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

A Boolean value is one with two values: True or False. Ex: val = True.

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

Three basic boolean operators are: AND, OR, and 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).

AND Truth Table

x and y Returns

True and True True

True and False False

False and True False

False and False False

OR Truth Table

x or y Returns

True or True True

True or False True

False or True True

False or False False

NOT Truth Table

not x Returns

not True False

not False True

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?

Python has six comparison operators: less than (<), less than or equal to (<=), greater than (>), greater than or equal to (>=), equal to (==), and 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.

The '=' is the called assignment operator and is used to assign the result of the expression on the right side of the operator to the variable on the left side. The '==' is the called equality comparison operator and is used to check whether the two expressions on both sides are equal or not.

Ex: a==2 → it will check whether a is 3 or not

a=2 → it will assign a to 3

7. Identify the three blocks in this code:

spam = 0

if spam == 10: #1st Block Starts

print('eggs') 1st Block ends #

if spam > 5: #2nd Block Starts

print('bacon') #2st Block ends

else: #3rd Block Starts

print('ham')

print('spam')

print('spam') #3rd Block ends#

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?

You can stop an infinite loop with CTRL + C.

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

Break – It terminates the execution of the current loop and passes the control over the next loop.

Continue - It skips the current iteration and executes the very next iteration in the loop.

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

There are three ways to call range() :

range(stop) takes one argument (Where to stop).

range(start, stop) takes two arguments (Where to start and where to stop).

range(start, stop, step) takes three arguments (Where to start, where to stop, Step or Increment).

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?

We can call the function using spam.bacon().