If-Else Outputs

Q1. Give the outputs of the following Java Snippets: -

i.
```
class Test {
    public static void main (String[] args)  {
     int x = 100;
     if (x) {
            System.out.println("Code");
     } else {
            System.out.println("Text");
     }
  }
}
```

Output: - Error

The argument of if statement should be Boolean type. By mistake if we are trying to provide any other data type then we will get compile-time error saying incompatible types. Here the argument is of int type, therefore we will get compile time error saying error: incompatible types: **int cannot be converted to Boolean.**

ii.
```
class Test {
  public static void main (String[] args) {
     int x = 10;
     if (x)
         System.out.println("HELLO CODE");
          System.out.println("HI");
    else
     {
            System.out.println("BYE");
     }
  }
}
```

Output: - Error

Curly braces are optional in if part. Without curly braces only one statement is allowed under if. If we will try to give more than one statement then we will get compile time error saying error: 'else' without 'if'.

iii.
```
class Test {
  public static void main (String [] args) {
     int x = 10, y = 20;
     if (x < y) {
            if (x > y)
            {
                  System.out.println("HELLO CODE");
            } else {
                  System.out.println("HELLO TEXT");
            }
     }
  }
}
```

Output: - Hello Text

There is no dangling else problem in java. Every else is mapped to the nearest if statement.Here the inner else if mapped with the nearest if part i.e. if(x>y).

iv.
```
class Test {
   public static void main(String[] args)
   {
     if (true)
            ;
    }
}
```

Output: - No Output

;(semicolon) is a valid java statement which is also known as empty statement. Therefore we can apply it in if statement also.

v. x=1; y=1;
if(n>0) {

x=x+1;
y=y+1;}

What will be the value of x and y, if n assumes a value i)1 ii) 0 ?