BICS-030

DIPLOMA – VIEP – COMPUTER SCIENCE AND ENGINEERING (DCSVI)/ADVANCED LEVEL CERTIFICATE COURSE IN COMPUTER SCIENCE AND ENGINEERING (ACCSVI)

Term-End Examination

00744   June, 2015

BICS-030 : 'C' PROGRAMMING

Time : 2 hours   *Maximum Marks : 70*

Note : *Attempt any **five** questions. Question no. 1 is **compulsory**. All questions carry equal marks.*

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

    (a) Which   kind   of   language   is   the
         programming language ?

         (i)   Machine

         (ii) Procedural

         (iii) Assembly

         (iv) Object-oriented

(b)   Integer division results in

   (i)   Truncation

   (ii)   Rounding

   (iii) Overflow

   (iv)   None of these

(c)   What is the value of x ?

   int x = 2 * 3 + 4 * 5;

   (i)   22

   (ii)   26

   (iii) 70

   (iv)   50

(d)   Which of the following is the correct statement for checking condition in if statement ?

   (i)   if (a = b)

   (ii)   if (a, b)

   (iii) if (a == b)

   (iv)   if (ab)

(e)   The modulus operator % can be used only with integer. (True/False).

(f)   The expression ! (x < = y) is same as the expression (x > y). (True/False)

(g)   A switch statement can be of any type. (True/False)

2. (a)   What do you mean by database ? Explain the three schema architecture of DBMS.   7

(b)   Differentiate between data and information. Explain by giving suitable examples.   7

3. (a) Differentiate between the following :　　　*8*

(i) Identifier and Keyword

(ii) Constant and Variable

(iii) Printf ( ) and Scanf ( )

(iv) '\n' and '\t'

(b) What is meant by basic data types ? Explain in brief.　　　*6*

4. (a) Write a program in 'C' that will obtain the length and width of a rectangle from the user and compute its area and perimeter.　　　*7*

(b) Write a program in 'C' to check whether a given character from the keyboard is a digit, an alphabet or other character.　　　*7*

5. (a) Compare the following :　　　$2 \times 3\frac{1}{2} = 7$

(i) do ... while and while loop

(ii) break and continue

(b) Write a program to generate the following series :　　　*7*

1

1　2

1　2　3

1　2　3　4

1　2　3　4　5

6. (a) What is an array ? How are individual array elements identified ? Define 1-D and 2-D with examples. *2+2+3=7*

(b) Write a program in 'C' to read and display the transpose of M×N matrix. 7

7. (a) What is a file ? Write a 'C' program to create a file and display its contents. 7

(b) Write a program to find the factorial value of any number entered through the keyboard. 7

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

(a) Importance of 'C' in Electrical Engineering

(b) Ternary Operator

(c) CAD

(d) CAM

(e) RDBMS

(f) Switch( ) Statement