Question 1

Given:

```
1. public class Threads3 implements Runnable {
2. public void run() {
3. System.out.print(”running”);
4. }
5. public static void main(String[] args) {
6. Thread t = new Thread(new Threads3());
7. t.run();
8. t.run();
9. t.start();
10. }
11. }
```

What is the result?

A. Compilation fails.

B. An exception is thrown at runtime.

C. The code executes and prints “running”.

D. The code executes and prints “runningrunning”.

E. The code executes and prints “runningrunningrunning”.

Question 2

Which two code fragments will execute the method doStuff() in a separate thread? (Choose two.)

A. new Thread() {
public void run() { doStuff(); }
}

B. new Thread() {
public void start() { doStuff(); }
}

C. new Thread() {
public void start() { doStuff(); }
} .run();

D. new Thread() {
public void run() { doStuff(); }
} .start();

E. new Thread(new Runnable() {
public void run() { doStuff(); }
}).run();

F. new Thread(new Runnable() {
public void run() { doStuff(); }
}).start();

Link: https://vceguide.com/which-two-code-fragments-will-execute-the-method-dostuff-in-a-separate-thread/

Question 3

Given:

```
1. public class Threads4 {
2. public static void main (String[] args) {
3. new Threads4().go();
4. }
5. public void go() {
6. Runnable r = new Runnable() {
7. public void run() {
8. System.out.print(”foo”);
9. }
10. };
11. Thread t = new Thread(r);
12. t.start();
13. t.start();
14. }
15. }
```

What is the result?

A. Compilation fails.

B. An exception is thrown at runtime.

C. The code executes normally and prints ‘foo”.

D. The code executes normally, but nothing is printed.

Explanation:

```
Exception in thread "main" foojava.lang.IllegalThreadStateException
at java.lang.Thread.start(Thread.java:705)
at Main.go(Main.java:21)
at Main.main(Main.java:11)
```

Question 4

Given:

```
1. public class Threads5 {
2. public static void main (String[] args) {
3. new Thread(new Runnable() {
4. public void run() {
5. System.out.print(”bar”);
6. }}).start();
7. }
8. }
```

What is the result?

A. Compilation fails.

B. An exception is thrown at runtime.

C. The code executes normally and prints “bar”.

D. The code executes normally, but nothing prints.

Question 5

Given:

```
11. Runnable r = new Runnable() {
12. public void run() {
13. System.out.print(”Cat”);
14. }
15. };
16. Threadt=new Thread(r) {
17. public void run() {
18. System.out.print(”Dog”);
19. }
20. };
21. t.start();
```

What is the result?

A. Cat

B. Dog

C. Compilation fails.

D. The code runs with no output.

E. An exception is thrown at runtime.

Link: http://www.durgasoft.com/scjp_material_2.asp?chapter=9&page=3

Question 6

Click the Exhibit button.

Given:

```
10. public class Starter extends Thread {
11. private int x= 2;
12. public static void main(String[] args) throws Exception {
13. new Starter().makeItSo();
14. }
15. public Starter() {
16. x=5;
17. start();
18. }
19. public void makeItSo() throws Exception {
20. join();
21. x=x- 1;
22. System.out.println(x);
23. }
24. public void run() { x *= 2; }
25. }
```

What is the output if the main() method is rum?

A. 4

B. 5

C. 8

D. 9

E. Compilation fails.

F. An exception is thrown at runtime.

G. It is impossible to determine for certain.

Link: https://www.javamadesoeasy.com/2018/08/scjp-ocjp-dumps-1-exam-a.html

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Question 7

Given:

```
1. public class Threads2 implements Runnable {
2.
3. public void run() {
4. System.out.println(”run.”);
5. throw new RuntimeException(”Problem”);
6. }
7. public static void main(String[] args) {
8. Thread t = new Thread(new Threads2());
9. t.start();
10. System.out.println(”End of method.”);
11. }
12. }
```

Which two can be results? (Choose two.)

A. java.lang.RuntimeException: Problem

B. run.
java.lang.RuntimeException: Problem

C. End of method.
java.lang.RuntimeException: Problem

D. End of method.
run.
java.lang.RuntimeException: Problem

E. run.
java.lang.RuntimeException: Problem
End of method.

Link: http://ocjpdumps.blogspot.com/2012/07/q1-10.html

Question 8

Given:

```
1. public class TestOne {
2. public static void main (String[] args) throws Exception {
3. Thread.sleep(3000);
4. System.out.println(”sleep”);
5. }
6. }
```

What is the result?

A. Compilation fails.

B. An exception is thrown at runtime.

C. The code executes normally and prints “sleep”.

D. The code executes normally, but nothing is printed.

Link: https://www.javamadesoeasy.com/2018/07/multi-threading-scjp-ocjp.html

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Question 9

Given:

```
1. public class TestOne implements Runnable {
2. public static void main (String[] args) throws Exception {
3. Thread t = new Thread(new TestOne());
4. t.start();
5. System.out.print(”Started”);
6. t.join();
7. System.out.print(”Complete”);
8. }
9. public void run() {
10. for (int i= 0; i< 4; i++) {
11. System.out.print(i);
12. }
13. }
14. }
```

What can be a result?

A. Compilation fails.

B. An exception is thrown at runtime.

C. The code executes and prints “StartedComplete”.

D. The code executes and prints “StartedComplete0123”.

E. The code executes and prints “Started0l23Complete”.

Link: https://stackoverflow.com/questions/6288302/question-on-java-thread-output-consistent

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Question 10

Given:

```
1. public class TwoThreads {
2
3. private static Object resource = new Object();
4.
5. private static void delay(long n) {
6. try { Thread.sleep(n); }
7. catch (Exception e) { System.out.print(”Error “); }
8. }
9
10. public static void main(String[] args) {
11. System.out.print(”StartMain “);
12. new Thread1().start();
13. delay(1000);
14. Thread t2 = new Thread2();
15. t2.start();
16. delay(1000);
17. t2.interrupt
18. delay(1000);
19. System.out.print(”EndMain “);
20. }
21.
22. static class Thread 1 extends Thread {
23. public void run() {
24. synchronized (resource) {
25. System.out.print(”Startl “);
26. delay(6000);
27. System.out.print(”End1 “);
28. }
29. }
30. }
31.
32. static class Thread2 extends Thread {
33. public void run() {
34. synchronized (resource) {
35. System.out.print(”Start2 “);
36. delay(2000);
37. System.out.print(”End2 “);
38. }
39. }
```

```
40. }
41. }
```
Assume that sleep(m) executes in exactly m milliseconds, and all other code executes in an insignificant amount of time. What is the output if the main() method is run?

A. Compilation fails.

B. Deadlock occurs.

C. StartMain Start1 Error EndMain End1

D. StartMain Start1 EndMain End1 Start2 End2

E. StartMain Start1 Error Start2 EndMain End2 End1

F. StartMain Start1 Start2 Error End2 EndMain End1

G. StartMain Start1 EndMain End1 Start2 Error End2

Link: http://ocpjp.jobs4times.com/multiThread.html
http://www.durgasoft.com/scjp_material_2.asp?chapter=9&page=7

Question 11

Given:

```
public class NamedCounter {
private final String name;
private int count;
public NamedCounter(String name) { this.name = name; }
public String getName() { return name; }
public void increment() { coount++; }
public int getCount() { return count; }
public void reset() { count = 0; }
}
```

Which three changes should be made to adapt this class to be used safely by multiple threads? (Choose three.)

A. declare reset() using the synchronized keyword

B. declare getName() using the synchronized keyword

C. declare getCount() using the synchronized keyword

D. declare the constructor using the synchronized keyword

E. declare increment() using the synchronized keyword

Link: https://coderanch.com/t/264558/certification/synchronized

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Question 12

Click the Exhibit button:

```
1. public class Threads 1 {
2. intx=0;
3. public class Runner implements Runnable {
4. public void run() {
5. int current = 0;
6. for(int=i=0;i<4;i++){
7. current = x;
8. System.out.print(current + “, “);
9. x = current + 2;
10. }
11. }
12. }
13.
14. public static void main(String[] args) {
15. new Threads1().go();
16. }
17.
18. public void go() {
19. Runnable r1 = new Runner();
20. new Thread(r1).start();
21. new Thread(r1 ).start();
22. }
23. }
```

Which two are possible results? (Choose two.)

A. 0, 2, 4, 4, 6, 8, 10, 6,

B. 0, 2, 4, 6, 8, 10, 2, 4,

C. 0, 2, 4, 6, 8, 10, 12, 14,

D. 0, 0, 2, 2, 4, 4, 6, 6, 8, 8, 10, 10, 12, 12, 14, 14,

E. 0, 2, 4, 6, 8, 10, 12, 14, 0, 2, 4, 6, 8, 10, 12, 14,

Link: http://read.pudn.com/downloads166/sourcecode/java/762920/Module/Module8.pdf
https://wenku.baidu.com/view/31e7200c844769eae009ed31

Question 13

Click the Exhibit button.

```
1. import java.util.*;
2.
3. public class NameList {
4. private List names = new ArrayList();
5. public synchronized void add(String name) { names.add(name); }
6. public synchronized void printAll() {
7. for (int i = 0; i <names.size(); i++) {
8. System.out.print(names.get(i) +“ “);
9. }
10. }
11. public static void main(String[] args) {
12. final NameList sl = new NameList();
13.for(int i=0;i<2;i++) {
14. new Thread() {
15. public void ruin() {
16. sl.add(”A”);
17. sl.add(”B”);
18. sl.add(”C”);
19. sl.printAll();
20. }
21. }.start();
22. }
23. }
24. }
```

Which two statements are true if this class is compiled and run?

(Choose two.)

A. An exception may be thrown at runtime.

B. The code may run with no output, without exiting.

C. The code may run with no output, exiting normally.

D. The code may rum with output “A B A B C C “, then exit.

E. The code may rum with output “A B C A B C A B C “, then exit.

F. The code may ruin with output “A A A B C A B C C “, then exit.

G. The code may ruin with output “A B C A A B C A B C “, then exit.

Link: http://javasehelp.blogspot.com/2011/12/scjp-questions-121-130.html

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Question 14

Given:

```
1. public class TestFive {
2. private int x;
3. public void foo() {
4 int current = x;
5. x = current + 1;
6. }
7. public void go() {
8. for(int i=0;i<5;i++) {
9. new Thread() {
10. public void run() {
11. foo();
12. System.out.print(x + “, “);
13. } }.start();
14. }}}
```

Which two changes, taken together, would guarantee the output: 1, 2, 3, 4, 5, ? (Choose two.)

A. Move the line 12 print statement into the foo() method.

B. Change line 7 to public synchronized void go() {.

C. Change the variable declaration on line 3 to private volatile int x;.

D. Wrap the code inside the foo() method with a synchronized(this) block.

E. Wrap the for loop code inside the go() method with a synchronized block synchronized(this) { // for loop code here }.

Link: http://scjptestquestion.blogspot.com/p/question-81-given-1.html

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Question 15

Which three will compile and run without exception? (Choose three.)

A. private synchronized Object o;

B. void go() {

synchronized() { /* code here */ }

}

C. public synchronized void go() { /* code here */ }

D. private synchronized(this) void go() { /* code here */ }

E. void go() {

synchronized(Object.class) { /* code here */ }

}

F. void go() {

Object o = new Object();

synchronized(o) { /* code here */ }

}

Link: http://www.durgasoft.com/scjp_material_2.asp?chapter=9&page=5

http://www.santhoshreddymandadi.com/java/scjp-question-bank20.html