

CSCI 1990 TEST 3 STUDY GUIDE SPRING 2009

CHAPTER 5: CONDITIONALS AND LOOPS (CONTINUED)

1. If $x=5$ and $y=5$, write Java statements so that if x equals y , output “equal”, otherwise output “not equal”.
2. If $z=$ ”spring” and $w=$ ”spring”, write Java statements so that if z equals w , output “equal”, otherwise output “not equal”.
3. Write a **switch** statement equivalent to the following nested if/else statements.
if ($grade==$ ’A’)
 System.out.println(“Excellent”);
else if ($grade==$ ’B’)
 System.out.println(“Good”);
else if ($grade==$ ’C’)
 System.out.println(“Average”);
else if ($grade==$ ’D’)
 System.out.println(“Poor”);
else if ($grade==$ ’F’)
 System.out.println(“Fail”);
else
 System.out.println("Invalid grade");
4. What is output by the following?
 - a) $count = 0$;
if ($count < 4$)
 $count = count + 1$;
System.out.println(count);
 - b) $count = 0$;
while ($count < 4$)
 $count = count + 1$;
System.out.println(count);
 - c) $count = 0$;
while ($count < 4$) {
 $count = count + 1$;
System.out.println(count); }
 - d) $count = 1$;
while ($count <= 4$) {
 $count=$ count+1;
System.out.println(count); }
 - e) $count = 1$;
while ($count <= 4$)
 $count = count + 1$;
System.out.println(count);
 - f) $count = 1$;
while ($count >= 4$)
 $count = count + 1$;
System.out.println(count);
5. Be able to write Java statements to output the integers from 1 to n (where n has already been input by the user) using each of the following types of loops:
 - a. **for**
 - b. **while**
 - c. **do/while**

6. What is output by the following?
- a) `for (i=1; i <=4; i++)`
 `System.out.println(i);`
 - b) `for (i=1; i < 4; i++)`
 `System.out.println(i);`
 - c) `for (i=1; i >=4; i++)`
 `System.out.println(i);`
 - d) `for (i=1; i <=4; i++) ;`
 `System.out.println(i);`
 - e) `for (i=4; i >=1; i--)`
 `System.out.println(i);`
 - f) `for (i=1; i < 5; i++)`
 `System.out.println(i);`
 - g) `/* Assume that x=2 and y=10 */`
 `for (j=x; j <= 4*x*y; j += y/x)`
 `System.out.println(j);`
 - h) `for (i=1; i<=4; i++)`
 `System.out.println("LC");`
 - i) `for (counter=1; counter<=10; counter++)`
 {
 `counter=20;`
 `System.out.println(counter);`
 }
 - j) `for (i=7; i<=77; i+=7)`
 `System.out.println(i);`
 - k) `for (n=1, product=1; n<=5; n++)`
 `product=product*n;`
 `System.out.println(product);`