1. By virtue of inheritance, a derived class has direct access to all members of the base. State true or false and briefly provide a statement to support your answer.

2. A try statement must have at least one catch statement, and it must also have the finally clause. State true or false and briefly provide a statement to support your answer.

3. The instruction super(); does which of the following?

a. calls the method super as defined in the current class

b. calls the method super as defined in the parent class

c. calls the default constructor as defined in parent class

d. calls the overridden method as defined in the parent class

4. An exception can produce a “call stack trace” which lists

a. the active methods in the order that they were invoked

b. the active methods in the opposite order that they were invoked

c. the value of all instances data of the object where the exception was raised

d. None of the above

5. Given a class Student with a default constructor and we can create a Student object as shown below:

Sudent s = new Student();

Indicate which statement below wouldn’t compile. Justify your answer.

Object obj = s;

Comparable c1 = s;

Student s1 = obj;

6. Define the concept “polymorphism” in OOP in your own words or via an example.

7. Explain or provide an example showing how each of the following Exceptions could arise.

a. ArithmeticException

b. NumberFormatException

c. IOException

Which exception above is a checked exception?