

g.l. four factories A, B, C and D produce sugar and the capacity of each factory Ps green below:

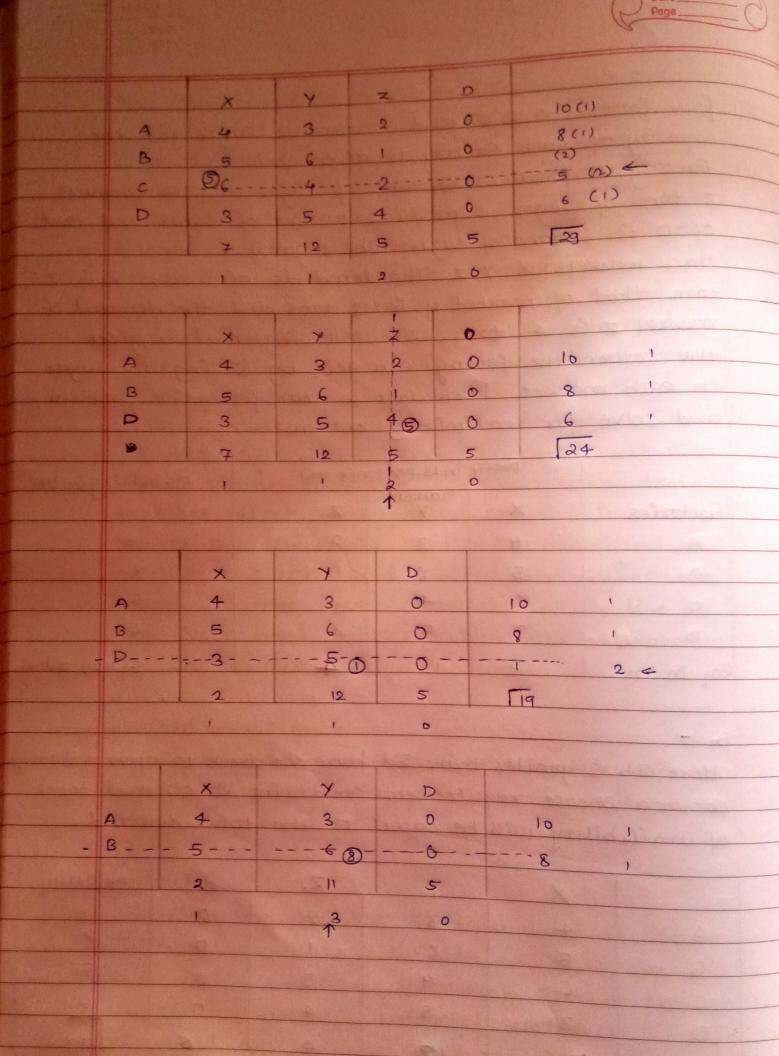
factory A produces 10 tons of sugar and B produces 8 tons of sugar, c produces 5 tons of sugar and that of D & 6 tons of sugar. The sugar has demand in three markets X, Y, Z. The demands of market X & 7 tons, that of market y & 12 tons and the demand of market Z & 4 tons. The following matrix gives the returns the factory can get, by selling the sugar on each market, formulate a transformation problem and solve for maximizing returns.

	Principal Control				
		profit in Rs. perton (x 100)			Availability in tons
	Factories	×	Markets	て	V
	A	4	3	2	16
	В	5	6	1	8
	С	6	4	3-	_ 5
7	D	3	5	4	6
	Reg. In tons.	7	12	4	£b=29, ∑d=23
	-				

sola :-

Here, 5b & greater than 5d hence use have to open a dummy colourn who are requirement constraint & 6. that total of availability will be equal to the total demand.

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		X	γ	Z Z	d	Availabity	
	A	4	3	2	0	(0	
	B	5	6	1	D	8	
	С	٢	4	3	0	5	
	D	3	5	4	0	6	
veg.	7	7	12	4	6	29	



	X	Y	D				
A	4	3	O	10			
	0	3	<u>(S)</u>	110			
	Ω	3	5	1=0			

Total seturns Pn RS = 5x6 + 4x5 + 5x1 + 6x8 + 4x2+ 3x3 + 0x5 = 120

: Total return & 120 Rs.