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BICS-030

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

Term-End Examination

December, 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. *7×2=14*

(a) Which of the following is a valid variable ?

(i) int

(ii) float

(iii) for

(iv) None of the above

(b) Programming language 'C' is a

(i) middle level language

(ii) high level language

(iii) low level language

(iv) None of the above

(c) Which follows the case statement ?

(i) ;

(ii) :

(iii) ( )

(iv) –

(d) How many times is a do ... while loop guaranteed to loop ?

(i) 0

(ii) Infinitely

(iii) 1

(iv) Variable

(e) An exit-controlled loop is executed a minimum of one time. (True/False)

(f) An array element need not occupy contiguous memory location. (True/False)

(g) A statement int x[]; is a valid statement. (True/False)

2. (a) What are the various characteristics of a computer ? Draw a block diagram of a computer. *7*

(b) Why is there a need to store information and access the information ? Explain by giving a suitable example. *7*

3. (a) Explain different data types in 'C' language. *5*

(b) Explain the following with examples : *9*

* Arithmetic operator and expression
* Relational and logical operator
* Ternary operator

4. (a) Write a program to generate all combinations of 1, 2 and 3 using for loops. 7

(b) Write a program to find the smallest of three numbers. 7

5. (a) Write a 'C' program to generate the following result : 7

5 5 5 5 5
4 4 4 4
3 3 3
2 2
1

(b) Write a 'C' program to generate the Fibonacci series. 7

6. (a) What is an array ? Define one-dimensional and two-dimensional arrays with examples. How can a string be stored in an array ? 7

(b) Write a program in 'C' to get the product of two M×N matrices. 7

7. (a) What are the key constraints in DBMS ? Explain each constraint by giving a suitable example. 7

(b) What is the importance of 'C' in the Electrical Engineering ? Explain. 7

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

(a) DBMS

(b) File Opening Mode

(c) Commercial and Business Data Processing

(d) CAE

(e) CAD

(f) CAM