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

**Ans**: The two values of the Boolean data type are and written as True and False

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

**Ans**: The three Boolean 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 evaluates).

**Ans**:

True and True = True True or True = True

True and False = False True or False = True

False and True = False False or True = True

False and false = False False or False = False

Not True = False Not False = True

4. What are the values of the following expressions?

1. (5 > 4) and (3 == 5)

2. not (5 > 4)

3. (5 > 4) or (3 == 5)

4. not ((5 > 4) or (3 == 5))

5. (True and True) and (True == False)

6. (not False) or (not True)

**Ans**: 1. False 2. False 3. True 4. False 5. False 6. True

5. What are the six comparison operators?

**Ans**:

‘>’ Greater than ‘<’ less than

‘>’ Greater than or equal to ‘<’ 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**: For equal to we use ‘==’ whereas for assignment we use ‘=’.

Example a = 5 : Assignment; a == 5 : equal to

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**: 3 blocks are:

print('bacon') print('eggs') print('ham')

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.

**Ans**:

If spam == 1:

Print(‘Hello’)

Elif spam == 2:

Print(‘Howdy’)

Else:

‘Greetings!’

9.If your programme is stuck in an endless loop, what keys you’ll press?

**Ans**: Press ctrl+c

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

**Ans**: break is used to exit the loop completely, while continue is used to skip the rest of the code inside the loop for the current iteration and move to the next iteration.

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

**Ans**: Outputs will be same, the difference is in the instruction. In first it just gives till 10 taking 0 as default; in 2nd we are asking it to take 0 as default; In 3rd we are instructing it to also iterate but +1 which is default in 1st 2 snippets.

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.

**Ans**:

Using for loop=

for a in range(1,11):

Print(a)

Using while loop=

a=1

While a <=10:

Print(a)

a += 1

13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam?

**Ans**: import spam

Spam.bacon()