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

Ans. Boolean type has only two values such as **True and False**. A Boolean data type is declared with the bool keyword and can take values like TRUE = 1 and False = 0.

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

Ans. The three basic Boolean operators (command) are such as AND, OR and NOT.

We can write it in this way:

The AND operator (&& or “and”)

The OR operator (// or “or’)

The NOT operator (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 evaluates).

Ans.

Truth Table for **AND operator**:

True and True = True

True and False = False

False and True = False

False and False = False

Truth Table for **OR operator**:

True or True = True

True or False = True

False or True = True

False or False = False

Truth Table for **NOT operator**:

not(True) = False

not(False) = True

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) = True and False ==False

not (5 > 4) =False

(5 > 4) or (3 == 5) =True and False = True

not ((5 > 4) or (3 == 5)) = False or False =False

5. What are the six comparison operators?

Ans. Following are the six main comparison operators: equal to, not equal to, greater than, greater than or equal to, less than, and less than or equal to. Different programming languages use different syntax to express these operators, but the meanings are the same.

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 difference between equal to and assignment operator can describe as:

The “=” is an assignment operator where it assigns the value on the right to the variable on the left. Eg. X = Y. On Contrast, ‘==’ operator checks whether the two given operands are equal or not.

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

print('spam')

Ans. The three blocks are everything inside the if statement and the lines print (‘bacon’) and print(‘ham’). Print(‘eggs’) if spam>5:

print(‘bacon’)

else:

print(‘ham’)

print(‘ham’)

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. If spam = 1:

Print(‘Hello’)

If spam = 2

Print(‘Howdy’)

Else:

Print(‘Greetings!)

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

Ans. In order to stop the endless loop, Press ctrl-C is pressed to stop the infinite loop.

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

Ans. The difference between Break and Continue statement is that when break statement is written then it terminates the block of code and get the control out of the loop whereas Continue statement is mentioned it gets the control to the next iteration of the loop.

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

Ans. In context of for loop, range(10) means starting default value =0 and 10 is the length of the range.

Range(0, 10) means is that the for loop value starts from 0 and stops at 10.

Range(0, 10,1) means that the loop value starts from 0 and stops at 10 with step increment 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.

Ans. For item in list(range(0,10)):

Print(item)

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

Ans. The function can be called as bacon() if its module is already imported.