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

**Ans:** They are true and false .They are represented as True and False

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

**Ans:** AND ,OR ,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 False 🡪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?

**Ans:** They are >,<,>=,<=,==,!=

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

**Ans:**

Assignment operator is single =. This is used when we want to assign something to a variable

Equals operator is == .This is used when we want to compare two things

7. Identify the three blocks in this code:

Identified the block with different colours

spam = 0—Assignment stage

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())

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:**

If we are using anaconda Jupyter Notebook either we can interrupt the Kernel by clicking stop button or we can even restart the Kernel

Sometimes even use ctrl+c also works

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

Ans: Break is a keyword which helps us to come out of the loop when a particular condition is satisfied

Continue helps us surpass a set if statements means not to execute anything when a particular condition is satisfied

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

**Ans :**All are same they give the same output

Range is a function which has three arguments 🡪(start,stop,step)

By default it starts from 0 if we don’t give anything .start is inclusive

Stop element is not inclusive

Step is by default taken as 1 .It is the increment that happens for every loop

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:

ele=1

while ele<=10:

print(ele)

ele=ele+1

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

**Ans:**

Import spam

Spam.bacon()