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

Ans. Two values of boolean data type are True or False.

You can write then as **True** for true and **False** for false.

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

Ans.

Three 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.

| Condition | Result |
| --- | --- |
| True and True | True |
| False and True | False |
| False and False | False |
| True or True | True |
| True or False | 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.

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

Output : False

**not (5 > 4)**

Output : False

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

Output : True

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

Output : False

**5. What are the six comparison operators?**

Ans.

>

<

==

!=

>=

<=

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

Ans.

Equal to “==” is used to compare if the values on the both side are same or not.

Example :

5==6

Output : False

6==6

Output : True

Assignment operator “=” is used to assign to the variable name on left side of the operator

Example :

a = 2

b = “Nitin”

**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.

if spam == 10:

print('eggs')

1st block of code will result to False as spam is 0 so condition will be false.

if spam > 5:

print('bacon')

2nd block of code will result false as spam is 0 so condition will be false.

else:

print('ham')

so previous if condition is false so it will run else part and print ‘ham’

print('spam')

print('spam')

print statements are outside if else block so this will execute for sure.

**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 = 3**

**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. CTRL + C

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

Ans.

break keywork will break the loop from where break is written. It will exit the loop.

continue will continue the loop from where continue is written. It wont exit loop.

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

Ans.

There are not difference between  **range(10), range(0, 10), and range(0, 10, 1).**

These will give same results from 0th index till 9.

range(10) will give result from 0 to 9, as no starting point is defined it will consider it as 0.

range(0,10) will give result from 0 to 9.

range (0,10,1) will give result 0 to 9 by step 1.

**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 i in range(1,11):**

**print(i)**

**i = 1**

**while i<=10:**

**print(i)**

**i+=1**

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

Ans.

spam.bacon()