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

Ans=True, False

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

Ans= There are three logical operators that are used to compare values. They evaluate expressions down to Boolean values, returning either True or False. These 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 ).

| **A** | **B** | **A and B** |
| --- | --- | --- |
| True | True | True |
| False | True | False |
| True | False | False |
| False | False | False |

| **A** | **B** | **A or B** |
| --- | --- | --- |
| True | True | True |
| False | True | True |
| True | False | True |
| False | False | False |

| **A** | **not A** |
| --- | --- |
| True | False |
| False | True |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) Ans= F

not (5 > 4) Ans= F

(5 > 4) or (3 == 5) Ans= T

not ((5 > 4) or (3 == 5)) Ans= F

(True and True) and (True == False) Ans= F

(not False) or (not True) Ans= T

5. What are the six comparison operators?

Ans=

Less than(<), Greater than(>) Less than or equal to(<=) Greater than or equal to(>=), Equal to(==) Not 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.

In Python and many other programming languages, a single equal mark is used to assign a value to a variable, whereas two consecutive equal marks is used to check whether 2 expressions give the same value.

= is an assignment operator

== is an equality operator

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')

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=34

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= CTRL + C

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

**A break statement,** when used inside the loop, will terminate the loop and exit. If used inside nested loops, it will break out from the current loop.

**A continue statement** will stop the current execution when used inside a loop, and the control will go back to the start of the loop.

The main difference between break and continue statement is that when break keyword is encountered, it will exit the loop.

In case of continue keyword, the current iteration that is running will be stopped, and it will proceed with the next iteration.

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

ANs= There is no difference all will 0 to 10 ints

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.

Using for🡺

for i in range(0,10,1):

print(i)

Using while🡺

i=0

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?

Ans= spam.bacon()