DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Supplementary Summer Examination – 2024

Course: B.Tech. **Branch:** Electronics and Computer Engineering / Electronics and Computer Science Engineering **Semester:** III

Subject Code & Name: Programming, Data Structure & Algorithm using C (BTECPC303)

Max Marks: 60 **Date: 04/07/2024** **Duration: 3 Hr.**

Instructions to the Students:

1. *All the questions are compulsory.*
2. *The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in ( ) in front of the question.*
3. *Use of non-programmable scientific calculators is allowed.*
4. *Assume suitable data wherever necessary and mention it clearly.*

		(Level/CO)	Marks
Q. 1	**Solve Any Two of the following.**		**12**
A)	Need of Data Structure.	CO2	6
B)	Define Linked List & explain it's types.	CO2	6
C)	Operations on Linked List.	CO2	6
Q.2	**Solve Any Two of the following.**		**12**
A)	Describe Stack representation.	CO2	6
B)	Various operations on stack.	CO3	6
C)	Explain Memory representation of Queue using Array.	CO3	6
Q. 3	**Solve Any Two of the following.**		**12**
A)	Types of Queue.	CO4	6
B)	Applications of Queue.	CO4	6
C)	Describe tree representation.	CO4	6
Q.4	**Solve Any Two of the following.**		**12**
A)	What is Binary Tree Traversal?	CO5	6
B)	Describe Tree Terminologies.	CO5	6
C)	Define Graph & explain its types.	CO5	6
Q. 5	**Solve Any Two of the following.**		**12**
A)	Explain Path Matrix.	CO6	6
B)	Describe Algorithm Complexity.	CO6	6
C)	Types of Algorithm.	CO6	6

***** End *****