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

**Ans:** Two values of Boolean data type can be True or False.

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

**Ans:** 3 different types of Boolean operator are ‘and’, ‘or’, ‘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 operator truth table:

|  |  |  |
| --- | --- | --- |
| A | B | Result |
| True | False | False |
| True | True | True |
| False | True | False |
| False | False | False |

Or operator truth table:

|  |  |  |
| --- | --- | --- |
| A | B | Result |
| True | False | True |
| True | True | True |
| False | True | True |
| False | False | False |

Not operator truth table:

|  |  |
| --- | --- |
| A | Result |
| True | False |
| 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:** equal to operator is basically used for comparison between values, which assignment operator is basically used to assign a value to some variable. E.g.

3=5, comparision equals to

A=5, assignment of 5 to variable A.

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: 3 blocks are first if statement, then second if statement and then else statement block.

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')

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:** whenever condition meets before break statement, it will exit out from the current loop. However for continue statement it will not execute further steps and goto the next iteration of loop.

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

**Ans:** there will be no difference in this case, all are 3 variations to perform same operations.

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)

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()