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

Ans: Two values of Boolean Data type are 0 and 1. we write them as True and False.

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

Ans: Different types of Boolean operators are AND , OR and 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: Truth table of the operator AND -

|  |  |  |
| --- | --- | --- |
| INPUTS | | OUTPUT |
| A | B | Y |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

Truth table of the operator OR -

|  |  |  |
| --- | --- | --- |
| INPUTS | | OUTPUT |
| A | B | Y |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

Truth table of the operator NOT -

|  |  |
| --- | --- |
| INPUT | OUTPUT |
| 0 | 1 |
| 1 | 0 |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) Ans: False(0)

not (5 > 4) Ans: False(0)

(5 > 4) or (3 == 5) Ans: True(1)

not ((5 > 4) or (3 == 5)) Ans: False(0)

(True and True) and (True == False) Ans: False(0)

(not False) or (not True) Ans: True(1)

5. What are the six comparison operators?

Ans: Six different comparison operators are -  
 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: For value assignment we use ‘=’ and for comparision we use ‘==’.

if we have to store 3 in a variable a then we will code it as “a=3” but if we want to compare or check if a is equal to 3 then we will code it as “a == 3”.

7. Identify the three blocks in this code:

Block 1

spam = 0

Block 2

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

Block 3

print('spam')

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:

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: Will Restart the kernal

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

Ans: “Break” if used inside a loop with a certain condition then as soon as the condition is satisfied, the loop will end immediately.

But ‘Continue’ starts or initiates the next iteration.

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

Ans: No difference. All of them represent (0,1,2,3,...,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: (a) for i in range(1,11) :  
 print(i)

(b) a=1  
 while a<11 :  
 print(a)  
 a=a+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

a=spam.bacon()