

2246

A

M.A. Winter Semester

ECONOMICS

Course 404 – Forecasting Methods and Applications

(Admissions of 1999 & onwards)

Time : 2 hours

Maximum Marks : 50

(Write your Roll No. on the top of immediately on receipt of this question paper).

Attempt any four questions.

1. a. Using the matrix form of a simultaneous equation model, derive its reduced form representation.
b. Derive the order and rank conditions for identification. 4½+8

2. a. Describe the procedure to test for the presence of a unit root.
b. Explain the method of generalized least squares estimation. 6½+6

3. a. Describe the stages in the Box-Jenkins approach to forecasting univariate time series.
b. What are Yule-Walker equations? Show how the PACF can be derived using these equations. 7½+5

4. a. Describe the Mincer-Zarnowitz concept of forecast efficiency. How is this different from the Granger-Newbold concept of conditional efficiency? How would you test simultaneously for Mincer-Zarnowitz and Granger-Newbold efficiency?
b. Describe Holt's and Winters' exponential smoothing models in detail. How are the initial values determined in both models? Are these methods always better than a simple exponential smoothing method? 5+7½

5. (a) Define each of the components of the classical time series decomposition method. Explain how each of these are determined. Explain how the decomposition method can be used to make forecasts.
(b) Describe the Delphi approach to forecasting. 6½+6