

**Lesson Plan & Work-done Diary for AY: 2023-24, ODD Semester**

<b>Course with Code: Data Structure and Applications (BCS304)</b>				<b>Faculty:</b>		<b>Semester &amp; Section:3</b>		
<b>Module</b>	<b>Class No.</b>	<b>Date planned (DD/MM)</b>	<b>Topics to be covered</b>	<b>TLP Planned</b>	<b>Date of Conduction (DD/MM)</b>	<b>Topics Covered</b>	<b>TLP Executed</b>	<b>Remarks if any deviation</b>
<b>MODULE-1</b>	1		Introduction to Data Structures with examples	PPT Chalk & Talk				
	2		Classifications (Primitive & Non-Primitive)	PPT Chalk & Talk				
	3		Data structure Operations Review of pointers and dynamic Memory Allocation	PPT Chalk & Talk				
	4		ARRAYS and STRUCTURES: Arrays, Dynamic Allocated Arrays	PPT Chalk & Talk				
	5		Structures and Unions	PPT Chalk & Talk				
	6		Polynomials, Sparse Matrices	PPT Chalk & Talk				
	7		Representation of Multidimensional Arrays	PPT Chalk & Talk				
	8		Strings STACKS: Stacks, Stacks Using Dynamic Arrays	PPT Chalk & Talk				
	9		Evaluation and conversion of Expressions	PPT Chalk & Talk				

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MODULE - 2	10		Introduction to Queues and Circular Queues	PPT Chalk & Talk				
	11		Using Dynamic Arrays	PPT Chalk & Talk				
	12		Multiple Stacks and queues	PPT Chalk & Talk				
	13		LINKED LISTS: Singly Linked,	PPT Chalk & Talk				
	14		Lists and Chains, Representing Chains in C	PPT Chalk & Talk				
	15		Linked Stacks and Queues,	PPT Chalk & Talk				
	16		Polynomials	PPT Chalk & Talk				
	17		Quiz & Question paper discussion	PPT Chalk & Talk				

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MODULE-3	18		<b>LINKED LISTS:</b> Additional List Operations	PPT Chalk & Talk				
	19		Sparse Matrices with examples	PPT Chalk & Talk				
	20		Doubly Linked List	PPT Chalk & Talk				
	21		TREES: Introduction and Binary Trees	PPT Chalk & Talk				
	22		Binary Tree Traversals	PPT Chalk & Talk				
	23		Threaded Binary Trees	PPT Chalk & Talk				
	24		Revision & Question Paper	PPT Chalk & Talk				

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MODULE-4	25		Binary Search trees with examples	PPT Chalk & Talk				
	26		Selection Trees, Forests	PPT Chalk & Talk				
	27		Representation of Disjoint sets and examples	PPT Chalk & Talk				
	28		Counting Binary Trees	PPT Chalk & Talk				
	29		GRAPHS: The Graph Abstract Data Types	PPT Chalk & Talk				
	30		Elementary Graph Operations	PPT Chalk & Talk				
	31		Revision & Question paper discussion	PPT Chalk & Talk				

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MODULE-5	32		Introduction to Hashing	PPT Chalk & Talk				
	33		Static Hashing, Dynamic Hashing	PPT Chalk & Talk				
	34		PRIORITY QUEUES: Single and double ended Priority Queues	PPT Chalk & Talk				
	35		Single and double ended Priority Queues	PPT Chalk & Talk				
	36		Leftist Trees INTRODUCTION TO EFFICIENT BINARY SEARCH TREES	PPT Chalk & Talk				
	37		EFFICIENT BINARY SEARCH TREES	PPT Chalk & Talk				
	38		Optimal Binary Search Trees	PPT Chalk & Talk				
	39		Problems Revision	PPT Chalk & Talk				
	40		Question paper discussion	PPT Chalk & Talk				

	<b>Activity</b>	<b>Planned</b>	<b>Actual</b>	<b>Remarks</b>
<b>1</b>	Theory Classes	40		
<b>2</b>	Assignments/Quizzes/ Self-study	3		
<b>3</b>	Tutorials/ Extra classes	-		
<b>4</b>	Internal Assessments	3		
<b>5</b>	ICT based Teaching (% of usage in Curriculum)	100%		
<b>Planning</b>			<b>Execution</b>	
<b>Faculty Signature:</b>			<b>Faculty Signature:</b>	
<b>HoD Signature:</b>			<b>HoD Signature:</b>	