

Assignment - II

1) Two Boolean datatypes: True and False

For example:

if $a = \text{'Welcome'}$
if $a == \text{string}$:

then it prints True

if $a == \text{int}$:

then it prints False.

2) Three types of Boolean operators:

* AND * OR * NOT

3) Truth tables:

AND

X	Y	X and Y
F	F	F
T	F	F
F	T	F
T	T	T

OR

X	Y	X or Y
F	F	F
T	F	T
F	T	T
T	T	T

NOT

X	not X
T	F
F	T

4) * $(5 > 4) \text{ and } (3 == 5)$ * $\text{not}(5 > 4)$ * $\text{not}((5 > 4) \text{ or } (3 == 5))$
False False False

* $(\text{True and True}) \text{ and } (\text{True} == \text{False})$ * $(\text{not False}) \text{ or } (\text{not True})$
False True

5) Six Comparison Operators:

* less than ($<$)

* greater than or equal to ($>=$)

* less than or equal to ($<=$) * equal to ($==$)

* greater than ($>$)

* not equal to ($!=$)

6) Difference between equal to and assignment operators

An assignment operator (=) assigns values to a variable whereas an equal to operator(==)

checks if the operands on both sides are equal or not.

a = "neuron"
assignment operator

a == string:
'True'
Equal to operator

7) Spam = 0

if spam == 0: — block
 print('eggs')

if spam > 5: — block
 print('bacon')

else: — block
 print('ham')
 print('spam')

8) spam = 'Hi'

if spam == 1:
 print('Hello')

elif spam == 2:
 print('Howdy')

else:
 print('Greetings!')

9) If a program is stuck in an endless loop
press CTRL + C key to end the loop.

10. Difference between break and continue

Break statement terminates the execution of remaining iteration of the loop whereas a continue statement only terminates the current iteration of loop and resumes the control of program on next iteration.

11. Difference between `range(10)`, `range(0,10)`, `range(0,10,1)`

All three statement prints the same values.

o/p →
0
1
2
3
4
5
6
7
8
9

```
12.) l = []  
for i in range(1,10):  
    l.append(i)  
    print(i)
```

Using while loop
`a = 1`
`while(a <= 9):`
 `print(a)`
 `a += 1`

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

importing → `from spam import bacon`
`bacon()`