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

**Ans : The two values are True and False .**

**Ex :**

* **a=50**

**b =30**

**print(a<b) it is false**

* **a=50**

**b=30**

**print(b<a) it is true**

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 for the operator and what it evaluate ).

**Ans: Truth TABLE**

**X Y X and Y X or Y Not X Not Y**

**T F F T F T**

**T T T T F F**

**F F F F T T**

**F T F T T F**

**True is “HELLO” and False is “FRUITS”**

**M = "HELLO"**

**N = "FRUITS"**

**print(M and N)**

**FRUITS**

**M = "HELLO"**

**N = "FRUITS"**

**print(M or N)**

**HELLO**

**M = "HELLO"**

**N = "FRUITS"**

**print(not M)**

**FALSE**

**M = "HELLO"**

**N = "FRUITS"**

**print(not N)**

**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:**

**print((5 > 4) and (3 == 5))**

**print(not (5 > 4))**

**print((5 > 4) or (3 == 5))**

**print(not ((5 > 4) or (3 == 5)))**

**print((True and True) and (True == False))**

**print((not False) or (not True))**

**false**

**false**

**True**

**False**

**False**

**True**

5. What are the six comparison operators?

**Ans:**

**<, >, <= ,>= ,!= ,==**

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 is ==**

**Assignment is =**

**== is compares the values and = is stores a value in variable**

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 :**

**spam = 0**

**if spam == 10:**

**print('eggs')**

**if spam > 5:**

**print('bacon')**

**else:**

**print('ham')**

**print('spam')**

**print('spam')**

**ham**

**spam**

**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 :**

**spam = int(input("Input a no."))**

**if spam == 1:**

**print("hello")**

**elif spam == 2:**

**print("howdy")**

**else:**

**print("greetings!")**

**input no. 2**

**howdy**

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 :**

**The break statement will move the execution outside and just after a loop . The continue statement will move the execution to the start of the loop .**

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

**Ans :**

**for i in range (10):**

**print(i)**

**print("yyyyyyyyyyyyy")**

**for i in range (0,10):**

**print(i)**

**print("yyyyyyyyyyyyy”)**

**for i in range (0,10,1):**

**print(i)**

**print("yyyyyyyyyyyyy”)**

**0**

**1**

**2**

**3**

**4**

**5**

**6**

**7**

**8**

**9**

**yyyyyyyyyyyyy**

**0**

**1**

**2**

**3**

**4**

**5**

**6**

**7**

**8**

**9**

**yyyyyyyyyyyyy**

**0**

**1**

**2**

**3**

**4**

**5**

**6**

**7**

**8**

**9**

**Yyyyyyyyyyyyy**

**From the above output give the same thing.**

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 :**

**# use the loop**

**print("for loop")**

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

**print(i)**

**# use the while loop**

**print("while loop")**

**a=1**

**while a<=10:**

**print(a)**

**a +=1**

**for loop**

**1**

**2**

**3**

**4**

**5**

**6**

**7**

**8**

**9**

**10**

**while loop**

**1**

**2**

**3**

**4**

**5**

**6**

**7**

**8**

**9**

**10**

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

**Ans:**

**This function called can be called with sapm.bacon().**