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

**ANS:** The boolean data type will be have true and false as the values.We write these values as keeping first letter capital and remaining all are in the small ie True and False.

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

**ANS:** The three different types of Boolean operators are and ,or and 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 ).

**ANS:**

AND OPERATOR:

True and True is True.

True and False is False.

False and True is False.

False and False is False.

OR OPERATOR:

True or True is True.

True or False is True.

False or True is True.

False or False is False.

NOT OPERATOR:

not True is False.

not False is 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)

**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:**

Comparison operators operators are:

1)greater than(>)

2)less than (<)

3)greater than or equal to (>=)

4)less than or equal to(<=)

5)equal to(==)

6)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.

**ANS:** Equal to is used to compare to values if they are equal then it will return true else it will return false.

Assignment operator is used for the assigning of the data into any variable for example a=3

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:** The three blocks are:

1)if block where ‘eggs’ will be printed

2)another if block which prints ‘bacon’

3)else block where the ‘ham’,’spam’ and ‘spam’ will be printed

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:**

|  |
| --- |
| # code for the above statement:  spam=int(input())  if spam==1:  print("Hello")  elif spam==2:  print("Howdy")  else:  print("Greetings!") |

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

**Ans:**we should press CTRL+C to stop a program which is stuck in an infinite loop.

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

**ANS:** On execution of the Break statement the loop will be terminated and on execution of the continue statement it will skip the present iteration and it will continue from the next iteration.

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

**ANS**:In a for loop the **range(10)** is used when want 10 iterations ,**range(0,10)** is used when we want to execute for a specific period in the above the execution is from 0 to 9 and **range(0,10,1)** is used when we want a specific period and in steps ie in the above the range is from 0 to 9 and in 1 by 1 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:**

|  |
| --- |
| **#using for loop**  for i in range(1,11,1):  print(i) |

|  |
| --- |
| **#using 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?

**ANS:** The function will be called as **spam.bacon()**