SDM COLLEGE OF ENGINEERING & TECHNOLOGY, DHARWAD

Department of Computer Science and Engineering
Internal Assessment - 1

Course. Title & Code : **Advance C Programming (22PLC25E)**

Semester   : II (A & B)   Date   : 14-06-2023

Max. Marks   : 20   Duration : 1 Hr.

Course Teachers : SSV, JCK

Note: 1. Answer any one question from **Q1** and **Q2**.   **Q3 is compulsory**.

    2. Write programs using modular approach.

Q.No.1 a) Explain with an example, the declaration and initialization of character array pointers.   **[Marks:4, CO1]**

    b) Write a C modular approach program using pointers to check whether a given string is palindrome or not.   **[Marks:6, CO1]**

Q.No.2. a) Define structures. Explain, with an example, the definition and declaration of structure variables.   **[Marks:4, CO1]**

    b) Write a C program to determine sum of principal diagonal elements of a square matrix using appropriate user defined functions and pointers.   **[Marks:6, CO1]**

Q.No.3.a) **Write** a C program to evaluate a postfix expression.   **[Marks:6, CO3]**

    b) Convert the infix expression **a + (b - (c * d) / e ^ f) / (a + (b − c))** to postfix and prefix expressions. For the values of a = 2, b = 3, c=4, d=5, e=2, and f = 3, evaluate the postfix expression. Also, show the contents of the stack during evaluation of postfix expression.   **[Marks:4, CO3]**