

Problems on loops-2

MCQs



Q1. Which of the following code segments will produce the displayed output?

1
22
333
4444
55555

I.

```
for (int i = 1; i <= 5; i++) {  
    for (int j = i; j > 0; j--) {  
        System.out.print(i);  
    }  
    System.out.println();  
}
```

II.

```
for (int i = 0; i < 5; i++) {  
    for (int j = 0; j < i; j++) {  
        System.out.print(i);  
    }  
    System.out.println();  
}
```

III.

```
for (int i = 1; i < 5; i++) {  
    for (int j = i; j > 0; j--) {  
        System.out.print(i);  
    }  
    System.out.println();  
}
```

IV.

```
for (int i = 0; i < 5; i++) {  
    for (int j = 0; j < i; j++) {  
        System.out.print(i+1);  
    }  
    System.out.println();  
}
```

A. I
C. III

B. II
D. IV

Q2. Which of the following code segments will produce the displayed output?

11111

2222

333

44

5

I.

```
for (int j = 1; j <= 5; j++) {  
    for (int k = 5; k >= j; k--) {  
        System.out.print(j + " ");  
    }  
    System.out.println();  
}
```

II.

```
for (int j = 1; j <= 5; j++) {  
    for (int k = 5; k >= 1; k--) {  
        System.out.print(j + " ");  
    }  
    System.out.println();  
}
```

III.

```
for (int j = 1; j <= 5; j++) {  
    for (int k = 1; k <= j; k++) {  
        System.out.print(j + " ");  
    }  
    System.out.println();  
}
```

IV.

```
for (int j = 1; j <= 5; j++) {  
    for (int k = 1; k <= 5; k++) {  
        System.out.println(j + " ");  
    }  
}
```

A. I

C. III

B. II

D. IV

Q3. How many stars are output when the following code is executed?

```
for (int i = 0; i < 5; i++) {  
    for (int j = 0; j < 5; j++)  
        System.out.println("*");  
}
```

- | | |
|-------|-------|
| A. 10 | B. 5 |
| C. 25 | D. 50 |

Q4. What is printed as a result of the following code segment?

```
for (int k = 0; k < 20; k+=2) {  
    if (k % 3 == 1)  
        System.out.println(k + " ");  
}
```

- | | |
|-----------------------------|------------|
| A. 0 2 4 6 8 10 12 14 16 18 | B. 4 16 |
| C. 0 6 12 18 | D. 4 10 16 |

Q5. 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;  
}
```

- | | |
|------------------------|-----------------------|
| A. var1 = 0, var2 = 2 | B. var1 = 1, var2 = 1 |
| C. var1 = 3, var2 = -1 | D. var1 = 2, var2 = 0 |

Answers:

Ans 1: A. 1

Ans 2: A. 1

Ans 3: C. 25

Ans 4: D. 4 10 16

Ans 5: D. var1 = 2, var2 = 0