

Roll No.

BCA-201(N)

B. C. A. (Second Semester) EXAMINATION, May/June, 2015

(New Course)

Paper First

C-PROGRAMMING

Time : Three Hours]

[Maximum Marks : 75

Note : Section A is compulsory. Attempt any *seven* questions from Section B and any *one* question from Section C.

Section—A

4 $\frac{1}{2}$ each

1. Fill in the blanks.

- (A) The..... computer is the part of a computer that executes instruction.
- (B) is a program that converts high level code into machine code.
- (C) Character variable takes bytes of memory.
- (D) What will be output of printf ("KANPUR" + 2)

2. State True or False :

- (E) Offset used in FSEEK() function call can be negative number.
- (F) A union cannot be nested in structure.

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- (G) In expression $a = b = 5$ the order of assignment is not decided by associativity of operators.
- (H) Bitwise & can be used to check if a bit in number is set or not.
3. Explain the following :
- (a) Object file
- (b) Binary file
4. Differentiate between structure and union in C with suitable code.

Section—B

Note : Attempt any seven questions. Each question has 6 marks.

5. (a) Explain types of function calling in C with example.
- (b) Write a program to swap two numbers using call by reference.
6. (a) What is command line argument ? Explain with example.
- (b) Write a program to display the command line argument values.
7. (a) Write a program to find the factorial of a number using recursion.
- (b) What is data types ? Explain different types of data types and their size.
8. (a) What is a compiler ? Explain the working of C compiler.

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- (b) Write a program to display the following :

```
* * * * *
* * * * *
* * * * *
* * * * *
*
```

9. (a) What is string ? Explain three string manipulation function.
- (b) Write a program to reverse string without using library function.
10. (a) What is array ? How is array allocated in memory ?
- (b) Write a program to sort an arithmetic array in increasing order.
11. (a) Explain the concept of pointer. Also explain arithmetic operation supported by pointer.
- (b) Explain with example the concept of Garbage collection.
12. (a) What is dynamic memory allocation ? Explain.
- (b) Differentiate between 'malloc()' and 'free()' function.
13. Write a program to create a structure and store its variable value in file.

Section—C

15 each

Note : Attempt any one question.

14. (a) Write a program to calculate the multiplication of two matrix values should be entered by user.

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- (b) Also multiply the result matrix even element with odd element and store the results at even positions.
15. (a) Write a program to search a word in file and replace with the word input by the user.
- (b) Write a program to copy a file into another but in reverse order.