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

Ans.

The two values of the Boolean data type are True and False.

True – this value determines the truth/affirmative state of an expression.

False – this value states the falsehood or false nature of a statement,condition or a variable.

Both are used along with logical operators,comparison operators . Plays crucial role in the construct of the flow of the statements written like if – else , loops and comparison statements. They determine the execution of the statements by checking the truth and falsity of the statements based on the conditions and then determining in which direction the flow of the code should go.

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

Ans.

3types of Boolean operators are:

1.And operator- this operator returns True if both operands are true else returns False.

2. Or operator – this operator returns False if both operands are false else True.

3. Not operator - this operator negates the Boolean result of an operator. Gives true if false and vice versa.

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 ).

Ans.

1.And operator :

\* True and True = True , \*True and False = False , \*False and True = False , \*False and False = False

2. Or operator :

\*True or True = True, \*True or False = True, \*False or True= True , \*False or False = False

3. Not operator:

\*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?

Ans. Six comparison operators are:

1. == (checks if equal) , 2. > (greater than) , 3. <(lesser than) , 4. != (not equal checker) ,

5. >= (greater than equal to) , 6. <= (less than 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.

Ans.

1. == (equal to operator) – this operator checks if the given two values are equal or not. Returns True if both values are True else returns False . Double equals sign.

2. = (assignment operator) – this operator assigns a value and store it in a variable. Single equals sign.

#assignment operation

a,b=29 , 40

#equal to --- comparison operator

a==b #returns False

7. Identify the three blocks in this code:

spam = 0

#1st block

if spam == 10:

print('eggs')

#2nd block

elif spam > 5:

print('bacon')

#3rd block

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 value : "))

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. Ctrl + C

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

Ans.

Break: this pre defined keyword when encountered , stops the execution of the ongoing loop or msybe the complete program and throws the execution out of the loop/code and gives out result or some other steps are followed written after the break .

Continue : this pre defined keyword when encountered doesn’t stop the execution of the program and continues the execution of the code and just skips the steps after it in that iteration without stopping and let the flow go to other step or perform some other function written after the continue keyword.

Both are used to control the flow of the loops.

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

Ans. All three of them yields same results i.e. 0,1,2,3,4,5,6,7,8,9

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 i in range(1,11):

print (i)

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?

Ans.

Import spam as sp

sp.bacon()