TED (15) – 2131

Reg. No.................................

(REVISION — 2015)

Signature ....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2017

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. Write C statement equivalent to the following mathematical expression :
    $$d = \frac{b^2 - 4ac}{2a}$$

2. Name four storage classes.

3. Write C statement to declare an array to store marks of 50 students in English.

4. Write C statement to declare a structure to store employee id, name and basic pay.

5. Re-write the following statement using conditional operator :
    if(a>b) c=a;
    else
     c=b;

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Explain rules for creating variable name.

2. Compare call by value and call by reference.

3. Write a C statement block to copy a two dimensional array into another.

4. Distinguish between array and structure.

5. Explain storage class.

6. Write a function to store N names in an array of pointers.

7. Explain the working of for loop with an example.

(5×6 = 30)

[13]

Marks

PART — C
(Maximum marks : 60)
(Answer *one* full question from each unit. Each full question carries 15 marks.)

UNIT — I

III (a) Explain do-while loop.   5

(b) Explain the working of the following set of statements :

    (i) int a;

      a=10;

      while(a<10)

      {

      printf (" % d " ,a);

      a--;

      }   5

    (ii) int a;

      a=10;

      do {

          printf (" % d " ,a);

          a--;

      }while(a<10);   5

OR   6

IV (a) Explain if - else statement with the help of an example.

(b) Compare the working of the following two for loops.

    (i) for(i=1;i<=10;i++)

      {

      if (i= =5)

          break;

      printf(" % d ", i);

      }

    (ii) for(i=1; i<10;i++)

      {

      if (i= =5)

          continue;

      printf("%d" , i);

      }   9

Marks

Unit — II

V (a) Write a macro to find the cube of a given number. 5

(b) Write a recursive function to find the value of X^N. 5

(c) Distinguish between macro and function. 5

Or

VI (a) Explain passing values between functions with the help of an example. 8

(b) Explain recursion. Give an example. 7

Unit — III

VII (a) Illustrate accessing two dimensional array using pointers. 7

(b) Write a function to accept two matrices, as arguments and find the sum of the matrices. 8

Or

VIII (a) Demonstrate declaration and accessing arrays with the help of an example. 7

(b) Write a function to accept a one dimensional array as an argument and find the sum of the elements. 8

Unit — IV

IX (a) Explain any three standard library string functions with examples. 9

(b) Write a user defined function to compare two strings.

(Do not use the standard library string functions for string comparison) 6

Or

X (a) Demonstrate declaration and accessing of structures with the help of an example. 8

(b) Given that a structure contains Reg No., Name and CGPA. Write a function to create an array of the above structure and read the details of N students. 7

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