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

**Ans:** Two Boolean values in Python are True and False. It can be written as True or False.

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

**Ans:** Three types of Boolean operators are- 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:** Operator and:

|  |  |  |
| --- | --- | --- |
| A | B | A and B |
| False | False | False |
| True | False | False |
| False | True | False |
| True | True | True |

Operator or:

|  |  |  |
| --- | --- | --- |
| A | B | A or B |
| False | False | False |
| True | False | True |
| False | True | True |
| True | True | True |

Operator not:

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

4. What are the values of the following expressions?

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

not (5 > 4)

(5 > 4) or (3 == 5)

not ((5 > 4) or (3 == 5))

(True and True) and (True == False)

(not False) or (not True)

**Ans:** (5 > 4) and (3 == 5) = False

not (5 > 4) = False

(5 > 4) or (3 == 5) = False

not ((5 > 4) or (3 == 5)) = not( True or False) = not(True) = False

(True and True) and (True == False) =

(not False) or (not True) = True or False = True

5. What are the six comparison operators?

**Ans:**

|  |  |
| --- | --- |
| Equal to | == |
| Greater than | > |
| Less than | < |
| Greater than or equal to | >= |
| Less than or equal to | <= |
| Not equal to | != |

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

**Ans:** Assignmentoperator (==) is used to check if the two operands are equal or not. Equal to operator is used to assign a value to an 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:** As the indentation is not given it will throw an syntax error.

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 statements passes control to next loop or to the main body of program where as continue statement continues the iteration.

Break stops the continuation of loop and continue doesn’t stop the loop it only stops the current iteration

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

**Ans:** range(10): It takes 10 arguments

range(0,10): Here start value and stop value is given. It will start at 0 and end at 10.

range(0,10,1): in this start and end point is mentioned along with the steps or difference between the two 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:**

Using for loop:

for i in range(10):

print(i+1)

Using while loop

I = 1

while(I<=10):

print(i)

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:**  While writing a program first check you working directory using pwd().

Then if the directory is different import os and change your working directory to your desired working directory.

Then import module using import spam

For calling use - spam.bacon()