Master of Arts Examination, 2018

2nd year , 4th Semester

Economics

Advanced Econometrics II

Time 2 hours   **Full marks   30**

Answer any three questions

1. Explain the concept of impulse response function and variance decomposition method in the context of VAR. $5+5 = 10$

2. Explain Johansen method for finding out co integration among the variables using VAR approach. 10

3. (a)Discuss the method of Identification of a VAR model using Sims Procedure.
   (b) How do you carry out the test for restriction using VAR model ?
                                                                                          $5+5 = 10$

4. How non parametric estimation does differs from parametric estimation? Discuss the concept of Kernel Density estimation. In this context explain the concept of Kernel function and the associated properties. Show that the kennel estimator is biased for small sample.
                                                                                          10

5. Derive survivor function and hazard function for the different distributions given below:
   (a) Simple Exponential Distribution: $F\,(t,\Theta) = 1 - e^{-\Theta t}, \Theta > 0$

   (b) Weibull Distribution: $F\,(t,\Theta,\alpha) = 1 - \exp(-(\Theta t)^{\alpha}), \Theta > 0$

   (c) Lognormal Distribution: $F\,(t) = \phi\left(\left(\frac{1}{\sigma}\right)(log t - \mu)\right), \mu = mean,\ \sigma^2 = variance$
                                                                                          10

6. Write Short note:
   (a) Poisson Regression Model
   (b) Counterfactual Estimation
                                                                                          $5+5 = 10$