



Aggarwal College Ballabgarh

LESSON PLAN

17 WEEKS (JAN-APRIL)-2025

Name of Faculty: Dr.Renu Bala_____

Qualification/ Department: Assistant Professor (Mathematics)_____

CLASS: M.Sc	SEMESTER: 4th	SECTION:
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SUBJECT: Graph Theory

Week		
1	7-1-2025	Introduction of the subject, Syllabus and exam pattern discussion
	8-1-2025	Introduction of graph theory, origin and definition
	9-1-2025	Scope of Graph theory
	10-1-2025	Application of Graph Theory in Real World
	11-1-2025	Def. and its Types of Graphs
	12-1-2025	S. U. N. D. A. Y.
2	13-1-2025	More definitions of different types of Graphs
	14-1-2025	Types of Graphs (contd.)
	15-1-2025	Theorems Related to Graph Theory
	16-1-2025	More examples
	17-1-2025	More Theorems on Graph
	18-1-2025	Graph Theory Theorem (contd.)
	19-1-2025	S. U. N. D. A. Y.
3	20-1-2025	Examples Related to Types of Graphs
	21-1-2025	More Examples on Graph Theory
	22-1-2025	Introduction on Walks, paths and circuit

	23-1-2025	Connected and Disconnected Graph
	24-1-2025	Applications of Graphs
	25-1-2025	Doubt Class
	26-1-2025	REPUBLIC DAY /S. U. N. D. A. Y.
4	27-1-2025	Operations of Graph
	28-1-2025	Graph Representation
	29-1-2025	Incidence Matrix representation of a Graph
	30-1-2025	Adjacency Matrix representation of a Graph
	31-1-2025	More Examples
	1-2-2025	Contd.
	2-2-2025	S. U. N. D. A. Y/BASANT PANCHAMI
5	3-2-2025	Test
	4-2-2025	Isomorphism of Graphs
	5-2-2025	More examples on Isomorphism of Graphs
	6-2-2025	Presentation
	7-2-2025	Eulerian and Hamiltonian Paths
	8-2-2025	Theorem based on Hamiltonian Paths
	9-2-2025	S. U. N. D. A. Y
6	10-2-2025	Problems based on Eulerian and Hamiltonian paths
	11-2-2025	Presentation
	12-2-2025	HOLIDAY: GURU RAVIDAS JAYANTI
	13-2-2025	Shortest path in a weighted graph
	14-2-2025	More example on shortest path problems
	15-2-2025	The Traveling sales person problem

	16-2-2025	S. U. N. D. A. Y.
7	17-2-2025	More problems based on travelling sales person problem
	18-2-2025	Planar Graph
	19-2-2025	Theorems related to Planar Graphs
	20-2-2025	Detection of Planarity and Kuratowski theorem
	21-2-2025	Related examples
	22-2-2025	Coloring of a Graph
	23-2-2025	S. U. N. D. A. Y.
8	24-2-2025	Presentation
	25-2-2025	Doubt Class and Assignment
	26-2-2025	HOLIDAY: MAHA SHIVRATRI
	27-2-2025	Theorems Related to Graph Coloring
	28-2-2025	More examples on Graph Theory
	1-3-2025	Contd.
	2-3-2025	S. U. N. D. A. Y.
9	3-3-2025	Directed Graphs
	4-3-2025	Definition of tree and Related Example
	5-3-2025	Theorems related to Trees
	6-3-2025	Continued
	7-3-2025	Tree Terminology
	8-3-2025	Group Discussion
	9-3-2025	S. U. N. D. A. Y.
10	10-3-2025	Test
	11-3-2025	Rooted Labeled Trees

	12-3-2025	Prefix Code
	13-3-2025	Related Example
	14-3-2025	Postfix code with examples
	15-3-2025	Contd.
	16-03-2025	S. U. N. D. A. Y.
11	17-3-2025	Presentation
	18-3-2025	Binary Trees
	19-3-2025	Construction of Binary Trees
	20-3-2025	Theorems on Binary Trees
	21-3-2025	Contd.
	22-3-2025	Doubt Class
	23-3-2025	S. U. N. D. A. Y.
12	24-3-2025	Tree Traversal and its types
	25-3-2025	Pre-order Traversal Examples
	26-3-2025	In- order Traversal Examples
	27-3-2025	Contd.
	28-3-2025	Post - order Traversal Examples
	29-3-2025	Doubt Class
	30-3-2025	S. U. N. D. A. Y.
13	31-3-2025	HOLIDAY: ID-UL-FITR
	1-4-2025	Test
	2-4-2025	Spanning Trees
	3-4-2025	Theorems on Spanning Trees
	4-4-2025	More Theorems

	5-4-2025	Cut- Sets
	6-4-2025	S. U. N. D. A. Y.
14	7-4-2025	Minimum Spanning Trees
	8-4-2025	Examples on Minimum Spanning Trees
	9-4-2025	Kruskal Algorithm
	10-4-2025	HOLIDAY: MAHAVIR JAYANTI
	11-4-2025	Example based on Kruskal Algorithm
	12-4-2025	Contd.
	13-4-2025	S. U. N. D. A. Y.
15	14-4-2025	HOLIDAY: AMBEDKAR JAYANTI
	15-4-2025	Prim Algorithm
	16-4-2025	Examples Based on Prim Algorithm
	17-4-2025	Continued
	18-4-2025	Test
	19-4-2025	decision Trees
	20-4-2025	S. U. N. D. A. Y.
16	21-4-2025	Presentation
	22-4-2025	Examples on Decision Trees
	23-4-2025	More examples (contd.)
	24-4-2025	Doubt class
	25-4-2025	Important Questions Discussion
	26-4-2025	Sorting Methods
	27-4-2025	S. U. N. D. A. Y.
	28-4-2025	Assignment

17	29-4-2025	Binary Search Trees
	30-4-2025	HOLIDAY: AKSHAY TRITYA
	01-05-2025	Discussion on previous year question papers
	02-05-2025	Discussion on previous year question papers
	03-05-2025	Discussion on previous year question papers
	04-05-2025	S. U. N. D. A. Y.

Signature