**15U223** (Pages:2 ) Name.....

Reg. No.....

# SECOND SEMESTER B.Sc. DEGREE EXAMINATION, JUNE 2016

## (CUCBCSS – UG)

(Core Course: Computer Science)

## CC15U BCS2 B02 – OOP Concepts and Data Structures using C ++

(2015 Admission)

**Time: Three Hours** **Maximum: 80 Marks**

### SECTION A (1 x 10=10 MARKS)

**Answer all questions**

1. The C++ operator used to perform logical NOT operation is.....
2. The memory size needed for a double data type in C++ is ……..
3. What is syntax to define a function static?
4. How to declare an two dimensional array in C++?
5. Linked list is a nonlinear data structure. True/ False
6. The complexity of insertion sort algorithm is ……
7. Each node in a linked list has two parts …… and …….
8. Write the syntax of switch statement.
9. How to define a destructor?
10. …… points to current object in C++.

### SECTION B (5 x 2 = 10 MARKS)

**Answer all questions**

11. What do you mean by an inline function?
12. What are the features of a constructor?
13. What do you mean by collision handling?
14. What is the difference between new and delete operator?
15. Write an algorithm to perform binary search?

### SECTION C (5 x 4=20 MARKS)

**Answer any Five**

16. Explain various data types in C++?
17. Convert following arithmetic expressions to prefix and postfix form.
    a) A+(B*C)-D+E/F-(G+H)
    b) A*B-C+D/E/F*(G*H)

18. Write C++ code to perform selection sort technique?
19. Write C++ program to add two time using object and class?
20. Explain virtual functions in C++.
21. Explain insertion and deletion of a value from an array.
22. Explain with example function overloading in C++.
23. What do you mean by parameterized and default constructors?

## SECTION D (5 x 8=40 MARKS)

**Answer any Five**

24. Explain various control statements in C++.
25. Explain various inheritance techniques with example.
26. Explain with suitable example and algorithm quick sorting technique?
27. Explain various circular queue operations with suitable code.
28. Explain how unary operator overloading is performed.
29. Explain various file stream classes in C++. Write a C++ program to read and write data to file.
30. Explain various hashing and collision handling techniques.
31. Explain various linear linked list operations.

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