KUMARAGURU
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B.E DEGREE EXAMINATIONS: MAY 2015

(Regulation 2009)

Sixth Semester

ELECTRONICS AND INSTRUMENTATION ENGINEERING

CSE202**:** Object Oriented Programming & C++

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

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. _____ refers to the act of representing essential features without including the background details or explanations.

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

2. The statement char s = 'A' will internally assign value to s is

   a) 0
   b) ASCII value of A
   c) Error
   d) Garbage value

3. When the break statement is encountered inside a loop, which one of the following occurs?

   a) Inheritance control goes to the end of the program
   b) control leaves the function that contains the loop
   c) Causes an exit from the innermost loop containing it
   d) Causes an exit from all the nested loop

4. _____ refers to the use of the same function name to create functions that perform different tasks.

   a) overloading
   b) operator overloading
   c) function overloading
   d) multiple functions

5. Which of the following array initialization statements are valid?

   a) Double a[3]=0.0
   b) Double a[2]={1.0,2.0,3.0}
   c) Double a[ ] ={1.0,2.0}
   d) Double a[1]={1.0,2.0}

6. Which is not known as Abstract Data Type?

   a) union
   b) Classes
   c) object
   d) Structure

7. The prototype for overloading ++ operator to perform postfix operation is _____

    a) Operator ++( )   b) Operator ++ (int)

    c) Operator ++ (char)   d) No separate prototype for postfix operator

8. Inheritance is a way to _____

    a) Make general classes into more specific classes   b) Pass arguments to objects to classes

    c) Add features to existing classes without rewriting them   d) Improve data hiding and encapsulation

9. The friend function can be invoked by _____

    a) By class   b) By object

    c) Like a normal function   d) By member function

10. Late binding is_____

    a) Operator overloading   b) Function overloading

    c) Function overriding   d) declaration

PART B (10 x 2 = 20 Marks)

11. What are the features required for object-based programming Language?

12. Compare the difference between Object Oriented Programming and Procedure Oriented Programming.

13. What are manipulators? Give an example.

14. Explain the various uses of scope resolution operator with an example.

15. Compare the difference between the statements?

    cin>> ch;

    ch= cin.get();

16. Define copy constructor. Give an example.

17. How will you overload Unary and Binary operator using Friend functions?

18. What is meant by Abstract base class?

19. What is pure virtual function? Write the syntax.

20. Explain this pointer.

PART C (5 x 14 = 70 Marks)

21. a)   Explain in detail about the basic concepts of OOPS.

(OR)

b) (i) Explain in detail about the structure of C++ with example and list the benefits of OOPS. (7)

(ii) Make use of class and object concepts to write a simple C++ program to find whether a given number is Armstrong number or not. (7)

22. a) (i) Explain call by reference and call by value. Write a program to swap 2 values by passing arguments as values, address, and reference. (7)

(ii) Explain inline function with an example? List out the situations where inline function can be used. (7)

(OR)

b) (i) Define function overloading. Implement the matrix class and overload the display function in four different types. (9)

(ii) Explain default arguments with an example program. (5)

23. a) Explain the following concepts with appropriate example programs
a) Object as function argument
b) Returning objects from function

(OR)

b) (i) Explain constructor overloading with appropriate example. (7)

(ii) Explain string class. Write a program to create a string class and the member functions to perform the following string operations (7)
String concatenation
String copy
String length

24. a) Make use of operator overloading concepts to write a program to overload the following arithmetic operator.
minus -
less than <
Combined assignment operator +=
Assignment operator =

(OR)

b)   Define inheritance? Explain various type of inheritance with example.

25. a) (i)   Explain the friend function and friend class with an example program.   (7)

          (ii)   Illustrate the use of Virtual function, Virtual class and Abstract class with an   (7) example.

(OR)

    b) (i)   Make use of template concepts to write a program to implement stack   (9) operations.

          (ii)   Explain command line argument.   (5)

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