DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Mid Semester Examination – March 2019

Course: Second Year B. Tech in   IT   **Sem: II**

Subject Name: Data Structures and Applications

Subject Code: BTITC402

Max Marks: 20   **Date:-12/3/2019**   **Duration:- 1 Hr.**

Instructions to the Students:
1. **Read question carefully and write complete answers.**

		(Level/CO)	Marks
Q. 1	**Solve all of the following.**		**6**
i.	Stack works on the principle of _____	CO2	
ii.	In priority queue elements are inserted and deleted from _____ & _____ end respectively.	CO2	
iii.	An array has _____ type of memory allocation.	CO3	
iv.	Memory can be allocated dynamically using _____ function.	CO3	
v.	An algorithm can take zero or more inputs. (True/False) _____	CO1	
vi.	Which of the following is not a linear data structure.	CO2	
	a) array b) queue c)stack d)tree		
Q.2	**Solve Any Two of the following.**		**3 X 2**
(A)	Write an algorithm to Push and Pop elements in a stack.	CO 2	
(B)	Convert the following expression to postfix form. A+B+C*D-E	CO 2	
(C)	Define an algorithm and explain characteristics of an algorithm.	CO 1	
Q. 3	**Solve Any One of the following.**		**8**
(A)	Write algorithm to insert and delete a node into/from a singly linked list.	CO 3	
(B)	Define a doubly linked list and write algorithm to insert a node in at start and in middle of a DLL.	CO 3	

*** End ***