V

(20516)

BCA-II Sem.

Roll No. ....

18006

B. C. A. Examination, May 2016

C Programming

(BCA-202)

(New)

Time : Three Hours]   [Maximum Marks : 75

Note : Attempt questions from all Sections as per instructions.

Section-A

(Very Short Answer Questions)

Attempt all the *five* questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.   3×5=15

1. What are two-dimensional arrays ? How can you initialize them ?

2. How does a structure differ from an array ?

3. Distinguish between (*m) [5] and *m[5].

4. How can you declare and initialize a string ?

5. Explain the meaning of the following :
    (i)   Tag
    (ii) Size of.

Section-B

(Short Answer Questions)

Attempt any *two* questions out of the following three question   Each question carries 7½ marks. Short answer is required not exceeding 200 words. 7½×2=15

6. What is a dynamic array ? How is it created ? Give a typical example of use of a dynamic array.

7. Write a program to illustrate the comparison of structure variables.

8. What is a pointer ? How can it be initialized ? Write a program using pointer to read in an array of integers and print its elements in reverse order.

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Section-C

(Detailed Answer Questions)

Attempt any *three* questions out of the following five questions. Each question carries 15 marks. Answer is required in detail.   15×3=45

9. (a) Give the main advantage of storing data as a file. Describe various ways in which data files can be categorized in 'C'. Illustrate by using examples.

    (b) Enumerate the difference between functions and parameterized macros.

    Why do we recommend the use of parentheses for formal arguments used in a macro definition?

10. (a) Describe the two bitwise shift operators. What requirement must be operands satisfy ? What is the purpose of each operand ?

    (b) Describe two different approaches to updating a data file. Which approach is better and why ? For what kinds of applications are unformatted data files well suited ?

11. (a) Write a program to illustrate the use of structure pointers.

    (b) What are jumping statements ? Explain the difference between break and continue statements.

12. (a) Describe the limitation of using getchar and scanf functions for reading strings. Write a program which will read a text and count all occurrences of a particular word.

    (b) What is prototyping ? Why is it necessary ? Distinguish between the following :
        (i)   Scope and visibility of variables
        (ii) Actual and formal arguments.

13. (a) What is a 'slack byte' ? How does it affect the implementation of structures ? Describe three different approaches that can be used to pass structures as function arguments.

    (b) Write a function using pointers to add two matrices and to return the resultant matrix to the calling function.