DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2022

PROGRAMMING IN C

[Maximum Marks: **100**]   [Time: **3** Hours]

PART-A

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

1. Define variables in C language.

2. What is function prototyping?

3. Define a two dimensional array.

4. Define structure.

5. What do you mean by decision making statements in a programming language?   (5 x 2 = 10)

PART-B

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

1. Explain about entry controlled loops with syntax.

2. Write the syntax of switch statement and explain.

3. Define function and write a simple program to demonstrate function in C.

4. Explain the two operators that are used to use pointers in C.

5. How do you declare array by specifying size and by initializing elements?

6. Write a c program to declare, initialize and to print a string.

7. Explain about array of pointers.   (5 x 6 = 30)

PART-C

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

UNIT – I

III. (a) Explain about arithmetic and logical operators with examples.   (8)

(b) Write a C program to find the factorial of a number.   (7)

OR

IV. (a) Explain about exit controlled loops with syntax. (8)

    (b) Write a C program to find the roots of a quadratic equation. (7)

UNIT – II

V. (a) Explain recursion with an example. (8)

    (b) Write a C program that input two integer values, pass the values to a function which finds the biggest of two numbers and print the result in the main function. (7)

OR

VI. (a) Explain about call by value and call by reference methods of parameter passing with example. (8)

    (b) List and explain any two storage classes in C. (7)

UNIT- III

VII. (a) Write a C program to find the average of n integer numbers in a single dimensional array. (8)

    (b) Write a simple program that pass an entire single dimensional array to a function. (7)

OR

VIII. (a) Write a C program to find the sum of two matrices of order 3x2 using two dimensional arrays. (8)

    (b) With examples explain about pointers and arrays. (7)

UNIT - IV

IX. (a) Explain about the following standard library string functions with syntax and example.

        a) strlen()   b) strcpy()   c) strcmp() (9)

    (b) With an example explain about two dimensional array of character. (6)

OR

X.   Declare a structure named Person having members of Name, Age and email id. Write a C program to create an array of structures to input the above personal details and print them on the screen. (15)

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