**Chapter 5 Concept Quiz**

Determine whether each of the following statements is true or false. If a statement is false, please explain why.

1. The relationship between a superclass and a subclass is an aggregation relationship.
2. A subclass can have more than one superclass.
3. A subclass can access its superclass’s protected fields and methods even when the superclass is in a different package.
4. Method overriding is defined as methods with the same name but with different signatures.
5. It is a good programming practice for a subclass’s constructor to invoke its superclass’s constructor who has the same signature via super.
6. An object of a superclass can be assigned to a variable of a subclass type.
7. When a variable of a superclass type is assigned to an object of its subclass type, the variable can be used to access any of the subclass’s public methods.
8. Dynamic dispatch occurs with both overridden methods and overloaded methods.
9. To check an object’s true dynamic class, use instanceof to do the examination.
10. It is not allowed to cast a superclass object to its subclass type.

**Answers to the Quiz**

1. **False**. The relationship between a superclass and a subclass is a inheritance relationship.
2. **False**. A subclass can only have one superclass.
3. **True**.
4. **False**. Method overriding defines methods have the same name and same signatures.
5. **True**.
6. **False**. An object of a subclass can be assigned to a variable of a superclass type since this keeps the static type promise.
7. **False**. When a variable of a superclass type is assigned to an object of its subclass type, the variable can’t be used to access the public methods only occurs in the subclass.
8. **False**. Dynamic dispatch only applies to overridden methods.
9. **False**. Should use getClass( ) for examination.
10. **False**. It is allowed if the object’s instanceof check is true.