graphical Method for L. P. P. & examples	Lecture
05/07/23	General formulation of L. P. P.	Lecture
06/07/23	Slack, Surplus variables, Canonical form, standard form of L. P. P.	Lecture
07/07/23	Transportation Problem: Introduction & mathematical formulation	Lecture
08/07/23	Matrix form of T. P. feasible, basic feasible & optimal solutions	Lecture
10/07/23	Balanced & unbalanced T. P. & introduction to methods of initial basic feasible solutions.	Lecture
11/07/23	North west corner method & examples	Problem solving
12/07/23	Minimum cost entry method & examples	Problem solving
13/07/23	Vogal's Approximation method & examples	Problem solving
14/07/23	Examples on Vogel's method	Problem solving
15/07/23	Optimality test & examples	Problem solving
17/07/23	Assignment Models: Def & mathematical formulation A. P.	Problem solving
18/07/23	Hungarian method for solving A. P.	Lecture
19/07/23	Examples on A. P. using Hungarian method	Problem solving
21/07/23	Unbalanced A. P. & examples	Problem solving
22/07/23	Travelling salesman problem & examples	Lecture
24/07/23	Examples on Travelling Salesman problem	Problem solving
25/07/23	Examples on Assignment problem	Problem solving
26/07/23	Examples on Travelling Salesman problem	Lecture
27/07/23	Examples on Assignment problem	Problem solving
28/07/23	Examples on A. P.	Problem solving


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