



Q1: Find the syntax and logical errors for each of the following code segments.

S.N	Code Segment	Errors
1	<pre>for (int i = 0; i < 10; i++) System.out.println("i= "+i); System.out.println("Last Value of i is : "+i);</pre>	
2	<p>This loop should print numbers from 0 up to 9</p> <pre>for (int i = 0; i > 10; i++) { System.out.println(i); }</pre>	
	<p>This loop should print numbers from 1 up to 20</p> <pre>int i = 1; while (i<=20) System.out.println(i); i++;</pre>	
3	<pre>int i = 1; while (i<=10) { System.out.println(i); i--; }</pre>	
4	<pre>do { int i = 3; System.out.println(i); i++; } while (i<=5);</pre>	
5	<pre>for (int i = 0; i < 10; i++) { int i = i * i; System.out.println(i); }</pre>	
6	<p>This loop should print numbers from 0 up to 10</p> <pre>int x = 0; while (x < 10) { System.out.println(x); x++; }</pre>	



7	<pre> int x = 0; while (x < 10) { int y = 10; System.out.println(x); x++; } int x = 3; int y = 5; </pre>	
8	<pre> int i = 4; do { System.out.println("i= " + i); i++; } while (i <= 17) </pre>	
9	<pre> int i = 4; do System.out.println("i= " + i++); int t = i * 5; while (i <= 17); </pre>	
10	<pre> int i = 4; do System.out.println("i= " + i++); ; while (i <= 17); </pre>	
11	<p>This loop should print numbers from 0 up to 9 except 3</p> <pre> for (int i = 0; i < 10; i++) { if(i==3) break; System.out.println(i); } </pre>	
12	<pre> int i = 1; while (i<=16) { break; System.out.println("i= "+i); } </pre>	
13	<pre> int i = 1; while (i<=16) { continue; System.out.println("i= "+i++); } </pre>	
14	<pre> do { break; System.out.println("Hello"); } while (true); </pre>	



15	<pre>for (int i = 0 , int j = 4; i < 10; i++) { System.out.println("i= "+i); System.out.println("j= "+j); }</pre>	
16	<pre>for (int i = 0 , i = 4; i < 10; i++) { System.out.println("i= "+i); System.out.println("j= "+j); }</pre>	
17	<pre>for (int i = 0; i < 10) { System.out.println("i= "+i); i++; }</pre>	
18	<pre>for (int i = 0; i < 10; i++) ; System.out.println(i);</pre>	
19	<pre>int i = 5; while (i++<=70); System.out.println("i= "+i);</pre>	
20	<pre>while (true); System.out.println("hi");</pre>	
21	<pre>while (false){ System.out.println("hi"); }</pre>	

Q2:Re-write each of the following loops and make sure they will produce the same output.

For Loop	While Loop	Do while loop
<pre>for (int count=1; count<11; count++) System.out.println("Count is: "+count);</pre>		
	<pre>int i = 1; while (i < 11) { System.out.println(i++); }</pre>	
	<pre>int i = 1; while (i > 5) { System.out.println(i); }</pre>	
<pre>int total = 0; int count = 1; for (count = 1; count < 11; count++) { total += count; } System.out.println("Total is : " + total);</pre>		
		<pre>int i = 7; do { System.out.println(i); i++; } while (i > 10);</pre>



Q3: Write the output for each of the following code segments.

S.N	Code Segment	Output
1	<pre> for (int i = 1; i < 5; i++) { if(i==1) System.out.println("A"); else if(i==2) System.out.println("B"); else if(i==3) System.out.println("C"); else System.out.println("D"); } </pre>	
2	<pre> int i = 4; while (i <= 20) { switch (i) { case 4: i += 6; System.out.println("i=" + i); break; case 9: i += 5; break; case 10: i += 2; break; default: System.out.println("i=" + i); i += 10; } } System.out.println("i=" + i); </pre>	
3	<pre> int i = 1; int j = 20; int k = 31; while (i < j) { k += (i * j); i = i * 2; j--; } System.out.println("i = " + i + " j = " + j + " k = " + k); </pre>	



4	<pre> int i, j; i = 2; do { switch (i) { case 2: j = i + 10; break; case 3: j = 2; break; default: i = 8; j = i++; } i++; } while (i <=4); System.out.printf("%d , %d\n", i, j); </pre>	
5	<pre> int c = 0, a, temp; int n = 153; temp = n; while (n > 0) { a = n % 10; n = n / 10; c += (a * a * a); } if (temp == c) { System.out.println("Armstrong number"); } else { System.out.println("Not Armstrong number"); } </pre>	
6	<pre> String str = "Programming"; for (int i = str.length() - 1; i > -1; i--) { System.out.println(str.charAt(i)); } </pre>	
7	<pre> String str = "Programming"; for (int i = 0; i < str.length(); i++) { System.out.println(str.charAt(i)); } </pre>	
8	<pre> String str1 = "computer" , str2=""; for (int i = str1.length() - 1; i > -1; i--) { str2+=str1.charAt(i); } System.out.println("str1: "+str1); System.out.println("str2: "+str2); </pre>	



9	<pre>String str1 = "radar", str2 = ""; int c = str1.length() - 1; while (c >= 0) { str2 = str2.concat("" + str1.charAt(c--)); } if (str1.equals(str2)) { System.out.println("They are palindrome"); } else { System.out.println("They are not palindrome"); }</pre>	
10	<pre>String str1 = "How are you", str2 = ""; int c = str1.indexOf("you") - 1 ; while (!str2.equals("you")) { str2 = str2.concat("" + str1.charAt(++c)); } c = 8; if(str2.equals(str1.substring(c))) System.out.println("yes"); else System.out.println("no");</pre>	
11	<pre>String str = "Welcome"; int c = 0; do { System.out.println(str.substring(c+3).toUpperCase()); } while (str.charAt(c++)!='e');</pre>	
12	<pre>for (int i = 0; i < 5; i++) { for (int j = 0; j < 5; j++) { System.out.print("*"); } System.out.println(); }</pre>	
13	<pre>for (int i = 1; i < 5; i++) { for (int j = 0; j < i; j++) { System.out.print("*"); } System.out.println(); }</pre>	



14	<pre> for (int i = 0; i < 5; i++) { System.out.print("*"); for (int j = 0; j < 5; j++) { System.out.print(" "); } System.out.print("*"); System.out.println(); } </pre>	
15	<pre> for (int i = 5; i > 0; i--) { for (int j = 0; j < i; j++) { System.out.print(i); } System.out.println(); } </pre>	
16	<pre> for (int i = 5; i > 0; i--) { for (int j = 1; j <=i; j++) { System.out.print(j); } System.out.println(); } </pre>	
17	<pre> for (int i = 0; i < 3; i++) { for (int j = 0; j < 5; j++) { if(j==3) break; System.out.println("j="+j); } } </pre>	
18	<pre> int i = 1, j = 3; while (i <=j) { while (j > 0) { System.out.print(i); j--; } System.out.println(""); i++; j=3; } </pre>	



19	<pre> int i = 1, j = 5; while (i < 3) { while (j > i) { if (j-- == 2) continue; System.out.println("j= " + j); } System.out.println("i= " + i); i++; j=5; } </pre>
20	<pre> for (int i = 1; i < 11; i++) { for (int j = 1; j < 11; j++) { System.out.println(j + "x" + i + "=" + j * i); } System.out.println(); } </pre>

Written with ♥

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Good Luck !