

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

**PROGRAMMING IN C**

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

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

1. Explain the syntax of conditional operator.
2. Write a C statement which print out the remainder of 7 divided by 2.
3. Give the syntax of do-while loop.
4. Write a statement to represent an array of 5 elements using pointer.
5. What is a recursive function ?

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. What are character and string constants ? How they are declared ?
2. Write a C program to find the sum of main diagonal of a 3 × 3 matrix.
3. What is a string ? Explain how a string can be read.
4. Which are the ways to declare a formal parameter to pass one dimensional array as argument to function ?
5. Write a C program to check whether the entered number is palindrome or not.
6. Differentiate between formal and actual parameters with example.
7. Differentiate prefix and postfix increment operator with an example.

(5×6 = 30)

## PART — C

(Maximum marks : 60)

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

## UNIT — I

- III (a) Define data types. Explain with example various data types in C. 10  
 (b) Write a C program to read three marks and find the sum and average. 5

OR

- IV (a) Explain the structure of C program with an example. 10  
 (b) Write a C program to print the given numbers between 0 and 5 into their equivalent word using Switch-case statements. 5

## UNIT — II

- V (a) Explain three looping structures. 10  
 (b) Write a C program to count the number of digits in a number. 5

OR

- VI (a) What is meant by counter controlled loop in C. Give example also. 10  
 (b) Write a C program to print largest of n numbers without using array. 5

## UNIT — III

- VII (a) Explain any four string handling functions with example. 8  
 (b) Write a C program to exchange values of two variables using pointers. 7

OR

- VIII (a) Explain the working of pointers. 8  
 (b) Write a C program to reverse a string without using `strrev()` function. 7

## UNIT — IV

- IX (a) What are user defined and library functions ? Write examples for each. 8  
 (b) Write a C program to multiply two numbers using function. 7

OR

- X (a) What is a function ? Explain the different ways to pass arguments to function. 8  
 (b) Write recursive function to find the factorial of a number. 7

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