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

1 and 0…. True and 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 ).

|  |  |  |  |
| --- | --- | --- | --- |
| Input 1 | Input 2 | Operator | Output |
| 0 | 0 | AND | 0 |
| 0 | 1 | AND | 0 |
| 1 | 0 | AND | 0 |
| 1 | 1 | AND | 1 |
| 0 | 0 | OR | 0 |
| 0 | 1 | OR | 1 |
| 1 | 0 | OR | 1 |
| 1 | 1 | OR | 1 |
| 1 | - | NOT | 0 |
| 0 | - | NOT | 1 |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) true and false… output => false

not (5 > 4) not(true)… output => false

(5 > 4) or (3 == 5) true or false… output => true

not ((5 > 4) or (3 == 5)) not(true or false), not(true)… output => false

(True and True) and (True == False) true and false… output => false

(not False) or (not True) (True or False)… output =>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.

Equal operator is ==

Assignment operation is =

A=5

B=5

A==B and A=6

7. Identify the three blocks in this code:

spam = 0

if spam == 10: Block 1

print('eggs')

if spam > 5: Block 2

print('bacon')

else: Block 3

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.

a = int(input("Enter the number:"))

if a==1:

print("Hello")

elif a==2:

print("Howdy")

else:

print("Greetings!")

9.If your programme is stuck in an endless loop, what keys you’ll press?

Terminate the kernel, Control+C

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

Break take the control out of the loop

Continue skips the statements after it and continue with evaluating conditions again.

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

No difference. All of them will give same result.

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(0, 10, 1):

print(i)

a=0

while a<10:

a=a+1

print(a)

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

From spam import bacon