



F.Y.B.TECH. / SEM - I / ENGINEERING MATHEMATICS - I / SCILAB PRACTICAL / AY: 2020-21

NAME OF EXERCISE: Gauss Seidal Method

NAME OF STUDENT : Ayush Jain

SAP ID : 60004200132

BRANCH : Computer Science

DIV : J

DATE : 02-04-2021

QUESTION:

Solve By following Linear Equations by Gauss Seidel Method

$$15x + 2y + z = 18, 2x + 20y - 3z = 19, 3x - 6y + 25z = 22$$

CODE:

```
a=input('Enter A=')
b=input('Enter B=')
i=[0;0;0]
for j=1:5
x=(b(1)-a(1,2)*i(2)-a(1,3)*i(3))/a(1,1)
i(1)=x
y=(b(2)-a(2,1)*i(1)-a(2,3)*i(3))/a(2,2)
i(2)=y
z=(b(3)-a(3,1)*i(1)-a(3,2)*i(2))/a(3,3)
i(3)=z
end
disp(i)
```

INPUT:

Enter A= [15 2 1; 2 20 -3; 3 -6 25]

Enter B=[18; 19 ;22]

OUTPUT:

1.000016

0.9999915

0.9999961



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```
Scilab 6.1.0 Console
File Edit Control Applications ?
[Icons]
Scilab 6.1.0 Console

Startup execution:
loading initial environment

--> exec('C:\Users\AYUSH JAIN\Ayush Scilab2.sce', -1)
Enter A=[15 2 1 ; 2 20 -3 ; 3 -6 25]

Enter B=[18;19;22]

1.000016
0.9999915
0.9999961

--> |
```