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

Ans: True and False, using capital T and F, with the rest of the word in lowercase.

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

Ans: The three basic 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 ).

Ans:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X | Y | NOT X | X AND Y | X OR Y |
| false | false | true | false | false |
| false | true | true | false | true |
| true | false | false | false | true |
| true | true | false | true | true |

4. What are the values of the following expressions?

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

Ans: False

not (5 > 4)

Ans:False

(5 > 4) or (3 == 5)

Ans:True

not ((5 > 4) or (3 == 5))

Ans:False

(True and True) and (True == False)

Ans:False

(not False) or (not True)

Ans: True

5. What are the six comparison operators?

Ans: There are six main comparison operators:

1.equal to(==)

2. not equal to(!=)

3.greater than(>)

4.greater than or equal to(>=)

5.less than(<)

6. less 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.

Ans: The “=” is an assignment operator is used to assign the value on the right to the variable on the left. The '==' operator checks whether the two given operands are equal or not. If so, it returns true. Otherwise it returns false.

Assignment(=) example:

x=10

y=20

z=20

equality operator (==) example:

(x==y) is False because we assigned different values to x and y.

(y==z) is True because we assign equal values to y and z.

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')

Ans: print('eggs')

print('bacon')

print('ham')

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.

Ans: spam=int(input("Print spam number 1,2 or 3:"))

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?

Ans: Control-C

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

Ans: The break statement will move the execution outside and just after a loop. The continue statement will move the execution to the start of the loop

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

Ans: They all do the same thing. The range(10) call ranges from 0 up to (but not including) 10, range(0, 10) explicitly tells the loop to start at 0, and range(0, 10, 1) explicitly tells the loop to increase the variable by 1 on each iteration.

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.

Ans:

Using for loop:

for i in range(1,11):

print(i)

using While loop:

i=1

while i<=10:

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?

Ans: This function can be called with spam. Bacon()