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B.E. / B.TECH. DEGREE EXAMINATIONS: NOVEMBER 2009

Third Semester

U07CS304: OBJECT ORIENTED PROGRAMMING AND C++

(Common to B.E. Computer Science Engineering & B.Tech. Information Technology branches)

Time: Three hours **Maximum Marks: 100**

Answer ALL the Questions:-

PART A (10 x 1 = 10 Marks)

1. Objects are the basic ---------- entities in an object-oriented system.

   a) Execution time b) Run time c) Compile time d) Linking time

2. ---------- means that the code associated with a given procedure call is not known until the time of the call at run time.

   a) Binding b) Dynamic binding c) Dynamic association d) Association

3. Assigning multiple meanings to operators is known as ----------.

   a) operator overloading b) overloading c) multiple overloading d) multiple operators

4. An inline function is a function which is expanded ---------- when it is invoked.

   a) inline b) using a linker c) using a loader d) virtually

5. If a Data item in a class is defined as ----------, then only one such item is created for the entire class irrespective of the number of objects.

   a) public b) private c) static d) dynamic

6. When an array name is passed to a function , the function

   a) accesses exactly the same array as the calling program

   b) accesses a copy of the array passed by the program

   c) refers to the array using the same name as that used by the calling program

   d) refers to the array using a different name from that used by the calling program

7. Operator overloading is

   a) making C++ operators work with objects

   b) giving C++ operators more than what they can handle

   c) giving new meanings to existing C++ operators

   d) making new C++ operators

8. Classes used only for deriving other classes where no actual instances of this class are created is termed ----------

   a) abstract base classes b) constructors c) base classes d) derived classes

9. A friend function can access a class's ---------- data, even though it is not a member function of the class.

   a) public b) private c) protected d) inaccessible

10. The base class for most stream classes is the ---------- class.

a) ios b) istream c) ostream d) derived

PART B (10 x 2 = 20 Marks)

11. Define Data hiding.
12. What is meant by polymorphism?
13. What is function prototyping?
14. List the memory dereferencing operators.
15. Define copy constructor.
16. Distinguish between Structures and classes in C++.
17. What is multiple inheritance?
18. What is the difference between publicly derived and privately derived classes?
19. Define this pointer.
20. List the functions supported by file stream classes for performing I/O operations.

PART C (5 x 14 = 70 Marks)

21. a) i) Compare between procedure oriented and object oriented programming. (8)

ii) Explain Data Abstraction and encapsulation. (6)

(OR)

b) Discuss in detail about the benefits and applications of object oriented programming.

22. a) Write a program to find the variance and standard deviation on N numbers.

(OR)

b) What are default arguments? Illustrate the use of them with an example.

23. a) Discuss in detail about constructors and destructors with the help of suitable codes.

(OR)

b) How are objects returned from functions? Explain with example program.

24. a) Explain Derived and base class constructors with the help of a C++ program.

(OR)

b) Explain the concept of classes within classes. Write a C++ program to illustrate containe

25. a) Write short notes on i) virtual function ii) friend function

(OR)

b) Discuss in detail about stream classes and their hierarchy

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