Question Paper Code: 94426A

B.E./B.Tech. DEGREE EXAMINATION, MAY 2021

Fourth Semester

Electrical and Electronics Engineering

19UIT426- DATA STRUTURE USING C

(Regulation 2019)

Duration: 1:45 Hrs   Maximum: 50 Marks

PART A

Answer any 10 Questions (10 X 2 = 20 marks)

1	What are the advantages of linked list?	[Remember]
2	Define dynamic Memory allocation.	[Understand]
3	Mention the features of ADT.	[Analyze]
4	Differentiate Stack and Queue.	[Understand]
5	List the applications of Queue.	[Remember]
6	What is meant by Push() and Pop() operation?	[Remember]
7	What is meant by Binary Search tree?	[Remember]
8	Define AVL Tree.	[Remember]
9	List the tree traversals.	[Remember]
10	What are the different ways of representing a graph?	[Remember]
11	Define indegree of a Graph .	[Remember]
12	What is the use of Kruskal's algorithm?	[Remember]
13	Define hashing.	[Remember]

14	Differentiate between merge sort and quick sort	[Understand]
15	What is open addressing?	[Remember]

PART B (3 X 10 = 30 marks)

Answer any 3 Questions

1	Discuss the creation of a singly linked list and write routine to insert an element in singly linked list and delete an element in singly linked list.	[Understand]
2	Explain array based implementation of Queue	[Understand]
3	Construct AVL Tree for the following numbers 3,2,1,4,5,6,7 and Perform Rotation	[Apply]
4	Explain Topological Sorting with appropriate example.	[Understand]
5	Apply Binary search technique to search 80 in the list of numbers 10,12,20,32,50,55,65,80,99	[Apply]