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

Ans: The two values of boolean values are either False or True. Below is the example to show how to write the boolean/ express bollean value.

a**=True**

print(a)

**O/P:** True

*# Different operation on boolean*

Or\_operation**=** **True** **or** **False**

And\_operation**=** **True** **and** **False**

print('Or\_operation:', Or\_operation)

print('And\_operation:',And\_operation)

**O/P:**Or\_operation: True

And\_operation: False

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

Ans: The three different 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 ).**

Ans: There are three types of Boolean operators are there. They are : AND, OR, NOT.

Truth Table for AND:

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

|  |  |  |  |
| --- | --- | --- | --- |
| OR |  |  |  |
|  | B | TRUE | FALSE |
|  | A |  |  |
|  | TRUE | TRUE | TRUE |
|  | FALSE | TRUE | FALSE |

|  |  |  |  |
| --- | --- | --- | --- |
| NOT |  |  |  |
|  | A | TRUE | FALSE |
|  | O/P | 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:**  a. Equal to (==) ,

b. Greater than (>),

c. less than (<),

d. Greater than or equal to (>=),

e. less than or equal to (<=),

f. not 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:** Equal to (==) operator is used to compare one variable to another whereas assignment operator (=) is used to assign/ give a value to the variable.

Equal to operator is mostly used in situation like if conditions, for loops and any conditional statements where both values needs to be compared and come to a decision.

**Ex:** if (a==5): print(‘OK’)

Else: print(‘not OK’)

Assignment operator is used to provide a value to a variable / change the value of a variable from one value to another.

**Ex:** animal = ‘monkey’

print( animal) # prints ‘monkey’

animal =’cheetah’

print(animal) #prints ‘cheetah’

**7. Identify the three blocks in this code:**

**spam = 0**

**if spam == 10:**

Block 1

**print('eggs')**

**if spam > 5:**

Block 2

**print('bacon')**

**else:**

Block 3

**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.**

if (spam==1):

print('Hello')

elif (spam==2):

print('Howdy')

else:

print('Greetings!')

**Ans:**

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 keyword is used once you get the required results and you don’t want to iterate the loop from the next iteration.

Continue keyword is used when you want to skip the next line of code inside the block and skip for the next iteration without performing line of code below continue which is given in that block.

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

**Ans:**  All the three illustrations represent same result.  
 a) range(10) – perform the loop from 0 to till last number-1 (10-1 which is 9).

b) range(0,10) - perform the loop from 0 to till last number-1 (10-1 which is 9).

c) range (0,10,1) - perform the loop from 0 to till last number-1 (10-1 which is 9) with a step count of 1.

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:**

WHILE LOOP:

i=1

while (i<11):

print(i)

i+=1;

FOR LOOP:

for i in range(10):

print(i+1)

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

**Ans:** bacon.spam()