Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: SY	**School of Technology**	**Department:** CSE
Course Code:CST207	**Course Title:** DATA STRUCTURES	**Semester : III**
Day : Friday **Date :** 5th February 2021	**End Semester Examination**	**Time : 2 Hrs.** **Max Marks : 50**

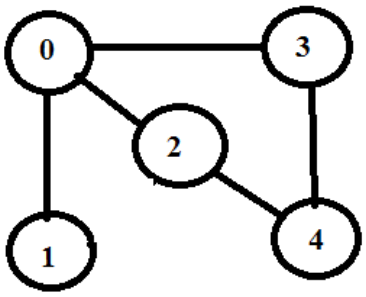
Question Paper

Instructions: 1) All Questions are compulsory.

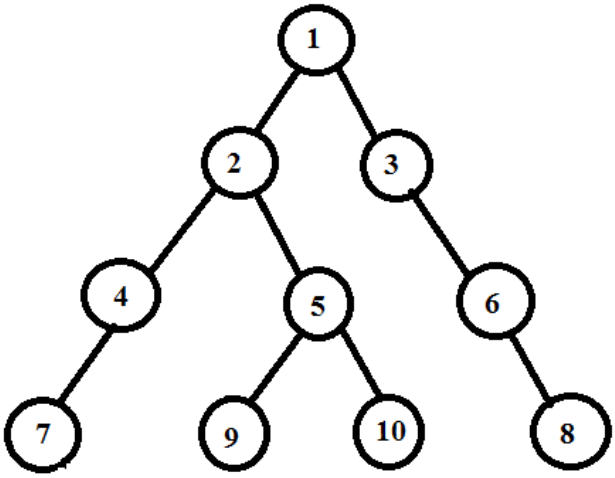
2) Assume suitable data if required

		Marks	Bloom's Level	CO
Q.1	**Answer the following (any Two)-**			
a)	Describe Structure along with syntax. State code to display record of structure employee with data member's employee_id and employee_name and employee_salary.	8	L1	CST207.1
b)	Determine all passes to sort given elements of array in ascending order using Insertion Sort (write all passes with explanation) 54 26 93 17 77 31 44	8	L4	CST207.2
c)	Apply Merge Sort to sort given element of array in ascending order (write all passes with explanation) 75 20 19 94 15 18 44	8	L3	CST207.2
Q.2	**Answer the following (any Two)-**			
a)	Make use of Infix to Postfix conversion to convert given string to postfix form (5+6) * (8-9) / (4+3)	8	L3	CST207.3
b)	Explain Circular Queue in detail along with all operations and conditions	8	L2	CST207.4
c)	Explain Doubly Linked List in detail along with all insertion and deletion of node at beginning (write code)	8	L2	CST207.5
Q.3	**Answer the following (any Two)-**			
a)	Explain Binary Search Tree in detail along with Insertion and deletion of node in tree.	9	L2	CST207.6

b)	Apply Breadth First Search and Depth First Search algorithms to traverse node in given graph.	9	L3	CST207.1



c)	Describe Tree Traversal Techniques in detail. Identify In-order, Pre-order and Post-order traversals for given tree	9	L1	CST207.6



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