	Name - Anhit, Roll No 11706, Semester - VIAh
3-1	Page
	field the first
4 /	Q-1
	Quit in the devoted and releases to the recovery of ideal the con-
#	Let day "i" be 1, 2, 3, 4 Starting from Monday: day 1,
	There are 3 shifts.
	Night shift - 1, Day shift - 2, Late shift - 3-
1331 Vier	also, Let Nij denote the number of workers who are Starting their
- N	work on day i & shift j.
	Look on day i & shift j. Constraints:
	Jotal number of workers ≤ 60.
	7 3
	$\sum_{i=1}^{t} \sum_{j=1}^{3} N_{ij} \leq 60 - (1)$
	Secondly and house a langer I amed on my market of a market
ik L	Secondly, we have a lower bound on number of workers in a single day & particular Shift.
	Let Wij denote the minimum number of workers required on day i
	& Shift j:
	Worker who work on Monday-s.
	a lither they start on Monday.
	· or, they had started on Friday, Saturday or Sunday.
	Monday i.e. i=1; Monday NI; +NI; +N6; + N5; >W1; (j=1,2,3)
ni ji	, vv vv ,
<u> </u>	Juesday N2; +N,j+ N7j + N6j >W2; Wednesday N3j+N2j+N1j+ N7j > W3j
	Thursday Naj + Naj + Naj + Naj > Waj
	Friday NEj + NAj + NZj + NZj > WSj
	Saturday Nbj + Nsj + N4j+ Nbj > Waj
	Sunday N7j+N6j+N5j+N4j>, W7j
	"The objective function is to minimize Min $\frac{7}{5}$ $\frac{3}{5}$ $\frac{3}{5}$ $\frac{1}{5}$
	Min & & Nij
	υ ¬ J=1

L Digital	utia vousta i	·		4	STUDY BUDDIES	
要	Advantag	4 101	H: 00 01 11	a ALIPP ->		
	(i) Ability	es of solving	MUS PRODUCT	lan hustingation	ally into a LI	op.
	(ii) we can	applicate the	w pholisian	in about the	near time to re	duce
	workforce.	Marringe N	s produced	M MANYVOLI X	and the state	
N	0.0		100 1 100 172	S Water	19 19 19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
100 mm	Disadvante	iges-	1 100-1	Will Hall		
The state of the s	(i) The real	wired Solution	must be	intener which	h is not alwa	ys TRUE
	(11) the pot	imal sol" dolling	t take the	learning or	arrival of rev	o
	workers ho	liday taken by	Lotsker, W	Whe conside	red).	
Ų.,	No. 1	J	73.2 AZ	1 2 1 1 1 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1	rum LAME	
Q:-2.				1	*	
<u> </u>	Let X1	denote no of	units of	A	S	
	X2	denote no it	, , , , , , , , , , , , , , , , , , ,	\mathcal{B}	1 3	
Large Mil	al roses	M. Carlor and Jan	the est of	Sand Sand	as Marsa	
1 - 1 / 2	Objective Fr	enction ->.	1.63	Ar mucha	Mr. in	
tay is	net bounded	Max Z = 20x	1+50×2.	with the morn	The first of	9
			Angles you'r		i think a l	
	Constraints:	-		has want and		
	(1) <u>X1</u> X1+X2		01	122-21 60	A 1846 3	
	$\chi_{1}+\chi_{2}$	100	per barbay.	Sold Stated	A COLORADOR	
	(2) XI \ 100)				
-	(3) 221+42	2 < 240 .	21,227,0		me / b	
	Now we	have to fi	ind-the in-	bursection point	by graphical m	uthod.
	1		tille Si	Maje Wag	ol i le 1	
		271-14-12-1	i di	=100	In a man will	
	v-1	221+412=240	B (80,20)	ALL THE	A literal	
			BUIL		Warder 1 Ac	
		20-1	My Silvi	(61,001)	da waka i u	
	1 - 34	412-11	0.	, (M)	in in	
		1		`.	u)	
			1901121 1 1	N/100 D	ant spin that	
<u> </u>	A(0,0)		V	y (100,07	. Truly	
				(2-9		

The my court of the state of th

	STUDY BL	IDDIES
	Optimum occurs at B (80,20).	}
	$\chi_{1} = 80$, $\gamma = 20$.	1
	$Z_1 = 80$, $y = 20$. $Z = 20X_1 + 50X_2 = 20X80 + 50X20$,
i de la companya de l	= 2600	
2.1	the court the time we have the commendation in	
	0.3	
	Let X1 = 200-07 hour Jack plays . X2 = 99 99 99 works	
	X2 = 99 99 99 works	
	Objective Firetion -	
	Minimize $Z = 2x_1 + x_2$	
	That is provided to the Herinage of the files	
	Constraints ->	
	2, +22 ≤ 10 min	
	$\chi_1 > \chi_2 \Rightarrow \chi_2 - \chi_1 \leq 0$	
	72 ≤ 4	
	$\chi_1, \chi_2 > 0$.	
	Now, Min of Z = 2x1+x2 is equivalent to 0 because the	arach m
1 · 4 E · ,	above eg que the feasiable area.	Jack of
A 400		
:	A production of the state of th	
	1 Pro B M BURE	
	$2(1+\chi)=10.$	
le-		
1. X min !	con motion of the contract of	
N.		
	In this the point D societies the least criteria & en.	
	In this the point D satisfies the least criteria & so; Min 2=0 at 1=0 & 12=0.	
	((u) x x) () (x x y x x x x x x x x x x x x x x x x	
6	Q:-4' XI = no g HiFi-I unit	
	7	1
	12 - 11 " HiH-2 "	-

			STUDY BUDDIES
	Constrais	to ~	
		6x1+ 4x2 < 432	
	and the second s	5×1+5×2 \ 412.8	
		12, + 622 = 422.4	
	Let Inter	he time machine I site idle same	for I2 & I3.
	Hince,	$6x_1 + 4x_2 + I_1 = 432$.	U
		5x1+5x2+ T2=412.8.	Y 4 Y
		4x1+6x2+ I3 = 422.8.	
	Objective Fra	. L .	
	Objective Fun	$\frac{(u\eta)}{2} = \frac{1}{1+1} \frac$	1.5
	yhin.	$7 = I_{1} + I_{2} + I_{3} = 1/267 \cdot 2 - 15\chi_{1} - 15\chi_{1}$	15 12
	1	s equivalent to Manimize Z'=15x	1+ 15 x2.
-		Optimum at	J. S. M. (2)
	180	21 = 20.88	
	A	7/1/2 72 = 31.6	
		1/1/Big. March 1	
The Areas	18 gara Ele	3/6//////	A REST LAND
5		0 100	V SCHOOL I
		. 710	
-		:. Z'= 15x50.88+15x31.68	
	Hunger	= 1238.4 min. Min Z = 1267.8 - 1238.4 min	
	1 will	= 28.8 min idle	
(9:5 Let	XI be amount of product i pri	oduced so made You
	7	×2	V V
	Constraints	minter Descharber the bearing	
	0.	1x, +0.15(22+/2)+0.5(x3+43)+0.0	5(74+44) < 50 ·
	0	·95(2(23+y3))= 22+y2 < 1.05(2(3)+1222+1313+814=1995	(3+43))
33.5			
* **		27-y1+19-y2+33-y3+23-y4 = 1953.	

The me oz			STUDY BUDDIES
Objective Function >			3
Mar Z = 10	12/12/2/12/	+17(x3+43)	+8(x4+44)
Q:-6.			
= X1 = Ratio 01	L NEGO A all	AN	
= X1 = Ratio of X2 = "	1 Logo B all	lan	- C + 1
(8)	May o mis		1 12
Objective Function >.		100	111
Min 7	= 100 × 1+80×2		3 4 1
	4		
Constraints -		a * [*, -*	
	$\chi_1 + 0.03\chi_2 \leq 0$	0.06	1 1 1 1 1
	11+ 0.0672 5 C		172
	11+ 0.0312 5		
$\chi_{1+1} = 1$			
and, 21,227,0.		Ţ.	
		1	
For solving this	egn we have to	o use LP	Psolver.
After putting :	the constraints in	the LPPS	glives
then;	1		
gptimum '	a1=0.33, 22	=0.67.	
Min Z	= 30667 100 XC).33+ 20x6	0.67
	= 33+53.6		
2	86.6		-
Q:-7. Let gives X1 = No. 0. X2 = " "			
X1= No . O.	of single famile	ly homes	
X 2 = " '	· double ··	V .,	
X3= " ''	triple "	/ 1	
X4 = No 01	recreation a	reas	
0	and the same of th		
		1 1-1	

	STUDY BUDDIES
	Maximize 7 = 10000 1+12000 x2+ 15000 x3.
	7 1000 mm
	Constraints-s.
in the second	2x1 +3x2 + 4x3+x4 \le 680.
v C	
	0.521-0.522-0.573 70
	20024-21-222-32320
	1000x1+ 1200 x2+H00x3+800 x4>100000
	400 ×1+600×2+840×3+450×4 < 200000.
E Ex	& 21, x2, x3, x4 7,0
7- Table 1	
	Using LPP Solvers. Optimum solution is at s.
	optimum solution is at ->
	$\chi_1 = 339.15$ homes
	12 = 0
	713 = 0 714 = 1.69 recreation areas.
	14 10 (secretarion reviews
	Mence,
	May 7 = 10000 x 3 39.15 + 0 + 0 + 15000 x 1.69
	Mar Z = 10000 x339.15 +0+0+15000 x1.69 = 3391500+25350
	= 3416 850 .
1	
TO WAS TO SAY	그 가장 그 사람들은 그 사람들이 되었다. 그는 그리고 그는 그는 그는 그를 보고 있다면 그리고 그를 보고 있다.