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

Answer: True and False, using capital T and F, with the rest of the word in lowercase

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

Answer:The three basic boolean operators are: 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).

Answer:

True and True	TRUE
True and False	FALSE
False and True	FALSE
False and False	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) -> **False**

not (5 > 4) - > **False**

(5 > 4) or (3 == 5) -> **True**

not ((5 > 4) or (3 == 5)) -> **False**

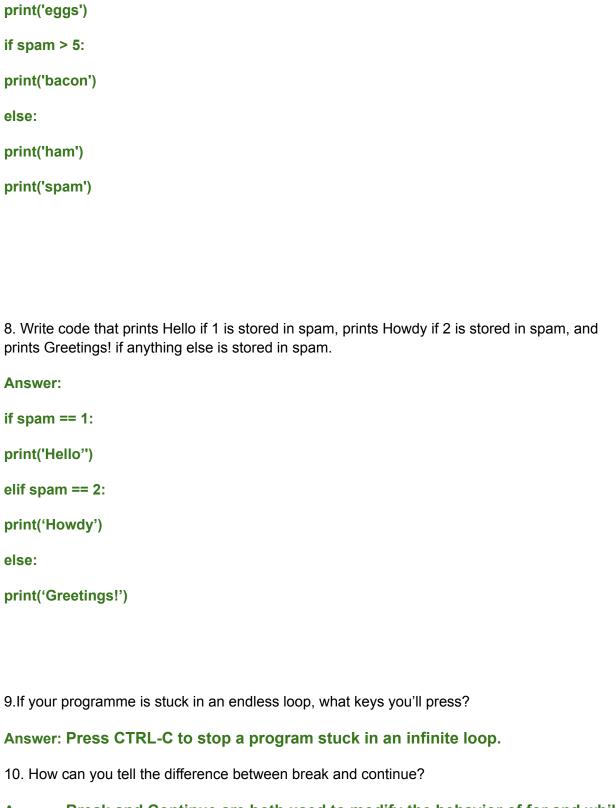(True and True) and (True == False) -> **False**

(not False) or (not True) -> **True**

5. What are the six comparison operators?

Answer: ==, !=, <, >, <=, and >=

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

Answer: == 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.

Eg.

x=10

y=20

z=20

(x==y) is False because we assigned different values to x and y.

(y==z) is True because we assign equal values to y and z.

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')
```

Answer: The three blocks are everything inside the if statement and the lines print('bacon') and print('ham').

```
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.

Answer:

```
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?

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

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

Answer: Break and Continue are both used to modify the behavior of for and while loops. Break will end the loop entirely, while Continue will skip the rest of the current iteration and continue on to the next one.

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

Answer: There is no difference in Output. All will give you 0 to 9 as output.

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.

Answer:

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

  print(i)
```

```
num = 1

while num <= 10:

 print(num)

 num += 1
```

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

Answer: spam.bacon() => Module_name.Function_name(