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

Two values are True and False

Val=True and xyz= False

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

The three Boolean operators are 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).

AND Operator			Result
TRUE	AND	TRUE	TRUE
TRUE	AND	FALSE	FALSE
TRUE	Not	TRUE	FALSE
TRUE	Not	FALSE	TRUE
FALSE	AND	FALSE	FALSE
OR Operator			Result
TRUE	Or	TRUE	TRUE
TRUE	OR	FALSE	FALSE
TRUE	Not	TRUE	TRUE
TRUE	Not	FALSE	TRUE
FALSE	OR	FALSE	FALSE

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?

The six comparison operators are mentioned below

==(Equal to), >(Greater than), <(less than), >=(greater than equal to) ,<=(lessthan equal to), !=(Not equal)

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

Equal to is used to compare the values → 1 == 1

Assignment operator is used to assign a value to a variable → a=1

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') → Block 1

if spam > 5:

print('bacon') → Block 2

else:

print('ham') → Block 3

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.

```
spam = int(input('Enter the number'))

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?

Press CTRL + C

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

Break should be used inside a loop and we will use break to terminate the loop and exit

Continue will stop the current execution and will go to start of the loop for next iteration

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

range(start,stop,stepsize)

Range(10) – with only stop index

Range(0,10) – range function with start and stop index

Range(0,10,1) – range function with start, stop and step size

There won't be any difference in getting 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.

For loop:

```
for i  in range(10):
        print(i)
```

While loop:

```
i=0
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?

```
Import spam
spam.bacon()
```