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

A- The Two values of Boolean data type are true or false. They are written as True or False.

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

A- The three different types of Boolean operators are --- and , or, 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).

This is for **and**

| **A** | **B** | **A and B** |
| --- | --- | --- |
| True | True | True |
| False | True | False |
| True | False | False |
| False | False | False |

This is for **or**

| **A** | **B** | **A or B** |
| --- | --- | --- |
| True | True | True |
| False | True | False |
| True | False | False |
| False | False | False |

This is for **not**

| **A** | **Not A** |
| --- | --- |
| True | False |
| False | True |
|  |  |
|  |  |

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)

A- (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?

A- The six comparison operators are:

1. ==
2. >
3. <
4. >=
5. <=
6. !=

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

A- equals to- compares whether the value on both sides are same or not. Like:- a= 2, b=2, a==b will give True.

Assignment – stores a value in variable. Like:- a=2. ‘a’ variable has value 2

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')

A-

**block 1.**

spam = 0

if spam == 10:

print('eggs')

**block 2**.

if spam > 5:

print('bacon')

**block 3**.

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.

A- spam =15

if spam ==1:

print ('Hello')

if spam ==2:

print('Howdy')

else:

print('Greetings!')

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

A- CTRL + c

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

A- Break – Stops the loop.

Continue – It proceeds the loop to next iteration by skipping the code inside the loop.

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

A- range(10) – Takes 0 as the beginning value and then the last number is 9. (0-9) ten numbers

range(0,10) – It is same as the previous one. But here we can specify 1 or any other number in place of 0 so that it can begin with that particular number.

Range(0,10,1) – Same as above except here the last number - 1 indicates the step size. If we give 2 here the iteration will be 0,2,4,6,8. So on.

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.

A-

**Function 1: -**

for i in range(1,11):

print(i)

**Function 2: -**

i =0

while i<11:

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?

A- Import spam

From spam import bacon

Spam.bacon()