TED (10) -1018

(Revision -2010)

N20-R01471

Reg.No………….…..............

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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE – NOVEMBER -2020.

PROGRAMMING METHODOLOGY

(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. List the two basic numeric data types.

2. What are different types of errors?

3. If Num1=1 and Num2=2, determine whether each of the following expression

   is true or false.

   (i) (Num 1= =1) OR (Num2= =2) AND (Num1= =Num2)

   (ii) NOT (Num1= =1) AND (Num2= =2)

4. What is an array?

5. What is an argument?   (5x2=10)

PART - B
(Maximum Marks : 30)

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

1. Explain program development cycle.

2. Suppose a program is to find the final value of an investment. You will be

   given the amount invested, the rate of interest and the length of time that the

   money is invested.

   (i)Identify the data that must be input to this program.

   (ii)Give reasonable names and identify the data type for all the required variables.

   (iii)Give input and write statements for this problem.

3. Write a pseudocode to input two numbers and print if it is even or odd.

4. What is a counter controlled loop? Explain with an example.

5. Write pseudocode to input and display n elements in to a one dimensional array

   consisting of n elements.

6. Explain different parameter passing mechanism with example.

7.What are library functions? List any two string and numeric library functions.

[5x6 =30]

PART - C

(Maximum marks : 60)

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

UNIT I

III (a) What is a flowchart? Draw a flowchart to input temperature in degree Celsius(C) and print corresponding temperature in degree Fahrenheit(F) using the formula F=(9/5) C+32.   (8)

(b) What is operator precedence? Explain hierarchy of arithmetic operators.   (7)

OR

IV (a) What is an algorithm? Write an algorithm to input weight and price of an item and display its unit rate.   (8)

(b) What is a translator? Explain the functions of compiler and interpreter.   (7)

UNIT- II

V (a) Explain the structure of select-case statement with an example.   (10)

(b) Explain defensive programming with an example.   (5)

OR

VI (a) Explain pretest and post test loop with an example.   (10)

(b) Explain sentinel controlled loop.   (5)

UNIT- III

VII (a) Write a pseudocode to input elements in to two MXN matrices and calculate the sum. Also print the resultant matrix.   (9)

(b) Write an algorithm to perform bubble sort.   (6)

OR

VIII (a) What is a string? How it is declared? Write an algorithm to concatenate two strings.   (10)

(b) Write an algorithm to perform linear search.   (5)

UNIT – IV

IX (a) What is recursive function? Explain with an example.   (9)

(b) What is scope of a variable? Explain local and global variables.   (6)

OR

X What is a file? Write steps for creating sequential file with an example.   (15)

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