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

**ANS. True and False are two Boolean data types. example, 3==3 is True whereas 5<2 is False.**

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

**ANS. and, or, and not are three Boolean operators.**

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. True and True is True.**

**True and False is False.**

**False and True is False.**

**False and False is False.**

**True or True is True.**

**True or False is True.**

**False or True is True.**

**False or False is False.**

**not True is False.**

**not False is True.**

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) **is False**

not (5 > 4) **is False**

(5 > 4) or (3 == 5) **is True**

not ((5 > 4) or (3 == 5)) **is False**

(True and True) and (True == False) **is False**

(not False) or (not True) **is True**

5. What are the six comparison operators?

**ANS. ==, !=, <, >, <=, and >=**

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

**ANS. The = is a simple assignment operator.** **It assigns values from right side operands to the left side operand.** **While on the other hand == checks if the values of two operands are equal or not**.

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') **---block1**

if spam > 5:

print('bacon') **---block2**

else:

print('ham') **---block3**

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.

**spam = int(input(“enter the number:”)**

**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?

**ANS. If program is stuck in endless loop, we will press ctrl+c.**

How can you tell the difference between break and continue?

# use of break

for i in range(10):

if(i==7):

break

print(i) #prints 0 1 2 3 4 5 6

#use of continue

for i in range(10):

if(i==7):

continue

print(i) #prints 0 1 2 3 4 5 6 7 8 9

**The break statement will move the execution outside and just after a loop. The continue statement will move the execution 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)?

**ANS. Output we can conclude that they all do the same thing. The range(10) call ranges from 0 up to (but not including) 10, range(0, 10) tells the loop to start at 0, and range(0, 10, 1) tells the loop to increase the variable by 1 on each 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.

**ANS. # using for loop**

**for i in range(1,11):**

**print(i) #prints 1 2 3 4 5 6 7 8 9 10**

**#using while loop**

**a =1**

**while a<=10**

**print(a) #prints 1 2 3 4 5 6 7 8 9 10**

**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. spam.bacon()**