**SVKM’s**

**DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING**

**SUBJECT: APPLIED MATHEMATICS – I (SCILAB PROGRAMMING)**

**SESSION: JULY’12 – DEC’12**

**NAME OF THE EXERCISE: CROUT’s METHOD**

**NAME: VED HETA DIV. & ROLL NO.: H-115**

**SAP ID No.: 60002120117 BRANCH: EXTC**

**QUESTION:**  Solve the following system of eqn.

2x+6y+z=7; x+2y-z+-1; 5x+7y-4z=9

**PROGRAM:**

a=input('enter the matrix elements a=')

b=input('enter the matrix elements b=')

[L U]=lu(a)

z=L\b

x=U\z

disp(L,'L=')

disp(U,'U=')

disp(z,'z=')

disp(x,'Ans=')

**INPUT:**

Enter the matrix elements a=[2 6 1;1 2 -1;5 7 -4]

Enter the matrix elements b=[7;-1;9]

**OUTPUT:**

U = L =

5. 7. - 4. 0.4 1. 0.

0. 3.2 2.6 0.2 0.1875 1.

0. 0. - 0.6875 1. 0. 0.

z = x=

9. 10.

3.4 -3.

- 3.4375 5.

Ans=

10.

- 3.

5.