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

Two values of Boolean data type are True and False.

a=True

print(type(a)) this code will create a variable a of Boolean type.

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

AND, OR and NOT are the three Boolean operators.

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 ).

|  |  |  |  |
| --- | --- | --- | --- |
| True | or | True | True |
| True | or | False | True |
| False | or | False | False |
| True | and | False | False |
| True | and | True | True |
| False | and | False | False |
| not | False |  | True |
| not | 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?

<,>,<=,>=,==,!= are the comparison operators.

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

A=10

B=A is an assignment operator.

A=10

B==A is an equal to operator.

Assignment operator is used to assign some values to a variable whereas equal to is used for comparison between two values.

7. Identify the three blocks in this code:

<<Block 1>>

spam = 0

<<Block 2>>

if spam == 10:

print('eggs')

<<Block 2 close>>

<<Block 3>>

if spam > 5:

print('bacon')

else:

print('ham')

<<Block 3 close>>

print('spam')

print('spam')

<<Block 1 close>>

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=9

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?

Ctrl+C is the key we need to press to stop an infinite loop.

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

break will end the current iteration and come out of the loop and execute the next statement after the loop ends.

continue will skip the succeeding lines post continue keyword and start with a new iteration and will not exit the loop like break.

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

range(10), range(0,10) and range(0,10,1) will return same output from 0 till 9. In range function by default the first parameter value will be 0 and the step value will be 1 and these are optional parameters.

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 loop

for i in range(1,11):

print(i)

While loop

i=1

while (i<11):

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?

spam.bacon()