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

True, False

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

And, or, 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 ).

| **Condition1** | **Condition2** | **AND** | **OR** | **NOT** |
| --- | --- | --- | --- | --- |
| **A** | **B** | **A and B** | **A or B** | **not a** |
| False | False | False | False | True |
| False | True | False | True | True |
| True | False | False | True | False |
| True | True | True | True | False |

The only Boolean operator with one argument is not. It takes one argument and returns the opposite result: False for True and True for 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?

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

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 relational or comparison operator == Example : a == b

Equal to operator is an assignment operator, used to assign a value to a variable

example : a=5

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs')

—------------------------------------------------------------------------ Block 1

if spam > 5:

print('bacon')

else:

print('ham')

—--------------------------------------------------------------------------Block 2

print('spam')

print('spam')

—-----------------------------------------------------------------------Block 3

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('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?

Difference between break and continue:

| break | continue |
| --- | --- |
| Terminates the current loop | Skips the current iteration |
| Passes the control over to next loop or main body | Executes the very next iteration in the loop |

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

All the statements will result in values 0 -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+=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()