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

🡪 **True and False are the two values of Boolean data type. To declare Boolean value we have to use bool()**

***x = "Hieeee"***

***y = 1***

***print(bool(x))-----🡪True***

***print(bool(y))-----------------🡪True.***

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

----🡪 **Three types of Boolean operators are AND, OR, 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).

|  |  |  |
| --- | --- | --- |
| ***Operator*** | ***Description*** | ***Example*** |
| ***AND*** | ***Return True if both the statements are true.*** | ***X<1 and x<10*** |
| ***OR*** | ***Returns true if one of the statements true*** | ***X<5 or X<7*** |
| ***NOT*** | ***Return false if result is true.*** | ***Not(x<1 and x<5)*** |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) -------🡪 **3 and (3>4)**

not (5 > 4)-----------🡪**Return False.**

(5 > 4) or (3 == 5)----🡪 **it will return true as (5>4).**

not ((5 > 4) or (3 == 5))----🡪 **it will result false**.

(True and True) and (True == False) -🡪 **the value will be false.**

(not False) or (not True)-----------🡪 **It will return True.**

5. What are the six comparison operators?

***The following are six comparison operator:-***

***equal to, not equal to, greater than, greater than or equal to, less than, and less than or 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 (=) is to assign the value to the variable. And where as assignment operator (==) check that both the values are equal and not otherwise it return false.**

***\*\*\*\*\*use of equal to (=) \*\*\*\*\****

***Num = 10***

***Print (‘Num’)***

***Output:- 10 (because we assign value 10 to Num)***

***\*\*\*\*\*use of operator (==) \*\*\*\*\****

***A =10***

***B =10***

***If a == b***

***Print (“Both numbers are same”)***

***Output: - Both numbers are same (because we compare them.)***

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')

**----🡪 print(“bacon”) , print(“ham”) and print(spam) at the last one are the blocks.**

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("Enter your 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?

***-🡪 We will break the loop by pressing ctrl + c.***

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

***-🡪 Break is used to exit from given program or in from While loop. When the code ends then program pick another line for execution and if condition doesn’t satisfied then it will exit from While loop.***

***items = ["Pin”, "Stapler", "Bottle"]***

***for x in tems:***

***print(x)***

***if x == "stapler":***

***break***

***output:- “pin”,””Stapler”***

***-🡪 Continue statement is used to skip the code within loop.***

***items = [“Pin", "Stapler", "bottle"]***

***for x in items:***

***if x == "stapler":***

***continue***

***print(x)***

***output:- “Pin”,”bottle”***

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

***--🡪 range(10)-🡪 it will show number from 0 to 10.***

***for x in range(10):***

***print(x)***

***output:- 0,1,2,3,4,5,6,7,8,9,10***

***🡪range(0,10)-🡪it will show number from 0 to 9.***

***for x in range(0,10):***

***print(x)***

***output:- 0,1,2,3,4,5,6,7,8,9***

***-🡪range(0,10,1)🡪 it will print number leaving gap of 1.***

***for x in range(0,10,1):***

***print(x)***

***output:- 0,2,4,6,8***

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 x in range(1,11):***

***print(x)***

***output:- 1,2,3,4,5,6,7,8,9,10***

***\*\*\*\*\*USING WHILE LOOP\*\*\*\*\****

***-🡪 i = 1***

***while i < 11:***

***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?

**Import myfile()**

**Spam.bacon**