Answer Sheet for CHE494 Homework Set #2
(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.**

6. (30 points) *Using A+ to Perform Some Engineering Calculations, I*

    (a) Answer: T_{BUBBLE} = _____ °C

    (b) Answer: Solubility (mol%) of *n*-butanol in water = _____ mol%

    (c) Answer: T = _____ °C

8. (30 points) *Simulating Isobutene Production with ASPEN PLUS*

    <u>Answer the following questions:</u>

    Flow rate of isobutene product stream = _____ lbmol/hr

    Purity of isobutene in the product stream = _____ mol%

9. (40 points) *Producing Cyclohexane from Benzene-Water Waste*

    (i)   The purity (mole%) of cyclohexane:

        Before the treatment unit = _____, After the treatment unit = _____

    (ii) The required heat transfer area in the cooler = _____ ft^2

    (iii) The temperature of the organic stream

        Before entering the cooler = _____ °F, After exiting the cooler = _____ °F