

M.A./M.Sc. 3rd Semester Examination, 2023

ECONOMICS

PAPER – ECO-303(A & B)

Full Marks : 50

Time : 2 hours

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

PAPER – ECO-303(A)

(Econometrics-III)

GROUP – A

Answer any two questions : 2×2

1. Differentiate between the Classical Linear Regression Model (CLRM) and Generalized Linear Regression Model (GLRM).

2. Compare and contrast the Classical Hypothesis Testing Approach (CHTA) with the Conditional Cross-Sectional Time Series Analysis (CCTA) models.
3. Define Seemingly Unrelated Regression (SUR) and its applications.
4. Explain the concept of an error components model.

Answer any **two** of the following questions :

4 × 2

5. Define and describe the summary statistics used in a multinomial logit model.
6. Discuss how the Generalized Linear Regression Model (GLRM) is utilized for forecasting future observations.
7. Elaborate the properties and applications of the Conditional Cross-Sectional Time Series Analysis(CCTA) model.

8. Define the Dynamic Panel Data Regression Model and describe the suitable estimation method and challenges associated with it . 2 + 2

Answer any **one** of the following questions :
8 × 1

9. Describe the process of estimating parameters in the Classical Hypothesis Testing Approach (CHTA) model using the Generalized Least Squares (GLS) method.

10. Prove that the Generalized Least Squares (GLS) estimator is the Best Linear Unbiased Estimator (BLUE).

GROUP – B

Answer any **two** of the following questions :
2 × 2

11. Distinguish between just-identified and over-identified equation.

12. Distinguish between LIML and FIML.
13. Write the relation between logit and probit estimates.
14. Write four uses of PCA.

Answer any **two** of the following questions : 4 × 2

15. Prove that the OLS estimators in simultaneous equation model are inconsistent.
16. Explain the method of indirect least squares with a suitable example.
17. Describe the 2SLS method of estimation in simultaneous equation system.
18. Discuss the problems associated with the Linear Probability Model.

Answer any **one** of the following question : 8×1

19. Distinguish between logit and probit models. Find the marginal effects in these models. Write any two measures of goodness of fit used for these models. $3 + 2 + 3$
20. Explain the steps involved in the method of Principal Component Analysis. How can you find loadings and eigen values of principal components ? $4 + 4$

[**Internal Assessment — 10 Marks**]

PAPER — ECO-303(B)

(Agricultural Economics-III)

GROUP — A

Answer any **two** of the following questions : 2×2

1. Distinguish among perfectly elastic, perfectly inelastic, relatively elastic and relatively inelastic demands for agricultural goods.

2. What do you mean by speculation in agricultural products ?
3. Distinguish between joint products and complementary products in agriculture.
4. What do you mean by market integration ?

Answer any **two** of the following questions :

4 × 2

5. Write any four production functions used in agricultural economics and find partial elasticity of inputs for these production functions.
6. Describe Raj Krishna's model concerning the connection between price and the marketable surplus of agricultural products.
7. Elaborate the Nerlove's agricultural supply response model.
8. Explore the elements of agricultural market infrastructure.

Answer any **one** of the following questions : 8 × 1

9. Explain various measures for assessing the price volatility of agricultural products. 8
10. Describe marketing channel of agricultural goods with a suitable example. Analyse the associated marketing costs, marketing margins, and price spreads for the chosen example. 4 + 4

GROUP – B

Answer any **two** of the following questions : 2 × 2

11. What are the objectives of farm management ?
12. Define farm budgeting.
13. Define profit frontier.
14. What is efficient unit isoquant ?

Answer any **two** of the following questions :
4 × 2

15. Discuss briefly the scopes and problems related to farm management.
16. What are the major economic principles that are applied to farm management? Discuss in brief any one economic principle that is applied to farm management. 2 + 2
17. Discuss in brief the steps involved in farm planning.
18. Discuss briefly the consequences of the presence of inefficiency in the production process.

Answer any **one** of the following question :
8 × 1

19. Define production frontier. Discuss Farrell's, (1957), input based measure of technical efficiency. 2 + 6

20. Briefly discuss the usefulness of the operation research technique in the farm management. Write in brief the application of the simple linear programming techniques in agricultural farm management.

4 + 4

[Internal Assessment – 10 Marks]
