Register Number: ……..

**B.E / B.TECH DEGREE EXAMINATIONS: JUNE 2013**

Second Semester

**CSE103:OBJECT ORIENTED PROGRAMMING AND C++**

(Common to CSE & IT)

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

**Answer all the Questions:-**

**PART A (10 x 1 = 10 Marks)**

1. Object based languages exclude the properties of
   a) Inheritance & Message Passing
   b) Inheritance & Abstraction
   c) Dynamic binding & Inheritance
   d) Encapsulation & Dynamic binding
2. Data members of a class can be initialized
   a) Inside main function
   b) By using destructor
   c) By using constructor
   d) Automatically
3. A member function can always access the data
   a) In the object of which it is a member
   b) In any object of the class which it is a member
   c) In the class of which it is a member
   d) In the public part of its class
4. Output of the following program

```
#include <iostream.h>
 Int m=15;
Void main( )
{   int m=25;
    {  int m=10;
       Cout<<m<<::m;
    }
   Cout<<m<<::m;
}
```

   a) 25 10 10 25
   b) 10 15 25 15
   c) 10 25 10 25
   d) 15 10 15 25
5. Which function can be used to read multiple line of text
   a) Normal cin >> combination
   b) The cin.get function with one arguments
   c) The cin.get function with two arguments
   d) The cin.get function with three arguments

6. What is meant by object

a) Data type
b) User defined type
c) Instance of a class
d) Similar to class

7. Code redundancy can be eliminated by

a) Abstraction
b) encapsulation
c) Polymorphism
d) Inheritance

8. Normal C++ operator that acts in different way on user defined data types is said to be

a) encapsulated
b) Overloaded
c) Inherited
d) override

9. Name the function which is initialized with zero

a) Static function
b) Inline function
c) Pure virtual function
d) Friend function

10. A static function

a) Should be called when an object is destroyed
b) Is closely connected to an individual object of a class
c) Can be called using the class name and function name
d) Is used when a dummy object must be created

**PART B (10 x 2 = 20 Marks)**

11. Give any four benefits of Object Oriented Programming.
12. Differentiate between Static binding and dynamic binding.
13. Write a constant function to find the maximum of three numbers.
14. List some situations where inline expansion may not work.
15. Define dynamic constructor.
16. State the meaning of public, private and protected access specifier.
17. What is abstract class?
18. Differentiate between function overloading and function overriding.
19. Give any two rules for Virtual Functions.
20. List the properties of friend functions

**PART C (5 x 14 = 70 Marks)**

21. a) (i) Discuss in detail about the basic concepts of object oriented programming. (10)

(ii) Discuss the applications of Object Oriented Programming. (4)

**(OR)**

b) (i) Differentiate Object oriented and Procedure oriented Programming. (10)

(ii) Write a note on the structure of C++ program. (4)

22. a) (i) Explain about the concept of call by reference and return by reference with an example. (10)

(ii) Explain about default arguments. Write the rules associated with default arguments. (4)

**(OR)**

b) What is meant by function overloading? Write the rules associated with function overloading. Give suitable example to support your answer.

23. a) (i) Give detailed discussion of Array of objects with suitable example. (10)

(ii) Write short note on copy constructor. (4)

**(OR)**

b) Give the detailed discussion of the following with example

(i) Object as function argument (7)

(ii) Returning object from the function (7)

24. a) How is type conversion implemented in C++? Write an example for the conversion of basic type to user defined type and user defined type to basic type.

**(OR)**

b) Write a C++ program to overload the binary operators + and – to add and subtract time in the format hh:mm:ss. Use Constructors.

25. a) (i) Explain about the static data member and static member function with example. (10)

(ii) Write a short note on memory management operators with example. (4)

**(OR)**

b) Explain about virtual function and virtual base class with appropriate example.

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