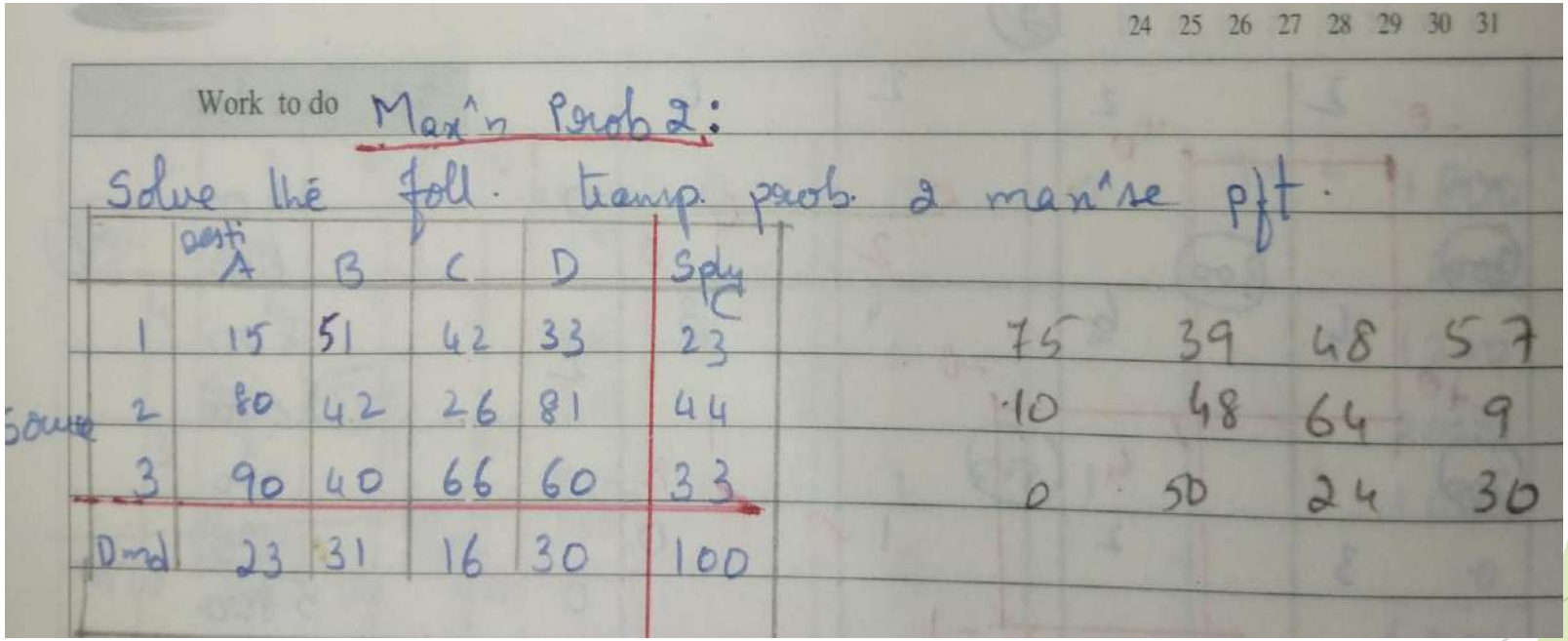
TP

Cont.

Maximization in TP



24 25 26 27 28 29 30 31

Work to do Max^n Prob 2:

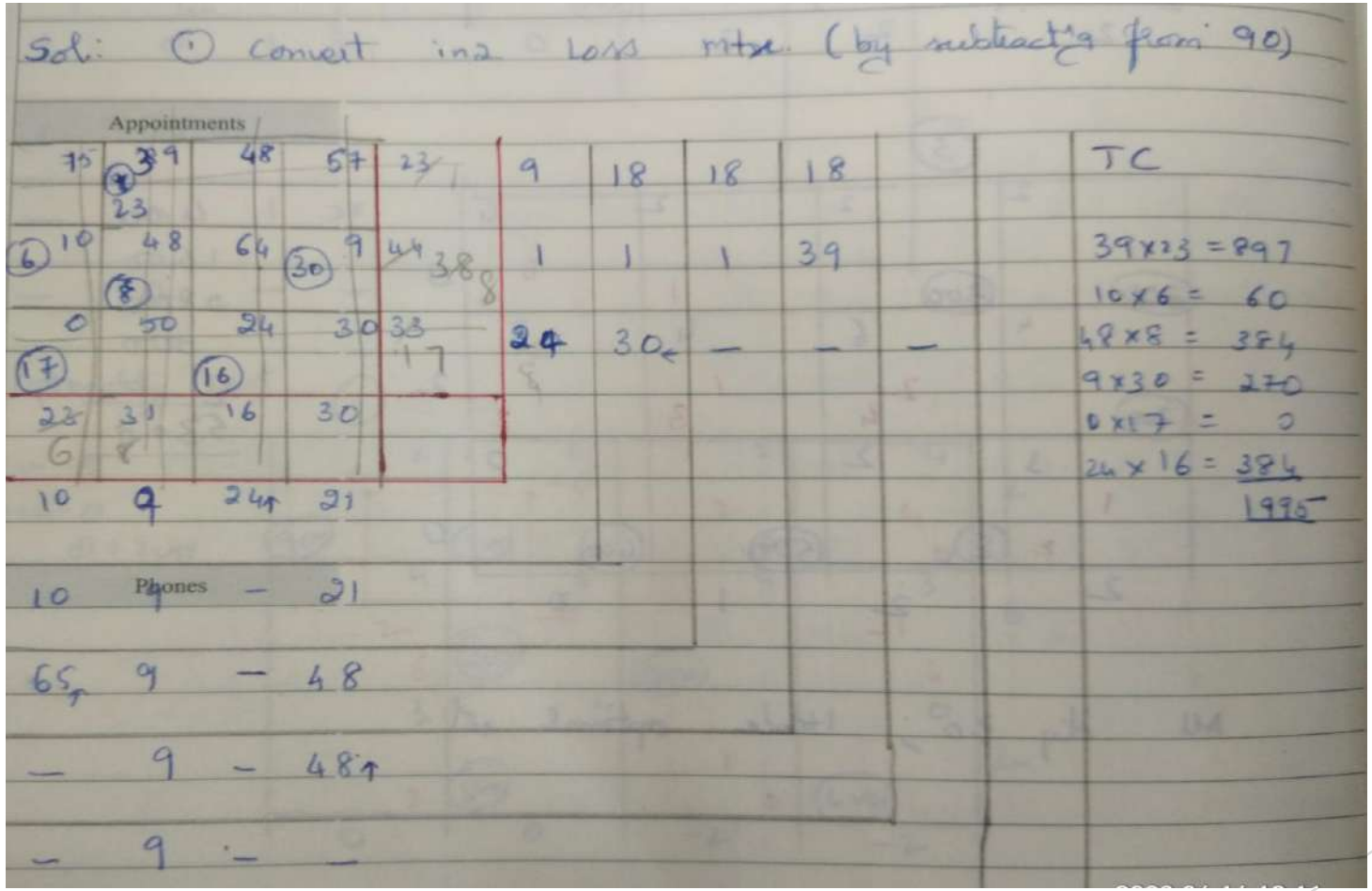
Solve the foll. transp. prob. & max^se pft.

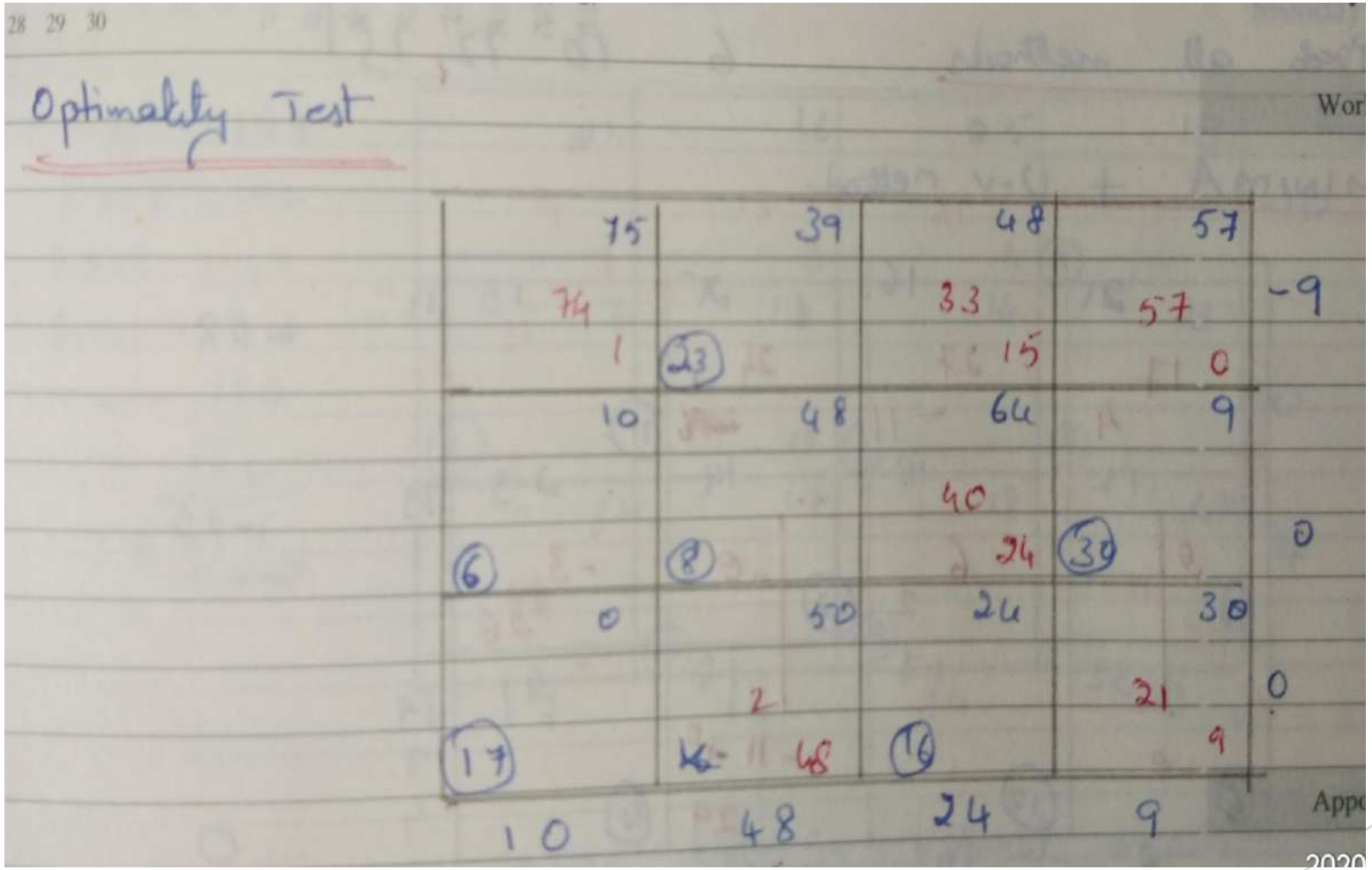
	Dest^n A	B	C	D	Sply
1	15	51	42	33	23
2	80	42	26	81	44
3	90	40	66	60	33
Dmd	23	31	16	30	100

75 39 48 57

10 48 64 9

0 50 24 30


Sol: ① convert into Loss rate (by subtracting from 90)
Appointments
75 39 48 57 23
23
10 48 64 9 44 38
8
0 50 24 30 33
17
23 31 16 30
6 8
10 9 24 21
9 18 18 18
1 1 1 39
24 30 — — —
TC
39×23 = 897
10×6 = 60
48×8 = 384
9×30 = 270
0×17 = 0
24×16 = 384
1996
10 Phones — 21
65 9 — 48
— 9 — 48
— 9 — —


28 29 30
Optimality Test
Wor
75
39
48
57
74
33
57
-9
1
23
15
0
10
48
64
9
40
6
8
24
30
0
0
50
24
30
2
21
0
17
48
16
9
10
48
24
9
App
2020

All $d_j \geq 0$; Hence cu. sol is optimal.

1 → B 23 uts × 51 = 1173

2 → A 6 uts × 80 = 480

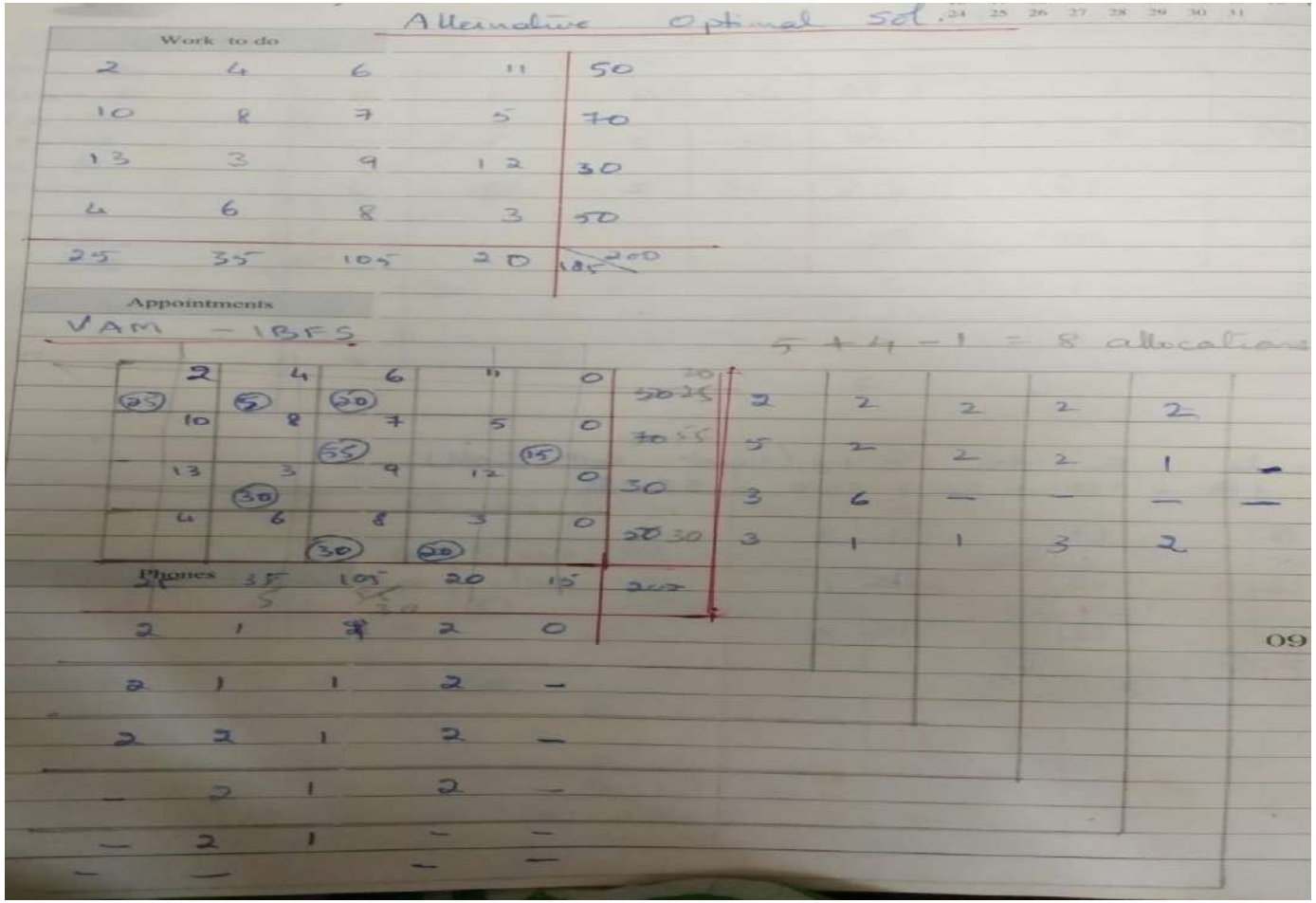
2 → D 30 uts × 81 = 2430

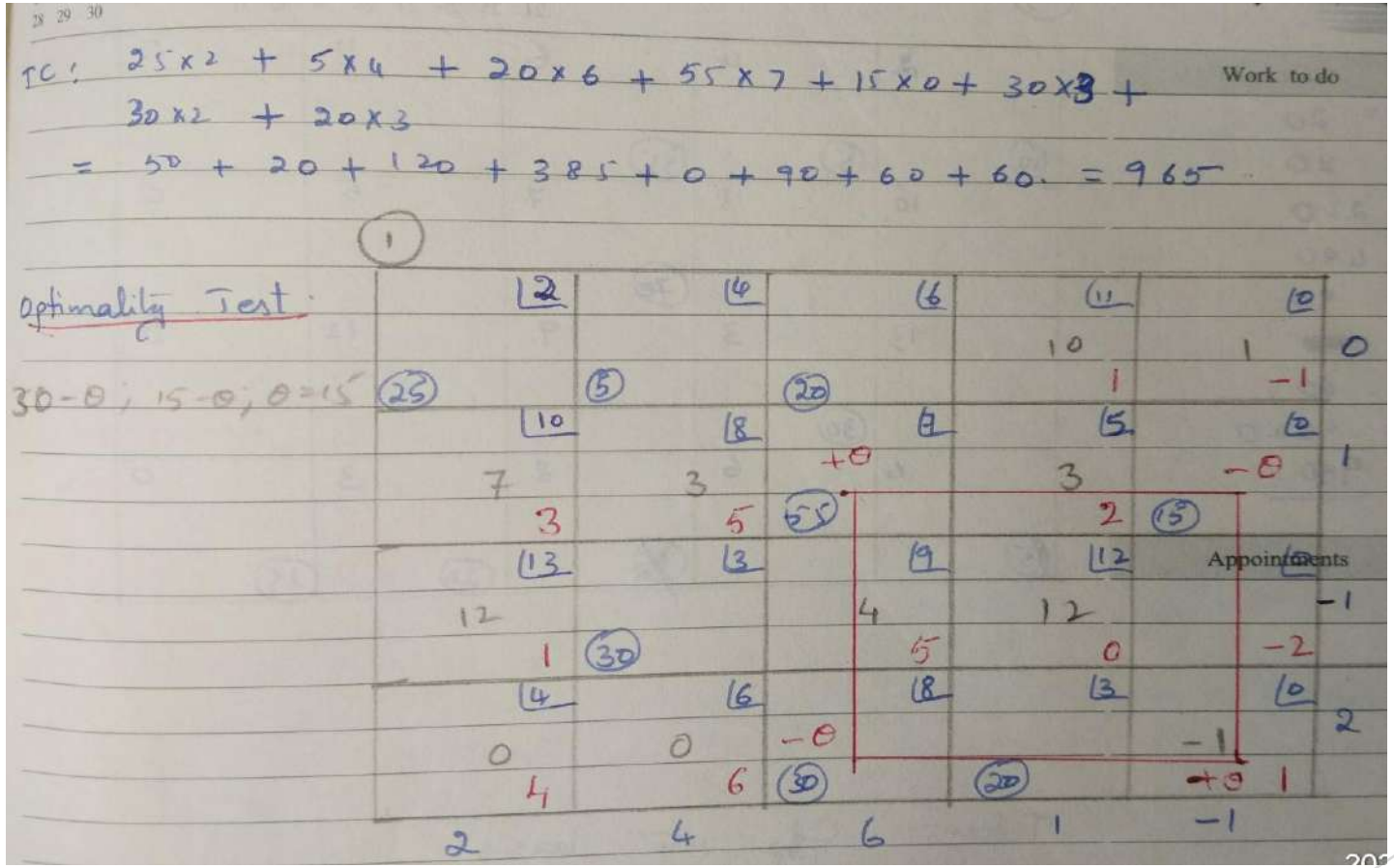
2 → B 8 uts × 42 = 336

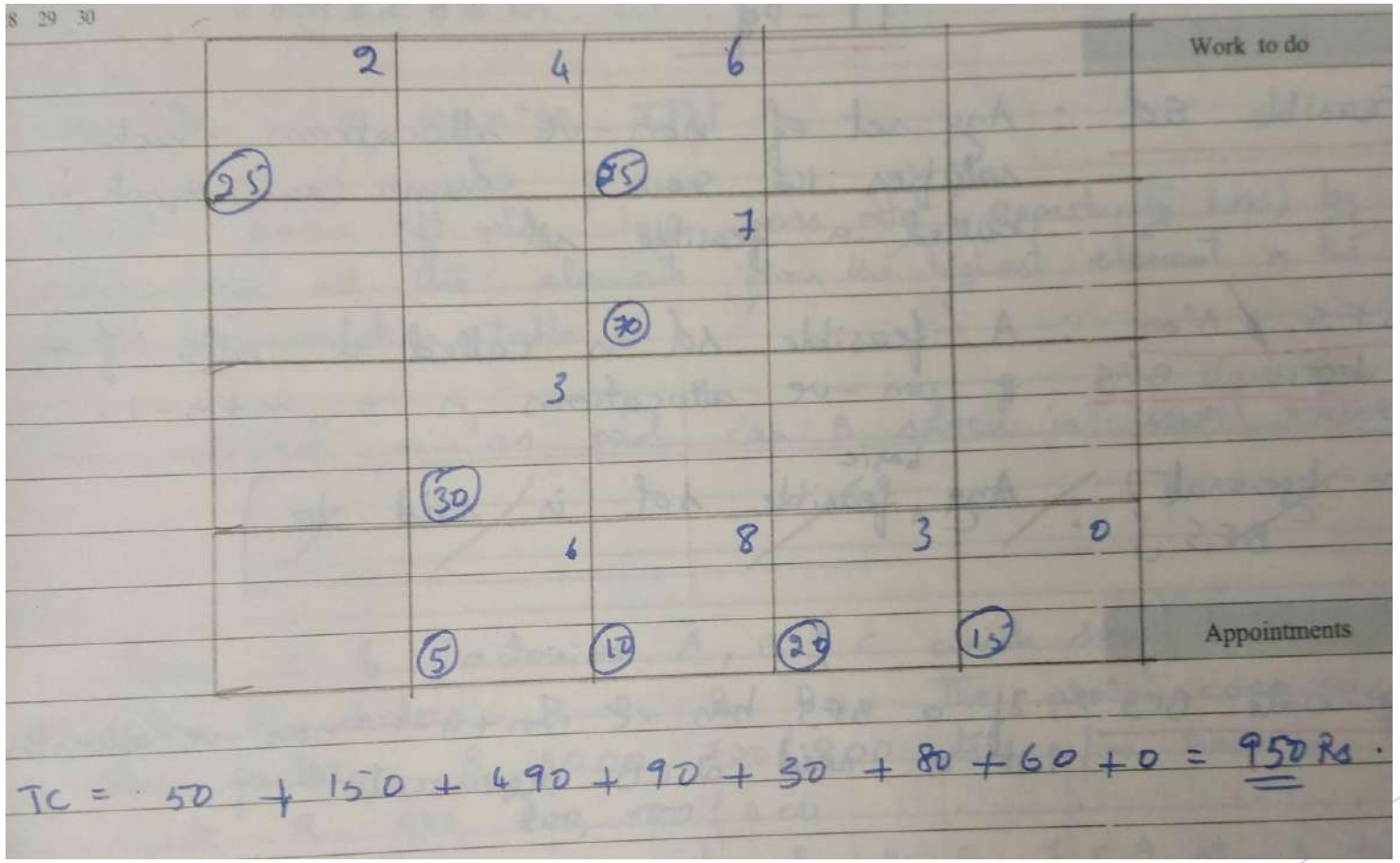
3 → A 17 uts × 90 = 1530

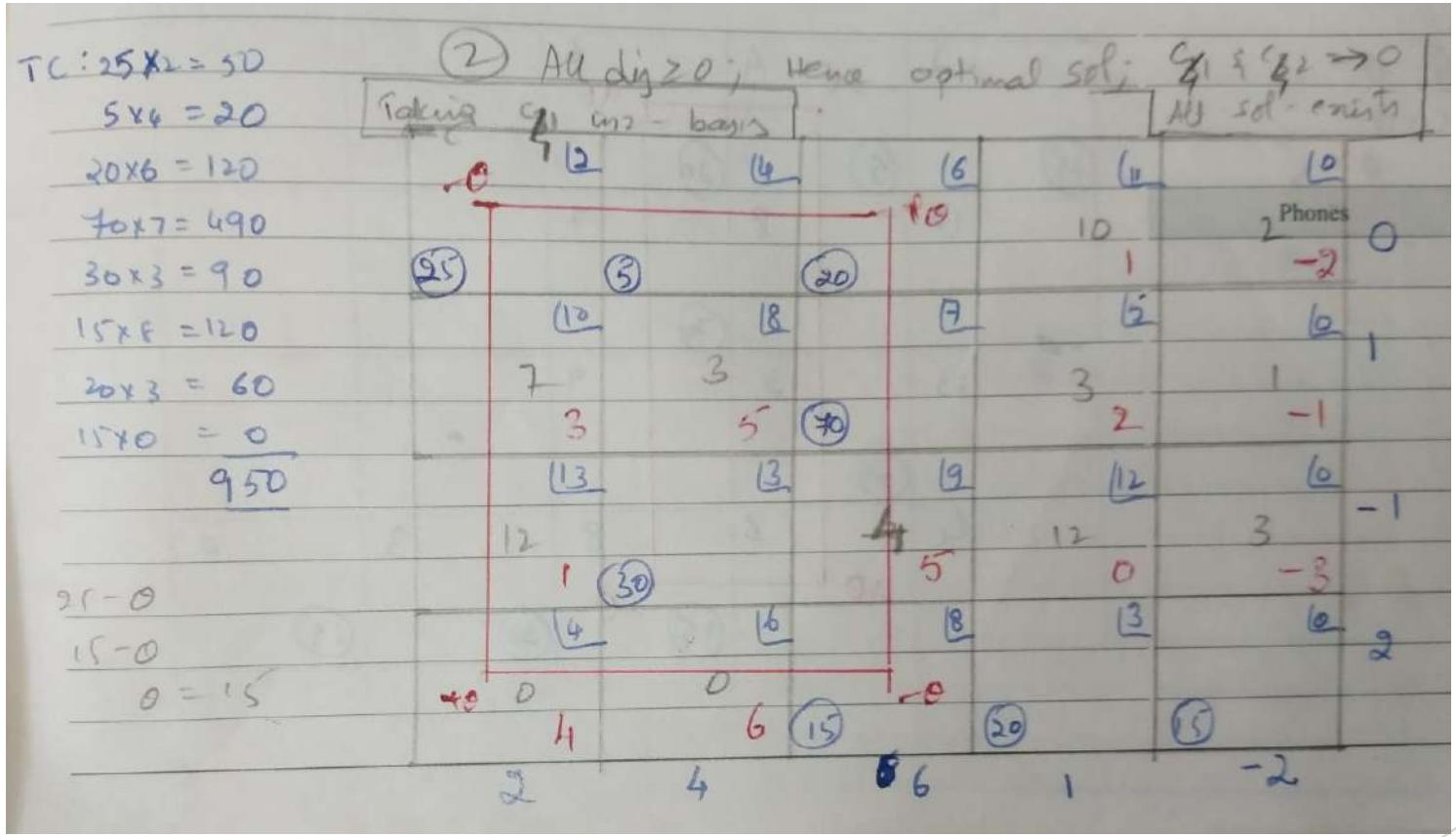
3 → C 16 uts × 66 = 1056

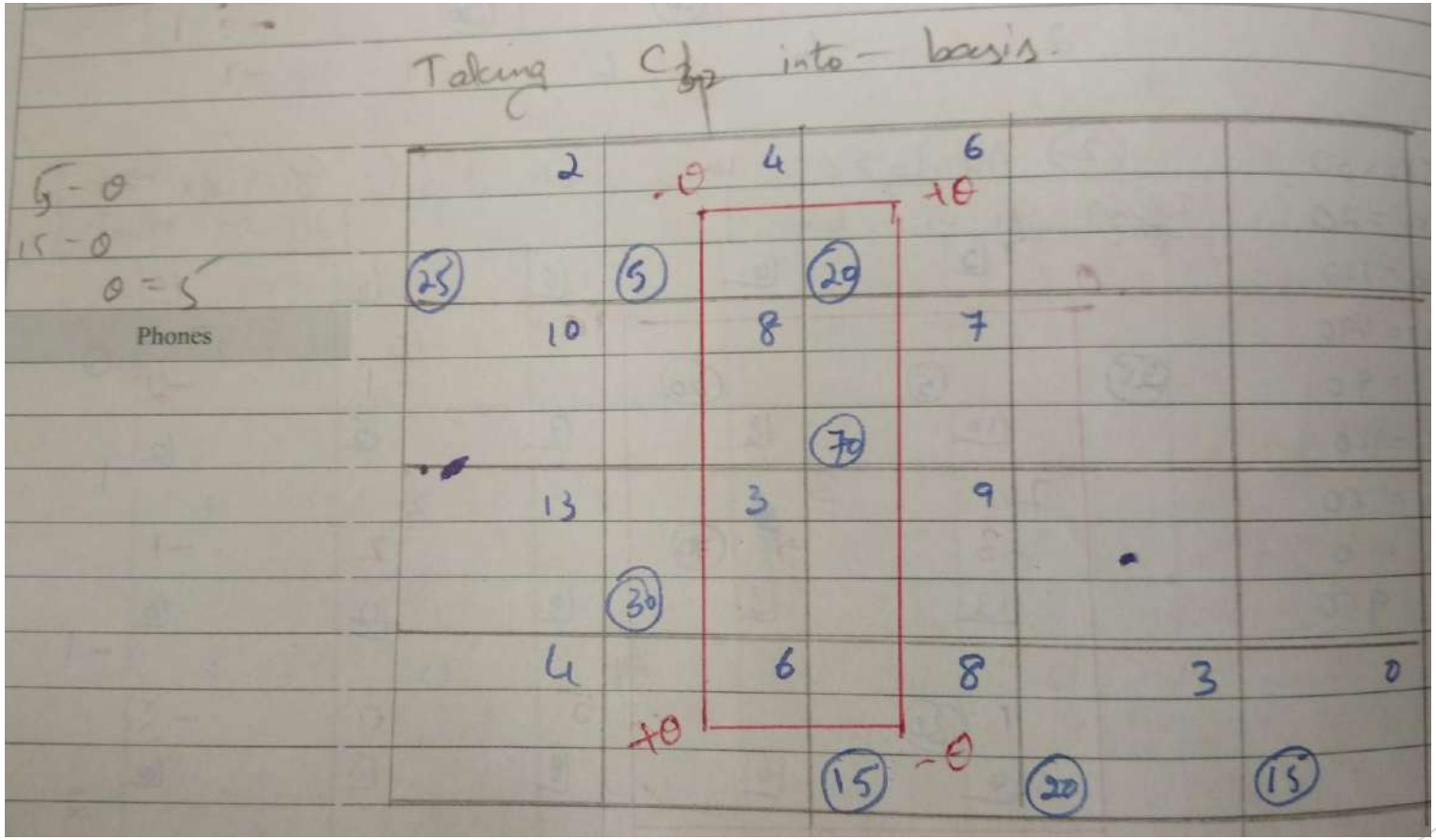
Rs 7005 → optimum Pft.

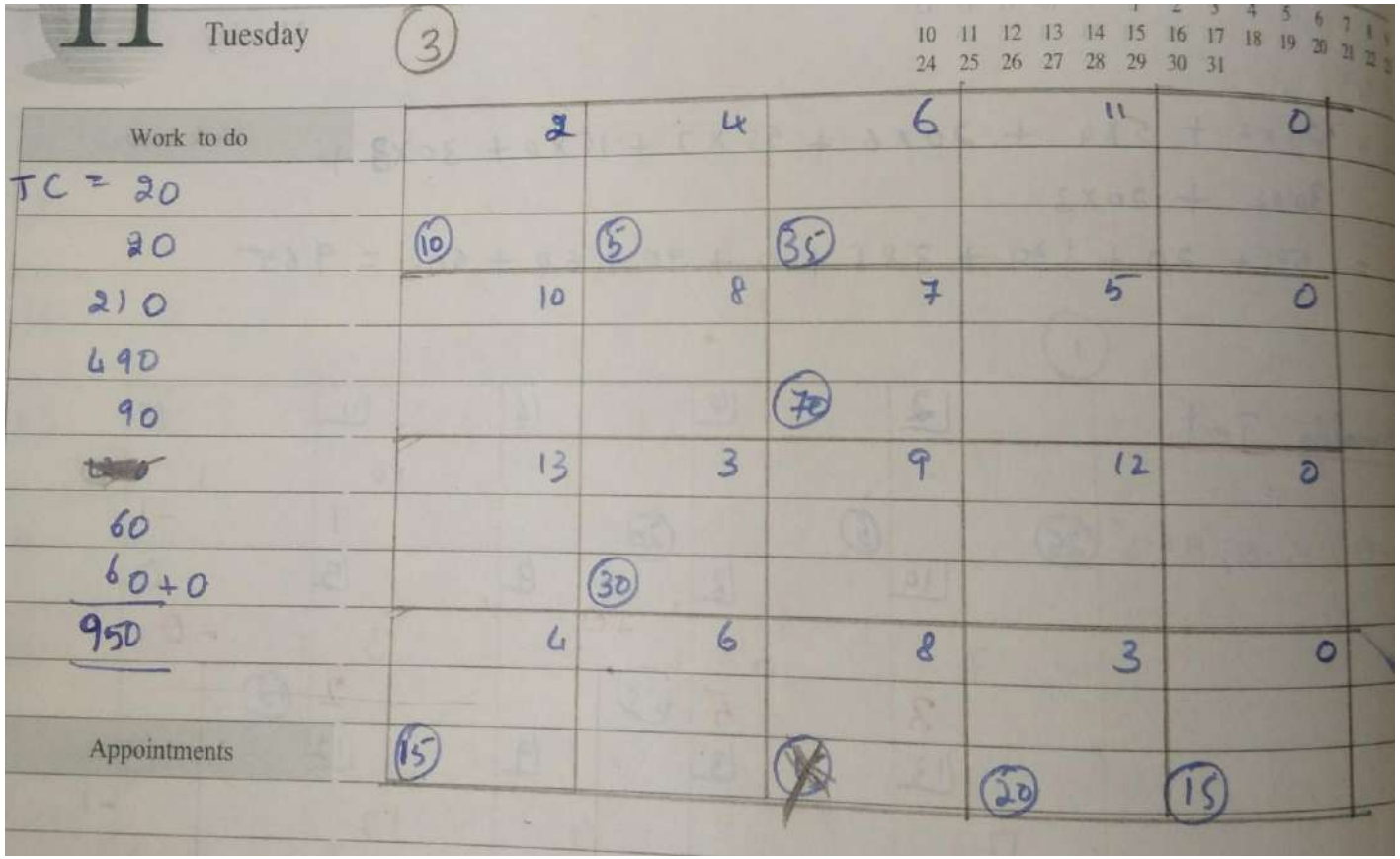

Alternative Optimal Sol.
Work to do
Appointments
VAM – IBFS
Phones
09

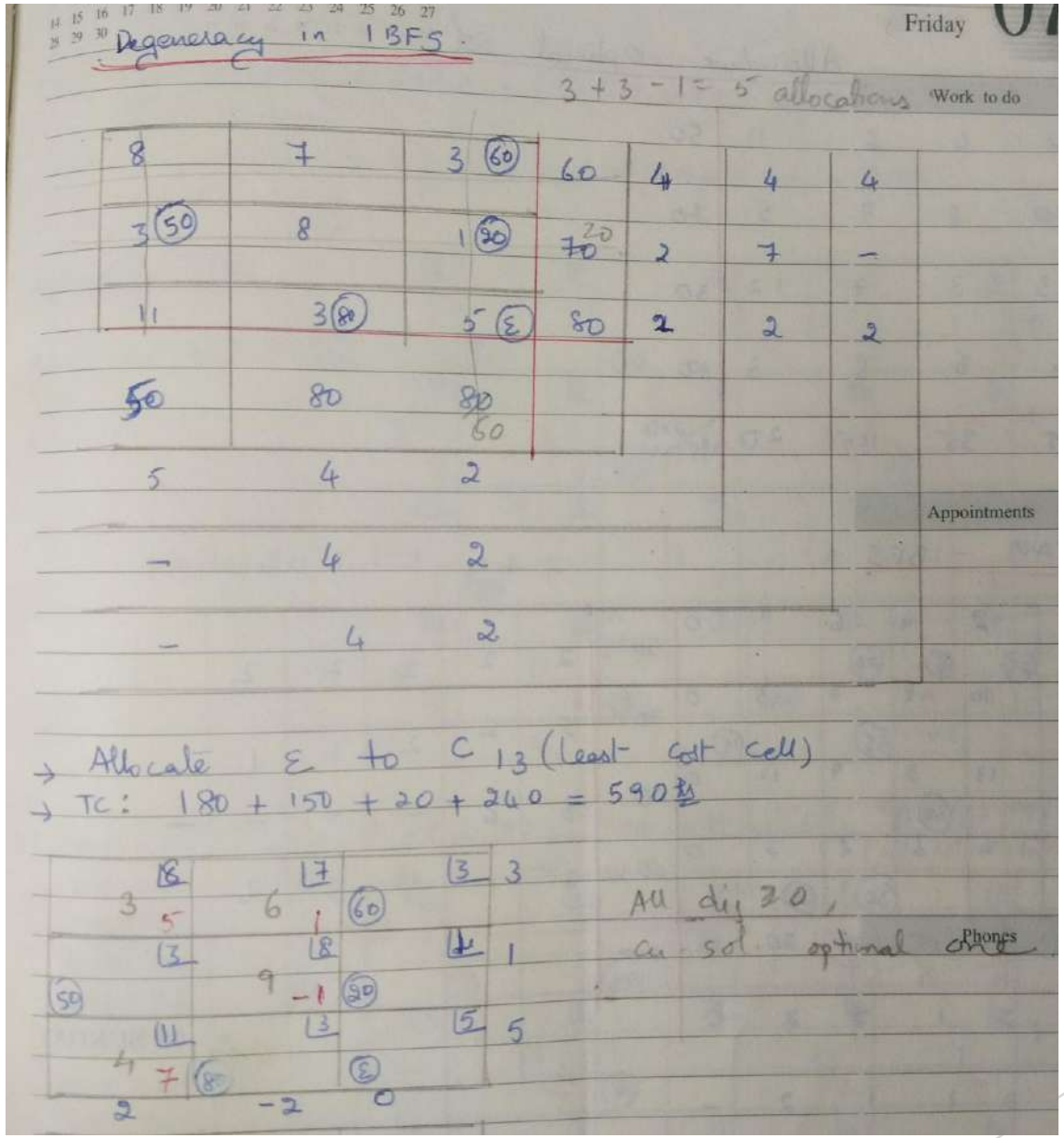

TC: 25x2 + 5x4 + 20x6 + 55x7 + 15x0 + 30x3 +
30x2 + 20x3
= 50 + 20 + 120 + 385 + 0 + 90 + 60 + 60. = 965
Work to do
Optimality Test:
30-θ; 15-θ; θ=15
Appointments


8 29 30
2
4
6
Work to do
25
85
7
70
3
30
6
8
3
0
5
12
20
15
Appointments
TC = 50 + 150 + 490 + 90 + 30 + 80 + 60 + 0 = 950 Rs.


TC: 25X2 = 50
5X4 = 20
20X6 = 120
70X7 = 490
30X3 = 90
15X8 = 120
20X3 = 60
15X0 = 0
950
25-0
15-0
0 = 15
Taking Cij as 0 - basis
All dij ≥ 0; Hence optimal sol;
All sol. exists
Phones


Taking Cij into - basis.
5 - θ
15 - θ
θ = 5
Phones
2
-θ
4
6
+θ
25
5
20
10
8
7
70
13
3
9
30
4
6
8
3
0
+θ
-θ
15
20
15


Tuesday
3
Work to do
Appointments
TC = 20
20
210
490
90
60
60+0
950
2
4
6
11
0
10
8
7
5
0
13
3
9
12
0
4
6
8
3
0
10
5
35
70
30
15
20
15


Degeneracy in IBFS.
Friday
3 + 3 - 1 = 5 allocations
Work to do
Appointments
→ Allocate ε to C13 (least cost cell)
→ TC: 180 + 150 + 20 + 240 = 590
All dij ≥ 0,
an optimal one.
Phones