21 May **Python Basic - 2**

Q.1. Create two int type variables, apply addition, subtraction, division and multiplications and store the results in variables. Then print the data in the following format by calling the variables:

First variable is 23\_\_ & second variable is 11 \_\_.

Addition: \_23\_ + 11\_\_ = 34.0\_\_

Subtraction: 23\_\_ - \_11\_ = \_12.0\_

Multiplication: \_23\_ \* \_11\_ = 253.0\_\_

Division: 23\_\_ / 11\_\_ = 2.090909090909091\_\_

Q.2. What is the difference between the following operators:

* ‘/’ & ‘//’ / Division x / y Eg:- 5/2=2.5

// Floor division x // y Eg:- 7//3 gives integer val 2.333 so return value will be 2

* ‘\*\*’ & ‘^’\*\* Exponentiation x \*\* y

base = 2

exponent = 3

print ("Exponential Value is: ", base \*\* exponent)

O/P::Exponential Value is: 8

^ Bitwise XOR Python bitwise XOR operator returns 1 if one of the bits is 0 and the other bit is 1. If both the bits are 0 or 1, then it returns 0.

* List the logical operators.

and Returns True if both statements are true x < 5 and x < 10

or Returns True if one of the statements is true x < 5 or x < 4

not Reverse the result, returns False if the result is true not(x < 5 and x < 10)

* Explain right shift operator and left shift operator with examples.

Python right shift operator is exactly the opposite of the left shift operator. Then left side operand bits are moved towards the right side for the given number of times

a=5 # 5 is 101

result = a>>1

print(result) # 2 is 10

output::2

Python bitwise left shift operator shifts the left operand bits towards the left side for the given number of times in the right operand

a=5 # 5 is 101

result = a<<2

print(result) # 20 is 10100

output is 20

* Create a list containing int type data of length 15. Then write a code to check if 10 is present in the list or not.

#Initializing list

lst=[2,4,6,8,10,12,14,16,18,20,22,24,26,28,30]

#a=0

#a=len(lst)

print ("length of list:",len(lst))

# Checking if 4 exists in list

for i in lst:

if(i == 10):

print("Element Exists")

output

length of list: 15

Element Exists