DATTA MEGHE COLLEGE OF ENGINEERING
Department of Computer Engineering
Internal Assessment-II
Academic Year: 2022-23   Semester: Odd

Sub: Data Structure   Sem: III   Year/Div: SE/A&B   Roll No.:

Time: 1 Hour   Total Marks: 20

Note: Assume data wherever necessary.

CSC303.1	Students will be able to implement Linear and Non-Linear data structures.
CSC303.2	Students will be able to handle various operations like searching, insertion, deletion and traversals on various data structures.
CSC303.3	Students will be able to explain various data structures, related terminologies and its types.
CSC303.4	Students will be able to choose appropriate data structure and apply it to solve problems in various domains.
CSC303.5	Students will be able to analyze and Implement appropriate searching techniques for a given problem.
CSC303.6	Students will be able to demonstrate the ability to analyze, design, apply and use data structures to solve engineering problems and evaluate their solutions.

Q.N.	Question	Mark	CO	BT
1.a	Write a menu driven program to implement push & pop operations of stack using linked list.	05	CSC303.2	BTL3
	OR			
1.b	Write a menu driven program to implement operations of queue using linked list.	05	CSC303.2	BTL3
2.a	Construct an AVL tree by inserting the following elements in the given order.63, 9, 19, 27, 18, 108, 99, 81. Show construction of AVL tree step by step.	05	CSC303.1, CSC303.2, CSC303.4	BTL3
	OR			
2.b	What is Huffman coding? Construct the Huffman Tree step by step and determine the code for each symbol in the sentence "STRUCTURE".	05	CSC303.1, CSC303.2, CSC303.4	BTL3
3.a	Construct step by step Binary Search tree from following given sequences. In–order Traversal: D B E A F C G Pre–order Traversal: A B D E C F G	05	CSC303.1, CSC303.2, CSC303.3	BTL3
	OR			
3.b	Construct step by step Binary Search tree from following given sequences. In–order Traversal: D B H E A F J C G	05	CSC303.1, CSC303.2,	BTL3

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			CSC303.4	
	 Consider the above graph and show step by step sequence of nodes those will be visited using BFS traversal methos.			
	OR			
4.b	 Consider the above graph and show step by step sequence of nodes those will be visited using DFS traversal methos.	05	CSC303.1, CSC303.2, CSC303.4	BTL3