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

Ans ) **False** and **True** are two types of boolean values. They are written as “False” and “True”

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

Ans) and, or and not are three types of boolean operators in python. They are written as “and”, “or” and “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 ).

Ans) AND Operator (&& or and):

A B A AND B

False False False

False True False

True False False

True True True

OR Operator (|| or or):

A B A OR B

False False False

False True True

True False True

True True True

NOT Operator (! or not):

A NOT A

False True

True False

1. What are the values of the following expressions?

Ans)

(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

1. What are the six comparison operators?

Ans) **Equal to (==)**: This operator checks if the values on both sides of the operator are equal.

**Not equal to (!=):** This operator checks if the values on both sides of the operator are not equal.

**Greater than (>):** This operator checks if the value on the left side is greater than the value on the right side.

**Less than (<)**: This operator checks if the value on the left side is less than the value on the right side.

**Greater than or equal to (>=):** This operator checks if the value on the left side is greater than or equal to the value on the right side.

**Less than or equal to (<=):** This operator checks if the value on the left side is less than or equal to the value on the right side.

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

Ans) Equal to (==) is used to compare two variables, statement where assignment(=) is used to assign a value to a variable.

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) **Block 1 :**

if spam == 10:

print('eggs')

**Block 2 :**

if spam > 5:

print('bacon')

**Block 3 :**

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 = int(input(“Enter a number :”)

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 ) We need to press Ctrl+c to exit loop.

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

Ans) **break** is used to exit the loop entirely, while **continue** is used to skip the current iteration and move to the next iteration of the loop.

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

Ans) range(10) prints numbers from 0 to 9. It is same with range(0, 10). In range(0,10,1) here it start to print from 0 to 9 with the difference between the numbers as 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 a for loop:**

for i in range(1,11):

print(i)

**Using a while loop:**

i = 0

while i<11:

i+=1

print(i)

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

Ans) we can call a function in a module as **spam.bacon( ) .**