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

True which can also be represented by 1.

False which can also be represented by 0.

[True, False]

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

AND: Both/All the values/conditions should be true.

OR: Either of the condition/value should be true.

NOT: it negates i.e., transform the value

**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 ).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| A | B | OR | AND | NOT (A) |
| True | True | True | True | False |
| True | False | True | False | False |
| False | True | True | False | True |
| False | False | False | False | True |

**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?**

< , > , ==, !=, <= , >=

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

* Equal to operator is symbolized by ==, it is used to compare the values.
* Assignment operator is symbolized by =. It is used to assign some value to the variable.

For ex: a=10, b=20 (here assignment operator is used)

If a==b: (here equal to operator is used)

Return True

**7. Identify the three blocks in this code:**

spam = 0



if spam == 10: 1st block



print('eggs')



if spam > 5: 2nd block



print('bacon')

else: 3rd block

print('ham')

print('spam')



print('spam')

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 = int(input('enter a number :'))

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

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

Break: when break is used in a program it terminates the program or the loop and doesn’t execute further statements.

Continue: when continue is used in program it only skips that particular iteration and further program is executed.

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

Range(10) indicate range(stop): When pass only one argument to the range(), it will generate a sequence of integers starting from 0 to stop -1

Range(0,10) indicate range(start, stop): When pass two arguments to the range(), it will generate integers starting from the start number to stop -1.

Range(0,10,1) indicate range(start, stop, step): When pass all three arguments to the range(), it will return a sequence of numbers, starting from the start number, increments by step number, and stops before a stop number.

**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<=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?**

Import spam

Spam.bacon()