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

*True and false are the two values of the boolean datatype.*

*Expression 1==2 results into False Value.*

*Expression 3<=5 results into True Value.*

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

"and", "or" ,and "not" are the three different 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 ).

* "and" operator:

FALSE FALSE FALSE

FALSE TRUE FALSE

TRUE FALSE FALSE

TRUE TRUE TRUE

* "or" operator:

FALSE FALSE FALSE

FALSE TRUE TRUE

TRUE FALSE TRUE

TRUE TRUE TRUE

* "not" operator:

FALSE TRUE

TRUE 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?

* Less than (<)
* Less than or equal to (<=)
* Greater than (>)
* Greater than or equal to (>=)
* equals 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.

"=" is an assignment operator. It assigns a value to a variable. For example x=5, which means we are assigning 5 to a variable called x.

"==" is an equal to operator which is used to compare any to values or a variable results into an true or false values.

3==3 results into TRUE whereas 5==6 results into FALSE.

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')

ans: The three blocks are everything inside the 'if' and 'else' statements.

spam = 0

if spam == 10:

print('eggs') #--->First block

if spam > 5:

print('bacon') #--->Second block

else:

print('ham') #--->Third block

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 any value:"))

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" statement will terminate the loop at a specific condition while "continue" statement skips only the current iteration.

In the "break" statement , the control exits from the loop, whereas in the "continue" statement the control remains with in the loop.

i=0

while i<5:

i=i+1

if i==3: #3 will be skipped because of continue statement.

continue

print(i)

if we run the above code, the result will be 1,2,4 and 5. 3 will be skipped because of continue statement.

i=0

while i<5:

i=i+1

if i==3:

break

print(i)

The above code result will be 1 and 2 only. Once i becomes 3, the control comes out of the while loop because of break statement.

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

There is no difference between range(10),range(0,10) and range(0,10,1). All the above conditions results into 0,1,2,3,4,5,6,7,8,9.

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(1,11):

print(i)

***while loop:***

*i=1*

*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?

The function can be called with spam.bacon().