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

**In Boolean data type we have only 2 values. i.e TRUE and FALSE. We write them as first letter as capital and other are small such as True and False.**

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

**Boolean operators are AND,OR and NOT. In AND if Both inputs are True then it will return True. In OR if both the inputs are False then it will return False. In NOT it will reverse the value.**

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 )

**AND Operator**

|  |  |  |
| --- | --- | --- |
| **INPUT**  True | **INPUT**  True | **OUTPUT**  True |
| *True* | False | False |
| False | True | False |
| False | False | False |

***.*OR Operator**

|  |  |  |
| --- | --- | --- |
| **INPUT**  True | **INPUT**  True | **OUTPUT**  True |
| *True* | False | True |
| False | True | True |
| False | False | False |

Not Operator

|  |  |
| --- | --- |
| **INPUT** | **OUTPUT** |
| True | False |
| False | True |

4. What are the values of the following expressions?

(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?

< …..Less Than

>…..Greater Than

<= …..Less than equal to

>=……Greater than 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.

**Equal to is a comparison operator in which we compare two values whether they are equal or not and give Boolean result. Assignment operator is used to assign the value to a variable**.

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**

**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.

**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?

**Ctrl+c is used to stop endless loop.**

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

**Break is used to break the loop and move to the end. Continue is used to continue a loop and after that it will move 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)?

**Basically result of all this function is same it will print data from 0 to 10 (excluding 10). Range(0,10) this function will say starting value is 0 till 10(excluding 10). Range(0,10,1) here value start from 0 till 10(excluding 10) and difference is 1.**

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.

**For Loop :-**

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

**print(i)**

**While Loop:-**

**i=1**

**while i <=10:**

**print(i)**

**i=i+1**

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

importing spam?

**spam.bacon()**