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

**Answer:** A boolean data type is declared with the bool keyword and can only take the values true or false . When the value is returned, true = 1 and false = 0 .

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

**Answer:**The three basic boolean operators are: AND, OR, and 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 ).

**Answer:**

**Truth Table of AND**

a b a and b

False False False

False True False

True False False

True True True

**Truth Table of OR**

a b a or b

False False False

False True True

True False True

True True True

**Truth Table of NOT**

a not a

False True

True False

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:** Python has six comparison operators: less than ( < ), less than or equal to ( <= ), greater than ( > ), greater than or equal to ( >= ), equal to ( == ), and not equal to ( != ).

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

**Answer:**The “=” is an assignment operator used to assign the value on the right to the variable on the left. For example:

a = 10

b = 20

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

if(2==3):

print("True")

else:

print("False")

Here, it will print False as 2 is not equal to 3.

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**

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. 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:**

spam = int(input("Input a no."))

if spam==1:

print(“Hello”)

elif spam == 2:

Print(“Howdy”)

else:

Print(“Greetings!”)

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

**Answer:**You can stop an infinite loop with CTRL + C

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

**Answer:**The main difference between both the statements is that when break keyword comes, it terminates the execution of the current loop and passes the control over the next loop or main body, whereas when continue keyword is encountered, it skips the current iteration and executes the very next iteration in the loop.

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

**Answer:**range(10) - returns values 0,1,2,3,4,5,6,7,8,9. The range() function returns a sequence of numbers, starting from 0 by default, and increments by 1 (by default), and stops before a specified number. Here 10 is the stop value of range but is excluded.

range(0,10) - it returns values 0,1,2,3,4,5,6,7,8,9. Here 0 is the start value of range and 10 is the stop value. Start value is included but stop value is excluded.

range(0,10,1) - it returns values 0,1,2,3,4,5,6,7,8,9. Here 0 is the start value, 10 is the stop value and 1 specifies the incrementation. When step value is not given the default is 1.

1. 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.

**Answer:**

**Using for loop**

for i in range(1,11):

print(i)

**Using 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:** This function can be called with spam.bacon().