

## Assignment 2

### Instructions

You should submit two files:

- 1) A pdf document that provides the solutions and discussion (if any) for each question. You should provide the formulas that you used and/or the optimization model you formulated. You should also briefly show/explain your calculations. **Please prepare this document by typing it in either MS Word or LaTeX, and then convert it to a PDF file. Please do NOT submit handwritten work.**
- 2) An Excel file that shows your workings (e.g., calculations, optimization result). The file should be clearly understandable to the TA. (You can provide brief comments/notes in the Excel worksheets if necessary.)

### Questions (Total 100 points)

1. [44 pts] In chapter 7 “Demand Forecasting in a Supply Chain”,
  - a. [20pts] Exercise 1 (“Consider monthly demand for the ABC Corporation ...”)
  - b. [24pts] Exercise 3 (“Quarterly demand for vegetables at a wholesaler ....”)
2. [56 pts] In Chapter 8,
  - a. [28pts] Exercises 1.a, 1.b, 1.c, and 1.d (“Skycell, a major European cell phone manufacturer, ...”)
  - b. [28pts] Exercises 2.a, 2.b, and 2.c (“Reconsider the Skycell data in Exercise 1. ...”)
    - Note that Exercise 2 assumes the same parameter values as those from the base model of Exercise 1 except for the option of a third party manufacturer. For example, the starting and ending inventory should be still 50,000 units.
    - You don’t need to do Exercise 2.d.