**Solutions:**

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

**Ans:** True(1 ) and False( 0 ). They are written as “True” and “False”

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:**

|  |  |  |  |
| --- | --- | --- | --- |
| True | or | True | True |
| True | or | False | True |
| False | or | True | True |
| False | or | False | False |

|  |  |  |  |
| --- | --- | --- | --- |
| True | and | True | True |
| True | and | False | False |
| False | and | True | False |
| False | and | False | False |

|  |  |  |
| --- | --- | --- |
| not | True | False |
| not | False | True |

4. What are the values of the following expressions?

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

**Ans:** False

not (5 > 4)

**Ans:** False

(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**: When you want to compare two values, you use ‘ = =‘ operator.

When you want to assign some value to a variable, you use ‘=’ 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** :

spam = 0

if spam == 10:

print('eggs') #block 1

if spam > 5:

print('bacon') #block 2

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:**

spam = 0

if spam == 1:

print(‘Hello’)

if spam == 2:

print('Howdy')

else:

print('Greetings!')

9.If your programme is stuck in an endless loop, what keys you’ll press?

**Ans :** I would press **Ctrl+c** to stop a program stuck in an infinite loop.

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

**Ans**: ‘break’ helps to come out of the loop.

‘continue’ helps to skip the current iteration.

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

**Ans:** No difference

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 loop:**

for i in range(1,11):

print(i, end= “ “)

**While loop:**

a = 1

while(a <= 10):

print(a, end=” “)

a += 1

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

**Ans:** This function can be called with **spam.bacon()**