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

**Ans :- The two values of Boolean data type is True and False**

**We write if any int ,float is 0 it is False or if there is any positive**

**number or negative**

**Then it is True. If condition is True than it return as True and if False**

**than it is False**

**For eg:- if 1==1 this will return True as condition satisfies**

**Whereas if 2>10 then it will return False as condition doesn’t satisfied**

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

**ANS:- The three Boolean operators are:-**

1. **AND**
2. **OR**
3. **NOT**
4. **==**

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 :**

**If both are False And False then it is False**

**False And True --False**

**True And False ---False**

**True And True ----True**

**OR :-**

**False Or False---False**

**False And True --True**

**True And False ---True**

**True And True ----True**

**NOT:**

**If False---True**

**True----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) in this True and False---False**

**not (5 > 4) In this not(True)----False**

**(5 > 4) or (3 == 5):- True or False----True**

**not ((5 > 4) or (3 == 5)):- not((True) or (False))==not(True)------False**

**(True and True) and (True == False):- True and False------False**

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 tp**
5. **= -----Equal tp**
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 used to assign a value for eg:- a=10**

**Assignment operator is used when we have to check the condition**

**Is true or false if true then it goes into the loop eg:- if 1==1 as here condition is true**

**Basically they are used for comparison**

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 :- The three blocks are If, else, print()**

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=int(input(‘enter the number’)**

**If spam==1:**

**Print(spam)**

**Elif:**

**Spam==2**

**Print(Howdy)**

**Else:**

**Print(Greetings!)**

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

**Ans:- we can stop infinite loop byy cltr+C**

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

**Ans:- Break statement is used to break the loop and go out of loop when condition is True**

**Whereas continue statement continue even if condition is False**

11. 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 this as such as range(10) defines that it will start from zero and go till 9 where as range(0,10) tells us clearly that it will start from zero and will go till 9 where 10 is excluded range(0,10,1) means it will go from zero to nine but different next number will be of 1**

**All this has one output ie (0,1,2,3,4,5,6,7,8,9)**

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:- using for loop**

**for i in range(1,11):**

**print(i)**

**using while loop**

**i=1**

**while i<=11:**

**print(i)**

**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 :-**  **The function can be called with spam. bacon().**