## PART 1:

These exercises are from the book, pages 353-359:

- Problem 1,
- Problem 2,
- Exercises 1.a, 1.b, 2.a, 15.a, 15.b, 15.c

## PART 2:

- 1. By using the time series plots of the monthly data in WILL5000PRFC file:
  - a. Describe the time series components (if any) by using the graph only?
- b. Calculate autocorrelations (ACF), and partialautocorrelation (PACF) and generate a correlogram for the ACF and PACF
  - c. Describe the data based on ACF and PACF.
  - d. Does an MA and AR model, or combination of both, fit better? Why?
- 2. Take the first difference of the data and repeated Exercise 1.
- 3. By using the first difference data determine an ARIMA(p,d,q). You should use AIC or BIC as your selection criteria.
- 4. Estimate the selected model.
- 5. Forecast three periods in the future.