Answer Sheet for CHE494 Homework Set #5
(100 points)

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

19. (40 points) ***Double-Effect Evaporator***

The mass fraction of sugar from the concentrated liquor of the second evaporator is _____

20. (30 points) ***Separation of Compound X***

Column bottom flow rate = _____ lbmol/hr

Distillate vapor flow rate = _____ lbmol/hr

21. (30 points) ***Extractive Distillation***

(a) Mole purity of MCH in the overhead stream of the first column = _____ mole%

Mole purity of toluene in the overhead stream of the second column = _____ mole%

(b) The final value of D/F ratio in the second column = _____

(c) Submit plots of the densities (vapor and liquid) as a function of tray number.