

**I B.Tech.(CCC) Supplementary Examinations, June 2008**  
**C AND DATA STRUCTURES**  
**(Electronics & Communication Engineering)**

**Time: 3 hours**

**Max Marks: 100**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. (a) What is a Flowchart? Explain the different symbols used in a Flowchart?  
(b) Write a program to find the maximum and minimum of given numbers. [10+10]
2. (a) What is the purpose of break statement?  
(b) Suppose a break statement is included within the innermost of several nested control statements. What happens when break statement is executed?  
(c) Write a program to print the multiplication table upto to with proper format. [5+8+7]
3. (a) Distinguish between getchar and scanf functions for reading strings.  
(b) Write a program to count the number of words, lines and characters in a text. [10+10]
4. (a) Explain the different ways of passing structure as arguments in functions.  
(b) Write a C program to illustrate the method of sending an entire structure as a parameter to a function. [10+10]
5. (a) What is the syntax for opening the file. List and describe various text modes of opening a pre-existing file.  
(b) Write a program to open a file in append mode and add new elements in it. [10+10]
6. Write a program to convert a given infix expression to postfix expression using stacks. [20]
7. (a) Explain the adjacency list representation of a graph with an example.  
(b) Write an algorithm for breadth first search of a graph. [10+10]
8. (a) Write a C program to sort the elements of an array using bubble sort technique with a suitable example.  
(b) What is the worst case and best case time complexity of bubble sort? [12+8]

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