Q1. Which of the following is a disadvantage of the fixed effects approach to estimating a panel model?

1. The model is likely to be technical to estimate

2. The approach may not be valid if the composite error term is correlated with one or more of the explanatory variables

3. The number of parameters to estimate may be large, resulting in a loss of degrees of freedom.

4. The fixed effect approach can only capture cross sectional heterogeneity and not temporal variation in dependent variable.

Q2. The "within transform" involves:

1. Taking the average values of the variables

2. Subtracting the mean of each entity away from each observation on that entity

3. Estimating a panel data model using least squares dummy variables

4. Using both time dummies and cross-sectional dummies in a fixed effects panel model

Q3. In the context of simultaneous equation modelling, which of the following statements is true concerning an endogenous variable?

1. The values of endogenous variables are determined outside the system

2. There can be fewer equations in the system than there are endogenous variables

3. Reduced form equations will not contain any endogenous variable on the right hand side

4. Reduced form equations will contain only endogenous variables on the right hand side

Q4: How many parameters will be required to be estimated in total for all equations of a standard form, unrestricted, tri-variate VAR (4), ignoring the intercepts?

1. 12

2. 4

3. 3

4. 36

Q5. An ARMA (p,q) (p,q are integers greater than zero) model will have

1. An acf and pacf that both decline geometrically

2. An acf that declines geometrically and a pacf that is zero after p lags

3. An acf that declines geometrically and a pacf that is zero after q lags

4. An acf that is zero after p lags and a pacf that is zero after q lags

Q6. If a series, y, follows a random walk, what is the optimal one-step ahead forecast of y?

1. The current value of y.

2. Zero

3. One

4. The average value of y over the in-sample period

Q7. Though two time series are individually non-stationary, their linear combination is stationary. This is an example of:

1. Spurious regression

2. Cointegration

3. Unit Root Process

4. Random Walk

Q8. Which of the following is NOT the correct statement about Granger Causality and Exogeneity?

1. Granger causality is neither necessary nor sufficient to establish weak exogeneity

2. Granger Causality is necessary but not sufficient for strong exogeneity

3. Weak exogeneity is all that is needed for estimation and testing

4. In the regression of Y_t on X_t, X_t is super exogenous if the regression parameters change when X values change.

Q9. Which of the following tools is used for the state-space representation of dynamic system?

1. Kalman Filter

2. Box-Jenkins Method

3. ADF test

4. Error Correction Model

Q10. Which of the following is NOT the methodology for obtaining non-liner model representations? (6)

1. Projection methods
2. Value function iterations
3. Policy function iteration
4. Box-Jenkins method

Answer Key.

1) 3

2) 2

3) 3

4) 4

5) 1

6) 1

7) 2

8) 4

9) 1

10) 4