- 1. Run time polymorphism by data members is not achievable in java. Run time polymorphism is through methods.
- 2. Yes, inner classes can be declared as private, but outer classes cannot. If outer classes were private there will be no way of accessing them.
- 3. Abstraction is letting functionality be used without revealing the internal implementation. Encapsulation is grouping together methods and fields and making them accessible through one container.
- 4. Two methods are overloaded if they have the same method name but different argument lists. A subclass can overload a superclass method if it inherits that method and defines a method with the same name, but different argument list.
  - a. Superclass method: void print()
  - b. Subclass method: void print(String s)
- 5. A method can only override an inherited method. It must have the same method name, arguments, and return type. It cannot have a more restrictive access modifier or throw new or broader checked exceptions.
- 1. B. Runtime error
- 2. protected
- 3. D. Will compile and run printing "Base"
- 4. D. Local variables cannot be declared as static.
- 5. A. void method(){} and
  - C. void method(int i) {}