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

Ans:

A variable of the primitive data type boolean can have two values: true and false (Boolean literals). or off. Boolean expressions use relational and logical operators. The result of a Boolean expression is either true or false.

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

Ans:

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. ...

● OR searches find one term or the other. ...

● NOT eliminates items that contain the specified term.

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).

Ans:

Inputs		Truth Table Outputs For Each Gate					
A	B	AND	NAND	OR	NOR	EX-OR	EX-NOR
0	0	0	1	0	1	0	1
0	1	0	1	1	0	1	0
1	0	0	1	1	0	1	0
1	1	1	0	1	0	0	1

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)

Ans:

- (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?

Ans:

A comparison operator in python, also called python relational operator, compares the values of two operands and returns True or False based on whether the condition is met. We have six of these, including and limited to- less than, greater than, less than or equal to, greater than or equal to, equal to, and not equal to. So, let's begin with the Python 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.

Ans:

- = operator:

    The "=" is an assignment operator is used to assign the value on the right to the variable on the left.

- == operator:

    The '==' operator checks whether the two given operands are equal or not. If so, it returns true. Otherwise it returns 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:

```
spam = 0 // it is the declaration of the variable spam with int value 0 initialed in it

if spam == 10: // block 1

  print('eggs')

if spam > 5: // block 2

  print('bacon')

else: // block 3

  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.

Ans:

```
spam = 0

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:

In ubuntu we a shell command:

Ctrl + C (to kill the task gracefully)

Ctrl + Z (to kill the task forcefully)

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

Ans:

Basis for comparison	break	continue
Task	It eliminates the execution of remaining iteration of loop	It will terminate only the current iteration of loop.
Control after break/continue	'break' will resume control of program to the end of loop enclosing that 'break'.	The 'continue' will resume the control of the program to next iteration of that loop enclosing 'continue'
causes	It early terminates the loop.	It causes the early execution of the next iteration.
continuation	The 'break 'stop the continuation of the loop.	The 'continue' does not stop the continuation of loop and it stops the current.
Other	It used with the 'switch', 'label'	Cannot be executed with switch and the labels.

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

Ans:

- range(10)

    It will consider all values from 0 till 10 expect 10 itself. It stops at the given number.

    Range(stop)

- Range(0,10)

    It will consider all the values from the start point (0) till the stop point (10) expect the last number.

    Range(start,stop)

- Range(0,10,1)

    It will consider all the values from the start point (0) to stop point (10) expect the last number with increments of (1).

    Range(start,stop,step)

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 Loop:

```
for i in range(1,11):
    print(i)
```

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?

Ans:

The function will be called by using:

spam.bacon()