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

Ans—Two values are True and False.

bool(value) – bool(True) or bool(False)

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

Ans- and, or , not are 3 different types of Boolean operators.

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 ).

Ans – AND OR NOT

0 0 0 0 0 0 0 1

0 1 0 0 1 1 1 0

1 0 0 1 0 1

1 1 1 1 1 1

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?

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.

Ans: The “=” is an assignment operator used to assign the value on the right to the variable on the left. Eg: abc= 10 value 10 is assigned to variable abc

The '==' is an equal operator checks whether the two given operands are equal or not. If so, it returns true. Eg: print(10==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')

Ans: there are 3 blocks in this code – 2 if blocks and 1 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.

Ans:

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?

Ans: Ctrl + C

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

Ans: Break – when the test condition in a loop becomes False.

Continue – returns the control to the beginning of the loop.

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

Ans: range(10) and range(0,10) – returns the values from 0 to 10 except the last value 10 ie 0 to 9.

range(0,10,1) – returns the value from 0 to 9 in a step of 1 .

So, all will give the same result.

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.

Ans: for i in range(1,11):

print(i)

While loop:

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?

Ans: from spam import bacon