CSCD210 Exam 1   # Study Guide

100 Points

Know:

1. Two ways to instantiate an array:

    ```java
    int[] myInts = {10, 20, 30, 40, 50, 60, 70, 80, 90, 100};
    ```
    and

    ```java
    int[] myInts = new int[100];
    ```


2. Two ways to traverse an array:

    ```java
    for (int i = 0; i < myInts.length; i++)
    {
        myInts[i] = i + 1;
    }
    ```

    and

    ```java
    for (int myValue : myInts)
    {
        System.out.println(myValue);
    }
    ```


3. Be able to trace through some looping structures and determine what the output/effect would be:

    ```java
    int x = 2;
    int y = 5;

    while (x >= 5)
    {
        System.out.print(x * y + " ");

        x--;
    }
    ```

4. Nested loop:

```
for (x = 1; x <= 5; x++)
{
    for ( y = 0; y <= x; y++ )
    {
        System.out.print(x * y + " ");
    }
    System.out.println();
}
```

5. Conditionals:

```
public static void main(String[] args)
{
    int x;
    int y;
    Scanner kb = new Scanner(System.in);

    System.out.println("Enter two integers for x and y: ");
    x = kb.nextInt();
    y = kb.nextInt();

    if (x > 0 && y > 0)
    {
        System.out.print("You are");
        if (x > 10)
            System.out.print(" way cool"); // <-No braces required if only one statement...
        else //
            if (y < 10)
                System.out.print(" crazy");
            else //
                System.out.print(" man");
    }

    else //

    {
        if (x < 0)
        {
            System.out.print("We are");
        }
        else //
        {
            if (y < 0)
                System.out.print("They are");
            else //
                System.out.print(" the best");
        }
```

```
        System.out.print(" OK");
    }

    System.out.println(", if you know what I mean.");
}
```

x:	y:	You are crazy, if you know what I mean.
x:	y:	We are OK, if you know what I mean.
x:	y:	We are the best OK, if you know what I mean.
x:	y:	You are the best OK, if you know what I mean.
x:	y:	the best OK, if you know what I mean.
x:	y:	OK, if you know what I mean.
x:	y:	You are way cool, if you know what I mean.
x:	y:	They are the best OK, if you know what I mean
x:	y:	They are OK, if you know what I mean

and

'Complete the following:'

```
Scanner kb = new Scanner(System.in);
int choice = 0;
do{
        System.out.println("\nPlease choose ");
        System.out.println("1. Do this");
        System.out.println("2. Do that");
        System.out.println("3. Do the other thing");
        System.out.println("4. Quit");
        System.out.print("Enter option--> ");

        choice = kb.nextInt();
        kb.nextLine();

        switch (_____)
        {
           _____:
             System.out.print("You selected option 1");
               _____;
           _____:
             System.out.print("You selected option 2");
               _____;
           _____:
             System.out.print("You selected option 3");
               _____;
           _____:
```

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```
                    System.exit(0);
            }
      }while (true);
```

6. String class. Be able to substring, isolate individual characters and to compare two Strings.

   String myString = "Hello";

   System.out.println(myString.charAt(1));

   System.out.println(myString.substring(1, 3));

   System.out.println(myString.substring(1));

   If (myString.equals(yourString))