

Name	Manish Shashikant Jadhav
UID no.	2023301005
Subject	Linear Algebra
Department	Computer Engineering-B

Experiment 8

AIM : Implementation of Gauss Scidel in Scilab.

Code

```

clc
A=[27 6 -1;6 15 2;1 1 54];
B=[85;72;110];
n=5;
x=0;
y=0;
z=0;
for i=1:n
    printf("\nIteration number: %g",i);
    x=(B(1)-(A(1,2)*y)-(A(1,3)*z))/A(1,1);
    y=(B(2)-(A(2,1)*x)-(A(2,3)*z))/A(2,2);
    z=(B(3)-(A(3,1)*x)-(A(3,2)*y))/A(3,3);
    printf("\nTHE value of x:%g",x);
    printf("\nTHE value of y:%g",y);
    printf("\nTHE value of z:%g",z);
end

```

Output

```
Scilab 6.0.2 Console

Iteration number: 1
THE value of x:3.14815
THE value of y:3.54074
THE value of z:1.91317
Iteration number: 2
THE value of x:2.43217
THE value of y:3.57204
THE value of z:1.92585
Iteration number: 3
THE value of x:2.42569
THE value of y:3.57294
THE value of z:1.92595
Iteration number: 4
THE value of x:2.42549
THE value of y:3.57301
THE value of z:1.92595
Iteration number: 5
THE value of x:2.42548
THE value of y:3.57302
THE value of z:1.92595
--> |
```

CONCLUSION:

Hence, by completing this experiment I came to know about Implementation of Gauss Scidel in Scilab.