TED (15) – 2131
(REVISION — 2015)

Reg. No.....
Signature .....

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. State a Variable.
2. Define a function.
3. Write a statement to declare an array to store 5 integer numbers.
4. Write a library function to reverse a string.
5. Define a structure. (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Describe the different relational and logical operators with examples.
2. Explain the syntax of for loop with example.
3. Describe recursion with an example.
4. Explain the features of Preprocessor statements.
5. Describe an array of pointers with an example.
6. Write a C program to find out the greatest element of an array of "N" elements.
7. Describe how to declare a string and write any two methods to read a string. (5×6 = 30)

Marks

PART — C

(Maximum marks : 60)

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

UNIT — I

III (a) Explain the hierarchy of operations in C and also write the hierarchy of operators with examples. 9

(b) Write a C program to find out the area of a right angled triangle (½ × base × height) 6

OR

IV (a) Write a C program to find out the greatest number from given three numbers. 8

(b) Write a C program to find out the sum of digits of a given number. 7

UNIT — II

V (a) Write a C program to find out the sum of first N Fibonacci elements; each element is find out by a recursive function [that function find out the Nth Fibonacci element of Fibonacci series (0, 1, 1, 2, 3, 5, 8, 13 etc..)] 9

(b) Write a function to exchange the values of 2 variables using pointers. Also write main program to call the function. 6

OR

VI (a) Distinguish between static and automatic variables. 8

(b) Describe macro with an example. 7

UNIT — III

VII (a) Write a C program to find out the smallest element of an MxN matrix and print its position. 9

(b) Write a C program to print all the elements which is above the average of an Array of N numbers. 6

OR

VIII (a) Write a C program to read numbers into an array; assign the array to a pointer and print the array using the pointer. 8

(b) Write a function to find out the sum of all the elements in an array of N numbers. Also write main program to call the function. 7

UNIT — IV

IX (a) Explain the string functions with example - strcmp(), strcpy() and strcat() 9

(b) Describe a two dimensional array of characters and also describe how to initialise it. 6

OR

X Write a program using an array of structure to read Item name, quantity, rate of "X" items in a shop and print the item name, quantity, rate and price of each items (price = quantity×rate) 15