| BIEE-031 |

DIPLOMA IN ELECTRICAL ENGINEERING (DELVI) / ADVANCED LEVEL CERTIFICATE COURSE IN ELECTRICAL ENGINEERING (ACELVI)

Term-End Examination

□□393 **December, 2016**

BIEE-031 : 'C' - PROGRAMMING

Time : 2 hours   *Maximum Marks : 70*

Note : *Out of seven questions **five** questions are to be answered. Question no. 1 is **compulsory**.*

1. Choose the correct answer.   *7×2=14*

    (a)   What is the range of double ?

        (i)   − 3·4E38 to + 3·4E38

        (ii)   − 1·7E308 to + 1·7E308

        (iii) − 2147483648 to + 2147483647

        (iv)   − 1·7E4932 to + 1·7E4932

    (b)   Which operator *cannot* be applied on float ?

        (i)   /

        (ii)   *

        (iii) %

        (iv)   +

(c) int a; a = (10, 20, 30, 40)

Then what will be the value of a ?

(i)   10

(ii) 20

(iii) 30

(iv) 40

(d) What will be the value of the expression

$2 * 3 / 4 + 4 / 4 + 8 - 2 + 5 / 8$?

(i)   8

(ii) 10

(iii) 18

(iv) None of these

(e) Which one the following is *not* a keyword ?

(i)   integer

(ii) float

(iii) char

(iv) void

(f) Which one of the following is *not* a valid variable declaration ?

(i)   int s_i

(ii) float principal amount

(iii) double c_i

(iv) char a

(g) Which one of the following is character constant ?

(i) "abc"

(ii) a

(iii) 'x'

(iv) "x"

2. (a) What are the features of C-language ? Write a C program to convert the temperature of your city from Celsius to Fahrenheit. 7

(b) What do you mean by if ... else statement ? In a company, an employee is paid as under :

If his/her basic salary is less than ₹ 15,000, then HRA = 10% of the basic salary and DA = 90% of the basic salary. If the basic salary is either equal to or above ₹ 15,000, then HRA = 15% of the basic salary and DA = 98% of the basic salary. If the employee's basic salary is input through the keyboard, write a C program to find his/her gross salary. 7

3. (a) Describe increment, decrement, conditional and bitwise operators with suitable examples. 7

(b) Write a menu-driven program to calculate the volume of sphere, cone, cylinder, cube and cuboid using switch ... case statement. 7

4. (a) Define array. Write a program to perform the subtraction of two matrices. The program should print the resultant matrix. 7

   (b) Write a program to check and print all the square numbers from 1 to 1000. 7

5. (a) What is CAD ? What are its applications ? Explain in brief. 7

   (b) How can an array be initialized ? Write a program to find the biggest and the 'smallest number and its position in the given array. 7

6. (a) What is the need of information storage and retrieval ? Explain with the help of an example. How can databases be useful for information storage and retrieval ? 7

   (b) List the features of any two softwares that can be used in the field of Electrical Engineering. 7

7. Write short notes on any *four* of the following : $4 \times 3\frac{1}{2} = 14$

   (a) Querying Database File
   (b) CAM
   (c) CAE
   (d) Foreign Key in Database
   (e) Formatted Input/Output Function
   (f) Identifiers