

NOTE: Attempt any five questions.

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- I. Answer the following :-
 - a) Explain the difference between cross-sectional data and time series data. Give examples of each.
 - b) What are pooled data? What are panel, longitudinal, or micropanel data?
 - c) What is a stationary time series? A non-stationary time series? Give an example of a non-stationary time series.
 - d) What is the difference between a parameter and an estimate of a regression function? (4x4)
- II. Discuss the limitations of the moving average method of estimating trend in a time series. Define the exponentially weighted moving average time series forecasting approach. (16)
- III. Discuss a general linear regression model and state the assumptions. Obtain the OLS estimates of the parameters. (16)
- IV. Compare and contrast an AL model with a DL model and discuss the relative merits of the two models. (16)
- V. Outline the Box-Jenkins identification methodology. (16)
- VI. Explain what co integration is and how **you** would test for it using the Engle-Granger method. What is the rational for an Error Correction Model? (16)
- VII. Compare and contrast an AR model with a ARMA model and discuss the relative merits of the two models. (16)
- VIII. Write short note on: VAR Models and their role in Business forecasting. (16)
- IX. Contrast an ARCH model with a GARCH model and discuss the relative merits of the two formulations
- X. Write short notes on:-
 - a) Arima Model
 - b) Tests of Stationarity(8,8)

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