

These are some sample questions for you to practice. Make sure to redo all the questions from practice-it that are similar to the following questions. These are not the actual exam questions.

1. What is the output generated by the following code. This question checks your understanding of method calls and flow of the program. To practice this question first generate the output using paper and pencil, to check your answers run the code in JGrasp.

```
public class Confusing {
    public static void main(String[] args) {

        method3();
        method2();

    }

    public static void method2() {

        for(int i = 1; i <=2; i++)
        {
            System.out.print("\\"\\tHello World\\"\\t/\\"\\t\\n");
            method1();
        }

    }

    public static void method3() {
        for(int j =2; j > 0; j--)
        {
            System.out.println("\tThis is CSC 15.");
            method2();
        }
    }

    public static void method1() {
        for(int i =0; i > 0; i--)
        {
            System.out.println("Spring 2016.");
        }
    }
}
```

2. What is the output of the following code. This question checks your knowledge on operator precedence, variable declaration, type casting and increment and decrement operations. Make sure that you can do it using paper and pencil. Debugger can help you to understand this question better.

```
public static void variables()  
{  
    int max;  
    double min = 10;  
    min--;  
    max = 17 - 4 / 10 * 3 - 2 % 5;  
    max = max + 6 % 3 * 2 + 1;  
    ++max;  
    min = (double)max - min;  
    System.out.println((double)max * 2/4);  
    System.out.println(max + min);  
    System.out.println(max--);  
    System.out.println(min % 4 + 1);  
}
```

3. Write nested for loops to generate the following output.  
This question checks your knowledge on nested for loops, class constant, and scalability. The following outputs are for size 10 and 15

```
----jGRASP exec: java Exam1
```

```
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15
2  3  4  5  6  7  8  9  10  11  12  13  14  15
3  4  5  6  7  8  9  10  11  12  13  14  15
4  5  6  7  8  9  10  11  12  13  14  15
5  6  7  8  9  10  11  12  13  14  15
6  7  8  9  10  11  12  13  14  15
7  8  9  10  11  12  13  14  15
8  9  10  11  12  13  14  15
9  10  11  12  13  14  15
10 11  12  13  14  15
11 12  13  14  15
12 13  14  15
13 14  15
14 15
15
15
14 15
13 14 15
12 13 14 15
11 12 13 14 15
10 11 12 13 14 15
9  10 11 12 13 14 15
8  9  10 11 12 13 14 15
7  8  9  10 11 12 13 14 15
6  7  8  9  10 11 12 13 14 15
5  6  7  8  9  10 11 12 13 14 15
4  5  6  7  8  9  10 11 12 13 14 15
3  4  5  6  7  8  9  10 11 12 13 14 15
2  3  4  5  6  7  8  9  10 11 12 13 14 15
1  2  3  4  5  6  7  8  9  10 11 12 13 14 15
```

```
----jGRASP: operation complete.
```

```
----jGRASP exec: java Exam1
```

```
1  2  3  4  5  6  7  8  9 10
2  3  4  5  6  7  8  9 10
3  4  5  6  7  8  9 10
4  5  6  7  8  9 10
5  6  7  8  9 10
6  7  8  9 10
7  8  9 10
8  9 10
9 10
10
10
9 10
8 9 10
7 8 9 10
6 7 8 9 10
5 6 7 8 9 10
4 5 6 7 8 9 10
3 4 5 6 7 8 9 10
2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10
```

4. What is the output for the following code? This question tests to see if you understand nested for loops. Create tables to keep track of all the loop control variables. Must use paper and pencil to create the output and then check your answers using JGrasp.

```
for(int dash =1; dash <=40; dash++)
{
    System.out.print("-");
}
System.out.println();
```

```

for(int i = 1; i <=10; i++)
{
    System.out.print( "_-^-" );
}
System.out.println();
for(int i =1; i<=2; i++)
{
    for(int j =1; j<=9; j++)
    {
        for(int k =1; k<=2;k++)
        {
            System.out.print(j);
        }
    }
    System.out.print( "00" );

}
System.out.println();
for(int dash =1; dash <=40; dash++)
{
    System.out.print( "-" );
}

```

5. Generate the output of the following code. This question test your knowledge on local variables and scope.

```

public class Scope
{
    public static void main(String[] rags)
    {
        int num1 = 10;
        int num2 = 50;
        mystery();
        num1++;
        num1 = num1 *2;
        System.out.println(num1 + " " + num2);
    }
    public static void mystery()
    {
        int num1 = 12;
    }
}

```

```
    int num2 = 15;  
    num1 = num1 + num2;  
    num2 = num2* 4;  
    System.out.println(num2 + " " + num1);  
}  
}
```