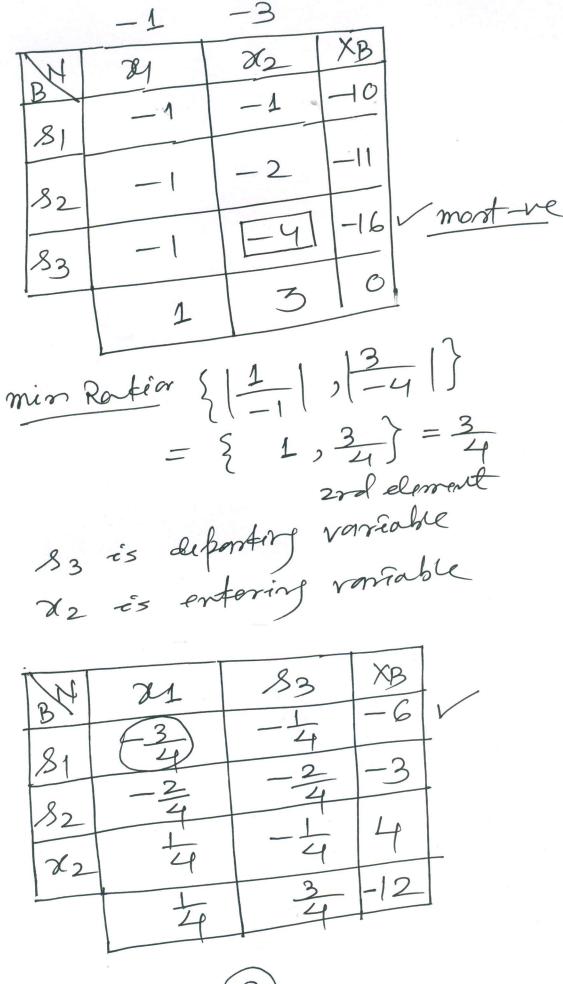
Dual Simplere Method: Problem-I min: Z = 24 + 32X1+X2 210 8.00 21+2×2 > 11 24 +482 216 21, X270  $max! - Z = -24 - 3x_2$ - 21-82 E-10 8.10 -24-22=-11 $-81-482 \le -16$ 24,1/2 20 max: -z = -24 - 382

max: -Z = -24 - 3828. to -24 - 22 + 81 = -10 -24 - 22 + 82 = -11 -24 - 42 + 83 = -16 81,82,83 are 8lack variables 81,82,83 are also basic variables Since 81,82,83 are -ve, it is inteasible.



TINT	81	83	XB
B -	111	1	8
24	-43	3	
		3	1 1
82	-23	3	+
	<u></u>	- <del>1</del>	2
×2	3		1/4
1	13	3	7,7

min. Rotio 
$$\left\{ \left| \frac{1}{4} \right| \right\} = \left\{ \frac{1}{3}, \frac{3}{4} \right\}$$

SI is the Departity variable

21 is the Entering variable.

obtimal 
$$x_1^* = 8$$
 $x_2^* = 2$ 

$$82^{*} = 1$$
 $-2^{*} = -14$ 

z\*=14

(This has one offinal Soln)

Drual Simplex Method: Problem: I

min: Z = 224 + 422 + 6238.+0 24 + 222 + 323 > 60 24 + 222 + 523 > 10024, 22, 23 > 0

 $max: -Z = -2x_1 - 4x_2 - 6x_3$ 

8.+0  $-24 - 22 - 323 \le -60$ 

 $-41 - 2x_2 - 5x_3 \le -100$ 

34,12,1370 -14-212-313+181=-60-14-212-513+182=-100

	-2	-4	-6	1	
TNT	RI	72	23	XB	
B			-3	-60	
81	-1	-2			
	1	$\sqrt{-2}$	$\left(-5\right)$	-100	
82		10	6	0	
	2	1 4		1	

4

min:  $\left\{ \left| \frac{2}{-1} \right|, \left| \frac{4}{-2} \right|, \left| \frac{6}{-5} \right| \right\}$ min:  $\left\{ \left| \frac{2}{-1} \right|, \left| \frac{4}{-2} \right|, \left| \frac{6}{-5} \right| \right\} = \frac{6}{5}$  and element  $\left\{ \left| \frac{2}{-1} \right|, \left| \frac{4}{-2} \right|, \left| \frac{6}{-5} \right| \right\} = \frac{6}{5}$  and element  $\left\{ \left| \frac{2}{-1} \right|, \left| \frac{4}{-2} \right|, \left| \frac{6}{-5} \right| \right\} = \frac{6}{5}$  and element

32 is the Deporting variable X3 is the entering variable

MI	2. X2	83	XB
B	9 2	-3	0
81 -	3 - 3	5	-
	1 2	1-5	20
23	5 5	6	-120
	4 5	5	

$$24^* = 0$$
,  $22^* = 0$   $83^* = 0$   
 $81^* = 0$ ,  $23^* = 20$   
 $-2^* = -120$ ,  $2^* = 120$   
only one obtained Soln