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

Ans: 0 & 1 are the values of Boolean data type and written as True(1) and False(0) in which T and F are in capital and rest in lowercase.

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

Ans: 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: AND Truth Table NOT Truth Table OR Truth Table

|  |  |  |
| --- | --- | --- |
| Input | Input | Output |
| False | False | False |
| False | True | False |
| True | False | False |
| True | True | True |

|  |  |
| --- | --- |
| Input | Output |
| False | True |
| True | False |

|  |  |  |
| --- | --- | --- |
| Input | Input | Output |
| False | False | False |
| False | True | True |
| True | False | True |
| True | True | True |

4. What are the values of the following expressions?

(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: Equal to(==), Not equal to(!=),Greater than (>),Greater than equal to (>=),Less than(<) and Less than 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: Single equal (=) is used in assignment operator and double equal(==) is used in equal to operator. For eg. a=5 , b=10 (For assigning any value to operands assignment operator is used) and for comparison we use equal to operator like a==b.

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') ⇐ Block A

if spam > 5:

print('bacon') ⇐ Block B

else:

print('ham') ⇐ Block C

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: spam = int(input("Enter the value "))

if spam == 1:

print('Hello')

if spam == 2 :

print('Howdy')

elif spam!=1:

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?

And. The break statement exit the whole program to the end of loop while continue don’t exit it and resume the program to next iteration.

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

Ans: All three will give the same result having values from 0 to 9, so 10 times for loop will execute.

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<=10:

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. Spam.bacon()