

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

True

False

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

AND

OR

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).

True + True = True

True + False = True

False + False = False

False + True = True

True * True = True

True * False = False

False * True = False

False * False = False

not True = False

not False = True

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) - False

not (5 > 4) - False

(5 > 4) or (3 == 5) - True

not ((5 > 4) or (3 == 5)) - False

(True and True) and (True == False)- False

(not False) or (not True) - True

5. What are the six comparison operators?

> - Greater than

< - Less Than

>= Greater than or Equal TO

<= Less than or Equal To

== Equal to

!= Not Equal to

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

Equal – we use “==”

For assignment we use only “=”

Example : In below code,

a = 5 (Here we assign value 5 to variable a, so we use assignment (=)operator)

b = 6

if a == b: (Here we check whether a and b are equal- So we use equal to (==)operator

 print('a & b are equal')

else:

 print('a & b are not equal')

Output : a & b are not equal

7. Identify the three blocks in this code:

```
spam = 0
if spam == 10:
    print('eggs') ----- If block 1
if spam > 5:
    print('bacon') --- If block 2
else:
    print('ham') --- Including Below two lines, is Else Block
    print('spam') ----
    print('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.

```
spam = int(input("Enter any Integer"))
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?

Ctrl+c , or terminate the kernel

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

Break simply terminates the loop execution and comes out.

Continue just passes the control to main loop- simply skips the current iteration and moves to main loop.

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

There is no difference. It all gives the same value which is range(0,10)

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.

Using For Loop:

```
for i in range(10):
    print(i+1)
```

Using While Loop:

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

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

```
import spam
spam.bacon()
```