**Rahib Amin**

**1.Can we achieve run time polymorphism by data members?**

A method is overridden, not the data members, so runtime polymorphism can't be achieved by data members

**- 2. Can I declare a class as private?**

- Private classes are allowed but only as inner or nested classes. If you have a private inner or nested class, then access is restricted to the scope of that outer class

**- 3. What is the difference b/w Abstraction and Encapsulation?**

- Abstraction is about generalization, and hiding unimportant information. Encapsulation is about hiding how an object works allowing you to change it later if needed. Abstraction is more for design level, encapsulation is for implementation level.

**- 4. Method Overloading rules? Can we overload the super class method insub class. Discuss with an example.**

Yes. For example, if the super class had the method thing(){} and the child class had the method thing(int a){} then the child class method would overload the super class method.

-

**- 5. Method overriding rules.**

- 1. You have the following code in a file called Test.java

-

- • class Base{

- • public static void main(String[] args){

- • System.out.println("Hello");

- } }

- • public class Test extends Base{}

-

- What will happen if you try to compile and run this?

- a. It will fail to compile.

- b. Runtime error

- c. Compiles and runs with no output.

**- d. Compiles and runs printing "Hello”**

-

- 2. Name the access modifier which when used with a method, makes it available to all

- the classes in the same package and to all the subclasses of the class.

Protected access modifier

- 3. What is the result of attempting to compile and run this?

-

- class Base{

- String s = "Base";

- String show() {

- return s;

- } } class Derived extends Base{

2

Friday, 9 August 2019

- String s = "Derived";

- } public class Test {

- void print(Base b){

- System.out.println(b.show());

- } void print(Derived d){

- System.out.println

-

- (d.show());

- } public static void main(String[] args){

- Test t = new Test();

- Base b = new Derived();

- t.print(b); }}

- a. Code will not compile

- b. Run time error

- c. Will compile and run printing "Derived“

- **d. Will compile and run printing "Base"**

- 21

-

- 4. Which of the following are correct. Select the one correct answer.

- a. An import statement, if defined, must always be the first non-comment statement of

- the file.

- b. private members are accessible to all classes in the same package.

- c. An abstract class can be declared as final.

- d**. Local variables cannot be declared as static**

- 5. If a base class has a method defined as void method() { }

- Which of the following are legal prototypes in a derived class of this class. Select the

two

- correct answers.

3

Friday, 9 August 2019

- **a. void method() { }**

- b. int method() { return 0;}

- c. **void method (int i) { }**

- d. private void method() { }

- Inheritance : transfer from a parent to child, super class and refer as sub class.

- private members of class can be access only in the super class and not in sub class

- protected : private and the inherited class

- Types Of Inheritances

- 1. Single -

- 2. Multiple - More than one super goes to a sub class - Not supported......

- 3. Multilevel - One super, one sub and agin the child of the sub class

- 4. Hierarchal - One super class has multiple children

- in my super class if I have a constructor and I want to call it, in my child class.

- // super() keyword - This is only for constructor