

National Institute of Technology, Delhi

Name of the Examination: **B. Tech.**

Branch : CSE/ ECE /EEE Semester : **I**
 Title of the Course : Problem Solving and Computer Programming Course Code : **CSB101**

Time: 3 Hours

Maximum Marks: 50

1.	What do you understand by identifiers and keywords?	1
2.	Draw a flowchart to log in Twitter account and facebook account.	1
3.	Convert 756310 to hexadecimal number system.	1
4.	What is difference between array and structure ?	1
5.	Explain the iterative statements that C language supports.	1
6.	Explain the utility of sizeof and typedef keywords.	1
7.	What do you understand by recursion ?	1
8.	What do you understand by scope of a variable? Explain in detail with suitable examples.	1
9.	What is difference between binary files and text files?	1
10.	Explain the difference between null pointer and a void pointer.	1
Section B (20 Marks): Attempt any <u>FOUR</u>		
1.	Write a program to generate calendar of a month given the start day of the week and the number of days in the month.	5
2.	Explain in brief the storage classes C language supports. Give 5 differentiation points between these classes.	5
3.	Write a program to swap two numbers using call by value and call by reference.	5
4.	Write a program to count total number of non-zero elements in a two-dimensional array.	5
5.	Write a program to classify a given number as prime or composite.	5
Section C (20 Marks): Attempt any <u>TWO</u>		
1.	Write a menu driven program to perform various string operations using pointers (Minimum 5)	10
2.	Write a program to read and display the information of all the students in the class. The program should accept the five subjects marks and display the result of each student. For the Date of Birth information use nested structure.	10
3.	Write a program to copy one file into another. Copy one character at a time.	10