

## Assignment 2 Answers:

**1.What are the two values of the Boolean data type? How do you write them?**

**Ans:**

The two types of Boolean are

1. True

2. False

**Eg:**

True --> type(True) --> bool

False --> type(False) --> bool

**2. What are the three different types of Boolean operators?**

**Ans:**

The Three different Types of Boolean Operators are

1. and

2. or

3. not

**3. Make a list of each Boolean operator's truth tables (i.e. every possible combination of Boolean values for the operator and what it evaluate ).**

**Ans:**

**Boolean operator's truth tables:**

True and True = True

True and False = False

False and False = False

False and True = False

True or True = True

True or False = True

False or True = True

False or False = False

not(True) = False

not(False) = True

#### **4. What are the values of the following expressions?**

**(5 > 4) and (3 == 5)**

**not (5 > 4)**

**(5 > 4) or (3 == 5)**

**not ((5 > 4) or (3 == 5))**

**(True and True) and (True == False)**

**(not False) or (not True)**

#### **Ans:**

1. (5 > 4) and (3 == 5)

True and False = False

2. not (5 > 4)

not(True) = False

3. (5 > 4) or (3 == 5)

True or False = True

4. not ((5 > 4) or (3 == 5))

not(True or False)=not(True) = False

5. (True and True) and (True == False)

(True) and (False) = False

6. (not False) or (not True)

(True) or (False) = True

## 5. What are the six comparison operators?

Ans:

The Six Comparison Operators are:

1. ==

2. >=

3. <=

4. !=

5. <

6. >

## 6. How do you tell the difference between the equal to and assignment operators? Describe a condition and when you would use one.

Ans:

The equal to (==) is used to compare two operands and result should be True or False

Eg:

5==2

False

The Assignment operator (=) is used to assign value to a variable

Eg:

a=5

Here the value 5 is assigned to a.

## 7. Identify the three blocks in this code:

```
spam = 0
if spam == 10:
    print('eggs')
if spam > 5:
    print('bacon')
else:
```

```
print('ham')  
  
print('spam')  
  
print('spam')
```

### Ans :

Here the program won't execute. Because it throws indentation error.

In first if statement, the print statement should inside the if block.

**if spam == 10:**

```
    print('eggs')
```

In second if statement, the print statement should inside the if block.

**if spam > 5:**

```
    print('bacon')
```

In else statement, the print statement should inside the else block

**else:**

```
    print('ham')
```

### Correction Code:

```
spam = 0  
if spam == 10:  
    print('eggs')  
if spam > 5:  
    print('bacon')  
else:  
    print('ham')  
print('spam')  
print('spam')
```

### Result of the Code:

ham

spam

spam

**8. Write code that prints Hello if 1 is stored in spam, prints Howdy if 2 is stored in spam, and prints Greetings! if anything else is stored in spam.**

**Ans:**

```
spam =int(input('Enter the input: '))
if spam == 1:
    print("Hello")
elif spam == 2:
    print("Howdy")
else:
    print("Greetings !")
```

**9.If your programme is stuck in an endless loop, what keys you'll press?**

**Ans:**

**We can use Ctrl+C**

**10. How can you tell the difference between break and continue?**

**Ans:**

The break statement is used to terminate the loop when a certain condition is met. Whereas the continue statement is used to skip the remaining code inside a loop for the current iteration only.

**11. In a for loop, what is the difference between range(10), range(0, 10), and range(0, 10, 1)?**

**Ans:**

range(10) → Here 10 is a stop index. The loop will start from 0 to 9

```
for i in range(10):
    print(i)
```

It will print 0 to 9

range(0,10) → Here 0 is a start index and 10 is a stop index. The loop will start from 0 to 9.

```
for i in range(0,10):
    print(i)
```

It will print 0 to 9

`range(0,10,1)` → Here 0 is a start index , 10 is a stop index and 1 is a step index.

```
for i in range(0,10,1):  
    print(i)
```

It will also print 0 to 9

**12. Write a short program that prints the numbers 1 to 10 using a for loop. Then write an equivalent program that prints the numbers 1 to 10 using a while loop.**

**Ans:**

**For Loop:**

```
num=1  
for num in range(1,11):  
    print(num)
```

**while Loop:**

```
num=1  
while num<=10:  
    print(num)  
    num+=1
```

**13. If you had a function named `bacon()` inside a module named `spam`, how would you call it after importing `spam`?**

**Ans:**

We can call `spam.bacon()` after importing `spam`