

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Mid Semester Examination – Oct 2018

Course: B. Tech in Computer Engineering

Sem: III

Subject Name: Data Structures

Subject Code: BTCOC303

Max Marks: 20

Date:-10/10/2018 Duration:- 1 Hr.

Instructions to the Students:

1. All questions are compulsory.
2. Calculators/Cell phones are strictly prohibited
3. Support your answers with appropriate figures if applicable

	(Level/CO)	Marks
Q.1 Attend following Multiple choice questions		6
1. Dynamic memory is allocated by using	Understand	
A) malloc() B) calloc() C) both A& B D) none		
2. Time complexity for Binary Search	Analysis	
A) O(1) B) O(n) C) O(logn) D) O(n ²)		
3. Sparse matrix used to represent	Understand	
A) more number of zero elements than non-zero element		
B) zero element C) non zero element		
4. Union uses	Understand	
A) total size of each element B) max size from single element		
C) A&B D) NONE		
5. Which is not build in data type	Knowledge	
A) int B) float C) structure D) long int		
6. Which keyword is used to define the user defined data types?	Knowledge	
A)Def B) Union C) Typedef D) Type		
Q.2 Solve Any Two of the following.		3 X 2
(A) What is Insertion Sort and Write an algorithm for Insertion Sort	Understand	
(B) What is an Algorithm? Explain with different characteristics of an algorithm	Application	
(C) What is ADT? Explain with Different Data types used in Data Structure.	Analysis	
Q.3 Solve Any One of the following.		8
(A) What is hash Function? Explain with its different hash functions and also explain with open Addressing method.	Application	
(B) Explain Radix sort and Selection sort in details with example and algorithm.	Analysis	

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