# Conditional Statements

## Workbook

## Answer the following

1. What would be the output of the below code?

```
1  int x = 5;
2  if (x > 3)
3      x = x - 2;
4  else
5      x = x + 2;
```

2. What would be the output of the below code?

```
1  int a = 10, b = 5;
2  if (a > b);
3      System.out.println(''A is Greater\n'');
4  else
5      System.out.println(''B is Greater\n");
```

3. What will be the output of the below code?

```
1  int x = 5;
2  if (x < 1)
3      printf(''value is -ve\n'');
4  if (x == 5)
5      printf(''value is 5\n'');
6  else
7      printf(''value is not equal to 5\n'');
```

4. What would be the output of the below code when executed
   java SampleCode1 40 20

```java
class SampleCode1 {
    public static void main(String[] args) {
        int num1 = Integer.parseInt(args[0]);
        int num2 = Integer.parseInt(args[1]);
        if (num1 > num2)
            System.out.println(num1);
        else
            System.out.println(num2);
    }
}
```

[blank box]

5. Write an expression in line 4, to get the correct output.

```java
class SampleCode2 {
    public static void main(String[] args) {
        int val1 = Integer.parseInt(args[0]);
    if (_____)
        System.out.println(val1 + " is Even");
    else
        System.out.println(val1 + " is Odd");
}
```

[blank box]

6. What would be the output of the below code when executed
java SampleCode3 44 true

```java
class SampleCode3 {
    public static void main(String[] args) {
        int age = Integer.parseInt(args[0]);
        boolean HasVID = Boolean.parseBoolean(args[1]);
        if (age >= 18) {
            if (HasVID)
                System.out.println(''Eligible to Vote'');
            else
                System.out.println(''Eligible to Apply'');
        } else {
            System.out.println(''Not Eligible'');
        }
    }
```

```
14  }
```

```
```

7. What would be the output of the below code?

```
1   class SampleCode4 {
2       public static void main(String[] args) {
3           int w = 4, q = 3;
4           if (q > 5)
5               if (w == 7)
6                   w = 3;
7               else
8                   w = 2;
9           else
10              if (w > 3)
11                  w = 1;
12              else
13                  w = 0;
14          System.out.println(w);
15      }
16  }
```

```
```

8. What would be the output of the below code when executed
   java SampleCode5 85 77 87

```
1   class SampleCode5 {
2       public static void main(String[] args) {
3           int m1 = Integer.parseInt(args[0]);
4           int m2 = Integer.parseInt(args[1]);
5           int m3 = Integer.parseInt(args[2]);
6           int avg = (m1 + m2 + m3) / 3;
7           if (m1 >= 35 && m2 >= 35 && m3 >= 35) {
8               if (avg >= 75)
9                   System.out.println(''Passed in Distinction'');
10              else
11                  System.out.println(''Passed'');
12          } else {
13              System.out.println(''Failed'');
14          }
```

```
15        }
16    }
```

9. What would be the output when we execute below code?

```
1  class  SampleCode6 {
2      public static void main(String[]  args) {
3          int  a = 14, b = 0;
4          if  (a < 5)
5              b = 4;
6          else if  (a < 10)
7              b = 3;
8          else if  (a > 5)
9              b = 2;
10         else
11             b = 1;
12         System.out.println(b);
13     }
14 }
```

10. What would be the output of the below code when executed
    java SampleCode7 58

```
1  class  SampleCode7 {
2      public static void main(String[]  args) {
3          int  avg = Integer.parseInt(args[0]);
4          if  (avg < 40)
5              System.out.println(''Failed'');
6          else if  (avg >= 40)
7              System.out.println(''Passed in Third Division'');
8          else if  (avg >= 50)
9              System.out.println(''Passed in Second Division'');
10         else if  (avg >= 60)
11             System.out.println(''Passed in First Division'');
12     }
13 }
```

4

11. Write an expression in the space provided to find the number of days in a given month?
java SampleCode8 4

```java
class SampleCode8 {
    public static void main(String[] args) {
        int mon = Integer.parseInt(args[0]);
        if ( _____ )
            System.out.println(''31 Days'');
        else if ( _____ )
            System.out.println(''28 Days'');
        else
            System.out.println(''30 Days'');
    }
}
```

12. What would be the output of the below code when executed
java SampleCode9 22

```java
class SampleCode9 {
    public static void main(String[] args) {
        int age = Integer.parseInt(args[0]);
        if (age < 15) {
            System.out.println(''Child'');
        } else if (age >=15 && age <= 19) {
            System.out.println(''Teenager'');
        } else if (age > 19 && age <= 25) {
            System.out.println(''Young'');
        } else if (age > 25 && age <= 40) {
            System.out.println("Adult");
        } else if (age > 40 && age <= 60) {
            System.out.println("Middle Age");
        } else {
            System.out.println("Old Age");
        }
    }
}
```

13. What would be the output of the below code when executed
    java SampleCodeA 160

```java
class SampleCodeA {
    public static void main(String[] args) {
        int unit = Integer.parseInt(args[0]);
        int total = 0;
        if (unit <= 100) {
            total = unit * 4;
        } else if (unit > 100 && unit <= 300) {
            total = unit * 4.5;
        } else if (unit > 300 && unit <= 500) {
            total = unit * 4.75;
        } else {
            total = unit * 5;
        }
        System.out.println(``Total: '' + total);
    }
}
```

14. What would be the output for the below code when executed
    java SampleCodeB 150

```java
class SampleCodeB {
    public static void main(String[] args) {
        int x = Integer.parseInt(args[0]);
        if (x >= 100)
            x += 50;
        else if (x >=50)
            x += 20;
        else if (x > 0)
            x += 10;
        else
            x = -x;
        System.out.println(x);
    }
}
```