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

**Ans:- True , False**

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:-**

|  |  |  |  |
| --- | --- | --- | --- |
| **OPERATORS** | **Input-1** | **Input-2** | **Output** |
| **AND** | **TRUE** | **TRUE** | **TRUE** |
| **AND** | **TRUE** | **FALSE** | **FALSE** |
| **AND** | **FALSE** | **TRUE** | **FALSE** |
| **AND** | **FALSE** | **FALSE** | **FALSE** |
| **OR** | **TRUE** | **TRUE** | **TRUE** |
| **OR** | **TRUE** | **FALSE** | **TRUE** |
| **OR** | **FALSE** | **TRUE** | **TRUE** |
| **OR** | **FALSE** | **FALSE** | **FALSE** |
| **NOT** | **TRUE** |  | **FALSE** |
| **NOT** | **FALSE** |  | **TRUE** |

4. What are the values of the following expressions?

**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 comparison operators?

**Ans:- Operator are >, <, >=, <=, ==, !=**

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

**Ans:-**

**a = 10 (assignment operator, used to assign the value of 10 to variable ‘a’)**

**a==10 (equal to operator, checks if the value of a is equal to 10 and returns True or False)**

7. 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')

**Ans:- IF block, IF block, ELSE block**

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:-**

**spam = input("Enter the number- ")**

**if int(spam) == 1:**

**print ("Hello!")**

**elif int(spam) == 2:**

**print ("Howdy!")**

**else:**

**print ("Greetings")**

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

Ans:- **Press Intrept button (Ctrl-C)**

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

**Ans:-**

**‘break’ statement breaks the loop and comes out of the look. It doesn’t executes any statement after that and also gets out of the loop**

**‘continue’ statement gets back to the loop and doesn’t execute any statement after that.**

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

**Ans:- All are the same**

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:-**

**from spam import bacon**

**obj1 = bacon()**

**print(obj1)**