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

**Ans.** true and false

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

**Ans.** and, or, not

1. 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 (&& or "and"):

|  |  |  |
| --- | --- | --- |
| Operand 1 | Operand 2 | Result |
| true | true | true |
| true | false | false |
| false | true | false |
| false | false | false |

* OR operator (|| or "or"):

|  |  |  |
| --- | --- | --- |
| Operand 1 | Operand 2 | Result |
| true | true | true |
| true | false | true |
| false | true | true |
| false | false | false |

* NOT operator (! or "not"):

|  |  |
| --- | --- |
| Operand | Result |
| true | false |
| false | true |

1. What are the values of the following expressions?

**Ans.**

(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

1. What are the six comparison operators?

**Ans.** Equals to (== ), Not Equals to ( != ), Greater than ( > ), Smaller than (< ), Smaller than Equals to ( <= ), Greater than Equals to ( >=)

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

**Ans.**

* Equals to (==) operator is use to compare values.
* Equal (=) operator is use to assign value to 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')

1. 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= int(input(‘Plesase input your no’))

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: break we use if we need to break a loop in between. Like if we are executing a loop for 1 to 10 and we need to stop the loop when it reaches 5, then we use break.

**Code:**

for i in range(1,11):

if i ==5:

break

else:

print(i)

**output:** 1,2,3,4

* Continue: continue we use if we need to neglect a value and continue the loop.

**Code:**

for i in range(1,11):

if i ==5:

continue

else:

print(i)

**output:** 1,2,3,4,6,7,8,9,10

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

**Ans.** the output will be same for all three expressions mentioned above.

**Output:** 0,1,2,3,4,5,6,7,8,9

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.**

**1, For loop:**

**for i in range(1,11):**

**print(i)**

**2, while loop:**

**i=1**

**j=11**

**while i<j:**

**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.** spam.bacon()