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 ).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| AND | | | OR | | | Not | |
| A | B | Result | A | B | Result | A | Result |
| True | False | False | True | True | True | True | False |
| True | True | True | True | False | True | False | True |
| False | True | False | False | True | True |  |  |
| False | False | False | False | False | False |  |  |

4. What are the values of the following expressions?

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

**Ans: False**

not (5 > 4)

**Ans:True**

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

**Ans:True**

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

**Ans:False**

(True and True) and (True == False)

**Ans:False**

(not False) or (not True)

**Ans: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:If we use =(once) then its an assignment operator and if we use ==(twice) then its equal to**

**Equal to is used when comparing two values and assignment is used when we want to transfer (hold) something in a 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: (i) Spam==10 in the given condition its Flase**

**(ii) spam> 5 in the given condition Its also False**

**(iii)As else part will execute as spam=0 so we will get 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())**

**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+Esc**

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

**Ans: Break : Will Terminate the loop**

**Continue: Continue takes the control to the starting of the loop leaving the rest of the statements left after the continue statement.**

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

**Ans: All these 3 gives the same result**

**range(10) only specifies the end point and by default start will be 0 and step size also 1**

**range(0,10) Here we have mentioned start and end point of the range.**

**Range(0,10,1) Here we have given start is 0 end point is 10 and step size is defined as 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.

**Ans:(i) for i in range(11):**

**print(i)**

**(ii) i=0**

**while(i<11):**

**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:import spam**

**spam.bacon()**