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

**True** (It starts with capital T)

**False** (It starts with capital F)

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

**and**

**or**

**not**

|  |  |
| --- | --- |
| **“not”** |  |
| **TRUE** | FALSE |
| **FALSE** | 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 evaluate ).***

|  |  |  |
| --- | --- | --- |
| **“And”** | **TRUE** | **FALSE** |
| **TRUE** | TRUE | FALSE |
| **FALSE** | FALSE | FALSE |

|  |  |  |
| --- | --- | --- |
| **“or”** | **TRUE** | **FALSE** |
| **TRUE** | TRUE | TRUE |
| **FALSE** | 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?***

The six comparison operators as follows:

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.***

“==” is the equal operator to operate that compares two values and evaluates to a Boolean (True or False).

“=” is the assignment operator that stores a value in a variable

Var1=5

i.e. var1 stores value of “5” . whenever var1 is called anywhere in the calculates it will use its stored value

If type(Var1)==int:

print(“Checked”)

Here, flow control statement where comparison of type of variable is performed, the return value will be either true or false.

***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')*

The three blocks are everything inside the if statement and the lines print('bacon') and print('ham')

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

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.***

if spam==1:

print(“Hello”)

elif spam==2:

print(“Howdy”)

else:

print(“Greeting!”)

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

CTRL - C

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

The break statement will stop the loop and 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)?***

They all will give the same result.

range(10) call ranges from 0 (by default) to 10(excluding).

range(0,10) explicitly tells to start from 0.

range(0,10,1) explicitly tells to start from 0 with increment of 1 every time.

***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.***

#using for loop

for i in range(1,11):

print (i)

#using while loop

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?***

spam.bacon()