CSA WS 08F - Practice 1

Started: Nov 11 at 4:18pm

Quiz Instructions

- 2 attempts
- Highest score
- Not comprehensive of the chapter

Question 1	100 pts

How many times will the following loop run?

```
int i = 0;
while (i < 10)
{
    System.out.println(i);
    i++;
}
```

- ● 10
- ○ 0
- ○ 8
- ○ 9

Question 2

100 pts

What is the output of the code fragment given below?

```
int i = 0;
while (i != 9)
{
    System.out.print(i + " ");
    i = i + 2;
}
```

○ 10 12 14 16 18 …. (infinite loop)

◉ 0 2 4 6 8 10 12 14 …. (infinite loop)

○ No output

○ 0 2 4 6 8

Question 3

100 pts

How many times does the code snippet given below display "Hello"?

```
int i = 3;
while (i != 10)
{
    System.out.println("Hello");
    i++;
}
```

○ infinite times

○ 9 times

◉ 7 times

○ 8 times

Question 4   **100 pts**

What is the output of the code fragment given below?

```
int i = 0;
int j = 0;
while (i < 25)
{
    i = i + 2;
    j++;
}
System.out.println("j = " + j);
```

○ j = 25

○ j = 24

◉ j = 13

○ j = 26

○ j = 12

Question 5   100 pts

What is the output of the code fragment given below?

```
int i = 1;
while (i < 10)
{
    System.out.print(i + " ");
    i = i + 2;
    if (i == 5)
    {
        i = 9;
    }
}
```

- ○ 1 3 5 7 9

- ○ 1 3 5

- ○ 1 3 5 9

- ◉ 1 3 9

Question 6   100 pts

The program below checks whether a given number is a prime number. What will be the result of executing it?

```java
public static void main(String[] args)
{
    int j = 2;
    int result = 0;
    int number = 0;
    Scanner reader = new Scanner(System.in);
    System.out.println("Please enter a number: ");
    number = reader.nextInt();
    while (j <= number / 2)
    {
        if (number % j == 0)
        {
            result = 1;
        }
        j++;
    }
    if (result == 1)
    {
        System.out.println(number + " is not prime.");
    }
    else
    {
        System.out.println(number + " is prime. ");
    }
}
```

○ The program will display an incorrect result if the number is 1.

◯ The program will not compile.

◉ The program will display the desired result.

◯ The program will loop forever.

Question 7

100 pts

What are the values of i and j after the following code fragment runs?

```
int i = 60;
int j = 50;
int count = 0;
while (count < 5)
{
    i = i + i;
    i = i + 1;
    j = j - 1;
    j = j - j;
    count++;
}
System.out.println("i=" + i + ", j=" + j);
```

◯ i = 1951, j = 45

◉ i = 1951, j = 0

◯ i = 65, j = 1

○ i = 65, j = 45

Question 8

100 pts

Which error type does the "off-by-one" error belong to?

◉ Run-time error

○ Syntax error

○ Compile-time error

○ Infinite loop

Question 9

100 pts

How many times does the following code fragment display "Hi"?

```
int i = 8;
while (i >= 0)
{
    System.out.println("Hi");
    i--;
}
```

○ 7 times

○ 8 times

◉ 9 times

○ 10 times

Question 10

100 pts

What is the output of the following code fragment?

```
int i = 1;
int sum = 0;
while (i <= 11)
{
    sum = sum + i;
    i++;
}
System.out.println("The value of sum is " + sum);
```

○ The value of sum is 56

○ The value of sum is 65

○ The value of sum is 55

◉ The value of sum is 66

Question 11

100 pts

What is the output of the following code fragment?

```
int i = 1;
while (i <= 10)
{
    System.out.println("Inside the while loop");
    i = i + 10;
}
```

○ "Inside the while loop" will be displayed 10 times.

◉ "Inside the while loop" will be displayed only once.

○ No output after successful compilation.

○ No output because of compilation error.

Question 12

100 pts

How many times does the code snippet below display "Hi"?

```
int i = 0;
while (i != 15)
{
    System.out.println("Hi");
    i++;
}
```

○ 14 times

◉ 15 times

○ 16 times

○ infinite times

Question 13   **100 pts**

What will be the value of x after the following code is executed?

```
int x = 60;
while (x < 120) {
    x += 10;
}
```

○ This has a syntax error

○ 110

○ This is an infinite loop

○ 130

◉ 120

Question 14   **100 pts**

Given the code segment:

```
int x = 40, y = 20;
while (y < 160) {
    x += y;
}
```

- ○ 140

- ○ This has a syntax error

- ● This is an infinite loop

- ○ 160

- ○ 180

Question 15

100 pts

Given the following code:

```
Scanner keyboard = new Scanner(System.in);
System.out.print("Enter a number:  ");
int number = keyboard.nextInt();
while (number < 30 && number > 150) {
    System.out.print("Enter another number:  ");
    number = keyboard.nextInt();
}
```

What are the possible values of `number` when the loop body is no longer executed?

○ Numbers in the range `30` - `150`, inclusively

○ Numbers less than `30` or greater than `150`

○ Numbers in the range `30` - 149, inclusively

◉ No number will make the condition true, so no iteration

○ Number with value 0

Question 16
100 pts

What will be the value of x after the following code is executed?

```
int x = 8;
do {
    x *= 2;
} while (x > 4);
```

◉ This is an infinite loop

○ 1024

○ 512

○ 2048

○ This has a syntax error

Question 17

100 pts

How many time is the following loop executed?

```
int x = 30;
do {
    x += 10;
} while (x > 90);
```

○ This is an infinite loop

○ 5

○ 4

○ 6

◉ 1

Question 18

100 pts

How many time is the following loop executed?

```
for (int i = 10; i <= 16; i++) {
    System.out.println("Have a nice day!");
}
```

○ This is an infinite loop

○ This has a syntax error

○ 8

◉ 7

○ 6

Question 19   **100 pts**

What will be the value of x after the following code is executed?

```
int x = 10;
for (int y = 5; y < 20; y +=5)
    x += y;
```

◉ 40

○ 10

○ This is infinite loop

○ 30

○ 25

Question 20   **100 pts**

Which loop(s) (among the 3 in Java) is/are pre-test loop(s)?

◉ `for, while`

○ `for,  do-while`

○ `while, do-while`

○ `for, while, do-while`

○ `do-while`

Question 21

100 pts

How many times is the following loop executed?

```
int x = 50;
while (x < 100);
{
    x += 10;
}
```

◉ This is an infinite loop

○ 4

○ This has a syntax error

○ 3

○ 5

Question 22   **100 pts**

Given the following code:

```
Scanner keyboard = new Scanner(System.in);
System.out.print("Enter a number:  ");
int number = keyboard.nextInt();
while (number < 60 || number > 160) {
    System.out.print("Enter another number:  ");
    number = keyboard.nextInt();
}
```

What are the possible values of `number` when the loop body is no longer executed?

◉ Numbers in the range `60` - `160`, inclusively

○ Number with value 0

○ Numbers less than `60` or greater than `160`

○ No number will make the condition true, so no iteration

○ Numbers in the range `60` - 159, inclusively

Question 23   **100 pts**

Which of the following are pre-test loops?

- ◉ `while, for`
- ○ `while, do-while`
- ○ `for, do-while`
- ○ `while, for, do-while`

Question 24   100 pts

The _____ loop is ideal in situations where you always want the loop to iterate at least once.

- ◉ `do-while`
- ○ `for`
- ○ posttest
- ○ `while`

Question 25   100 pts

What will be the value of x after the following code is executed?

```
int x = 10;
```

```
while (x < 100)
{
    x += 100;
}
```

○ 10

○ 90

◉ 110

○ 100

Quiz saved at 3:57pm   Submit Quiz