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

Ans: In computer programs, there are three types of data: text, numbers and Booleans. A Boolean data type is a value that can only be either true or false.

A true Boolean value might indicate that the object is valid (e.g. an email address has been typed correctly). A false Boolean value indicates that the object is invalid and has not been done correctly (e.g. you’ve forgotten to fill out a required field).

Boolean values are true and false values.Boolean values have two possible states: true and false. In binary, these are represented by 1 and 0.

Boolean algebra is a type of math that deals with operations on logical values, including binary variables. It is the foundation for decisions in programs, so it’s important to understand how Booleans work.

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

Ans : AND, OR, NOT

There are three basic Boolean search commands: AND, OR and NOT.

AND searches find all of the search terms. For example, searching on dengue AND malaria AND zika returns only results that contain all three search terms. Very limited results.

OR searches find one term or the other. Searching on dengue OR malaria OR zika returns all items that contain any of the three search terms. Returns a large number of results.

NOT eliminates items that contain the specified term. Searching on malaria NOT zika returns items that are about malaria, but will specifically NOT return items that contain the word zika. This is a way to fine-tune results. Note: sometimes AND NOT is used; serves the same function as 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 ).**

**4. What are the values of the following expressions?**

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

not (5 > 4)

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

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

(True and True) and (True == False)

(not False) or (not True)

5. What are the six comparison operators?

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

**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.**

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

Ans:  can stop an infinite loop with CTRL + C .

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

Ans: Both “break” and “continue” are the ‘jump’ statements, that transfer control of the program to another part of the program. The main difference between break and continue is that break is used for immediate termination of loop. On the other hand, ‘continue’ terminate the current iteration and resumes the control to the next iteration of the loop.

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

Ans :

range(stop)

range(start, stop, step)

1) range(10) produce below out put

0

1

2

3

4

5

6

7

8

9

2) range(0, 10) produce same out put as above

0

1

2

3

4

5

6

7

8

9

But here 1st parameter of range function is start and 2nd

Parameter is stop , means 0 is star and 10 is stop

3) range(0, 10, 1) this function also produce same as above out put but here

3rd parameter is step.

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.**

Ans:

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?**