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

Ans – 2 types of Boolean data types are as follows:

1 – True which will give the result as 1 if the expression is true based on the conditions

2 – False which will give the result as 0 if the expression is false based on the conditions

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

Ans – three different types of Boolean operators are as follows:

* AND which will be used to compare one or more statements , if all the statements gives the result as TRUE then only the result will be considered as true.
* OR this operator is used when we need to compare 2 or more statements and if any 1 of them is TRUE then this will give the result as TRUE.
* NOT is used to give the opposite result which is derived from a statement.

3. Make a list of each Boolean operators truth tables (i.e. every possible combination of Boolean

values for the operator and what it evaluate ).

Ans -

|  |  |
| --- | --- |
| expression | result |
| 1>2 and 1>0 | False , 0 |
| 31 != 20 or 10 == 10 | True, 1 |
| Not(2>1) | False, 0 |

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- the six comparison operators are - ==, >, <, , !=, <=, >=

6. How do you tell the difference between the equal to and assignment operators? Describe a

condition and when you would use one.

Ans 6 – assignment operators are denoted by = i.e. single equals sign and it is used to assign values to a variable. Whereas the equal to comparison operator is denoted by == sign and is used to compare the value of 2 values/variables. Example: a = 3, here the value of a is 3 as we have assigned the value using assignment operator. 3 == a, here we are comparing the values of variable a with integer 3.

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 - 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 = input( ‘enter the value’ )

If spam == 1:

Print(‘Hello’)

If spam == 1:

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 command will end the loop if the condition in that gets satisfied, where as continue will skip

the part and will run the loop till end.

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

Ans – in the above 3 situations the output will remain the same i.e. – 0,1,2,3,4,5,6,7,8,9. The difference is in the parameters which has been parsed in all 3 situation. In the 1st code – only range is given which will generate the output starting from 0 till specified number-1.

In the 2nd code – the starting and ending point(excluded) is given to get the desired range.

In the 3rd code - the starting, ending and steps is also given which will specify the gap between the 2

Numbers.

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 - for n in range(10):

Print(n)

Using while loop

n = 0

while n<11:

print(n)

n = n+1

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

importing spam?

Ans – pip install spam > import spam as sp > sp.bacon()