

MASTER OF ARTS EXAMINATION, 2025
ECONOMICS
2nd Year, 2nd Semester
Subject Code : ECO/A/DSE 10.1
ADVANCED ECONOMETRICS II

Time : Two Hours

Full Marks : 30

Answer any three questions :

1. a. Explain the problem of identification of a structural Vector Auto Regression (VAR) model.
b. Why is this problem important? 8+2=10
2. Describe Johansen's methodology for finding out cointegration among the variables using Vector Auto Regression (VAR) approach. How does this method overcome the limitations of Engel-Granger Methodology? 2+8=10
3. Explain the method of estimation of impulse response function and variance decomposition. 5+5=10
4. (a) Define and distinguish between ARCH and GARCH Model.
(b) How do you estimate the parameters of an ARCH Model and carry out the test for ARCH effect? 4+6=10
5. (a) Distinguish between semi-parametric and non-parametric estimation method.
(b) Explain Kernel Density estimation method.
6. Write short notes on (any two) : 3+7=10
 - (a) The test for restrictions on lag length in a Vector Auto Regression (VAR) Model.
 - (b) Granger Representation Theorem.
 - (c) Estimation of technical efficiency of firms using Data Envelopment Analysis. 5+5=10
