1-What are the Boolean data type's two values? How do you go about writing them?

Ans- Boolean data type is the logical data type which result in either **True** or **False.** Here **True** represents 1 and **False** represents 0. Ex. And operator, Or operator are few examples Boolean operators.

Ex. 6>5 and 3<9 will result in True condition.

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

Ans- 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).

Ans- **AND Operator**

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **A and B** |
| True | True | True |
| True | False | False |
| False | True | False |
| False | False | False |

**OR Operator**

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **A or B** |
| True | True | True |
| True | False | True |
| False | True | True |
| False | False | False |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5)

not (5 > 4)

(5 > 4) or (3 == 5)

not ((5 > 4) or (3 == 5))

(True and True) and (True == False)

(not False) or (not True)

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**

5. What are the six different types of reference operators?

Ans- Reference operators are comparison operators which is used for the comparison of two values.it returns us the Bool Value i.e., either true or False.

|  |  |
| --- | --- |
| > | Returns True if Left value is greater than right value (x>y) |
| < | Returns True if Left value is smaller than right value (x<y) |
| == | Returns True if Left value is equals to right value (x==y) |
| != | Returns True if Left value is not equals to right value (x!=y) |
| >= | Returns True if Left value if greater than or equals to right value (x>=y) |
| <= | Returns True if Left value is smaller than or equals to right value (x<=y) |
|  |  |

6. How do you tell the difference between the equal to and assignment operators?

Ans- equal to operator (==) is a returns Bool value i.e. True if the values on either side of the operator are equal whereas assignment operators are used for assigning values to variable.

7. Describe a condition and when you would use one.

Ans-

x=[1,2,34,331,1,2,4,6,7,1,2,1]

for i in x:

  if i==1:

    print('Hey I got my result')

  else:

    print('better luck next time')

8. Recognize the following 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-

9. Create a programme that prints. If 1 is stored in spam, prints Hello; if 2 is stored in spam, prints Howdy; and if 3 is stored in spam, prints Salutations! if there's something else in spam.

And-

spam=input('Please enter the number: ')

if spam=='1':

  print('Hello')

elif spam=='2':

  print('Howdy')

elif spam=='3':

  print('Salutations!')

else:

  print('There is something else')

10.If your programme is stuck in an endless loop, what keys can you press?

Ans- Ctrl+C

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

Ans-Break statement is used for breaking out from some condition or loop whereas we use continue statement to go back again into the condition or loop without executing whatever written down the continue statement.

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

Ans- There is no difference in above 3 for loops. They all will give itinerary object of range(0,10).

13. Using a for loop, write a short programme that prints the numbers 1 to 10 Then, using a while loop, create an identical programme that prints the numbers 1 to 10.

Ans- Using for loop

**for** i **in** range(0,11):  
 print(i)

Using while loop

i=1  
**while** i<11:  
 print(i)  
 i=i+1

14. If you had a bacon() function within a spam module, what would you call it after importing spam?

Ans- we can call the function by spam.bacon().