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

Ans: True/False, 1/0

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 ).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Input** | | **Output** | | | |
| **A** | **B** | **AND** | **OR** | **XOR** | **NOT** |
| 0 | 0 | 0 | 0 | 0 | 1 |
| 0 | 1 | 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 | 0 | 0 |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) : 0

not (5 > 4) : 0

(5 > 4) or (3 == 5) : 1

not ((5 > 4) or (3 == 5)) : 0

(True and True) and (True == False) : 0

(not False) or (not True) : 1

5. What are the six comparison operators?

<,>,>=,<=,==,!=

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

Equal to operator (==) is a comparison operator used to check if two values are equal.

Assignment operator (=) is an assignment operator used to assign a value to a variable.

x = 5

y = 10

if x == y:

print ( "x is equal to y" )

else :

print ( "x is not equal to y" )

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') -> 1st block

if spam > 5:

print('bacon')

else:

print('ham') ->2nd block

print('spam')

print('spam') ->3rd block

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 = 1

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

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

Ans: Break statement is used to stop the execution of the current loop. And continue is used to skip the remaining statements of the current loop and move to next step.

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

Only syntax is different but result is same here for all 3.

For range(10) will print 0 to 9, for range(0,10) will start from 0 and print upto 9, for range(0,10,1) the step size is mentioned which is 1 here starting from 0 to9.

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.

for i in range(1, 11):

print(i)

i = 1

whilei <= 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()