Register Number: …………………….

B.E/B.TECH DEGREE EXAMINATIONS: JUNE 2010

Second Semester

CSE 103: OBJECT ORIENTED PROGRAMMING

(Common to B.E – Computer Science and Engineering, B.Tech-Information Technology)

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

Answer All Questions:-

PART A (10 x 1 = 10 Marks)

1. Select the order of evolution of programming languages

   a) Machine Language, Assembly Language, Procedural Language and OOPs

   b) Machine Language, Procedural Language, Assembly Language and OOPs

   c) Machine Language, Assembly Language, OOPs and Procedural Language

   d) Assembly Language, Machine Language, Procedural Language and OOPs

2. Which one of the following is not available in C

   a) Keyword   b) User defined data types c) Array of Structures   d) Polymorphism

3. Find the equivalent of Macro

   a) Static function   b) Friend function   c) Inline function   d) Dynamic function

4. How will you call the member function

   a) Using the '.' operator   b) Using the '+' operator

   c) Using the '-'operator   d) Using the '?' operator

5. A normal C++ operator that acts in different way on newly defined data types is   said to be

    a) encapsulated   b) polymorphism   c) overloaded   d) abstracted

6. The return type of the constructor

    a) Void   b) float   c) Int   d) no return type

7. Code redundancy can be eliminated by

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

8. Operator overloading is

    a) Compile time polymorphism   b. Run time polymorphism

9. The visibility and lifetime of the static members inside a class

a) Visibility – within a class, lifetime – equal to class lifetime

b) Visibility – entire program, lifetime – equal to class lifetime

c) Visibility – within a class , lifetime – equal to program lifetime

d) Visibility – entire program, lifetime – equal to program lifetime

10. Data members declared inside the class are ----- by default

    a. Private   b. Public

PART B (10 x 2 = 20 Marks)

11. State any four special features of OOPs.

12. Differentiate between call by reference and call by value.

13. Write a constant function to find minimum of two numbers.

14. State the meaning of public, private and protected access specifier

15. Differentiate between function overloading and function overriding

16. What are the operators that cannot be overloaded?

17. Define static data member.

18. List the different forms of inheritance supported in C++

19. What do you mean by Virtual function?

20. What is garbage collection?

PART C (5 x 14 = 70 Marks)

21. a) Explain in detail about the features of OOPs with example.

(OR)

  b) (i) Write a note on the structure of C++ program.   (5)

      (ii) Explain about various control structures available in C++.   (9)

22. a) Using array of objects find the student mark average and subject average of N students.

    Each student has 3 subjects. Use function overloading concept.

(OR)

  b) (i) Explain about the concept of call by reference and return by reference with an

      example.   (10)

      (ii) Explain about default and constant arguments.   (4)

23. a) Discuss in detail about the different types of constructors with example.

(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.

24. a) List out the different types of inheritance and explain with examples.

(OR)

b) (i) Explain private and public inheritance with examples   (10)

(ii) Get the input for the matrix of order NXM using member function overloading.   (4)

25. a) Explain about virtual and friend function.

(OR)

b) (i)Write a short note on memory management   (6)

(ii) Explain about the uses of static function with example   (8)

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