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

NAME OF EXERCISE: Gauss Jordan Method

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**BRANCH**: Computer Science

**DIV**: J **DATE**: 22-03-2021

**QUESTION:** Solve the following Linear Equations by Gauss Jordan Method

$$x + y + z = 9$$
,  $2x - 3y + 4z = 13$ ,  $3x + 4y + 5z = 40$ .

### **CODE:**

A=<u>input</u> ('enter matrix element A=' )//coefficient matrix

B=<u>input(</u>'enter matrix element B=')//column matrix

disp('A=',A)

disp('B=',B)

A\_aug=[A B]//augmented matrix

disp('A\_aug',[A B])

disp('Reduced A\_aug',rref(A\_aug))

 $C=\underline{linsolve}(A,-B)//command$  solves the linear equation px+q=0

disp('Ans=',C)

#### **INPUT:**

enter matrix element A=[1 1 1; 2-3 4; 3 4 5]

enter matrix element B=[9;13;40]

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## **OUTPUT:**

"	Ι Λ	=	•	

- 1. 1. 1.
- 2. -3. 4.
- 3. 4. 5.

#### "B="

- 9.
- 13.
- 40.

# "A\_aug"

- 1. 1. 1. 9.
- 2. -3. 4. 13.
- 3. 4. 5. 40.

# "Reduced A\_aug"

- 1. 0. 0. 1.
- 0. 1. 0. 3.
- 0. 0. 1. 5.

## "Ans="

- 1.
- 3.
- 5.



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```
Scilab 6.1.0 Console
 loading initial environment
--> exec('C:\Users\AYUSH JAIN\OneDrive\Desktop\Scilab1.sce', -1)
enter matrix element A=[1 1 1;2 -3 4;3 4 5]
enter matrix element B=[9;13;40]
 "A="
  1. 1. 1.
  2. -3. 4.
  3. 4.
           5.
 "B="
  9.
  13.
  40.
 "A aug"
  1. 1. 1. 9.
  2. -3. 4. 13.
  3. 4. 5. 40.
  "Reduced A_aug"
  1. 0. 0. 1.
      1. 0.
  0. 0.
          1. 5.
 "Ans="
  1.
  3.
  5.
```