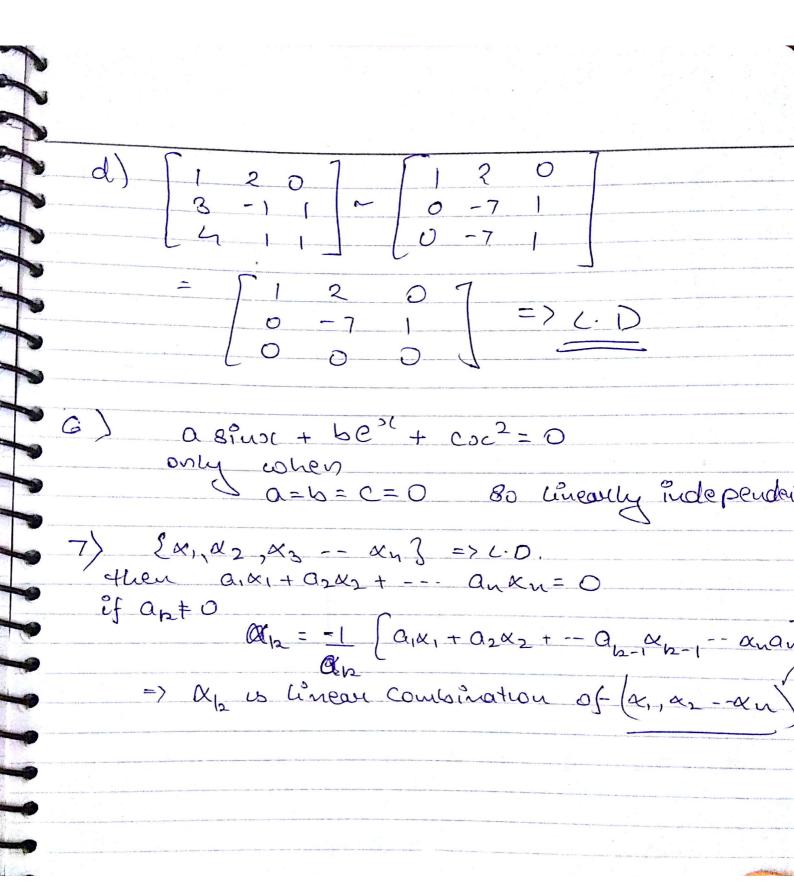
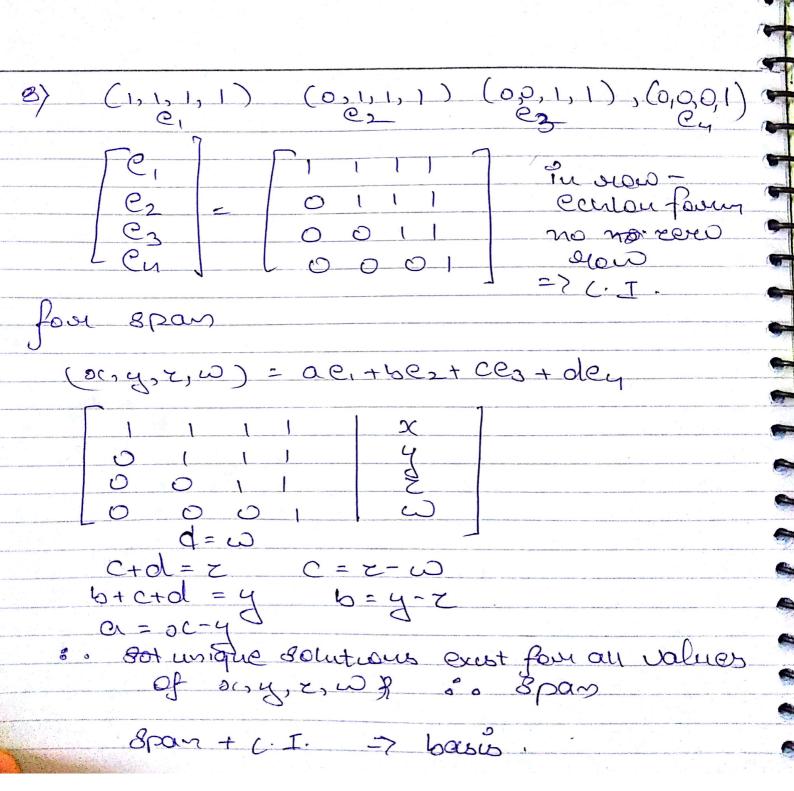
Tissiannent-2
173 signment - 2
a) R(Q) V(P) A,BEV Q,bEF C) X,BER QEQ
also axER] hence vector space
b) C(Q) A,B E C aEQ => X+B E C] vectour space => axE C
C) R(C) x,BEC aeC x+BER J not a vectour &pace ax &R
d) RCR) where aer where Juectom space axer

3) a) w={(>1,4,2) | >1 >1 >1 03 (i) $(oc, y, y, x_1) + (x_2, y_2, x_3) \in \omega$ $(ii) \quad aeR = 7 ox, BeR 6, $\psi \omega$ $not \ a \ Subspace$ 10) W= Elocoy, 2) 100+y=23 (i) (34,41,71)+(36,5) (i) (34,41,304,4) + (36,342,32+42) = (36,42)2 , 42+4, + 36, (ii) a (sury,, x,+y,) = (asuray, some C) \(\ou=\(\gamma\) \(\sigma\) \(\sigma\) \(\sigma\) \(\sigma\) \(\sigma\) i) (by,2, y,, z,) + (y2, y2, 22) = (y,2+y22, y,+y2, 2+c2) not a subspace d) w= {(o,y, c) | sy=03 264,20 i) (21,4) + (22,42,22) 2(242 = 0 (21,4)(2)(41+42) + 0 => 40 mot a Busspace





```
\begin{cases} 21, & 30, & 30 \\ 2 + 6 & 30 \\ 1 + 6 & 30 \end{cases} = 0
9) as
             a=6=c=0 UI
         also spans
         so basis
         £ 1+31+312 }.
            => does not span P2(sc)
        E1, 21, 202, (+2(+)(2)
               => C.D. go not a basis
    d) E1, 1+x1, 1+x+x123
              => (.I. also Spans Pable) : basis
     a) EA: A is 2x3 real materices }
10)
         basis has 6 elements 80 dimension=6
     b) EA: A is 3x3 upper touringular 3
             dw1 = 6
```

```
c) EA: A us 3×3 Symmetric 3
       Label dur=6
d) &A: A is 2x2 steal &g. 8kew - Byumetsic)
        \begin{bmatrix} 0 & a \\ -a & 0 \end{bmatrix} \qquad basis = \begin{bmatrix} 0 & 1 \\ -1 & 0 \end{bmatrix}
      1 2 1 3 1 2 7
2 4 3 7 5 6
1 2 3 5 7 6
           0 0 1 1 3 2 0 0 0 0 0
   basis = \begin{cases} [121] \\ [312] \end{cases}, [001]
```