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

**ANS:**  A Boolean data type is a data type with two possible values: (1) True (2) False. We can write as True and False which represents the truth condition found in logic control structures.

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

ANS: The different types of Boolean operator in python are (1) AND (2) OR (3) 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** | | | **OR** | | | **NOT** | |
| **INPUTS** | | **OUTPUT** | **INPUTS** | | **OUTPUT** | **INPUTS** | **OUTPUT** |
| True | False | False | True | False | True | True | False |
| False | True | False | False | True | True | False | True |
| False | False | False | False | False | False |  | |
| True | True | True | True | True | True |

4. What are the values of the following expressions?

ANS:

(5 > 4) and (3 == 5) -------------------------🡪 False

not (5 > 4) --------------------------🡪 True

(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: The six comparison operators are:

1. Greater than (>)
2. Less than (<)
3. Greater than or equal to (>=)
4. Less than or equal to (<=)
5. Equal to (==)
6. 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 a comparison operator which checks the values equal or not.

Assignment operator is used to assign the values the to variable.

**EG:**

a=10 # assigning value using assignment operator.

if a==10: # comparing values

print(“comparing the value using ==”)

7. Identify the three blocks in this code:

**ANS:** The three blocks are if, if and else.

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

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:** First spam is initialized with any one value.

spam=int(“input(“Enter the number:”)

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:** You can press the control + c key.

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

**ANS:**

**Break** statement stops the entire process of the loop and control comes outside of the loop.

**Continue** statement only stops the current iteration of the loop.

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

**ANS:**

**Range(10):** will create a sequence of numbers from 0 to 9. It starts from 0 by default and increments by 1.

**Range(0,10):** Here we mentioned start and end value. 0 is the start value and 10 is the end value and increments by 1 default.

**Range(0,10,1):** Here we mentioned start , end and increment value. It starts with 0 and ends with 10 and incremented by 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:**

**# FOR LOOP**

For I in range(1,11):

Print(i)

**#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:**

Import spam

Spam.bacon()