Roll No. .....

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 : 2 Hours — Maximum Marks : 25

Que 1: Answer the following questions in brief. (1 Mark each)

1) Differentiate between low level and high level languages.
2) Enlist the types of files used in a C program.
3) State any four rules for forming identifiers names.
4) Explain ternary operator.
5) Give the operator precedence chart.
6) Change the following for loop into a while loop.

```
int i;
for (i=10; i>0; i- -)
printf ("%d", i);
```

Que 2: Find the output of the following codes: (2 Marks each)

1)
```
#include<stdio.h>
int main()
{ int a=2, b=3;
  printf("\n %d", ++(a – b));
  return 0;        }
```

2)
```
#include<stdio.h>
int main()
{   int x=10, y=20, res;
  res=x+++y;
  printf("\n x=%d  y=%d  Result=%d", x, y, res);
  return 0;}
```

Que 3: Write following C programs: (2 Marks each)

1) Write a program to print Floyd's triangle.

```
1
2 3
4 5 6
7 8 9 10
```

2) Write a program to determine whether an entered character is a vowel or not using switch case.
3) Write a program to find whether the given number is an Armstrong number or not?
4) Write a program to print the sum of all odd numbers from 1 to 100.
5) Write a program to find the greatest of three numbers.

Que 4: Answer the following questions:

1) Draw a flowchart to log in to facebook account (1 Mark)
2) Draw a flowchart to find the Fibonacci series till term≤1000. (2 Marks)
3) Convert the hexadecimal number F3A7C2 to binary and octal. (2 Marks)