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

Ans:- true and false. In programming, we use **True** and **False.**

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

Ans:- AND , OR & NOT are the three different types 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).

Ans: - AND Table

X	Y	X and Y
True	True	True
True	False	False
False	True	False
False	False	False

OR table

X	Y	X or Y
True	True	True
True	False	True
False	True	True
False	False	False

NOT table

X	~X
True	False
False	True

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) ← True and False ➔ False

not (5 > 4) ← not True ➔ False

(5 > 4) or (3 == 5) ← True or False ➔ True

not ((5 > 4) or (3 == 5)) ← not(True or False) ➔ not(True)➔ False

(True and True) and (True == False) ← True and False ➔ False

(not False) or (not True) ← True or False ➔ True

5. What are the six comparison operators?

Operator	Name	Example
==	Equal	X==y
!=	Not Equal	X!=y
>	Greater than	x>y
<	Less than	X<y
>=	Greater than equal to	X>=y
<=	Less than equal to	X<=y

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

The equal to('=') operator is used to assign the value on the right to the variable on the left. The double equal to('==') checks whether the given two operands are equal or not. If equal it returns True or else it gives False.

Equal to is used when we want to assign a value to some variable while == is used if we want to check the condition.

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')
```

Block 1

Block 2

Block 3

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?

ctrl+C

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

Break terminates the execution of remaining iteration of loop and continue will terminate only the current iteration of loop. Break stops the continuation of the loop and continue does not stop the continuation of loop and it stops the current. Break will resume control of program to the end of loop enclosing that break and Continue will resume the control of the program to next iteration of that loop enclosing continue.

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

range(10) means only the stop number is given. Range(0,10) means the value should start from 0 and stop at 10. Range(0,10,1) means it will give a list which starts from 0 and ends at 10 with a step of 1.

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.

With for loop:

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

with 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?

Import bacon from spam