**Assignment – 2**

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

Ans=> Two values of Boolean data types are True (1) and False(0).

Syntax :- a=True or b=False

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

Ans=> And, Or and not are the three Boolean operator.

**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 Truth table –

|  |  |  |
| --- | --- | --- |
| Boolean Value 1 | Boolean Value 2 | Result |
| True | False | False |
| False | True | False |
| False | False | False |
| True | True | True |

Or Truth table –

|  |  |  |
| --- | --- | --- |
| Boolean Value 1 | Boolean Value 2 | Result |
| True | False | True |
| False | True | True |
| False | False | False |
| True | True | True |

Not Truth table –

|  |  |
| --- | --- |
| Boolean Value 1 | Result |
| True | False |
| False | True |
|  |  |
|  |  |

**4. What are the values of the following expressions?**

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=> Six Comparison Operators –

1. Less Than (<)
2. Less than or equal (<=)
3. Greater than or equal(>=)
4. Greater than(>)
5. Not equal(!=)

**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 the value on the right hand side to the variable to left hand side.

The (==) equal to operator checks whether the two given operands are equal or not.

**Condition to use –**

X=10 5==5

Print(X) Output - True

Output – 10

**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=> 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.**

Ans=>

spam = int(input('Enter Your Options : '))

if spam == 1 :

print('Hello')

elif spam ==2:

print('Howdy')

else:

print('Greeting!')

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

Ans=> Ctrl+c , I need to press.

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

Ans=> **Break Statement -** It terminates the current working loop and passes the control to the next statement.

**Continue Statement -** It works just opposite to the break statement. Instead of terminating certain conditions, it jumps off to the very next condition. But it will continue the execution of the loop statement as per its name.

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

Ans=> range(10) – Here, start = 0 and step = 1 as a default value. . It will generate integers starting from the start number to stop and steps are by default 1. i.e., [0,1,2,3,4,5,6,7,8,9]

range(0,10) - Here, start=0 and stop = 10. It will generate integers starting from the start number to stop and steps are by default 1. i.e., [0, 1, 2, 3, 4, 5,6,7,8,9]

range(0,10,1) - The step Specify the increment. Here, start=0 and stop = 10. It will generate integers starting from the start number to stop 10 and increment interval will be 1 always.

**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 Loop :-**

for i in range(1,11):

print(i)

**While Loop :-**

value=1

while value<=10:

print(value)

value+=1

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

importing spam?

Ans=> import spam

Spam.bacon()