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

True

False

Can also be represented as 0 and 1

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

AND: All cases must satisfy the condition

OR: Atleast 1 case must satisfy the condition

NOT: No case should fulfil the condition

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 ).

|  |  |  |  |
| --- | --- | --- | --- |
| AND | 1 | 1 | 1 |
|  | 0 | 1 | 0 |
|  | 1 | 0 | 0 |
|  | 0 | 0 | 0 |
| OR | 1 | 1 | 1 |
|  | 0 | 1 | 1 |
|  | 1 | 0 | 1 |
|  | 0 | 0 | 0 |

|  |  |  |  |
| --- | --- | --- | --- |
| NOT | 1 | 1 | 0 |
|  | 0 | 1 | 0 |
|  | 1 | 0 | 0 |
|  | 0 | 0 | 1 |

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?

==

>=

<=

!=

>

<

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

Assignment operator:

X=23

Here “=” is an assignment operator

If x==23:

Here “==” is a comparison operator.

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')

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.

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?

Interrupt kernel

Restart kernal

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

Break: escape out of the function

Continue: Move to next iteration of Function

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

All 3 are same.

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)

While i>0 and i<11:

Print(i)

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(x)