

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

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. Write any two output functions in C.
2. Which data type is used to store the name of a person?
3. What is the use of break statement?
4. Write any two string functions in C.
5. List any two types of parameter passing methods in C functions. (5x2=10)

PART –B
(Maximum Marks : 30)

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

1. Explain the structure of a C Program.
2. Distinguish between Exit Controlled Loop & Entry Controlled Loop.
3. Write a C program to read a temperature in Fahrenheit and convert it into Celsius. The output should be in a neat format (Hint. $C=5/9*(F-32)$).
4. Write a C program to input a number and then to find the reverse of that number. (Hint : input 128, output 821).
5. Write a C program to input two strings and then join these strings using a built in function.
6. Explain the use of user defined functions and how to declare a user defined function.
7. Differentiate 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) Write short notes on arithmetic and relational operators in C with suitable examples. (8)

- (b) Write a C program to find the volume of a sphere
(Hint : Volume of a sphere is $\frac{4}{3} \times 3.14 \times r^3$) (7)

OR

- IV. (a) Explain data types in C (8)
(b) Write a C program to find the largest among three numbers. (7)

UNIT – II

- V. (a) Write Short notes on any two looping structures in C with examples. (8)
(b) Write a C Program to print first 20 numbers in fibonacci series. (7)

OR

- VI. (a) Explain arrays in C with suitable examples. (8)
(b) Write a C program to store N numbers in to an array and sort it in the ascending order. (7)

UNIT –III

- VII. (a) Discuss
a) Use of pointers.
b) Initialize and access pointers. (8)
(b) Write a C program to find the sum, product and average of three numbers using pointers (7)

OR

- VIII. (a) Write short notes on string functions in C with example. (8)
(b) Write a C program to input a string then check whether it is palindrome or not. (7)

UNIT – IV

- IX. (a) Explain how to pass array as parameter to a user defined function with suitable example.(8)
(b) Write a C program using function to input a number and then find the sum of digits in Numbers.
(Hint : input 128 : Output – 11) (7)

OR

- X. (a) Write short notes on recursive functions and its working. (8)
(b) Write a C program to implement a recursive function to find the factorial of a number. (7)
