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

**True and false are the two values of Boolean data type,**

**It should be written as True and False**

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

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 ).**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **AND TRUTH TABLE** | | |  | **OR TRUTH TABLE** | | |  | **EXOR TRUTH TABLE** | | |  | **NOT Table** | |
| **A** | **B** | **RESULT** | **A** | **B** | **RESULT** | **A** | **B** | **RESULT** | **A** | **B** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |

**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?**

* Greater Than : >
* Greater Than : >=
* Lesser Than : <
* Lesser Than : <=
* Equal to : ==
* 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.**

* Single equal to (=) symbol represents that it is an assignment

Ex: name = ‘priyadharshini’

* Double equal to (==) symbol represents the comparison operator equal to.

Ex : to check the score of team A equal to Team B

teamA\_score = 88

teamB\_score = 88 Assignment

if teamA\_score == teamB\_score: -🡪 comparing Equalto

print(“it is a Tie”)

7. Identify the three blocks in this code:

spam = 0

**#1st Block**

if spam == 10:

print('eggs')

**#2nd Block**

if 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.**

**spam = 8**

**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?**

**Ctrl + C -🡪 keys used to stop the endless loop**

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

|  |  |
| --- | --- |
| **break statement** | **continue statement** |
| **break statement** terminates the loop immediately | **continue statement** terminate the current iteration and resumes the control to the next iteration of the loop |

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

The output for the above 3 statement : [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

There is no differences

range(10) – Represents the range of list of numbers from 0 -9 excluding 10

range(0,10) – Represents the range of list of numbers from 0 -9 excluding 10

range(0,10,1) – Represents the range of list of numbers from 0 -9 excluding 10 with stepsize - 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.**

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?**

**from spam import bacon**

**bacon()**