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

Ans: There are two types of Boolean data types. Written as follows,

True

False

(First letter capital and rest in small case)

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

Ans: ‘and’ , ‘or’, ‘not’ are the three types of Boolean operators.

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 ).

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | **B** | **A and B** | **A or B** |
| TRUE | TRUE | TRUE | TRUE |
| FALSE | TRUE | FALSE | TRUE |
| TRUE | FALSE | FALSE | TRUE |
| FALSE | FALSE | FALSE | FALSE |

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?

1. less than <

2. less than or equal to <=

3. greater than >

4. greater than or equal to >=

5. equal to ==

6. not equal to !=

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 symbol is ‘=’ and is used to assign values.

For eg. X=4, name=’sudh’

Assignment operator symbol is ‘==’ and is used to compare two operands.

For eg. 1==1 (returns True), 1==2 (returns False)

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:

print('ham') # block 3

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 = int(input())

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?

Stop key in jupyter notebook

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

Break terminates the loop and continue skips the rest of the code and starts next iteration.

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

Range(10) gives the values from 0 to 9 i.e 0,1,2,3,4,5,6,7,8,9

Range(0,10) is same as range(10)

Range(0,10,1) is same as range(10). Gives vaues from 0 to 9 with step size of 1.

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.

# using for loop

for i in range(1, 11):

print(i)

#using while loop

i = 1

while(i<=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?

Spam.bacon()