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

**Ans: True and False are the two Boolean data types**

**==================================================================================**

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

**Ans: AND, OR, NOT these are the three different types or operators**

**==================================================================================**

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

|  |  |  |
| --- | --- | --- |
| X | Y | X AND Y |
| False | False | False |
| False | True | False |
| True | True | True |
| True | False | False |

OR

|  |  |  |
| --- | --- | --- |
| X | Y | X OR Y |
| False | False | False |
| False | True | True |
| True | True | True |
| True | False | True |

NOT

|  |  |
| --- | --- |
| X | NOT X |
| True | False |
| 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:**

**1.==**

**2.>**

**3.<**

**4.<=**

**5.>=**

**6.!=**

**==================================================================================**

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

**Ans:  
1. Equal to (==) is used to compare the two values and it will return the Boolean value**

**2.Assignment operator (=) is used to assign some values or text, or anything else**

**EX: Equal to (1==2,3==3,8===2)**

**EX: Assignment operator (a = 3, name = ‘Subash’ , l = [1,2,3,4])**

**==================================================================================**

7. Identify the three blocks in this code:

**ANS:**

**spam = 0**

**if spam == 10:**

**print('eggs')**

**if spam > 5:**

**print('bacon')**

**else:**

**print('ham')**

**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:**

**spam = int(input())**

**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: CTRL+C**

**==================================================================================**

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

**Ans:**

**Break-the program execution will stop when the condition meets true**

**Continue-the program execution move to next step when the condition meets true**

**==================================================================================**

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

**Ans:**

**Range (10)-it will call the values from 0 to 9(not including 10)**

**Range (0,10)-here exactly the values are call from 0 as per the range and up to 9**

**Range (0,10,1)-The values call from 0 and it will increase the value in every iteration up to 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:**

**I. For loop:**

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

**print(i)**

**II.While loop:**

**i=1**

**while i<=10:**

**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: we can call the function by using the module spam.bacon()**