

**Unit 9 AP Computer Science A Practice Exam**  
**Inheritance**

Section I – Multiple Choice

Optional Time – 18 minutes

9 Questions

- 1) Which of the following are true about the concept of inheritance?
  - I. By extending a subclass from a superclass, an “is-a” relationship is established.
  - II. The `super` keyword is used to call the constructor of a subclass.
  - III. The `extends` keyword is used to establish an inheritance relationship.

(A) I only  
(B) I and II  
(C) I and III  
(D) II and III  
(E) I, II, and III
- 2) Classes that extend a superclass can draw upon \_\_\_\_\_ from that superclass.

(A) Fields only  
(B) Methods only  
(C) Fields and methods only  
(D) Fields, methods, and constructors
- 3) When writing a subclass, the only part required is the subclass’s \_\_\_\_\_.

(A) Constructor  
(B) Methods  
(C) Fields  
(D) Constructor and fields
- 4) Which of the following code inside of the constructor of a subclass calls the constructor of the superclass?

(A) `super();`  
(B) `init();`  
(C) `constructor();`  
(D) `this();`
- 5) In a subclass that extends a superclass, how would a method be called?

(A) `super.this.method();`  
(B) `super().method();`  
(C) `method();`  
(D) `extends.method();`
- 6) When a subclass has a method with the same signature (but different body) than a method in its superclass, the method is being:

(A) Overdone  
(B) Overloaded  
(C) Supered  
(D) Overridden
- 7) Given the following class header, which is the superclass?

```
public A extends B
```

(E) A  
(F) B  
(G) Neither  
(H) Both

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Good luck!

- 8) A class is created using the following header:

```
public X extends Y
```

Which of the following lines of code **cannot** be executed, given the following code?

```
ArrayList<Y> myYList =  
new ArrayList<Y>;  
ArrayList<X> myXList =  
new ArrayList<X>;
```

```
X xObj = new X();  
Y yObj = new Y();
```

- (A) myYList.add(xObj);
- (B) myYList.add(yObj);
- (C) myXList.add(xObj);
- (D) myXList.add(yObj);

- 9) Which of the following classes are the superclass of all other classes in Java?

- (E) Class;
- (F) Object;
- (G) Lang;
- (H) Interface;

## END OF SECTION I

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