Q1.What are the two values of the Boolean data type? How do you write them?

Ans1. Boolean data type returns one of the two possible values. True and False are the two values of Boolean data type. These two are written as **True** and **False** .

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Q2. What are the three different types of Boolean operators?

Ans2. Three different types of Boolean operators are:

* **and :** True If both the values aur true.
* **or :** True if atleast one value is true.
* **not :** True only is false.

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Q3. 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 ).

Ans3.

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | **and** Operator  C=A\*B | **Or** Operator  D=A+B |
| False | False | False | False |
| False | True | False | True |
| True | False | False | True |
| True | True | True | True |

|  |  |
| --- | --- |
| A | **not** Operator |
| False | True |
| True | False |

Q4. What are the values of the following expressions?

Ans4.

* (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**

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Q5. What are the six comparison operators?

Ans5. Six Comparison Operators :

1. **(<) Less than Operator** = Returns **True** When the value on the right side is greater than left side value.
2. **(>)Greater than operator** = Returns **True** When the value on the left side is greater than right side value.
3. **(==)Equals to Opertor** = Returns **True** When the left side value and right side value are equal.
4. **(>=) Greater than or Equal to Operator** = Returns **True** When the value on the left side is greater than or equals to right side value.
5. **(<=) Lesser than or Equal to Operator** = Returns **True** When the value on the right side is greater than or equals to left side value.
6. **(!=)Not Equal to Operator**= Returns **True** When both the values are not equal.

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Q6. How do you tell the difference between the equal to and assignment operators?Describe a condition and when you would use one.

Ans6.

Assignment Operator (=) : It is used to assign a value to a variable.

For ex. A,B=2,3 (Here we are assigning 2 and 3 to A and B respectively.)

Equal to Operator (==) : This Operator is used for comparison.

For ex. If A==2 and B ==3:

Q7. 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')

Ans7. The three blocks in this code are:

* 1st block in number 3 line.
* 2nd block in number 5 line.
* 3rd block in number 7,8,9 line.

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Q8. 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.

Ans8.

spam = int(input(‘Enter any integer’))

if spam == 1:

print(‘Hello’)

elif spam == 2:

print(‘Howdy’)

else:

print(‘Greetings’)

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Q9.If your programme is stuck in an endless loop, what keys you’ll press?

Ans9. If this happens, then I’ll press (CTRL+C).

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Q10. How can you tell the difference between break and continue?

Ans10.If a **Break** loop is present in a loop then, it will terminate whole loop after pointer comes to break. If a **Continue** loop is present n a loop then, it will move the pointer towards the start of the loop.

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Q11. In a for loop, what is the difference between range(10), range(0, 10), and range(0, 10, 1)?

Ans10. In a for loop , there is no difference between **range(10)**, **range(0, 10)**, and **range(0, 10, 1).**

These all will produce same output.

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Q12. 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.

Ans12. #Using for loop #using while loop

for i in range(1,11): a=1

print(i) while(a<11):

print(a)

a=a+1

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Q13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam?

Ans13.

import spam

spam.bacon()