Reg. No. :

PART A - (10 x 1 = 10 Marks)

1. What are the things to be inherited from the base class?

    (a) constructor and destructor   (b) friends
    (c) operator = () members   (d) all of the mentioned

2. Which of the following is true for abstract class?

    (a) Abstract class should not contain definition of any function inside it
    (b) All functions inside the abstract class must be pure virtual function
    (c) Objects of abstract class cannot be created but pointers and references to the abstract
        class can be created
    (d) Objects of abstract class can be used to call the function declared in it

3. Which of the following operators cannot be overloaded?

    (a) +   (b) <   (c) ::   (d) =

4. Copy constructor must receive its arguments by _____

    (a) either pass-by-value or pass-by-reference   (b) only pass-by-value
    (c) only pass-by-reference   (d) only pass by address

5. Which statement is used to catch all types of exceptions?

    (a) catch()   (b) catch(Test t)

    (c) catch(…)   (d) catch(Exception

6. From which of the following class of stream is derived?

    (a) istream   (b) ostream   (c) fstreambase (d) Both (b) and (c)

7. Which of the following access specifier is useful only in inheritance?

    (a) private   (b) public

    (c) protected   (d) private and public

8. _____ is used to achieve run time polymorphism

    (a) operator overloading   (b) function overloading

    (c) virtual function   (d) virtual base class

9. Which of the following statement is correct?
    (a) A try block can have only one catch block
    (b) The try block can be followed by multiple catch blocks
    (c) The catch block can be followed by multiple try blocks
    (d) Multiple catch blocks can be followed by a try block

10. Which is correct syntax?

    (a) myfile:open ("example.bin", ios::out);
    (b) myfile.open ("example.bin", ios::out);
    (c) myfile::open ("example.bin", ios::out);
    (d) myfile.open ("example.bin", ios:out);

PART - B (5 x 2 = 10 Marks)

11. What is inline function? Give an example.

12. Identify the situations where friend functions can be used rather than ordinary member function.

13. What is the use of terminate and unexpected functions? When they are called?

14. Differentiate between virtual function and pure virtual function 15.   What is the use of namespace? How it is declared and used in a C++ program?

PART - C (5 x 16 = 80 Marks)

16. (a) Explain the basic concepts of object oriented programming.   (16)

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(b) (i) What is friend function? What is the use of using friend functions in c++? Explain with a program. (8)

   (ii) What are the relationships between outer and inner classes? Give an example. (8)

17. (a) (i) To write C++ program to define complex number class and to do arithmetic operations on it using operator overloading. (10)

   (ii) Explain Friend Function with example. (6)

Or

(b) (i) Write a C++ program to illustrate the use of overloading assignment operator. (8)

   (ii) Write a C++ program to calculate the factorial of a given number using copy constructor. (8)

18. (a) (i) To write a C++ program to implement swapping of two numbers using function template of type integer, float, and character. (8)

   (ii) Write short notes on class template with example. (8)

Or

(b) (i) Explain how rethrowing of an exception is done. (4)

   (ii) Write a C++ program that illustrates multiple catch statements. (12)

19. (a) Write a C++ program for calculating the area of rectangle and circle using run-time polymorphism. (16)

Or

(b) (i) Demonstrate runtime polymorphism with an example. (8)

   (ii) Write short notes on RTTI and down casting. (8)

20. (a) What are manipulators? Explain in detail about various manipulators used for Input Output operations with an example. (16)

Or

(b) (i) Explain namespace with example. (8)

   (ii) Write a C++ to count number of words in a text file named "OUT.TXT". (8)

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