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

Ans:- Boolean data as defined as . ‘True’, ‘False’. Its used with comparison operator notation

>>> 25 == 25

True

>>> 6 != 7

True

>>> 1 < 100

True

>>> 5.5 <= 6.0

True

>>> 1000 > 999

True

>>> 1 >= -1

True

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

Ans-: AND,OR,NOT are the three different 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 ).

Ans:-

NOT Boolean operator truth table(The only Boolean operator with one argument is not. It takes one argument and returns the opposite result: False for True and True for False)

A NOTA

TRUE ---------> FALSE

FALSE ------------> TRUE

AND Boolean operator truth table(The and operator takes two arguments. It evaluates to False unless both inputs are True).

A B A&B

TRUE TRUE TRUE

FALSE TRUE FALSE

TRUE FALSE FALSE

FALSE FALSE FALSE

OR Boolean operator truth table(The value of the or operator is True unless both of its inputs are False) .

A B A&B

TRUE TRUE TRUE

FALSE TRUE TRUE

TRUE FALSE TRUE

FALSE FALSE FALSE

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) -------------> False(both condition should satisfy

not (5 > 4)-----------------> False (As expression is true but with not operator behaviour its false as statement)

(5 > 4) or (3 == 5)-------------> True(condition 1 is satisfy and 2 is false but either condition true will return true only)

not ((5 > 4) or (3 == 5))------------>True (condition 2 satisfy with not condition)

(True and True) and (True == False)---------->False(and operator not satisfying with 2nd condition)

(not False) or (not True)-----------> True (either condition will satisfy with OR operator)

5. What are the six comparison operators?

Less than ( < ) -------------> True if the value of the left is less then value of right

Less than or equal to ( <= )---------> True if the value on the left is less than or equal to the value on the right

Greater than ( > )------------------> True if the value on the left exceeds that on the right

Greater than or equal to ( >= )-------> True if the value on the left is greater than or equal to the value on the right

Equal to ( == ) Check if the value of two operands is equal or not, if yes then condition becomes True

Not equal to ( != )------------> Check if the value of two operands is equal or not, if values are not equal then condition becomes True.

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

Ans- The “=” is an assignment operator is used to assign the value on the right to the variable on the left. The '==' operator checks whether the two given operands are equal or not. If so, it returns true. Otherwise it returns false..

Ex- a=10,

B=20

(here we assign a value to a & b )

EX- x=10

Y=15

# Output: x == y is False

print('x == y is', x==y)

7. Identify the three blocks in this code:

spam = 0

###########Block 1#######################(if block )

if spam == 10:

print('eggs')

###########Blocck 2######################(if block)

if spam > 5:

print('bacon')

###########Block 3######################(Else block)

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.

Ans-

spam = 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?

Ans- CTRL+C

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

Ans- The main difference between break and continue statement is that when break keyword is encountered, it will exit the loop. In case of continue keyword, the current iteration that is running will be stopped, and it will proceed with the next iteration.

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

Ans- range(stop) takes one argument eg.range(10) . range(start, stop) takes two arguments eg. range(0, 10).range(start, stop, step) takes three arguments range(0, 10, 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.

Ans- ######### 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?

Ans- spam. bacon()