

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE , APRIL – 2023**

PROGRAMMING IN C

(Maximum Marks : 100)

(Time : 3 hours)

PART – A
(Maximum Marks : 10)

Marks

I. Answer **all** questions in one or two sentences. Each question carries 2 marks.

1. Define global variable.
2. Give the syntax of exit controlled loop.
3. Define multidimensional array.
4. List library function used to find the length and reverse of a string.
5. Define formal parameter.

(5x2=10)

PART – B
(Maximum Marks : 30)

II. Answer any **five** of the following questions. Each question carries 6 marks.

1. Explain the increment and decrement operators in C.
2. Explain any of three basic data types used in C.
3. Write a C program to find the reverse of a given number using while loop.
4. Write a C program concatenated two string without using string functions.
5. Define pointer. Explain declaration of pointer variable.
6. Write a C program to find sum of two numbers using user defined function.
7. Compare call by value and call by reference.

(5x6=30)

PART – C

(Maximum Marks : 60)

(Answer **one full** question from each unit. Each full question carries 15 marks)

UNIT – I

- III.** (a) Explain the structure of C programming with an example. (9)
(b) Write a C program to find largest among three numbers. (6)

OR

- IV.** (a) Describe the syntax of nested if statement with an example. (9)
(b) Write a C program to find simple calculator using switch statement. (6)

UNIT – II

- V.** (a) Explain the counter controlled loop with an example. (9)
(b) Write a C program to find sum of elements in an array. (6)

OR

- VI.** (a) Explain the two dimensional array declaration and initialization. (6)
(b) Write a C program to find sum of two M x N matrices. (9)

UNIT –III

- VII.** (a) Explain the string function with a suitable example: (i) strcat(), (ii) strcpy(). (8)
(b) Write a C program to sort an array in ascending order using pointer. (7)

OR

- VIII.** (a) Explain any three possible pointer arithmetic operations. (8)
(b) Write a C program to find length of a string without using string function. (7)

UNIT – IV

- IX.** (a) Define user defined functions. Explain about general format of function definition. (9)
(b) Write a C program to find the product of two number using user defined function. (6)

OR

- X.** (a) Write a C program to find the sum elements in an array using a user defined function.
Use pointer to pass the array into the function. (9)
(b) Explain recursion with the help of an example. (6)
