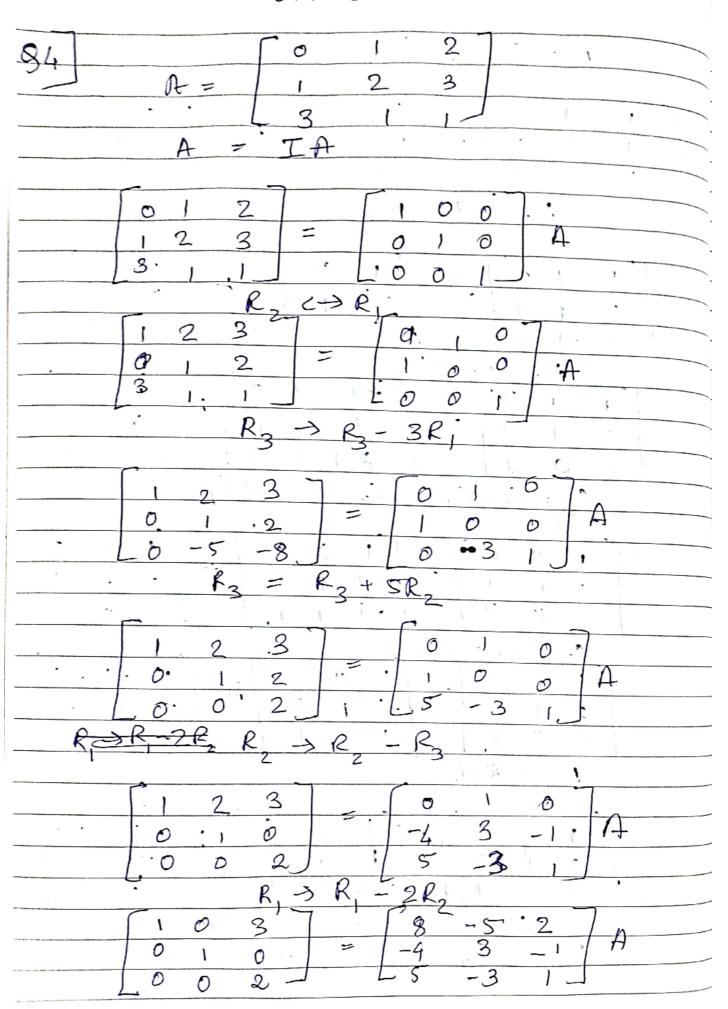
V19CS076 B	alamusug
D. ( ) ( ) ( ) ( )	clamusug.
Tutorial	
(91) Find the sank of following	mabrices
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$R_2 = R_2 - R_1$ $R_3 = R_3 - 2R_1$	
$ \begin{array}{c cccc} 1 & 2 & 3 \\ 0 & 2 & -1 \\ \hline  & 2 & 7 \end{array} $ $ \begin{array}{c cccc} R_3 = R_3 - R_2 \end{array} $	
	- 2
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
	=2
$\begin{bmatrix} 0 & 0 & 0 & -6 \\ 0 & 0 & 0 & 0 \end{bmatrix}$	

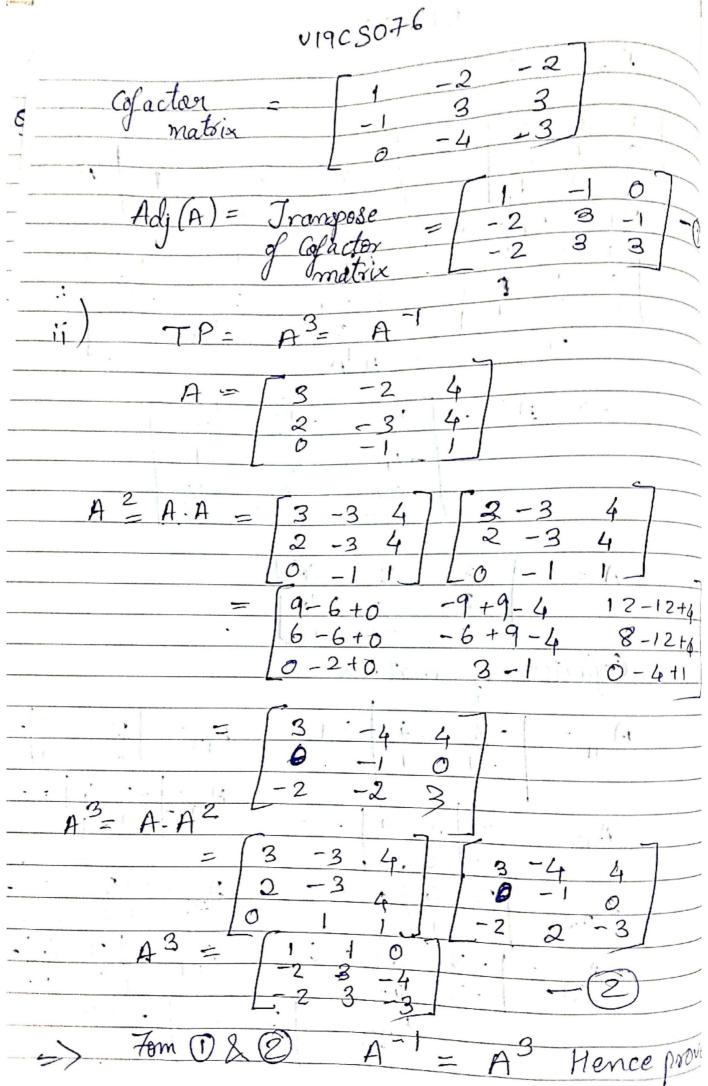
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$R_3 = R_3 - 3R_2$ $R_4 = R_4 - 6R_2$ :
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
(4) $A = \begin{bmatrix} 2 & -1 & 0 & 5 \\ 6 & 3 & 1 & 4 \end{bmatrix}$ $f(A) = 2$ Cannot be reduced further
$\mathcal{G}$

82 Reduce to triangular form
$A = \begin{bmatrix} 3 & -4 & -5 \end{bmatrix}$
-9 1 4 -8 3 1
$R_2 \rightarrow R_2 + 3R$ , $R_3 \rightarrow R_3 + 5/3R$ ,
$A = \begin{bmatrix} 3 & -4 & -5 \end{bmatrix}$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$R_3 \rightarrow R_3 - R_2/3$
$A = \begin{bmatrix} 3 & -4 & -5 \end{bmatrix} \begin{bmatrix} .3 & 0 & 1 \end{bmatrix}$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$R_{1} = R_{1} - \frac{4}{11}R_{2}, R_{2} = R_{2} - 3R_{1}$
$A = \begin{bmatrix} 3 & 0 & 1 \\ 0 & -11 & 0 \\ 0 & 0 & -11/3 \end{bmatrix}$ $R_{1} \rightarrow R_{1} + 3/R_{3}$
$A = \begin{bmatrix} 3 & 0 & 0 \\ 0 & 0 & -11 \\ 0 & 0 & 0 \end{bmatrix}$
0 0 -11/3
Jhe matrix is converted to upper
83) Given PAS form
$A = \begin{bmatrix} 1 & 1 & 2 \end{bmatrix}$
1 2 3

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$R_3 \rightarrow R_3/2$
$ \begin{bmatrix} 1 & 0 & 3 \\ 0 & 1 & 0 \end{bmatrix} = \begin{bmatrix} .8 & -5 & 2 \\ -4 & 3 & -1 \end{bmatrix} $ $ \begin{bmatrix} 5/2 & -3/2 & 1/2 \end{bmatrix} $
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$= A^{-1}A$ $= A^$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Cofactor of matrix $A = \begin{vmatrix} -3 & 4 \end{vmatrix} = \begin{vmatrix} 1 & A = 2 \\ -3 & 4 \end{vmatrix} = 2$
$A_{12} = -2 \cdot 4 = -2$ $A_{12} = -12 \cdot 4 = -2$ $A_{13} = -2 \cdot 4 = -3$ $A_{14} = -3 \cdot 4 = -1$ $A_{15} = -3 \cdot 4 = -1$ $A_{17} = -3 \cdot 4 = -1$
$A_{22} = \begin{vmatrix} 3 & 4 & = 3 \\ 0 & 1 \end{vmatrix} = \begin{vmatrix} 3 & 4 & = 3 \\ 0 & 1 \end{vmatrix} = \begin{vmatrix} 3 & -3 & = 3 \\ 0 & -1 \end{vmatrix} = \begin{vmatrix} 3 & 4 & = -4 \\ 31 & -3 & 4 \end{vmatrix} = \begin{vmatrix} 3 & -3 & = -3 \\ 0 & -1 & 3 \end{vmatrix} = \begin{vmatrix} 3 & -3 & = -3 \\ 0 & -1 & 3 \end{vmatrix} = \begin{vmatrix} 3 & -3 & = -3 \\ 0 & -1 & 3 \end{vmatrix}$
: 33 2 -3



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