



Department of Computer Science and Engineering,
Anna University, Chennai- 600025
CS23C04 – Programming in C (R 2023)
Practical
June – November 2025
Year/Sem/Batch : I/I/ Q

Week 2

Basic C Programs

03 – Sep – 2025

Observation (5 Marks)

1. Write down the syntax and example of the following
 - a. All Looping statements (While, do-while, for loop)
2. Differentiate while loop with do while loop.
3. Illustrate pre increment and post increment.
4. Can a for loop run without an initialization statement? Give an example.
5. What happens if the condition in a for loop is always true?
6. What happens if we write for(; ;) in a program?
7. Write the equivalent while loop for the following for loop:

```
for(int i = 1; i <= 10; i++) {  
    printf("%d ", i);  
}
```
8. Can multiple variables be initialized in a for loop? Give an example.
9. Can we use a break statement inside a for loop? What effect does it have?
10. Predict the output of the following code:

```
for(int i = 10; i > 0; i -= 2)  
{  
    printf("%d ", i);  
}
```

Execution (15 Marks)

1. Write a C program to perform the following to
 - a. Generate the Multiplication table for a given number.

- b. Count the number of digits in a given number.
- c. Find the sum of first n natural numbers using a while loop.
- d. Find the factorial of a number using a while loop.
- e. Reverse of a given number.
- f. Check whether a number is prime or not using a for loop.
- f. Check whether a number is a palindrome or not using a while loop.
- g. Print the following patterns.

