OOCL Java Boot camp weekly Java Test Paper.

Time: 1hour Full marks: 100

Name: _____ Score: _____

1. What will be printed out if you attempt to compile and run the following code?

```
int i=1;
for (int j=0; j<5;j=j+2)
{
        i= (i*i) +j
}
switch (i)
{
        case 3:
                System.out.println ("zero");
                break;
        case 13:
                System.out.println ("one");
        case 175:
                System.out.println ("two");
        default:
                System.out.println ("default");
}
```

2. What will be printed by the following code segment if the user enters 5 when prompted?

```
int n;
int F_0=1,F_1=1;
int F_n=0;
System.out.println ("Enter the number");
n=Keyboard.readInt ();
for (int i=1; i<n; i++)
{
        F_n=F_0+F_1;
        F_0=F_1;
        F_1=F_n;
}
System.out.println (F_n);
```

3. Rewrite the following for loop using while statement, and find the value of the variable result after the code is run.

```
int inner=2, outer=2;
int result=0;

for (int i=0; i<outer; i++)
{
        for (int j=0; j<inner; j++)
        {
                result = (result*result)+1;
        }
}
```

4. How many times will the following program print "Hello"?

```
x = 3;
y = 10;
while (x < y)
  {System.out.println ("Hello");
    x = x + 1;
    y = y - 1;
  }
```

5. Which of the following is a statement of Java language?

(a) a==0

(b) int i,j;

(c) {i=i+1; j=j-1 ;}

(d) static int i;

(e) none of the above

6. Write a Java method that prompts the user for a positive integer n, then prints a table of all sums of the form i/n + j/n, where i and j are integers in the range [1 .. n]. For example, if the value provided by the user is 4, then the output will be

0.5 0.75 1.0 1.25
0.75 1.0 1.25 1.5
1.0 1.25 1.5 1.75
1.25 1.5 1.75 2.0

7. Show the output from the following Java method, assuming that it is called with the line: compute value (60).

```
public static int compute_value(int integer_value) {
// Declare Local Variables
boolean done = false;
int count = 1;
int current = integer_value + 2;
while (! done) {
        current = current / count;
        if (current % 3 == 0)
                done = true;
        else if (current < 1)
                done = true;
        else
                count += 1;
        System.out.println(current);
}
System.out.println (count);
return count;
} // method compute_value
```

8. Find and correct error(s) in the following code segments:

a)

```
int x = 1;
while(x <= 10);
        ++x;
```

b)

```
int k;
for(k == 1, k <= 10, ++k)
        System.out.println(k);
```

c)

```
int h = 2;
if(h = 2)
        ++h;
```

d)

The following code should print the even numbers from 2 to 100:

```
int counter = 2;
Do{
        if(counter % 2 = 0)
```

```
                System.out.println(counter);

        counter += 2;
}While(counter < 100)
```

9. Write the equivalent logical expressions of the following statements.

a) !(x < 5) &&! (y >= 7)

b) ! (a == b) ||! (g!= 5)

c) !((i > 4) || (j <= 6))

10. What will the following pieces of code print?

10 a)

```
class sinav1
{
        public static void main(String[] args)
        {
                double count;
                int limit;
                count = 9.0;
                limit = 43/4;
                for (; count <= limit; count = count + 0.5)
                {
                        System.out.println ("in for:" + count);
                }
                System.out.println ("after for" + count);
        }
}
```

10 b)

```
class sinav2
{
        static int value = 10;
        public static void main(String[] args)
        {
                System.out.println("Main before p1: " + value);
                value = p1(value);
                System.out.println("Main before p2: " + value);
                value = p2(value);
```

```
		System.out.println("Main at the end: " + value);
		System.out.println("-----");
		int value = 30;
		System.out.println("Main before p1: " + value);
		value = p1(value);
		System.out.println("Main before p2: " + value);
		value = p2(value);
		System.out.println("Main at the end: " + value);

	}
	static int p1(int input)
	{
		value = input * value;
		System.out.println("In p1: " + value);
		return value;
	}
	static int p2(int input)
	{
		int value = 5;
		value = input / value;
		System.out.println("In p2: " + value);
		return value;
	}
}
```

10 c)

```
class sinav3
{
	public static void main(String[] args)
	{
		int value = 5;
		int value2 = 1;
		while (value2 < 4)
		{
			for (;value >= value2; value--)
			{
				System.out.println("*");
			}
			value2++;
		}
	}
}
```

10 d)

```
class sinav4
{
	static boolean a,b,c;
	public static void main(String[] args)
	{
		a = true;
		b = false;
		c = false;
		System.out.println (a + ", " + b + ", " + c);
		do
		{

			if (b == c)
				b = a;
			else if (a == c)
				b = c;
			else
				a = c;
			System.out.println(a + ", " + b + ", " + c);
		}
		while ( a || b || c);
	}
}
```

10 e)

```
class sinav5
{
	public static void main(String[] args)
	{
		int one =  /* type a value here */;
		int two = /* type a value here */;
		int three =  /* type a value here */;

		do
		{
			one++;
			System.out.print("cart");
		}
		while ( one < 3);
		for (int i = 0; i < two; i++)
		{
			System.out.print("o");
```

```
                }
                while (true)
                {
                        three++;
                        if (three == 5)
                        {
                                break;
                        }
                        System.out.print("n");

                }
        }
}
```