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

Answer: Our 2 values of Boolean data type are True and False.

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

Answer: 3 different 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 ).

Answer: Suppose we have 2 boolean variables and for 2 variables we will 2^2 = 4 combinations

For AND operator:

|  |  |  |
| --- | --- | --- |
| True | True | True |
| True | False | False |
| False | True | False |
| False | False | False |

For OR operator:

|  |  |  |
| --- | --- | --- |
| True | True | True |
| True | False | True |
| False | True | True |
| False | False | False |

For NOT operator:

|  |  |
| --- | --- |
| True | False |
| False | True |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) – True and False = False

not (5 > 4) – NOT(True) = False

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

not ((5 > 4) or (3 == 5)) – NOT(True OR False) = NOT(True) = False

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

(not False) or (not True) ---- True OR False = True

5. What are the six comparison operators?

Answer: 6 comparison operators are <,>,==,!=,<=,>=

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

Answer: “==” operator is mostly for condition verification statements whereas “=” is mostly used for assignment operations to a particular 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')

Answer: 1st block is if spam==10: . 2nd block is if spam>5:. And 3rd final block is else part.

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.

Answer:

a = int(input('Enter your choice: '))

if a == 1:

print("Spam")

elif a == 2:

print("Howdy")

else:

print("Greetings!")

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

Answer: We will use Ctrl+C manually or add break keyword inside our code.

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

Answer: Break is used to break the execution of program after a particular condition is ssatisfied/not satisfied. Continue is used to continue our execution whether our condition is satisfied or not.

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

Answer:

Range(10) – by default starting point is 0 here.

Range(0,10) – generates a sequence based on starting and ending point

Range(0,10,1) – generates a sequence based on starting and ending point with a gap of 1 between 2 elements in the sequence.

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.

Asnwer: Using for loop:

for i in range(10):

print(i)

Using while loop:

i=0

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?

Answer : We would use import statement to call it like:

from spam import bacon as ba

or

from spam import \*