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

True: It represents the logical value of true.

False: It represents the logical value of false.

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

AND Operator: The AND operator returns true if both operands are true, and false otherwise.

OR Operator: The OR operator returns true if at least one of the operands is true, and false if both operands are false.

NOT Operator: The NOT operator returns the opposite of the operand's value. If the operand is true, it returns false, and if the operand is false, it returns true.

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 evaluates ).

AND Operator (and):

Operand 1 Operand 2 Result

True True True

True False False

False True False

False False False

OR Operator (or):

Operand 1 Operand 2 Result

True True True

True False True

False True True

False False False

NOT Operator (not):

Operand Result

True False

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?

the six comparison operators in Python are:

Less than (<)

Less than or equal to (<=)

Greater than (>)

Greater than or equal to (>=)

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.

The equal to operator = is used to assign a value to a variable. For example, the following code will assign the value 10 to the variable x:

Code snippet

x = 10

The assignment operator can also be used to combine multiple operations. For example, the following code will assign the value 10 to the variable x, and then increment the value of x by 1:

Code snippet

x = x + 1

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:

Block 1:

spam = 0

Block 2:

if spam == 10:

print('eggs')

Block 3:

else:

print('bacon')

print('ham')

print('spam')

print('spam')

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 = input("What is your style? 1 - Middle, 2 - Redneck, other - ummm\n")

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?

If my program is stuck in an endless loop, I will press the following keys:

Ctrl+C on a PC

Command+C on a Mac

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

for i in range(10):

if i == 5:

break

print(i)

for i in range(10):

if i % 2 == 0:

continue

print(i)

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

range(10) will iterate over the numbers 0 to 9, inclusive.

range(0, 10) will iterate over the numbers 0 to 9, exclusive.

range(0, 10, 1) will iterate over the numbers 0 to 9, with a step of 1.

2. 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.

# For loop

for i in range(1, 11):

print(i)

# 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?

import spam

spam.bacon()