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

True (Value is 1)

False (Value is 0)

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

Answer: 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 ).

and or

T T T T

T F F T

F T F T

F F F F

Not(True) == False , not(False) == True

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?

Answer:

== Equal to

> Greater than

< Lesser than

<= Lesser than or equal to

>= Greater 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.

Answer: Assignment operator has a single equal to symbol = . It is used when we want to assign a value to a variable. Example : a=10 . Here we are assigning value 10 to variable a.

Equal to is a comparison operator denoted by double == . It is used to compare two values and the output is either a Boolean True or a Boolean False. Example 5==7 . Output will be False.

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:

Above code with indentation:

spam = 0

if spam == 10:

print('eggs') #block 1

if spam > 5:

print('bacon') #block 2

else:

print('ham') #block 3

print('spam') #block 3

print('spam') #block 3

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("Input a string"))

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?

Answer: Kernel 🡪 Interrupt option on the screen

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

Answer: A break statement exits the control from the current loop and goes out of the loop. The whole loop will terminate there.

A continue statement will skip the execution of the current iteration(whatever statement is present after the continue statement) and it will go back to check the condition for the next iteration.

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

Answer: All mean the same. Everything will evaluate from 0 to 9 with the step size 1.

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.

Using for loop:

for i in range(1,11):

print(i)

Using a while loop:

i=1

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:

from spam import bacon

Bacon()