MSCCS 03   OOP Programming with C++ and Java

SET: 1

Section-A
(Very Short Answer Questions)

1.   (i) What is inline function in OOP?
        (ii) Write all access specifiers in C++.
        (iii) Why are private members of the base class not (directly) accessible in the derived class?
        (iv) What is exception handling?
        (v) What do you mean by platform independence?
        (vi) What is the difference between the >> and >>> operators?
        (vii) Which package is imported by default in every java program?
        (viii) What are the methods of applet life cycle?
        (ix) Which method can be defined only once in a program?
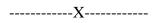   (x) What is destructor?

Section-B
(Short Answer Questions)

2. Differentiate between classes and structures in brief.
3. What do you mean by java buzzwords? Explain in detail.
4. Explain all type of constructors in java with one short example.
5. Explain all types of inheritance in detail used in JAVA.
6. Write the advantage of OOPS?
7. When do we need to use default arguments in a function?
8. What do you mean by overloading of constructors? How does it benefit the programmer?
9. How do you create and import a user define package in a java program

Section-C
(Long Answer Questions)

10. What is Object Oriented Programming language? Explain its principles in detail.
11. Explain constructors with suitable example. Also describe the role of destructor in C++ language.
12. Explain with the help of example what is virtual function? What is need of virtual function?
13. Why java is important for internet? What is JVM and byte code? Explain the advantages of byte code in relevance to internet

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SET: 2

Section-A
(Very Short Answer Questions)

1.   (i) Which functions can have access to the private data members and private functions of another class?
(ii) What happens when an exception is thrown in C++?
(iii) If a derived-class object is created and later destroyed what is the order of the constructor and destructor calls on the object?
(iv) Function templates in C++ are specified using which keyword(s)?
(v) What is difference between Path and Class path?
(vi) What is the difference between the & and && operator?
(vii) What is the difference between an Abstract class and non Abstract Class in JAVA?
(viii) Define JDK?
(ix) What is polymorphism?
(x) Name all inheritance implemented in C++.

Section-B
(Short Answer Questions)

2. Explain static data members and static member functions with suitable example.
3. What is Generic Programming? How is it implemented in C++?
4. Explain jump statements and loop statements with the help of examples used in JAVA.
5. Explain difference between overloading and overriding by using java program.
6. Explain all derived data type of C++.
7. What are the advantages of function prototypes in C++?
8. What is the concept of data hiding? What are the advantages of its applications?
9. What are the rules for defining overloaded functions?

Section-C
(Long Answer Questions)

10. What is Friend Function? Explain mechanism of accessing a private data member of the class from a non-member function and justify it with a program in C++ to swap private data members of two classes.
11. Describe complete life cycle of thread. How thread is different from process in multithreading?
12. What is an interface? Define and implement an interface by a java program.
13. Explain why is the constructor of a base class called before the constructor of derived class and why is the destructor of a derived class called before the constructor of base class? Give example.

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