



Total No. of Questions: 5/33

Total No. of Pages: 3

First Year (B.Sc Computer Science)

**COM11101: Problem Solving using Computers and C Programming
(Semester I)**

Program: B.Sc Computer Science(BSc Comp05)

Program Specific: Computer Science

Course Type: Mandatory

Paper: I

Credits: 4

Time: 3 Hours

Max. Marks: 60

SET: A

Instructions to the candidate:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Draw a well labeled diagram wherever necessary.

SECTION: A

Q1) Answer the following:

[1 X 10 =10]

1. Define Variable.
2. Write the definition of an Array.
3. Give the usage of 'break' keyword?
4. Define Pointer.
5. Write the use of loop control structure.
6. State the datatypes in 'C' language?
7. List the keywords in 'C' Programming.
8. Define Pseudocode.
9. Draw input and start symbols of a flowchart.
10. Enlist all the compound assignment operators.

SECTION: B

Q2) Answer ANY FIVE of the following:

[5 X 2 = 10]

1. Write advantages of a Flowchart.
2. Define Compiler?
3. Give the types of functions in 'C' language.
4. Differentiate between while and do while in 'C' language.
5. Define String with suitable example.
6. Write an algorithm to print the addition of two numbers.
7. State any two applications of 'C' Programming.

SECTION: C

Q3) Answer ANY FIVE of the following:

[5 X 3 = 15]

1. Write a 'C' Program to print 10 to 1 numbers in descending order.
2. Draw a flowchart to check whether the given number is even or odd.
3. Explain different types of operators in 'C' language?
4. Define Structure in 'C'? Write its syntax.
5. List the rules of declaring variables in 'C' language?
6. Write a 'C' program to calculate length of a given string without using standard function.
7. Differentiate between Compiler and Interpreter.

SECTION: D

Q4) Answer ANY THREE of the following:

[3 X 5 = 15]

1. Write any 5 functions of string along with its use and syntax.
2. Find the output of the following code.

```
#include<stdio.h>
main()
{
    int i=1;
    while(i++<=5);
    {
        printf("\n%d",i);
    }
}
```

3. Write a 'C' program to print factorial of a given number.
4. Find the output of the following code? Justify.

```
#include<stdio.h>
main()
{
    int a = 1, i ;
    for (i = 1; i < 10; i++)
    {
        a++;
        if (i == 7)
            break;
    }
    printf("%d",a);
}
```

5. Explain nested structure with suitable example.

SECTION: E

Q5) Answer ANY TWO of the following:

[2 X 5 = 10]

1. Write a 'C' program to print array elements in reverse order.
2. Write all the characteristics of an Algorithm.
3. Write a 'C' program to accept a number from the user and check whether it is prime or not prime.
4. Explain case control structure with suitable example.

NEP 2020