Practice for FMBF computer LAB session 4

In this session, you are aiming to review the contents in the last three sessions we had through practicing the questions below with Givewin and PcGive.

Key words: AR, MA, ARMA, ARIMA Modelling; Cointegration; Volatility models: ARCH, GARCH, EGARCH, etc.. and forecasts

AR Modelling (Dataset: BA)

1. Can Graphics Function suggest a preferred model for the price of British Airways?

2. Constructing the model for price of BA.

3. Process the diagnostic steps to test the fitness of the model built up in question 2.

Unit root test (Dataset: FTSE)

4. Manual unit root test on the variable FTSE100 and explain the result.

5. Automated unit root testing on FTSE100 and explain the result.

6. If appropriate, test for the presence of I(2) for FTSE100 series.

Cointegration-EG test (Dataset: FTSE)

7. Does cointegration exist between FTSE100 and FTSEALL?

Cointegration-Johansen test (Dataset: Johansen)

8. Detect cointegration and find out the relationship among Yb Yc Yd.

ARCH and GARCH modelling (Dataset: GARCH)

9. Build up a proper model for the series of exchange rate of Canadian Dollar (variable CD in the dataset) and explain why the model you obtain should be a preferred model.

10. Use your preferred model to produce forecasts.