MCA 10   Object Oriented Programming through C++

SET: 1

Section-A
(Very Short Answer Questions)

1.   (i) Name five features of OOP.
(ii) What is Abstraction?
(iii) Which are the two types of constants?
(iv) Name five types of operators used in C++.
(v) Explain pure virtual functions.
(vi) What is Object in OOP?
(vii) Can we declare a static function as virtual?
(viii) While overloading a binary operator can we provide default values?
(ix) Define destructor.
(x) How we can achieve RunTime Polymorphism.

Section-B
(Short Answer Questions)

2. What are identifiers, variables and constants?

3. What are C++ manipulators? Name any five along with their purpose.

4. Explain the use of private and public keywords. How are they different from each other?

5. What do you mean by a Copy Constructor? Explain with suitable examples.

6. What is Dynamic binding? How can C++ achieve dynamic binding?

7. What is polymorphism? What are the different types of polymorphism in C++?

8. What do you mean by overloading of constructors? How does it benefit the programmer?

9. What are various features of OOP? Explain them.

Section-C
(Long Answer Questions)

10. What do you mean by Object Oriented Programming language? How it is differ with the procedure programming languages? Explain.

11. Explain giving an example the difference between call by value and call by reference.

12. What are a friend function and a friend class? Explain with example.

13. Write a program to perform public, private and protected Inheritance. Display output.

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SET: 2

Section-A
(Very Short Answer Questions)

1.   (i) What is a character array?
        (ii) What are inline functions?
        (iii) Name all types of Inheritances used in C++.
        (iv) Write two advantages of abstraction.
        (v) Name access control specifiers used in C++.
        (vi) In C++, dynamic memory allocation is accomplished by which the operator.
        (vii) Give ternary operator. Why it is known as ternary?
        (viii) Consider the following statements

            char *ptr;

            ptr = "hello";

            cout << *ptr;

        What will be printed?
        (ix) In which case is it mandatory to provide a destructor in a class?
        (x) Define Exception.

Section-B
(Short Answer Questions)

2. List the rules of naming an identifier in C++?
3. What are looping statements? What are the different types of loop statements?
4. What is a union data type? How does union differ from structure? Give an example.
5. Explain the use of Constructor and Destructor with suitable examples.
6. What are the types of inheritance? Explain any three of them with examples.
7. Explain the use of input/output functions put(), get(), write() and read() with an example each.
8. What are the various benefits of OOP?
9. What are the advantages of function prototypes in C++?

Section-C
(Long Answer Questions)

10. What are arithmetic operators in C++? Name them and write the function of each.
11. Explain with the help of example what is virtual function? What is need of virtual function?
12. Write a program to declare classes A, B and C. Each class contains one char array as a data member. Apply multiple Inheritances. Concatenate strings of A and B and store it in classes in C. Display all the three strings.
13. What is Object Oriented Programming language? Explain its principles in detail.

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