

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE – APRIL -2020.

PROGRAMMING IN C

(Maximum Marks :75)

[Time : 2.15 hours]

PART–A

Marks

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

1. If $x=5$ and $y=x++$, find the value of y .
2. List any two multiway selection structures.
3. Mention the syntax of for loop.
4. Define a pointer.
5. Define formal parameters.

(3x2=6)

PART - B

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

1. Explain the rules for naming a variable.
2. Explain the syntax of while loop with the help of an example.
3. Write a C program to sort the elements in an array in ascending order.
4. Describe the declaration and initialization of pointer variables with example.
5. List and explain the functions used for writing strings.
6. Write a C program to read two numbers. Find their product using a user defined function.
7. Explain the general format of function definition.

[4x6 =24]

PART - C

(Answer **any of the three units** from the following. Each full question carries 15 marks)

UNIT I

- III** (a) Explain the structure of a C program with example. (8)
- (b) Write a C program to find the largest among three numbers. (7)

OR

- IV** (a) Describe the various data types in C with suitable examples. (8)
(b) Write a C program to display the area of a circle. (7)

UNIT- II

- V** (a) With suitable example, explain exit controlled loop. (8)
(b) Write a C program to find the transpose of a matrix. (7)

OR

- VI** (a) Explain the declaration and initialization of one dimensional array with example. (8)
(b) Write a C program to check whether the given number is palindrome or not. (7)

UNIT- III

- VII** (a) Explain any two pointer arithmetic operations in C with example. (8)
(b) Write a C program to swap two numbers using pointers. (7)

OR

- VIII** (a) Describe the string handling functions to concatenate two strings with example. (8)
(b) Write a C program to read a string and display its reverse without using `strrev()`. (7)

UNIT – IV

- IX** (a) Compare call by value and call by reference with the help of examples. (8)
(b) Write a C program to read two numbers, pass these values to a function, find the smallest and return to the `main()` program. (7)

OR

- X** (a) Explain recursive function with the help of a suitable example. (8)
(b) Write a user defined function to find the sum of elements in an array. Pass array as arguments to the function. (7)
