

# Time series analysis and Forecasting

## Question Bank

### Unit 1- Introduction and forecasting

Q. No	Question	Co Mapping
1	Explain use of forecasts and time series?	CO1
2	Explain time series forecasting techniques	CO1
3	Explain forecasting process in detail?	CO1
4	What is imputation explain any 2 imputation techniques	CO1
5	Draw time series analysis DART model and List time series analysis plot types	CO1
6	Explain plotting smoothing data	CO1
7	Explain Auto-covariance and Auto-correlation Functions	CO1
8	Explain General Approach to Time Series Modelling and Forecasting	CO1
9	What is Evaluating and how Monitoring Forecasting Model Performance methods we can use.	CO1
10	List R commands and explain with use	CO1

### Unit 2- REGRESSION ANALYSIS AND FORECASTING

Q. No	Question	Co Mapping
1	What is regression and write types of regression.	CO2
2	What is the Least Squares Regression method and why use it?	CO2

3	Explain SST,SSR,SSE, $R^2$	CO2
4	Explain Steps to conduct hypothesis on regression coefficient .	CO2
5	Explain steps for prediction.	CO2
6	Outline types of residual.	CO2
7	Explain variable selection methods in regression.	CO2
8	Summarize Estimating the Parameters in Time Series Regression Models.	CO2
9	Summarize The Maximum Likelihood Approach in Regression Analysis.	CO2
10	Which R commands used in regression analysis	CO2

### **Unit 3- REGRESSION ANALYSIS AND FORECASTING**

<b>Q. No</b>	<b>Question</b>	<b>Co Mapping</b>
1	What is Exponential smoothing and explain Simple Exponential Smoothing and Holt Linear Exponential Smoothing	CO2
2	Explain First-Order Exponential Smoothing	CO2
3	Explain second-order exponential smoothing	CO2
4	Explain Higher-order exponential smoothing	CO2
5	What Are Exponential Smoothing Methods?	CO2
6	Summarize modelling time series steps.	CO2
7	What is constant process and write characteristics of a Constant Process	CO2
8	Classify Methods for Adaptive Updating	CO2

9	Summarize Applications of Exponential Smoothing in Bio-surveillance	CO2
10	Explain R commands used for Exponential Smoothing Methods	CO2