## Answer Sheet for CHE654 Homework Set #1 (100 points)

<u>Note</u>: For all problems, submit a copy of your process flow diagram and a copy of your input summary of the process.

<b>1.</b> (20 po	oints) Mass	Balances and C	onstraints wit	h Elementary Mo	dules, I	
Numb	er of missin	g standard input	;=			
Numb	er of constra	aints =				
Check on	e: The prob	lem is: [ ] unde	r-specified	[ ] fully specified	[ ] over-spec	fied
	Streams	Compone	nt Flow Rates	(lbmol/hr)		
		A	В	С	Total Flow	
	S1	120	0	0	120.000	
	S2					
	S3			92.880	223.200	
	S4					
	S5					
<b>3.</b> (20 po	oints) Mass	Balances and C	onstraints wit.	h Elementary Mo	dules. III	
` -	ŕ			n Liententary 1110	unics, III	
Numb	er of missin	g standard input	;=			
Numb	er of constra	aints =				
Check on	ne: The prob	lem is: [ ] unde	r-specified	[ ] fully specified	[ ] over-spec	fied

Streams	Cor	nponent Flow	Rates (lbmol/	/hr)	
	A	В	С	D	Total Flow
S1		100	0	0	
S2			135		
S3					117.50
S4					

4	(20)	: 4 )	7 /	D 1	1 (	Constraints			N /11 -	
4	1 701	nainte	VITE	KAIAH <i>CO</i> S	ana	ANGTE/HINTS	with HI	om <i>o</i> ntary	- WIAAIIIO	
т.	120	DOMES	TITLE COOL	Duillices	unu	viisii uuiius	Will Li	- III CILLUI V	MUMBLE	D. A.

Number of missing standard input =		
Number of constraints =		
Check one: The problem is: [ ] under-specified	[ ] fully specified	[ ] over-specified

Streams	Compone	ent Flow Rates (	lbmol/hr)	
	A	В	С	Total Flow
S1				
S2				
S3	50			
S4				160
S5				
S6				

## 8. (15 points) Determination of Tear Streams and Computation Order, II

(a) The irreducible groups are:	
The precedence order or computational order is: _	

(b) F	
A co	omplete computational sequence for the entire flowsheet is:
. (15	points) Determination of Tear Streams and Computation Order, III
	points) Determination of Tear Streams and Computation Order, III ear streams are:
The	
The	ear streams are:
The	ear streams are:
The Com	ear streams are:
The 1 Com	ear streams are: putational order:
The factor Com.	points) Determination of Tear Streams and Computation Order, V