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

A1. The two values of the Boolean data type are- True and False.

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

A2. The three different types of Boolean operators are- AND, OR, NOT

1. 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 ).

A3. AND

|  |  |  |
| --- | --- | --- |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

OR

|  |  |  |
| --- | --- | --- |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

NOT

|  |  |
| --- | --- |
| 0 | 1 |
| 1 | 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

1. What are the six comparison operators?

A4. < , > , <= , >= , == , != are the six comparison operators

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

A5. ‘= =’ is equal to operator use to check if 2 values are equal or not Eg. If(a%2==0) will give True if a is an even number, whereas ‘=’ will asssign a value to a variable. Eg. a=2.

7. Identify the three blocks in this code:

spam = 0

if spam == 10: 1st Block

print('eggs')

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if spam > 5: 2nd Block

print('bacon')

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

else:

print('ham') 3rd Block

print('spam')

print('spam')

1. 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.

A8. if spam==’1’:

print(“Hello”)

elif spam==’2’:

print(“Howdy”)

else:

print(“Greetings!”)

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

A9. i ( 2 times) as it will interrupt the kernel

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

A10. break will send the control outside the looping statement whereas continue statement will move to the next iteration in the same loop skipping all statements below it.

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

A11. There’s no difference among the 3 range functions. All three of them will run from 0 to 9

(including 9).

1. 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.

A12.

1. for i in range(1,11):

print(i)

1. i=1

while(i<=10):

print(i)

i=i+1

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

A13. import spam

spam.bacon()