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

**Ans:** *True and False. We will write them without any quote. True means 1 and False means 0*

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

**Ans:** *==, !=, >=, <= (Equal-Equal to, Not Equal to, less than equal to, greater than equal to)*

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:** NOT AND OR XOR

1 | 0 0 0 | 0 0 0 | 0 0 0 | 0

0 | 1 0 1 | 0 0 1 | 1 0 1 | 1

1 0 | 0 1 0 | 1 1 0 | 1

1 1 | 1 1 1 | 1 1 1 | 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:** <, >, <=, >=, ==, !=

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

**Ans:** *The ‘=’ is an assignment operator is used to assign the value on the right to the variable on the left. The ‘==’ operator checks whether the two given operands are equal or not.*

*For Example: a==10 (Equal Operator)*

*a=10 ( Assignment Operator)*

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:**

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 helps to come out from loop whereas continue increment loop iteration without executing remaining code written inside loop which comes after continue statement.*

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

**Ans:** *range(10) – iterate from 0 to 10, here 0 is default starting point of loop, 1 is step size for iterating*

*range(0, 10) - iterate from 0 to 10, but here 0 pass as a starting point of loop, 1 is default step size for iterating*

*range(0, 10, 1) – iterate from 0 to 10 where 0 is starting point, 10 is ending point of loop pass as parameter in range function and third parameter 1 is the step size for iterating*

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=0

while i<11:

print(i)

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()