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

=> 1. True

2. False

is\_active = True

is\_active = False

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

=> 1. and

2. or

3. 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 ).

|  |  |  |  |
| --- | --- | --- | --- |
| Logic | Input A | Input B | Output |
| And | 0 | 0 | 0 |
| And | 0 | 1 | 1 |
| And | 1 | 0 | 1 |
| And | 1 | 1 | 1 |
| Or | 0 | 0 | 0 |
| Or | 0 | 1 | 1 |
| Or | 1 | 0 | 1 |
| Or | 1 | 1 | 1 |
| Not | 1 |  | 0 |
| Not | 0 |  | 1 |

4. What are the values of the following expressions?

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

not (5 >4) => False

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

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

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

(not False) or (not True)=> True or False => True

5. What are the six comparison operators?

Ans.  less than ( < ), less than or equal to ( <= ), greater than ( > ), greater than or equal to ( >= ), equal to ( == ), and 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.

=> 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.

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’)

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?

=> when break keyword is encountered, it will exit the loop. In case of continue keyword, the current iteration that is running will be stopped, and it will proceed with the next iteration.

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

=>range(start, stop, step)

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(1,10):

print(i)

j = 0

While j>10:

print(i)

13. If you had a function named bacon() inside a module named spam, how would you call it after

importing spam?

* Call\_spam = spam() (‘call module’)

Call\_Spam.bacon() (‘call function’)