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

Ans. Two values of the Boolean data are – True and False. They are written using capital *T* and *F*, with the rest of the word in lowercase

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

Ans – And, Or and Not are three different type 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 ).

|  |
| --- |
| 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) – 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?

* equal to ==
* Not equal to !=
* Less than <
* greater than >
* Less than or equal to <=
* Greater than or 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.

== is the equal to operator that compares two values and evaluates a Boolean, while = is the assignment operator that stores a value in 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

Spam=0  
if spam==10:  
 print(‘eggs’)  
If spam>5:  
 print(‘bacon’)  
Else:  
 print(‘ham’)  
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) The code is

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) Press CTRL-C to stop a programme if it is stuck in an endless loop

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

Ans) The break statement will move the execution outside and just after a loop. The continue statement will move the execution to start of the loop

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

Ans) They all do the same thing.

range(10) calls ranges from 0 up to but not including 10  
range(0,10) explicitly tells the loop to start at 0  
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.

Ans) The code is as

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?

The function bacon can be called spam.bacon()