N21-02131

TED (15/19) - 2131
(Revision-2015/19)

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

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/ COMMERCIAL PRACTICE - NOVEMBER-2021

PROGRAMMING IN C

[Maximum marks: 75] (Time: 2.15 Hours)

PART – A

Marks

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

1. List any 4 keywords in C.
2. Give the syntax of nested if...else statement.
3. What is the index number of the last element of an array with 9 elements?
4. Give any two pre-processor directives in C
5. Write the string library function to concatenate two strings. (3 x 2 = 6)

PART – B

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

1. Explain switch statement with syntax and example.
2. What is a pointer variable? Write the declaration and initialization of a pointer variable with an example.
3. Explain register and external storage classes in C.
4. What do you mean by array of pointers? Give an example.
5. Differentiate between array and structure.
6. Explain any three string handling function in C
7. With examples show the declaration and initialization of one and two dimensional arrays. (4 x 6= 24)

PART – C

Answer ***any of the three units*** from the following. Each full question carries 15 marks

UNIT –I

III. (a) Explain arithmetic, logical and relational operators in C (9)

(b) Write a C program to reverse a number and check whether it is palindrome or not (6)

OR

IV. (a) Explain the different types of loops in C with syntax and example code. (9)

(b) Explain the use of break and continue statements with examples (6)

UNIT-II

V. (a) Explain function declaration, definition and function call with syntax and example (9)

(b) Write a program in C with a recursive function to find the nth Fibonacci number (6)

OR

VI. (a) Differentiate between call by value and call by reference? Give examples. (9)

(b) Using the concept of macro in C, find the cube of a given number. (6)

UNIT-III

VII. (a) Write a program in C to split an array into two arrays, one for storing odd numbers and one for storing even numbers. (9)

(b) Write a function to accept a one dimensional array and print the largest number of the array. Write the main function also. (6)

OR

VIII. (a) Write a program in C to multiply two matrices. (9)

(b) Write a program in C to check whether a given number is present in an array or not. (6)

UNIT-IV

IX. (a) Enter the marks of 5 students in Chemistry, Mathematics and Physics (each out of 100) using a structure named Marks having structure elements roll_no, name, chem._marks, maths_marks and Phy_marks and then display the percentage of each student. (9)

(b) Write a program in C to copy a string to another without using library function. (6)

OR

X (a) Explain with syntax and example – structure definition, structure declaration and accessing structure elements. (9)

(b) Write a C program that reads a string and count the number of vowels in the string. (6)
