1.Two values of the Boolean data type and their representations:

True (written as True)

False (written as False)

2.Three different types of Boolean operators:

AND

OR

NOT

3.Boolean operator truth tables:

AND truth table:

True AND True = True

True AND False = False

False AND True = False

False AND False = False

OR truth table:

Copy code

True OR True = True

True OR False = True

False OR True = True

False OR False = False

NOT truth table:

Copy code

NOT True = False

NOT False = True

4.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.Six comparison operators:

== (equal to)

!= (not equal to)

(greater than)

< (less than)

= (greater than or equal to)

<= (less than or equal to)

6.Difference between equal to and assignment operators:

Equal to (==) is a comparison operator used to check if two values are equal.

Assignment (=) is an operator used to assign a value to a variable.

Example: spam = 10 assigns the value 10 to the variable spam.

7.Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') # Block 1

if spam > 5:

print('bacon') # Block 2

else:

print('ham') # Block 3

print('spam')

print('spam')

8.Code to print different messages based on the value of spam:

spam = 5

if spam == 1:

print('Hello')

elif spam == 2:

print('Howdy')

else:

print('Greetings!')

9.Keys to press if your program is stuck in an endless loop:

To interrupt an endless loop, you can press Ctrl + C.

10.Difference between break and continue:

break is used to exit a loop prematurely, terminating the entire loop.

continue is used to skip the rest of the code inside a loop and move to the next iteration.

11.Difference between range(10), range(0, 10), and range(0, 10, 1) in a for loop:

All three represent the same range of values from 0 to 9.

range(10) is a shorthand notation for the default starting value (0).

range(0, 10) explicitly specifies the starting value (0) and ending value (10).

range(0, 10, 1) specifies the starting value (0), ending value (10), and step size (1).

12.Print numbers 1 to 10 using for and while loops:

# Using for loop

for i in range(1, 11):

print(i)

# Using while loop

count = 1

while count <= 10:

print(count)

count += 1

1. Calling a function named bacon() inside a module named spam after importing:

import spam

spam.bacon()