	A	B	C	D	E	F	G	H	I
1	**Problem: Technician**								
2	**Technician**	**Shift 1 Cost**	**Shift 2 Cost**	**Shift 3 Cost**		**Certified Category**	**Certified Category 2**	**Certified Category 3**	**Certified Category 4**
3	1	280	290	300		1	1	0	1
4	2	300	330	350		0	1	1	1
5	3	270	280	290		0	0	1	1
6	4	180	190	200		1	0	0	0
7	5	175	160	185		0	1	0	0
8	6	225	225	225		0	1	0	1
9	7	295	295	315		1	1	1	0
10	8	305	350	320		0	1	0	1
11									
12	**Technician**	**Technician Assigned to Shift 1**	**Technician Assigned to Shift 2**	**Technician Assigned to Shift 3**					
13	1	0	0	0					
14	2	1	0	0					
15	3	0	0	0		Constraint Non Negative Values			
16	4	1	0	0					
17	5	0	0	0					
18	6	0	1	1		Decision Variables (Binary) >0			
19	7	0	1	1					
20	8	0	0	0					
21									
22	**Constraints**								
23		**Shift 1**	**Shift 2**	**Shift 3**					
24	Certified Category 1	=SUMPRODUCT(B13:B20,F3:F10)	=SUMPRODUCT($C$13:$C$20,$F$3:$F$10)	=SUMPRODUCT($D$13:$D$20,$F$3:$F$10)					
25	Certified Category 2	=SUMPRODUCT(B13:B20,G3:G10)	=SUMPRODUCT($C$13:$C$20,$G$3:$G$10)	=SUMPRODUCT($D$13:$D$20,$G$3:$G$10)					
26	Certified Category 3	=SUMPRODUCT(B13:B20,H3:H10)	=SUMPRODUCT($C$13:$C$20,$H$3:$H$10)	=SUMPRODUCT($D$13:$D$20,$H$3:$H$10)		Constraint At least 1 Technician Assigned			
27	Certified Category 4	=SUMPRODUCT(B13:B20,I3:I10)	=SUMPRODUCT($C$13:$C$20,$I$3:$I$10)	=SUMPRODUCT($D$13:$D$20,$I$3:$I$10)		to each shift			
28									
29	Technician 1 Cost	=SUMPRODUCT(B3:B10,B13:B20)	Cost of Technician 1						
30	Technician 2 Cost	=SUMPRODUCT(C3:C10,C13:C20)	Cost of Technician 2						
31	Technician 3 Cost	=SUMPRODUCT(D3:D10,D13:D20)	Cost of Technician 3						
32	**Total Cost**	=SUM(B29:B31)	Objective, Minimize						