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

Two values of Boolean data type is True and False.

We can write them as:

A= True

B=False

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

The three 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 ).

The Boolean operator’s truth table is as follows:

True and True : True

True and False : False

False and True : False

False and False: False

True or True : True

True or False : True

False or True : True

False or False: False

Not true: false

Not false: True

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) : False

not (5 > 4) : True

(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?

Six comparison operators are as follows:

== : Equal to

!= : Not equal to

< : less than

> : Greater than

<= : less than or equal to

>= : Greater than or 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 difference between equal to and assignment operators are as follows:

Equal to (==) is used in case of comparing to values or variables while assignment operator (=) is used to assign a value to the variable.

For example:

x=10          #assigning 10 to variable x

y=20

if(x==y):      #comparing two variables

    print("yes")

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')

spam = 0

if spam == 10:

    print('eggs')

    if spam > 5:

        print('bacon')

else:

    print('ham')

print('spam')

print('spam')

The three blocks in this code is everything inside the first if statement.

OUTPUT:

ham

spam

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=0

if(spam==1):

    print("Hello")

elif(spam==2):

    print("howdy")

else:

    print("greetings")

output:

greetings

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

We’ll press ctrl+c to come out of the endless loop.

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

The difference between break and continue is as follows:

“break” is used to come out of the loop when the condition is true. It instructs the program to exit the loop now.

While “continue ” is used to skip the current iteration of the loop and continue with the next one.It instructs the program to skip this iteration.

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

There is no difference between range(10), range(0,10) and range(0,10,1) as all of them prints the same result i.e they would print the number from 0 to 9.

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.

for i in range(1,11):

    print(i)

i=1

while i<11:

    print(i)

    i=i+1

13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam?

It would be called as spam.bacon() after importing spam.