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

true and false are the two values of Boolean data types and it is written as True and False.

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

‘And’, ‘OR’ and ‘NOT’ are the types of Boolean operators

**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 ).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a | b | a Not b | a AND b | a OR b |
| True | True | False | True | True |
| True | False | False | False | True |
| False | True | False | False | True |
| False | False | True | False | False |

**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?**

1. Less than (<) eg. 4 < 5

2. Less than or equal to (<=) eg. 5 <= 5

3. Greater than (>) eg. 8 > 2

4. Greater than or equal to (>=) eg. a >= b

5. Equal to (==) eg. a == b

6. Not equal to (!=) eg. a != b

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

Equal to is represented by the operator(==) where as assignment operator is denoted by (=). Equal to operator results in Boolean of True and False. while assignment operator assigns value to the given variable.

**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')**

**1st block**

spam = 0

if spam == 10:

print('eggs')

2nd Block

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

**3rd Block**

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.**

spam = int(input('Please enter Number: '))

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?**

‘**Ctrl + C’** these keys should be pressed to terminate, if the programme is stuck in an endless loop

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

Break Statement will terminate the loop containing it, whereas continue will skip the current loop and starts executing the next loop.

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

There is no difference between range(10), range(0, 10), and range(0, 10, 1). All are various ways to generate value from range function

**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.**

**For Loop**

a = list(range(11))

for x in a:

print(x)

**While Loop**

i = 0

while i<11:

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?**

Import Spam

**Spam.bacon()**

We can call it in alternate manner also

**From spam import bacon**