GUJARAT TECHNOLOGICAL UNIVERSITY MCA - SEMESTER-II • EXAMINATION – WINTER 2015

Sul Sul	bject biect	Code:4420602 Date:02/12/201 Name: Advanced C Programming	Date:02/12/2015	
Time:02.30 pm to 05.00 pm Total M			larks: 70	
	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a)	 Do As Directed : Tree is acyclic graph [True/False] File can be opened with function and closed with function. Give difference between array and structure. What is the advantage of doubly linked list. A graph with some directed and some undirected edges is known as Pointer stores of another variable. 	07	
	(b)	 7. Recursion is the application of Define the terms : Graph Macro Siblings Ancestor Weighted graph Leaf Degree 	07	
Q.2	(a) (b)	What is stack? Explain stack operations with algorithms, What is queue? List and explain types of queue.	07 07	
	(b)	Convert following expression into postfix with stack trace table. A + B - C * D + E / F	07	
Q.3	(a)	What is linked list? List types of linked list. Write an algorithm to insert node in	07	
	(b)	What is file? Write a program to copy a file into another file. OR	07	
Q.3	(a) (b)	Explain command line arguments with proper e.g. Give difference between call by value and call by reference.	07 07	
Q.4	(a) (b)	What is structure? Explain Array of Structure with suitable e.g. Explain enum and typedef with suitable e.g. OR	07 07	
Q.4	(a) (b)	Give difference between structure and union. Also explain how to access structure members using pointer. Explain #include and #define with proper e.g.	07 07	
Q.5	(a) (b)	Write a short note on conditional preprocessors. Create a binary search tree and traverse the tree in preorder. 20, 90, 70, 80, 5, 10, 4, 6	07 07	

OR

Q.5

Explain BFS and DFS with proper e.g. Explain adjacency matrix and adjacency list with suitable e.g. (a) **(b)**

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