Register Number: ………….

B.E DEGREE EXAMINATIONS:DEC 2014

(Regulation 2013)

Third Semester

COMPTER SCIENCE AND ENGINEERING

U13CST304:Object Oriented Programming with C++

Time: Three Hours   **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. The insulation of data from direct access by the program is called as

    a) Encapsulation   b) Data hiding

    c) Private   d) Global

2. In C++, you use _____ to perform standard input and output operations.

3. A static function

    a) should be called when an object is   b) is closely connected to an individual object of
        destroyed.   a class.

    c) can be called using the class name and   d) is used when a dummy object must be
        function name.   created.

4. _____ provide the interface between the object's data & the program

5. Which of the following unary operators can be overloaded?

      1) true   2) false   3) +   4) new   5) is

    a) 1, 2, 3   b) 3, 4, 5

    c) 3 only   d) 5 only

6. A _____function is that which does not belong to the class still has complete access to the private data members of the class.

7. Function templates can accept

    a) any type of parameters   b) only one parameter

    c) only parameters of the basic type   d) only parameters of the derived type

8. Run time polymorphism can be implemented using _____

9. The standard output stream, which refers to the computer screen, is called

    a) Cin   b) Cout

    c) Stin   d) Stout

10. _____ function is used to check if the file has reached its end.

PART B (10 x 2 = 20 Marks)

(Not more than 40 words)

11. List the features of Object Oriented Programming?

12. What is the use of scope resolution operator?

13. Define an Object.

14. List the access modes used within a class.

15. Define function overloading.

16. List some of the rules for operator overloading.

17. What is a pure virtual function? Write the syntax.

18. What is meant by Abstract base class? List out its use.

19. Define manipulators. What are the manipulators used in C++?

20. Define an Exception.

PART C (5 x 14 = 70 Marks)

(Not more than 400 words)

Q.No. 21 is Compulsory

21.   Explain virtual functions with examples.

22. a)   Explain the various control structures used in C++ with examples.

                                (OR)

    b) (i)   Write a C++ program to generate the following pattern   (7)

               *

              * *

             * * * and so on with appropriate comments.

        (ii) Write a C++ program to calculate the sum of series of inverse factorial.   (7)

              Series is: 1/2! + 1/4! +...+ 1/2n!

23. a)   Explain constructors and its types with suitable examples.

                                (OR)

b) Explain what static variable is. Write a C++ program to count the occurrence of digits in numbers that you are entering using class and static variable.

24. a) Explain about type conversions and its types with examples. Convert the object of time in hh.mm.ss format to 24 hrs time format.

(OR)

b) Explain what inheritance is and discuss the types with suitable diagrams and examples.

25. a) (i) Discuss C++ files and streams (7)

(ii) Write a program to open a file in C++ "Hello.dat" and write (7)

"This is only a test"

"Nothing can go wrong"

"All things are fine…"

into the file.   Read the file and display the contents.

(OR)

b) Discuss the concept of exception handling in detail. Write a program to raise an exception if the user enter vowels.

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