Code No: I4001/R16

M. Tech. I Semester Regular/Supple Examinations, Jan/Feb-2018

ADVANCED DATA STRUCTURES/ADVANCED DATA STRUCTURES AND ALGORITHM ANALYSIS

Common to Information Technology (40), Computer Science (05), Computer Science & Technology (59) and Computer Science & Engineering (58)

Time: 3 Hours **Max. Marks: 60**

Answer any FIVE Questions
All Questions Carry Equal Marks

1.	a	Write an algorithm to insert nodes into a double linked list.	8M
	b	Explain any one application of Queue with an example.	4M
2.	a	Implement Quick Sort Technique on the following 20, 6, 89, 32, 65, 92, 8 numbers.	7M
	b	Implement Insertion Sort Technique on the following 20, 6, 89, 32, 65, 92, 8 numbers.	5M
3.	a	How do you represent Hash Table? Explain.	6M
	b	Explain double hashing with an example.	6M
4.		Write the procedure to implement priority queue using heap.	12M
5.		Explain Insertion, deletion and display procedures of AVL tree.	12M
6.	a	How do you evaluate Prefix? Explain it with an example.	6M
	b	How do you compute the height of B Tree? Explain.	6M
7.	a	Elaborate the significance of Red-Black tree.	6M
	b	Explain various Hash Functions in detail.	6M
8.	a	Write the implementation of Circular Linked List.	6M
	b	Write the pseudo code for Depth First Traversal Technique.	6M