

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE , APRIL - 2022**

PROGRAMMING IN C

(Maximum Marks:100)

(Time: 3 Hours)

PART - A

(Maximum marks : 10)

Marks

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

1. Rewrite the following statement using conditional operator

If (x>10)

a = x;

else

a=20;

2. What is Pre-processor.

3. Write the syntax of declaring a 2D array.

4. Create a structure to store employee id, name and basic pay.

5. List any 2 standard library string functions.

(5 x 2 = 10)

PART - B

(Maximum Marks: 30)

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

1. Distinguish between while and do-while loop.

2. Write a C program to check whether an integer is divisible by 5 or not. If so, find cube of the above number.

3. Write a C program to swap value of two integers using pointer.

4. Briefly explain recursion.

5. Demonstrate how to pass an entire array to a function.

6. Write a C program to find sum and average of N numbers stored in an array.

7. Write a C program to read three name from the keyboard. (5 x 6 = 30)

PART - C

(Maximum marks: 60)

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

UNIT - I

III (a) Explain nested for loop. (8)

(b) What are the rules for creating a variable in C? (7)

OR

- IV (a) Write a C program to generate prime numbers between 2 limits. (9)
(b) Explain conditional operator. (6)

UNIT – II

- V (a) Explain the different data types in C programming language. (15)

OR

- VI (a) What are the different storage classes in C? (8)
(b) Compare call by value and call by reference. (7)

UNIT – III

- VII Write a C program to find second largest element of an array using function.
(Pass array as arguments). (15)

- VIII (a) Write a C program to find sum of diagonal elements of a square matrix. (7)
(b) Differentiate an array and a structure. (8)

UNIT – IV

- IX Declare a structure which contains register number, name, marks of
5 different subjects and total marks. Write a C program to calculate grade
based on total marks of N students in your class. (15)

OR

- X (a) Write the syntax and use of the functions strcmp (), strrev (), strcat (),
strcpy (), (8)
(b) Demonstrate declaration and accessing of structures with example (7)

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