

Register Number:.....

B.E/B.TECH DEGREE EXAMINATIONS NOV/DEC 2012

Second Semester

CSE103: OBJECT ORIENTED PROGRAMMING & C++

(Common to CSE / IT)

Time: Three Hours

Maximum Marks:100

Answer ALL Questions:-

PART A (10x1=10 Marks)

1. To be called object-oriented, a programming language must allow
 - A. functions that return only a single value
 - B. #include files
 - C. Inheritance
 - D. All of the above
2. You define a structure type globally because _____
 - A. you save many lines of code by not rewriting an identical structure definition in each function that uses it
 - B. you will never change its definition
 - C. it is required in C++
 - D. All of the above
3. Of the three ways to pass arguments to functions, only passing by _____ and passing by _____ allow the function to modify the argument in the calling program.
 - A. Pointer, array
 - B. array, location
 - C. array, pointer
 - D. reference, pointer
4. When you omit parameters from a function call, values can be provided by
 - A. formal parameters
 - B. default parameters
 - C. reference parameters
 - D. overloaded parameters
5. You typically initialize a String variable to _____
 - A. an asterisk
 - B. a space enclosed in single quotes
 - B. the number 0
 - D. a space enclosed in double quotes
6. An array name is a _____
 - A. subscript
 - B. formal parameter
 - C. memory address
 - D. prototype
7. You declare a function with a function _____, which is typically entered at the beginning of the program, below the #include directives
 - A. call
 - B. prototype declaration
 - C. definition
 - D. pointer

8. Overloading involves writing two or more functions with _____
- A. different names and different argument lists
 - B. different names and the same argument list
 - C. the same name and different argument lists
 - D. the same name and the same argument list
9. A class StockItems has four data members and three function members. You define 50 objects as members of the class. Which is true?
- A. Only one copy of each of the three functions exists
 - B. Only one copy of each of the four data members exists
 - C. Both (a) and (b) are true
 - D. Neither (a) nor (b) is true
10. Late binding is related to
- A. Function Overloading
 - B. Operator Overloading
 - C. Function Overriding
 - D. Function Declaration

PART B (10 x 2 = 20 Marks)

- 11. Write any four features of OOPS.
- 12. Distinguish between algorithmic centric and object centric languages.
- 13. What are constant arguments?
- 14. What is function prototype?
- 15. Define copy constructor
- 16. Explain class to basic type conversion with an example.
- 17. List any four operators that cannot be overloaded.
- 18. How will you overload Unary & Binary operator using member functions?
- 19. What is a pure virtual function?
- 20. What are Friend functions? Write the syntax.

PART C (5 x 14 = 70 Marks)

21. a) Explain the features of object oriented programming. Describe how each of these is implemented in C++.

(OR)

b) Write a C++ program to perform 2D matrix operations as follows:

(i) Define methods for the following two matrix operations: determinant and transpose. (7)

(ii) To do matrix addition and multiplication. (7)

22. a) Explain in details about inlini function default argument, constant argument and constant functions.

(OR)

b) Describe in detail about the Function Overloading with an example.

23. a) Explain the different types of constructors with suitable examples.

(OR)

b) Write a C++ program to define overloaded constructor to perform string initialization, string copy and string concatenation.

24. a) (i) Write the rules for overloading the operators. (5)

(ii) Write a C++ program to add two complex numbers using operator overloading. (9)

(OR)

b) What is meant by inheritance? Explain with examples, the various types of inheritance supported in C++.

25. a) (i) Give the rules for writing virtual functions. (5)

(ii) Write a C++ program to illustrate the use of virtual function. (9)

(OR)

b) Write short notes on: (i) Static Function

(ii) Friend Function
