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 \_\_ & second variable is \_\_.

Addition: \_\_ + \_\_ = \_\_

Subtraction: \_\_ - \_\_ = \_\_

Multiplication: \_\_ \* \_\_ = \_\_

Division: \_\_ / \_\_ = \_\_

**Answer:**

first\_variable=10

second\_variable=20

first\_variable+second\_variable = 30

first\_variable-second\_variable = 10

first\_variable\*second\_variable = 200

first\_variable/second\_variable = 0.5

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

(i) ‘/’ & ‘//’ (ii) ‘\*\*’ & ‘^’

**Answer:**

(i) / and // operators:

/: Division operator that returns a floating-point result.

//: Floor division operator that returns an integer result by rounding down.

(ii) \*\* and ^ operators:

\*\*: Exponentiation operator for raising a number to a power.

^: Bitwise XOR operator for binary operations.

Q.3. List the logical operators.

**Answer:**

1. and
2. or
3. not

Q.4. Explain right shift operator and left shift operator with examples.

**Answer:**

Right Shift (>>) Operator:

The right shift operator x >> y shifts the bits of x to the right by y positions.

Example: 8 >> 2 results in 2 (right shift 8 by 2 positions).

Left Shift (<<) Operator:

The left shift operator x << y shifts the bits of x to the left by y positions.

Example: 2 << 3 results in 16 (left shift 2 by 3 positions).

Q.5. 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.

**Answer:**

my\_list = [5, 8, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70]

if 10 in my\_list:

print("10 is present in the list.")

else:

print("10 is not present in the list.")