ASSIGNMENT-2

1.what are the two values of Boolean data type? How do yoy write them?

Ans: The two values of Boolean data type are True and Flase

The first letter should be capital in both the values and the remaining letters are small letters.

2.what are three different type of Boolean operators?

Ans: The three different types of Boolean operators are AND,NOT,OR.

3. Make a list of each Boolean operators's truth tables(i.e every possible combination of Boolean values for the operator and what it evaluate)

Truth table of AND OPERATION

Input-1	Input-2	Output
True	True	True
True	False	False
False	True	False
False	False	False

Truth table for OR operation

Input-1	Input-2	Output
True	True	True
True	False	True
False	True	True
False	False	False

Truth table for NOT Operation

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?

The six Comparision operators in python are “==”, “!=”, “>”, “<”, “>=”, “<=”.

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 Assignment operator is used to assign a value to the variable where as the equal to operator is used to check the equality condition between two values.

For example let us consider x=y here “=” is the assignment operator i.e the value in y is assigned to the x

x==y here “==” is equal to operator here it is used to check whether x and y are equal if they are equal it will return True other wise it will return 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: The three blocks in the code are two if blocks and one else block. If value of spam is equal to 10 it will print ‘eggs’ other wise it will go to the next block and there it will check the condition i.e if spam value is grater than 5 it will print ‘bacon’ other wise it will go to the else block and print ‘ham’, ‘spam’, ‘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())
if spam==1:
    print(“Hello”)
if spam==2:
    print(“Howdy”)
else:
    print(“Greetings!”)
```

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

Ans: If the program is stuck in an endless loop we need to press ctrl+c.

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

Ans:The break statement will take the control out of that particular loop where as continue will take the control to the starting of the loop, continue will not execute the statements that are written below it.

```
for i in range(5):
    if i==3:
        break
    print(i,end=" ")
print('the break statement executed and control came out of the loop')
for i in range(5):
    if i==3:
        continue
    print(i,end=' ')
```

output:

0 1 2

the break statement executed and control came out of the loop

0 1 2 4

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

All the three will produce the same output

```
for i in range(10):
    print(i,end=" ")
```

```
print()
print('------------------------------------------------------------------------------
--------')
for i in range(0,10):
    print(i,end=' ')
print()
print('------------------------------------------------------------------------------
---------')
for i in range(0,10,1):
    print(i,end=" ")
```

output:

0 1 2 3 4 5 6 7 8 9

---

0 1 2 3 4 5 6 7 8 9

---

0 1 2 3 4 5 6 7 8 9

From the above we can see that all the three statements have produced the same output.

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 i in range(1,11):
    print(i,end=" ")
```

output:

1 2 3 4 5 6 7 8 9 10

```
n=1
while n!=11:
    print(n,end=" ")
    n=n+1
```

output:

1 2 3 4 5 6 7 8 9 10

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

Ans: To import the function named bacon from the module named spam we need to do like import spam.bacon().