Exam 2 Review Questions

1. What should be the condition for the while loop so that the body of the loop can remove all the “a” characters from the string “replace”?

String s = “replace";

int i = 0;

// while there is an a in s

while (\*insert condition\*)

{

i = s.indexOf(“a”);

s = s.substring(0,i) + s.substring(i+1);

}

1. s.find(“a”)>=0
2. “a” is in s
3. s.indexOf("a") >= 0
4. None of the above
5. How many times will the loop run for any value assigned to the String variable s?

for(int i = s.length()-1; i < s.length(); i++)

{

//doing something

}

1. length of s
2. 1
3. unknown
4. 0
5. Which one of the following is true according to the given code segment below?

public class Test

{

public static void main(String[] args)

{

String s = “Something";

String sReversed = "";

String ithLetter;

for(int i=0; i < s.length(); i++) {

ithLetter = s.substring(i,i+1);

sReversed += ithLetter;

}

}

}

1. sReversed is the reverse string of s
2. sReversed is the concatenation of indices
3. sReversed is the same as the string s
4. None of the above
5. Which will the following code print?

public class Test

{

public static void main(String[] args)

{

String s = "Hello";

String output = "";

String ithLetter;

for(int i=0; i < s.length(); i+=2) {

ithLetter = s.substring(i,i+1);

output = ithLetter + output;

}

System.out.println(output);

}

}

1. olleH
2. Hello
3. Hlo
4. olH
5. How many times will the following code print out "ITSC 1212"?  
     
   for (int i = 0; i < 25; i++) {  
      for (int j = 0; j < 10; j++) {  
        System.out.println(i + ", " + j);  
        System.out.println("ITSC 1212");  
      }  
   }

A. 25

1. 10
2. 250
3. Forever, it's an infinite loop
4. How many times will the following code print out "ITSC 1212"?  
     
   for (int i = 0; i < 25; i++) {  
      for (int j = 0; j < 10; ) {  
        System.out.println(i + ", " + j);  
        System.out.println("ITSC 1212");  
      }  
   }

A. 25

B. 10

C. 250

D. Forever, it's an infinite loop

1. How many times will the following code print out "ITSC 1212”?  
     
   for (int i = 0; i < 25; i++) {  
     for (int j = 0; j < 10; j++ ) {  
       System.out.println(i + ", " + j);  
     }  
     System.out.println("ITSC 1212");  
   }

A. 25

B. 10

C. 250

D. Forever, it's an infinite loop

1. How many times will the following code print out "ITSC 1212"?  
     
   for (int i = 0; i < 25; i++) {  
     for (int j = 0; j < 10; j++ ) {  
       for (int k = 0; k < 4; k++) {  
         System.out.println(i+","+j+","+k);  
         System.out.println("ITSC 1212");  
       }  
     }  
   }

A.25

1. 250
2. 1000
3. Forever, it’s an infinite loop
4. Which of the following code segments will produce the displayed output?

11111

2222

333

44

5

A. for (int j = 1; j <= 5; j++) {

for (int k = 5; k >= j; k--) {

System.out.print(j);

}

System.out.println();

}

B. for (int j = 1; j <= 5; j++) {

for (int k = 5; k >= 1; k--) {

System.out.print(j);

}

System.out.println();

}

C. for (int j = 1; j <= 5; j++) {

for (int k = 1; k <= j; k++) {

System.out.print(j);

}

System.out.println();

}

D. for (int j = 1; j <= 5; j++) {

for (int k = 1; k <= 5; k++) {

System.out.println(j);

}

}

1. Which of the following code segments will produce the displayed output?

1

22

333

4444

55555

. for (int j = 1; j <= 5; j++) {

for (int k = 5; k >= j; k--) {

System.out.print(j);

}

System.out.println();

}

B. for (int j = 1; j <= 5; j++) {

for (int k = 5; k >= 1; k--) {

System.out.print(j);

}

System.out.println();

}

C. for (int j = 1; j <= 5; j++) {

for (int k = 1; k <= j; k++) {

System.out.print(j);

}

System.out.println();

}

D. for (int j = 1; j <= 5; j++) {

for (int k = 1; k <= 5; k++) {

System.out.println(j);

}

}

1. .  Which of the following code segments will produce the displayed output?

11111

22222

33333

44444

55555

1. for (int j = 1; j <= 5; j++) {

for (int k = 5; k >= j; k--) {

System.out.print(j);

}

System.out.println();

}

B. for (int j = 1; j <= 5; j++) {

for (int k = 5; k >= 1; k--) {

System.out.print(j);

}

System.out.println();

}

C. for (int j = 1; j <= 5; j++) {

for (int k = 1; k <= j; k++) {

System.out.print(j);

}

System.out.println();

}

D. for (int j = 1; j <= 5; j++) {

for (int k = 1; k <= 5; k++) {

System.out.println(j);

}

}

1. What are the values of var1 and var2 after the following code segment is executed and the while loop finishes ?

int var1 = 0;

int var2 = 2;

while ((var2 != 0) && ((var1 / var2) >= 0)) {

var1 = var1 + 1;

var2 = var2 - 1;

}

1. var1 = 0, var2 = 2
2. var1 = 1, var2 = 1
3. var1 = 2, var2 = 0
4. The loop won't finish executing because of a division by zero.
5. A while loop executes the body of the loop as long as (or while) a \_\_\_\_\_ condition is true.
6. class
7. boolean
8. loop
9. statement
10. What kind of loop is it when the controlling expression always evaluates to true so that the loop never ends?
11. true loop
12. while loop
13. round loop
14. infinite loop
15. When is the loop body not executed at all?

A. If the controlling expression is always true

B. If the condition of the loop is satisfied

C. If the controlling expression is initially false

D. Loops always execute at least once

1. .  If you want to print out "Hello, World" 12 times, which code below would make that happen?
2. int index = 0;

while (index < 12) {

System.out.println("Hello, World");

}

1. int index = 0;

while (index < 12) {

System.out.println("Hello, World");

index = index + 1;

}

1. while (index < 12) {

System.out.println("Hello, World");

index++;

}

1. while (index < 12) {

System.out.println("Hello, World");

}

index = index + 1;

1. .  If you want to print out "Hello, World" 6 times, which code below would make that happen?
2. int index = 0;

while (index <= 6) {

System.out.println("Hello, World");

index = index + 1;

}

1. int index = 0;

while (index < 10) {

System.out.println("Hello, World");

index = index + 2;

}

1. int index = 0;

while (index <= 10) {

System.out.println("Hello, World");

index = index + 2;

}

1. Both A and B
2. Consider the following code segment. What is count’s value after running this code segment?

int count = 2;

while (count < 16)

{

count \*= 2;

}

count = count - 10;

1. 4
2. -2
3. 6
4. -8
5. What does the following code print?

int x = -4;

while (x > 0)

{

x++;

System.out.print(x + " ");

}

1. 5 4 3 2 1
2. -4 -3 -2 -1
3. -3 -2 -1 0
4. prints nothing
5. How many times will the following code print out "ITSC 1212!"?  
      
   for (int i = 0; i <= 25; i+=2) {  
     System.out.println("ITSC 1212!");  
   }
6. 12
7. 13
8. Syntax error
9. Forever, it's an infinite loop
10. How many times will the following code print out "ITSC 1212!"?  
      
    for (int i = 25; i >=0; j--) {  
      System.out.print("ITSC 1212!");  
    }
11. 24
12. 25
13. 26
14. Syntax error
15. How many times will the following code print out "ITSC 1212!"?  
      
    int i = 0;  
    for ( ; i < 10; i++ ) {  
      System.out.print("ITSC 1212!");  
    }
16. 9
17. 10
18. 11
19. Run-time error
20. Syntax error
21. Forever, it's an infinite loop
22. What is the last number printed?  
      
    for ( int i = 0; i <= 10; i++ ) {  
      System.out.print(i);  
    }  
    System.out.println(i);
23. 9
24. 10
25. 11
26. Error