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

Ans: 0 and 1, False and True

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 is True.  
  
True and False is False.  
  
False and True is False.  
  
False and False is False.  
  
True or True is True.  
  
True or False is True.  
  
False or True is True.  
  
False or False is False.  
  
not True is False.  
  
not False is True

4. What are the values of the following expressions?

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

not (5 > 4)

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

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

(not False) or (not True)

Ans:

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

not (5 > 4) is False

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

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

(not False) or (not True) is True

5. What are the six comparison operators?

Ans: ==, !=, <, >, <=, 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 the equal to operator that compares two values and evaluates to a Boolean, while = is the assignment operator that stores a value in a variable.

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:

The three blocks are everything inside the if statement and print(‘ham’) in else statement

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.

Ans:

spam = int(input("Enter your value"))

if spam == 1:

print("Hello")

elif spam == 0:

print("Howdy")

else:

print("Greetings")

9.If your programme is stuck in an endless loop, what keys you’ll press?

Ans: Press CTRL-C to stop a program stuck in an infinite loop.

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

Ans: The main difference between both the statements is that when break keyword comes, it terminates the execution of the current loop and passes the control over the next loop or main body, whereas when continue keyword is encountered, it skips the current iteration and 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)?

Ans:

range(10): range(10) generates a list of 10 values always starts from 0,

range(0, 10): Here, lower limit is starting position of the sequence. The default value is 0 if not specified. For another example, for a range(2,10), it starts the sequence of the output from the lower limit 2.

range(0, 10, 1): Here it passes the step value increment as 1 for the lower limit 0 and upper limit 10.

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 loop:

for i in range(1, 11):

print(i)

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?

This function can be called with spam.bacon()