



Course with Code: Data Structure and Applications (1BCS305)					Faculty: Sandesh R		Semester & Section: 3rd	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
BRIDGE COURSE	1		Introduction to C	PPT Chalk & Talk				
	2		C Functions and recursion with examples	PPT Chalk & Talk				
	3		C Decision Making statements and Looping Constructs with examples	PPT Chalk & Talk				

Course with Code: Data Structure and Applications (1BCS305)					Faculty: Sandesh R		Semester & Section: 3rd	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-1	1		Introduction: Data Structures,	PPT Chalk & Talk				
	2		Classifications (Primitive & Non-Primitive).	PPT Chalk & Talk				
	3		Pointers and Dynamic Memory Allocation	PPT Chalk & Talk				
	4		Arrays	PPT Chalk & Talk				
	5		Dynamically Allocated Arrays	PPT Chalk & Talk				
	6		Structures and Unions, Polynomials	PPT Chalk & Talk				
	7		Sparse Matrices: Sparse Matrix Representation	PPT Chalk & Talk				
	8		Transposing a Matrix	PPT Chalk & Talk				

Course with Code: Data Structure and Applications (1BCS305)					Faculty: Sandesh R		Semester & Section: 3rd	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE - 2	9		Stacks: Definition, Stack Operations	PPT Chalk & Talk				
	10		Array Representation of Stacks, Stacks using Dynamic Arrays	PPT Chalk & Talk				
	11		Stack Applications: Polish notation	PPT Chalk & Talk				
	12		Infix to Postfix Conversion	PPT Chalk & Talk				
	13		Evaluation of Postfix Expression	PPT Chalk & Talk				
	14		Queues: Definition	PPT Chalk & Talk				
	15		Array Representation	PPT Chalk & Talk				
	16		Queue Operations	PPT Chalk & Talk				

Course with Code: Data Structure and Applications (1BCS305)					Faculty: Sandesh R		Semester & Section: 3rd	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-3	17		Circular Queues	PPT Chalk & Talk				
	18		Circular queues using Dynamic arrays	PPT Chalk & Talk				
	19		Multiple Stacks and Queues	PPT Chalk & Talk				
	20		LINKED LISTS: Singly Linked Lists	PPT Chalk & Talk				
	21		Chains, Representing Chains in C	PPT Chalk & Talk				
	22		Linked Stacks and Queues,	PPT Chalk & Talk				
	23		Additional List Operations	PPT Chalk & Talk				
	24		Sparse Matrices: Sparse Matrix Representation	PPT Chalk & Talk				
	25		Doubly Linked List	PPT Chalk & Talk				

Course with Code: Data Structure and Applications (1BCS305)					Faculty: Sandesh R		Semester & Section: 3rd	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-4	26		Trees: Introduction-Terminology	PPT Chalk & Talk				
	27		Binary Trees	PPT Chalk & Talk				
	28		Properties of Binary trees	PPT Chalk & Talk				
	29		Array and linked Representation of Binary Trees	PPT Chalk & Talk				
	30		Binary Tree Traversals – preorder, Inorder, postorder	PPT Chalk & Talk				
	31		Threaded Binary Trees	PPT Chalk & Talk				
	32		Binary Search Trees – Definition	PPT Chalk & Talk				
	33		BST - Searching, Insertion, Deletion	PPT Chalk & Talk				
	34		Counting Binary Trees	PPT Chalk & Talk				

Course with Code: Data Structure and Applications (1BCS305)					Faculty: Sandesh R		Semester & Section: 3rd	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-5	35		GRAPHS: The Graph Abstract Data Types	PPT Chalk & Talk				
	36		Elementary Graph Operations	PPT Chalk & Talk				
	37		HASHING: Introduction	PPT Chalk & Talk				
	38		Static Hashing	PPT Chalk & Talk				
	39		Dynamic Hashing	PPT Chalk & Talk				
	40		PRIORITY QUEUES	PPT Chalk & Talk				
	41		Single and double ended Priority Queues	PPT Chalk & Talk				
	42		Leftist Trees	PPT Chalk & Talk				

	Activity	Planned	Actual	Remarks
1	Theory Classes	42		
2	Assignments/Quizzes/ Self-study	2		
3	Tutorials / Extra classes (Bridge Course)	3		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	100%		
Planning			Execution	
Faculty Signature:			Faculty Signature:	
HoD Signature:			HoD Signature:	