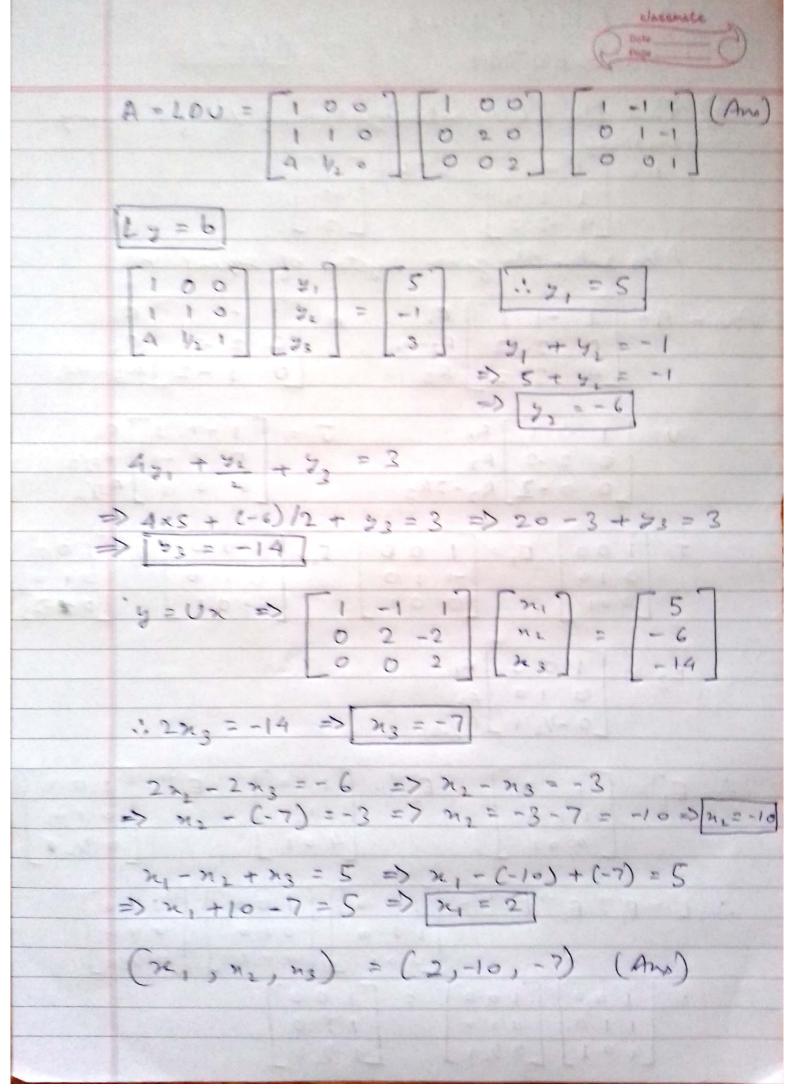
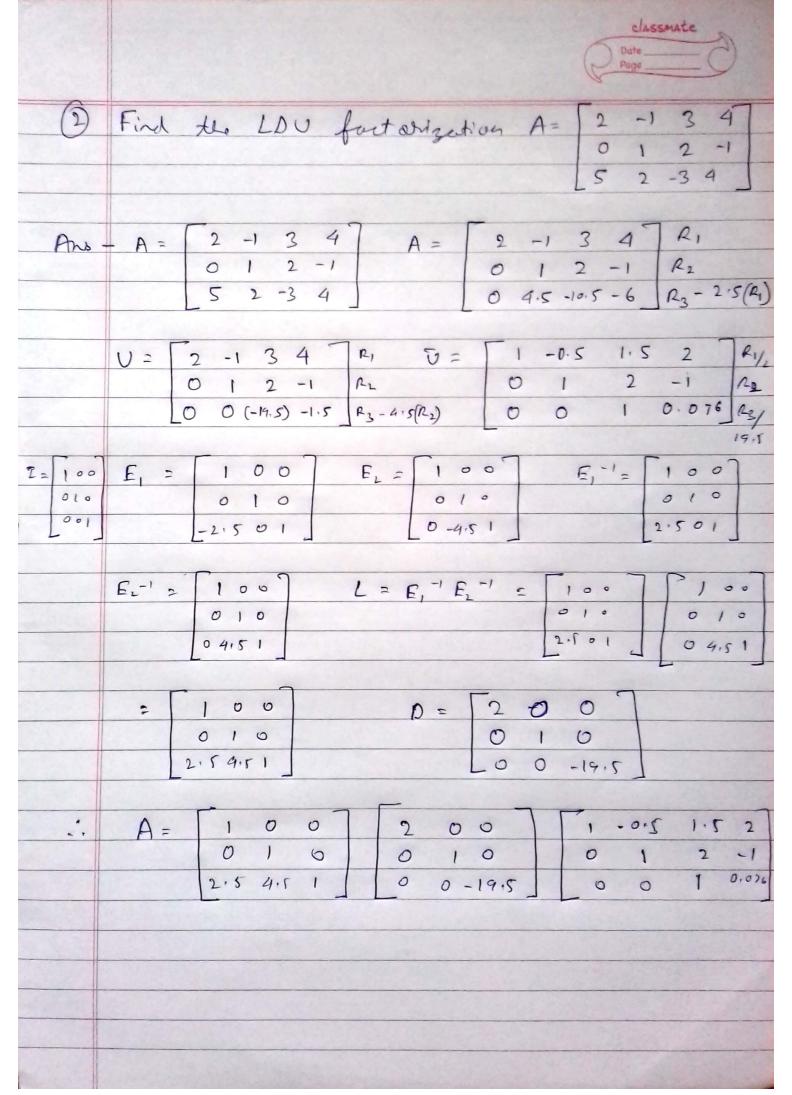
	OM ASHISH MISHRA
	16BCE0789 ALA-C2
0) Find the LOV fectorization of the following
	matrins.
	A= 1-11
	matrins. $A = \begin{bmatrix} 1 & -1 & 1 \\ 1 & 1 & -1 \end{bmatrix} b = \begin{bmatrix} 5 \\ -1 \\ 4 & -3 & 2 \end{bmatrix}$
	Also solve the given system of equations.
Ans	$A = \begin{bmatrix} 1 & -1 & 1 & R_1 & A = \begin{bmatrix} 1 & -1 & 1 & R_1 \\ 0 & 2 & -2 & R_2 - R_1 & 0 & 2 & -2 & R_2 \\ 4 & -3 & 2 & R_3 & 0 & 1 & -2 & R_3 - 4R_1 \end{bmatrix}$
	0 2 -2 R ₂ -R ₁ 0 2 -2 R ₂
	$[4 -3 2] R_3$ $[0 1 -2] R_3 - 4R_1$
	$V = \begin{bmatrix} 1 & -1 & 1 & 1 \\ 1 & -1 & 1 & 1 \end{bmatrix} R_1$
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	$T = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 1 & 0 \end{bmatrix} E_1 = \begin{bmatrix} 1 & 0 & 0 \\ -1 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} E_2 = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} 0 0 0 0 0 0 0 0 0 $
	0 10 -1 10 0 0 0 0 0
	001 001 -401 0+2
	SHIP OF THE SHIP O
	F = [100] R = 0
	E3 = 100 R1 = 0
	LO-1/2 1 _ R2/-2)
.,	$E_1 = [100] - E_2 = [100] - E_3 = [100]$
	110 010 010
	001 401 01/20
	2010-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
	L= E, TE, TE3 = [100] [100] [100]
	110010000
	001 1401 01/1
	= [100][100] = [100]
	110 010 110
	[401] [01/21] [41/21]





```
OM ASHISH MISHAA
                                         therests
top
        16BCE0789
 1W+X+y=3
-3w-17x+y+=1
 4w -17x+8y - 52=1
     -52 - 13 + 7= 1
 Augmented moderix =
     1 1 1 0 3

0 -5 -1 1 1 = 0 -17 18 -7 7

0 -17 28 -7 7

0 -17 28 -7 7

0 -14 4 7 10 0 14
      R4 -3 (-14) R2 - (-5)R4
     0 0 48 (-4)
      R2 -1 A3/2
                                  R4 = 11(14)- 81(11)
  = 1 1 1 0 3 = 1 1 0 3

0 (-s) (-1) 1 1 0 3

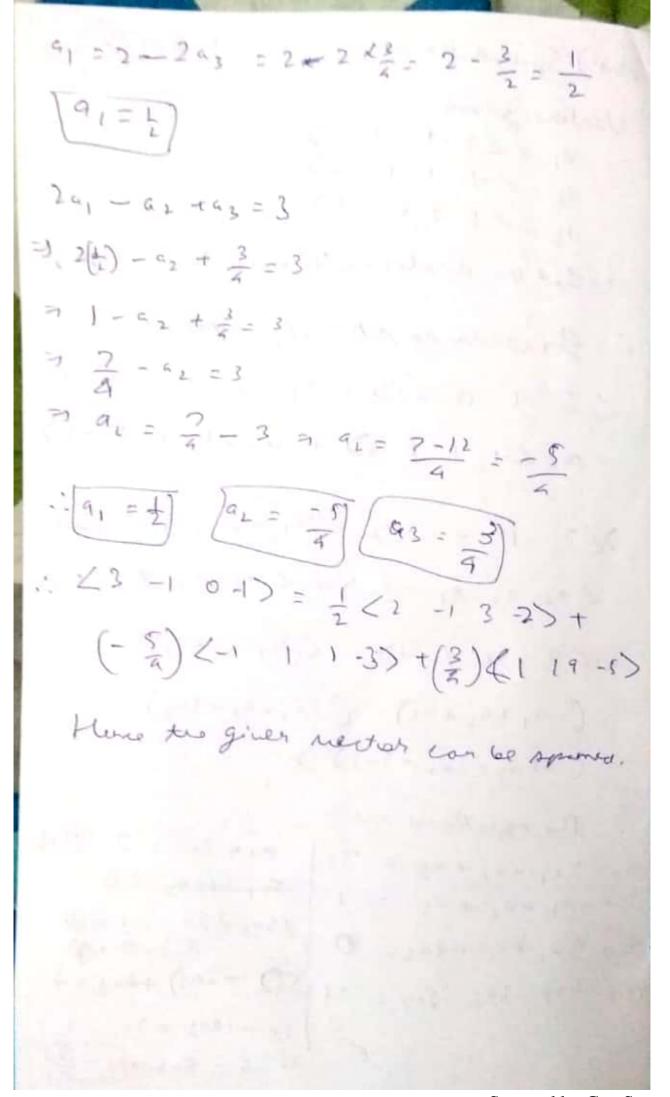
0 0 87 (-16) 9 0 (-9) (-1) 1 1

0 0 12 -1 9 0 0 (-915) (-670)
  (225) 2 = (-675) => [Z=3]
  (87) 9 + (-26) 2 = 9 => 1(87) - 78 = 1 3/3 = 1
  (-5) + (-2) y +(1) 2 = 1 =>(-5) n - 2 + 3 =1=>|n-
: (1) w + (1) + + (1) + + (1) 2 = 3 = 3 w + 0 + 1 + 0 = 3
                                   =0/10 = 2
```

Date Page

```
Answer: w=2, x=0, 2=1, 2=3.
```

Anol) Spanned element: < 3 -1 0 -1 > Vedou go wer ! U, = <1-1 3-2) V2 = <-1 1 1 -3) 03= <119-5) : Let the scalar colf war les !- 9,52,53 in girder to statisfy span!-(3-10-1)=01(2-13-2)+ az 2-1 1 1 3> + 9321 1 9 -5> => (3 -1 0 -1) = (201-01 301-201)+ (-a, a, a, -3a,) + (a3 a, 9a, -5a,) >> <3 -1 0 -1> = <(201-02+03) (-a, +a, +a). (3a, +a, +4a) (-1a, -3a, -503)) .. The equations are: -(D-) 21, - 12+93 = 3 | a1+ lag = 2 (D+0) Sa1+1042 = 3 0 - - a1 + a2 + a3 = -1 45=1+2==+40 10 + 30, +02 + 9az = 0 5(2-201) +205=4 (9-1-1-30= -1 -1 10-1043 +245=4 = 6 = 8 = 3 = 3 = 3



Om ASNISH MISARA 16B(E = 789 Oriner: X= U, V, ... Un & V is basis in The V is Kneamly is deported - G (11) The v son be spurned. 2et u EV = W U= GUIT C2 UL + C3 U3+ - + 54Un u = K(C, v) + K(C, v) + K(C, + v)+ . . = + 4 nfv . (n,, n) & V (4,500) EU 5 20, m) m, (u, -m) = (x, -k,) ULEV (41-11) EN is to a unique notation.

pull Let & EV as it spoul .: V knos proportis: -(1) Limity independent (ii) basis is former. The Crimen as too in elements to sponning in possible. : Let M=3.4 W = {U, U2 U3) 0 0 mm he his now this is himsely independent and also satisfies the coundition of specing where m=3. The moment we take m = 4 there-I A = [h | k | h | 3]

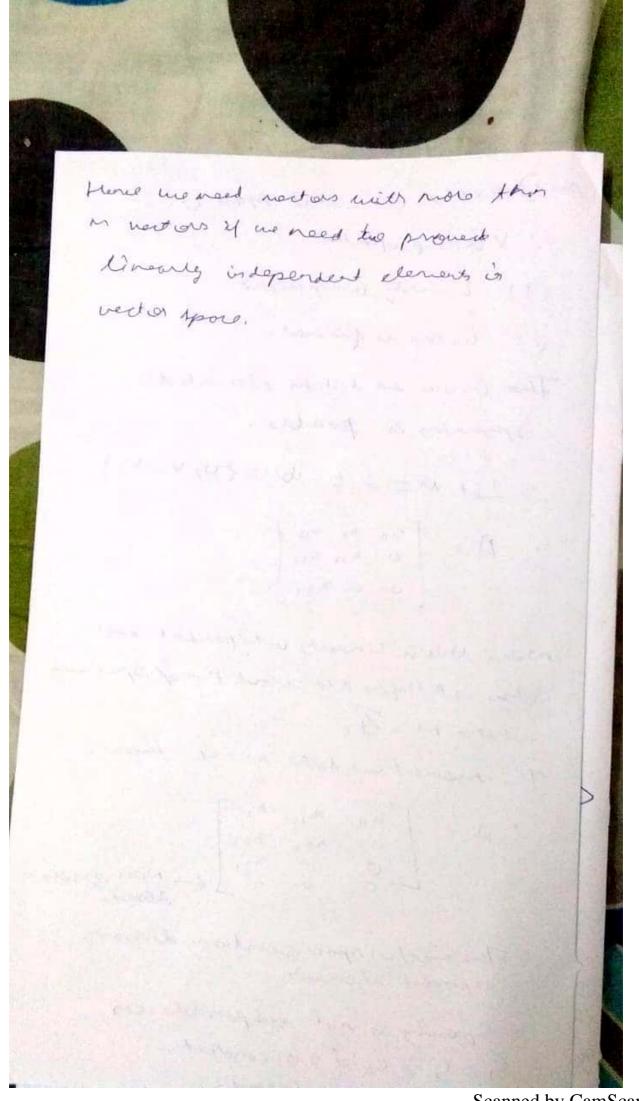
| A = [h | k | k | h | 3]

| O | n | 2 | h | 2 | 8

| O | O | n | 3 |

| O | O | O | O |

| Absent. . The meeter more contian directly departed elements. .: Spanning is not too possible as G= G= Cs \$ 0 or constant. . - Born count to followed.



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