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

Ans : True, False

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

Ans : OR , AND, 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 ).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **condition 1 (e.g., X)** | **condition 2 (e.g., Y)** | **NOT X ( ~ X )** | **X AND Y ( X && Y )** | **X OR Y ( X || Y )** |
| false | false | true | false | false |
| false | true | true | false | true |
| true | false | false | false | true |
| true | true | false | true | 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?

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:

‘=’ is a assignment operator and ‘==’ is a equal to operator

e.g asd = “ xyz”

when we print asd we will get an value string xyz

3 == 5 , gives FALSE as an output

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 :

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

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 = 2

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: Press on stop button on the kernel and restart the kernel.

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

Ans: Break terminates the loop when a certain condition is met and continue skips condition and executes the rest of the logic.

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

Ans: All the 3 expressions give same output

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 : num = 0

for i in range(15):

num = i + 1

print(num)

if num ==10:

break

n = 0

while n < 10:

n += 1

print(n)

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

Ans : Spam.bacon()