N19-00554

TED (15) – 4044

(REVISION — 2015)

Reg. No. .....

Signature .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2019

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. List any two relational operators with example.
2. Define entry controlled loop.
3. Write the syntax to declare a one dimensional array.
4. List any four library functions used for string manipulation.
5. Define function in C. (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Write a C program to print average of 3 numbers.
2. Demonstrate input and output functions for a simple application.
3. Illustrate the syntax of do-while and while loop.
4. List the pointer arithmetic operations and illustrate any two with suitable examples.
5. Write a C program to concatenate two strings using string functions.
6. Compare local and global variables in C.
7. Explain Recursion with suitable examples. (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) List and explain any 6 arithmetic operators in C with example. 6

(b) Write a C program to read the day number (between 1 and 7) and display the corresponding day name (1 -Mon, 2-Tue, ... 7-Sun) using switch statement. 9

OR

IV (a) Explain two way and multi way selection structure in C with neat diagram. 8

(b) Write a C program to find the perimeter and area of a rectangle. 7

UNIT — II

V (a) Write C program to find the sum of first N natural numbers using for loop. 8

(b) Write C program to find transpose of a matrix. 7

OR

VI (a) Explain counter controlled loop with appropriate examples. 6

(b) Write a C program to find the largest element of an array. 9

UNIT — III

VII (a) Define Pointers and state how to use Pointers. 6

(b) Write a C program to compare two strings without using string functions. 9

OR

VIII (a) State the steps in declaration and initialization of strings. 6

(b) Write a C program to exchange values of two variables using pointers. 9

UNIT — IV

IX (a) Write a C program to find the factorial of a number send into a user defined function. 9

(b) Compare call by value and call by reference. 6

OR

X (a) Write a C function to determine whether a year entered by user is a leap year or not. 7

(b) Explain how to pass a one dimensional array to a called function with example. 8
