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

True or False

value=True

value=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 ).

**AND Truth Table**

True AND True = True

True AND False = False

False AND True = False

False AND Fals = False

**OR Truth Table**

True OR True = True

True OR False = True

False OR True = True

False OR False = False

**NOT Truth Table**

Not True = False

NOT 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?

* 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.

== equal to operator is used to check the given operand is equal or not , if so returns True ( eg: a == b)

= is an assignment operator and is used to assign the value on the right to the variable on the left ( a = 10 )

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')

Answer: it will be inside if block and else block

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 to stop a program stuck in an infinite loop.

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

Answer: 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)?

Answer: 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.

for i in range(1, 11):

print(i)

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?

spam.bacon().