Roll No. .....

BCA–201(N)

B. C. A. (Second Semester) EXAMINATION, May, 2012

(New Course)

Paper First

C PROGRAMMING

Time : Three Hours] [*Maximum Marks : 75*

Note : Attempt all questions.

Section – A

18

(Multiple Choice Questions)

1. (i) Array subscripts in C always start at :
   (a) −1
   (b) 0
   (c) 1
   (d) Any value

   (ii) The pointers can be used to achieve :
   (a) Call by function
   (b) Call by reference
   (c) Call by name
   (d) Call by procedure

   (iii) A structure can have :
   (a) Pointers as its members

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(b) Scalar data type as its members

(c) Structure as its members

(d) All of the above

(iv) A string is array of :

(a) Single

(b) Multi

(c) Double

(d) None of these

(v) The bitwise XOR is used to :

(a) Complement the desired bits

(b) Multiply the numbers

(c) Divide the numbers

(d) Mask the bits

(vi) The C language was developed by :

(a) Marting Richards

(b) Dennis Ritchie

(c) Ken Thompson

(d) Smith Volt

State True/False :

(vii) Array name and subscripted variables are different ()

(viii) Array must be declared before use ()

(ix) Address of operator can be applied to pointer variables only ()

(x) Structures cannot be passed to functions ()

(xi) String can be read or written using the I/O statement ()

(xii) The size of operator determines the memory space required by its operand ()

Fill in the blanks :

(xiii) A vector is a ..... array.

(xiv) Whenever an error occurs the function puts () return .....

(xv) Pointers allow the direct access of .....

(xvi) A pointers variable must be assigned a valid ..... before using it.

(xvii) The variables named in a structure are .....

(xviii) NULL string is represented by .....

Section – B 42

(Short Answer Type Questions)

Note : Attempt any *seven* out of ten questions.

2. What is a Dynamic Array ? How is it created ? Give a typical example of use of a dynamic array.

3. What is an Array ? Give the classification of arrays.

4. What do you understand by pointer initialization ? Explain with example.

5. Describe typical applications of pointers in developing program.

6. When do you use pointers to structure ? Explain with an example.

7. Write down the definition of preprocessor. Explain the role of the C processor.

8. What is header file ? Explain in brief.

9. Explain the following :
   (i) Multidimentional array
   (ii) Dynamic memory allocation

10. Explain the following :
   (i) Standard library function
   (ii) Union

11. Explain the following :
   (i) Definition of files
   (ii) Shift operators

Section – C 15

(Long Answer Type Questions)

Note : Attempt any *one* question.

12. (a) Write a C program to generate and print N Fibonacci number.
   (b) Write a C program to read matrix, find the transpose of a given matrix.
   (c) Write a C program to check that the input string is a palindrome or not.

13. (a) Write a C program to generate the Armstrong number.
   (b) Write a C program to read two matrix and find the addition of matrix.

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