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

Ans.:- Two values of the Boolean Data Types are:-

🡪True (1)

🡪False (0)

For Ex.:-

k='Here'

f=False

for i in k:

if i == 'e':

f=True

else:

f=False

print(f) Output:- True

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

Ans.:- Three different Types of Boolean operators are:-

🡪 and operator

🡪 or operator

🡪 not operator

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 operator or operator not operator

0 and 0 = 0 0 or 0 = 0 input = output

0 and 1 = 0 0 or 1 = 1 0 = 1

1 and 0 = 0 1 or 0 = 1 1 = 0

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)

False

5. What are the six comparison operators?

Ans.:-Six comparison operators are:-

🡪 !=

🡪 >

🡪 <

🡪 >=

🡪 <=

🡪 ==

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

Assignment operator :-

The assignment ‘=’ operator is used to assign the value of an expression or user input or any value like string , integer , float or Boolean . Basically it stores the memory address of the value in it .

For Ex.:- x = 10 ( Here x on the left is the variable and on the right 10 is the value .)

Equal to operator :-

The equal to ‘==’ operator is a comparison operator which is used to check two operands whether they are equal or not .

For ex.:- a , b= 10,20

If a== b :

print(‘both value are equal’)

else:

print(‘Not equal’)

Output:-

Not equal

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 :-

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

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())

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.:- Need to press the stop button just left of the run button if executing in jupyter notebook as the ctrl+ c button is not working and also tried using ctrl +c button pressing it twice

But basically , need to use To exit out of infinite loops on the command line, press CTRL + C

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

Ans.:- The difference between the break and continue button :-

break keyword is used to terminate the current loop or statement or if statement , etc and resumes the execution at the next statement .

continue keyword is used to end the current iteration in a for loop (or while loop ), and continues to 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(10) 🡪 It will return a sequence of numbers from 0 upto 9 (just before 10) and the in for loop it will iterate through the sequence of this numbers

range(0,10) 🡪 It will return a sequence of numbers from starting 0(or whatever number is given , return of the sequence of numbers will start from it ) upto 9 (just before 10) and in for loop it will iterate through the sequence of this numbers.

range(0,10,1) 🡪 It will return a sequence of numbers from starting 0(or whatever number is given , return of the sequence of numbers will start from it ) upto 9 (just before 10) and the third parameter that is 1(or whatever number is given either +ve or –ve number ) ,will increment by that parameter or number given ,( in this case , it will increment by +ve 1 )and in for loop it will iterate through the sequence of this numbers.

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()