DAYANANDA SAGAR UNIVERSITY

SCHOOL OF COMPUTER APPLICATIONS

C Programming

Assignment – 2 Control Structures, Arrays, and Strings

Course: Fundamentals of Programming in C
Subject Instructor: Mohd Adil (Assistant Professor) Semester:
BCA – I

- Attempt all questions.
- Write neat, well-indented code with comments.
- Mention your name, roll number, and section.
- Students are instructed to write their answers on A4-sized sheets or plain paper. •

Submission deadline: **7-November 2025**

Q1. Write a C program to check whether a given number is **even or odd** using an if-else

Q2. Write a C program to find the **largest among three numbers** using **nested if** statements.

Q3. Write a C program to display the **day of the week** (Monday to Sunday) based on a number (1–7) entered by the user using a **switch-case** statement.

Q4. Write a C program to find the **grade** of a student based on marks using **if-else if ladder:**

(Example: marks ≥ 90 → Grade A, marks ≥ 75 → Grade B, marks ≥ 60 → Grade C, else → Fail)

Q5. Write a C program to print the **sum of first 10 natural numbers** using a **for loop.**

Q6. Write a C program to find the factorial of a number using a **while loop.**

Q7. Write a C program to display the multiplication table of a number using **do-while loop**

I. Write a C program to display numbers from 1 to 50.
- Use the **continue** statement to **skip multiples of 5**.
- Use the **break** statement to stop the loop if the number is greater than 40.

Q8 Write a C program to print the following **number pyramid** pattern:

```
      1
    1 2 1
  1 2 3 2 1
1 2 3 4 3 2 1
1 2 3 4 5 4 3 2 1
```

Q9. Write a C program to:
- Declare and initialize a **one-dimensional array** of 5 integers.
- Input values from the user and find the **maximum element** in the array.

Q10. Write a C program to:
- Read a **string** from the user and display.
- Display the **length of the string** and **reverse** the string without using built-in string handling functions