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

Ans: The two Boolean datatypes are True and False. ‘T’ and ‘F’ should be in capital letter for true and false respectively. In special cases true can be represented as 1 and false as 0.

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

Ans: AND, OR and 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 ).

Ans: True and True = ‘True’

True and False = ‘False’

False and False = ‘False’

False and True = ‘false’

True or True = ‘True’

True or False = ‘True’

False or True = ‘True’

False or False = ‘False’

not True = ‘False’

not False = ‘True’

4. What are the values of the following expressions?

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

Ans: False

not (5 > 4)

Ans: False

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

Ans:True

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

Ans: False

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

Ans: False

(not False) or (not True)

Ans: True

5. What are the six comparison operators?

Ans: The six comparison operators are ==, !=, <, >, <= and >=

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

Ans: ‘==’ is a comparison operator. Eg: a == b (comparing a and b)

‘=’ is used to assign a value to the variable. Eg: a = 3 (the variable ‘a’ is assigned as 3. So the variable ‘a’ stores the value 3).

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:

Block 1:

if spam == 10:

print('eggs')

Block 2:

if spam > 5:

print('bacon')

Block 3:

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.

Ans:

if spam == 1:

print(“hello”)

if 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’ statement will bring the execution out of the loop.

‘continue’ statement will proceed the execution inside the loop again.

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

Ans: range(10) will take the values from 0 to 9. It will not take 10.

range(0,10) will also take the values from 0 to 9 and will not take 10.

range(0,10,1) will take the values from 1 to 9 with the iteration of 1.

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:

using for loop

for i in range(1,11):

print(i)

using while loop

i = 1

while i <=10:

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: spam.bacon()