1. What are the Boolean data type's two values? How do you go about writing them?

Ans. True and False

bool([x])

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 ).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X | Y | NOT X | X AND Y | X OR Y |
| False | False | True | False | False |
| False | True | True | False | True |
| True | False | False | False | True |
| True | True | False | True | True |

Ans.

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

1. What are the six different types of reference operators?
2. ==
3. !=
4. <
5. >
6. <=
7. >=
8. How do you tell the difference between the equal to and assignment operators?

The “=” is an assignment operator is used to assign the value on the right to the variable on the left.

Whereas, The ‘==’ operator checks whether the two given operands are equal or not. If so, it returns true. Otherwise it returns false.

1. Describe a condition and when you would use one.

A condition is an expression used in a flow control statement that evaluates to a Boolean value.

7. Recognize the following three blocks in this code:

spam = 0

if spam == 10:

print('eggs') 1st block

if spam > 5:

print('bacon') 2nd block

else:

print('ham') 3rd block

print('spam')

print('spam')

8. Create a programme that prints. If 1 is stored in spam, prints Hello; if 2 is stored in spam, prints Howdy; and if 3 is stored in spam, prints Salutations! if there's something else in spam.

spam=int(input(“a number in spam: “))

if spam == 1:

print('Hello')

elif spam == 2:

print('Howdy')

elif spam == 3:

print(‘Hi!')

else:

print(“bye”) #assuming it prints bye for something else.

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

Ctrl+C

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

The ‘break’ statement terminates the loop containing it while ‘continue’ statement is used to skip the rest of the code inside a loop for the existing iteration.

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

All three will give the same output.

range(10) – stop value is 10(excluding 10).default start value is 0. (eg. 0,1,2,3,4,5,6,7,8,9)

range(0,10) – start value is 0 and stop value is 10(excluding 10). (eg. 0,1,2,3,4,5,6,7,8,9)

range(0,10,1)- start value is 0,stop value is 10 and step size is 1(increase the variable by 1 on each iteration)`. (eg. 0,1,2,3,4,5,6,7,8,9)

12. Using a for loop, write a short programme that prints the numbers 1 to 10 Then, using a while loop, create an identical programme that prints the numbers 1 to 10.

r=range(1,11)

for i in r:

print(i)

i = 1

while(i <= 10):

print(i)

i=i+1

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

spam.bacon()