

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

00115

Term-End Examination

December, 2014

BIEE-031 : 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 character variable ?

- (i) 'Thanks'
- (ii) '5'
- (iii) 125
- (iv) None of the above

(b) Programming language 'C' has been developed by

- (i) Dennis Ritchie
- (ii) Ken Thompson
- (iii) Peter Norton
- (iv) Martin Richards

- (c) Programming language 'C' is a
- (i) Middle level language
 - (ii) High level language
 - (iii) Low level language
 - (iv) None of the above
- (d) Which follows the case statement ?
- (i) ;
 - (ii) -
 - (iii) :
 - (iv) None of the above
- (e) How many elements will be there in A [10] [5] ?
- (i) 10
 - (ii) 5
 - (iii) 45
 - (iv) None of the above
- (f) An array element may be an array by itself. (True/False)
- (g) The _____ statement is used to skip a part of the loop.

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

- (i) While and do...while loop.
 - (ii) If-else and switch statements.
- (b) Write a program to check whether a given character from the keyboard is a digit, an alphabet or other character.

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3. (a) Write a program in 'C' to print the following output : 7
- ```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```
- (b) Write a program in 'C' language to find the largest of three numbers. 7
4. (a) What is the importance of 'C' in Electrical Engineering ? Explain. 7
- (b) What is primary key in database ? Why is it required ? 7
5. (a) What is the condition for multiplication of two matrices ? Write a program in 'C' for the product of two  $M \times N$  matrices. 2+8=10
- (b) Write a program in 'C' to calculate the factorial of any given number. 4
6. (a) If a four-digit number is input through the keyboard, write a program to obtain the sum of individual digits. 7
- (b) Write a 'C' program to generate the Fibonacci series. 7
7. (a) Write a program to print out all Armstrong numbers between 1 to 500. 7
- (b) Write a program to count number of records in a file. 7

8. Write short notes on any **four** of the following :

$$4 \times 3 \frac{1}{2} = 14$$

- (a) Commercial and business data processing
  - (b) CAE
  - (c) CAD
  - (d) File opening modes
  - (e) Database Management System
  - (f) Array
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