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

Ans1 – Boolean datatypes is one of the built in data types which are defined by **True** or **False** keywords, the first letter T and F are in upper case and rest other characters in lower case

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

Ans2 - The three different types of Boolean operators are **AND, NOT, and OR**

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 ).

Ans3 - AND OPERATOR

* 0 AND 0 = 0(False and False)=False
* 0 AND 1 = 0(False and True)=False
* 1 AND 0 = 0(True and False)=False
* 1 AND 1 = 1(True and True)=True

OR OPERATOR

* 0 OR 0 = 0(False or False)=False
* 0 OR 1 = 1(False or True)=True
* 1 OR 0 = 1(True or False)=True
* 1 OR 1 =1(True or True)=True

NOT OPERATOR

* 0 -> 1( not False)=True
* 1 ->0(not True)= False

Tin Above functions 0 represents False and 1 represents 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?

Ans5 – The Six comparison operators are:

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

Ans 6 ->

* “==” operator is user to check whether the 2 operands are equal or not(eg – If we run a==b in python it will check if a is equal to b or not if yes it will give 1 other wise 0
* “=” operator is user to assign the value on right side of operator to the variable on left side( eg – a=1 , here variable a is being assigned as value 1)
* Condition is any expression which evaluates a Boolean value based on which decision is made that block of code will be executed or not( eg – if (a==1) print (‘Ankit’) – Here a==1 is the condition

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') – Block A

if spam > 5:

print('bacon') – Block B

else:

print('ham') – Block C

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.

Ans8 –

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 9 - We can press CTRL-C to stop a programme that have been stuck in an endless loop.

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

Ans 10 – The break statement will take the execution of the programme to the end of or after the loop whereas continue statement will take the execution of the programme to the start of the loop.

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

Ans11 – All of three will do the same thing , range(10) takes range from 0 up to 10 but not include 10, range(0,10) specifically defines the range to start loop from 0 up to 10 but not include 10 and range(0,10,1) tells loop to increase the given variable by 1 on every round or iteration.

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.

Ans12- using for loop

for i in range(1,11):

print(i)

using while loop

i=1

while(i<11):

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?

Ans13 – After importing spam this bacon()can be called with spam.bacon()