**Lab Assignment 1**

**ECSE104L**

Note- No restriction on language you can use any language (python, java , c c++)

Do not use libraries, inbuild function, start from scratch.

Ques1- Write a program to convert one number from one base to another base. User will give three input

1. Number
2. Input number base
3. Output number base

Output of the program:- converted number in the given base

Base range will be 2-20, after 9 start alphabet in uppercase

Example-

(234.56)8 = (010011100.101110)2

In this example user will give 234.56, 8, 2 as input and output will be 010011100.101110

Important- your program also check validity of input for example-

If someone inputted 129.43, 8, 4

Then 129.43 is not possible in base 8 maximum number can be 7 only in base 8. In such cases you will print “invalid input” as output.

Ques 2- write a program to add two number. Input for the program are two and their base output of the program will be addition in the given base.

Example-

(123)4 +(23)4 = (212)4

Input will be 123, 23, 4 (first number, second number, base)

Output- 212

Here also first you have to check validity of the input.