

**Exam : SUN 310-035**

**Title : Sun Certified Programmer  
For The Java 2 Platform 1.4**

**Version : Demo**

1. Click the Exhibit button.

What is the result when main is executed?

```
1. class A {
2.     public A() {
3.         System.out.println("hello from a");
4.     }
5. }
6. class B extends A {
7.     public B() {
8.         System.out.println("hello from b");
9.         super();
10.    }
11. }
12. public class Test {
13.     public static void main(String args[])
14.     {
15.         A a = new B();
16.     }
```

A. Compilation fails.

B. hello from a

C. hello from b

D. hello from b

hello from a

E. hello from a

hello from b

**Answer: A**

2. Click the Exhibit button.

What is the result?

```

1. class A {
2.     public int getNumber(int a) {
3.         return a + 1;
4.     }
5. }
6.
7. class B extends A {
8.     public int getNumber(int a, char c) {
9.         return a + 2;
10.    }
11.
12.    public static void main(String args[])
13.    {
14.        B b = new B();
15.        System.out.println(b.getNumber(0));
16.    }

```

- A. 1
- B. 2
- C. Compilation fails because of an error in line 8.
- D. Compilation fails because of an error in line 14.

**Answer: A**

3. Given:

```

1. public class ConstOver {
2.     public ConstOver(int x, int y, int z) {
3.     }
4. }

```

Which two overload the ConstOver constructor? (Choose two.)

- A. ConstOver() { }
- B. protected int ConstOver() { }
- C. private ConstOver(int z, int y, byte x) { }
- D. public Object ConstOver(int x, int y, int z) { }
- E. public void ConstOver(byte x, byte y, byte z) { }

**Answer: AC**

4. Given:

```

1. class Passenger { }
2. class Engine { }
3. interface TransportVehicle {
4.     void loadPassengers();
5. }
6. interface Helicopter extends TransportVehicle {

```

---

```
7.   int flyIt( String direction );
8. }
9. abstract class JetStream implements Helicopter { }
```

Which statement is correct?

- A. TransportVehicle has a Passenger.
- B. Engine is encapsulated in the JetStream class.
- C. Interface TransportVehicle forms the basis for polymorphic actions.
- D. Non-abstract classes extending JetStream can optionally provide a method definition for the loadPassengers()method.

**Answer: C**

5. Given:

```
1. public class MyCircle {
2.     public double radius;
3.     public double diameter;
4.     public void setRadius(double radius) {
5.         this.radius = radius;
6.         this.diameter = radius * 2;
7.     }
8.     public double getRadius() {
9.         return radius;
10.    }
11. }
```

Which statement is true?

- A. The MyCircle class is fully encapsulated.
- B. The diameter of a given MyCircle is guaranteed to be twice its radius.
- C. Lines 5 and 6 should be in a synchronized block to ensure encapsulation.
- D. The radius of a MyCircle object can be set without affecting its diameter.

**Answer: D**

6. Given:

```
1. public class Outer {
2.     public static class StaticInner {
3.     }
4. }
```

Which two statements are true? (Choose two.)

- A. Class StaticInner requires a static initializer.

- B. Class StaticInner requires an instance of class Outer.
- C. Class StaticInner has no reference to an instance of class Outer.
- D. Class StaticInner has access to the non-static members of class Outer.
- E. Static members of class StaticInner can be referenced using the class name Outer.StaticInner.

**Answer: CE**

7. Given:

```
12. void start() {  
13.     A a = new A();  
14.     B b = new B();  
15.     a.s(b);  
16.     b = null;  
17.     a = null;  
18.     System.out.println("start completed");  
19. }
```

When is the B object, created in line 14, eligible for garbage collection?

- A. after line 16
- B. after line 17
- C. after line 18 (when the method ends)
- D. There is no way to be absolutely certain.
- E. The object is NOT eligible for garbage collection.

**Answer: D**

8. Click the Exhibit button.

Which two statements are correct? (Choose two.)

```
1. class A {  
2. }  
3. class Alpha {  
4.     private A myA = new A();  
5.  
6.     void doIt( A a ) {  
7.         a = null;  
8.     }  
9.     void tryIt() {  
10.         doIt( myA );  
11.     }  
12. }
```

- A. There are no instances of A that will become eligible for garbage collection.
- B. Explicitly setting myA to null marks that instance to be eligible for garbage collection.
- C. Any call on tryIt() causes the private instance of A to be marked for garbage collection.

---

D. Private instances of A become eligible for garbage collection when instances of Alpha become eligible for garbage collection.

**Answer:** BD

9. Which statement is true?

A. Memory is reclaimed by calling `Runtime.gc()`.

B. Objects are not collected if they are accessible from live threads.

C. Objects that have `finalize()` methods are never garbage collected.

D. Objects that have `finalize()` methods always have their `finalize()` methods called before the program ends.

E. An `OutOfMemory` error is only thrown if a single block of memory cannot be found that is large enough for a particular requirement.

**Answer:** B

10. Which statement is true?

A. To call the `wait()` method, a thread must own the lock of the current thread.

B. To call the `wait()` method, a thread must own the lock of the object on which the call is to be made.

C. To call the `join()` method, a thread must own the lock of the object on which the call is to be made.

D. To call the `sleep()` method, a thread must own the lock of the object on which the call is to be made.

E. To call the `yield()` method, a thread must own the lock of the object on which the call is to be made.

**Answer:** B

11. Which two conditions can place the thread in a runnable state after `wait()` has been called on an object in that thread? (Choose two.)

A. A thread calls `resume()` on the thread.

B. A higher priority thread invokes `yield()`.

C. A higher priority thread invokes `sleep()`;

D. A thread calls `notify()` on the same object.

E. A thread calls `notifyAll()` on the same object.

**Answer:** DE

12. Given:

```
1. public class Foo implements Runnable {
2.     public void run() {
3.         System.out.println("Running");
4.     }
5.     public void start() {
6.         System.out.println("Starting");
7.     }
```

```
8. public static void main(String[] args) {
9.     new Thread(new Foo()).start();
10. }
11. }
```

What is the result?

- A. Running
- B. Starting
- C. Compilation fails.
- D. The code runs with no output.
- E. An exception is thrown at runtime.

**Answer: A**

13. Which two statements are true? (Choose two.)

- A. The wait method can be called with a timeout parameter.
- B. The notify method can be invoked on a specific thread of execution.
- C. The wait method need not be called from within a synchronized context.
- D. The wait and notify methods are defined in class java.lang.Thread.
- E. The wait and notify methods are defined in class java.lang.Object.
- F. The notify method releases the object's lock regardless of when it is called.

**Answer: AE**

14. Click the Exhibit button.

Which statement at line 17 will ensure that j = 10 at line 19?

```
1. class A implements Runnable {
2.     int i;
3.     public void run() {
4.         try {
5.             Thread.sleep(5000);
6.             i = 10;
7.         } catch (InterruptedException e) {}
8.     }
9. }
10.
11. public class Test {
12.     public static void main(String args[])
13.     {
14.         try {
15.             A a = new A();
16.             Thread t = new Thread(a);
17.             t.start();
18.             int j = a.i;
19.
20.         } catch (Exception e) {}
21.     }
22. }
```

- 
- A. a.wait();
  - B. t.wait();
  - C. t.join();
  - D. t.yield();
  - E. t.notify();
  - F. a.notify();
  - G. t.interrupt();

**Answer: C**

15. Which statement is true?

- A. To call the join() method, a thread must own the lock of the current thread.
- B. To call the sleep() method, a thread must own the lock of the current thread.
- C. To call the yield() method, a thread must own the lock of the current thread.
- D. To call the notify() method, a thread must own the lock of the current thread.
- E. To call the notify() method, a thread must own the lock of the object on which the call is to be made.

**Answer: E**

16. Thread Z holds the lock on object A. Thread X is blocked inside a wait call on object A. What allows thread X to become runnable?

- A. Thread X is interrupted.
- B. Thread Z is interrupted.
- C. Thread X's wait() times out.
- D. Thread Z calls Thread.sleep(100);
- E. Thread Z releases the lock on A and calls the notify() method on thread X.
- F. Thread Z releases the lock on A and calls the notifyAll() method on object A.

**Answer: F**

17. Click the Exhibit button.

Which is the output from this code?

```

1. class Worker implements Runnable {
2.
3.     Worker( String name ) {
4.         new Thread(this, name).start();
5.     }
6.
7.     public void run() {
8.         System.out.println(Thread.currentThread()
getName());
9.     }
10. }
11.
12. class Alpha2 {
13.     public static void main( String[] args
) {
14.
15.         Thread.currentThread().setName("Main");
16.         Runnable r = new Worker("Worker");
17.         r.run();
18.     }

```

- A. Main
- B. Worker
- C. Main Worker
- D. Worker Main
- E. indeterminate
- F. The code runs with no output.

**Answer: E**

18. Given:

```

11. try {
12.     if ((new Object()).equals((new String("x")))) {
13.         System.out.println("equal");
14.     } else {
15.         System.out.println("not equal");
16.     }
17. } catch (Exception e) {
18.     System.out.println("exception");
19. }

```

What is the result?

- A. equal
- B. not equal

- C. exception
- D. Compilation fails.

**Answer: B**

19. Given:

```
11. int i = 0, j = 1;
12. if ((i++ == 1) && (j++ == 2)) {
13.     i = 42;
14. }
15. System.out.println("i = " + i + ", j = " + j);
```

What is the result?

- A. i = 1, j = 2
- B. i = 1, j = 1
- C. i = 42, j = 2
- D. i = 42, j = 1
- E. Compilation fails.

**Answer: B**

20. Given:

```
1. public class X {
2.     public static void main(String[] args) {
3.         byte b = 127;
4.         byte c = 126;
5.         byte d = c - b;
6.         System.out.println("d = " + d);
7.     }
8. }
```

What is the result?

- A. d = -1
- B. d = 255
- C. Compilation fails.
- D. An exception is thrown at runtime.

**Answer: C**