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63/2 (SEM-4) ECO 4·4, 4·6

2023

ECONOMICS

(Theory Paper)

Paper Code : ECO 4·4

(Agricultural Economics)

Full Marks – 80

Pass Marks – 32

Time – Three hours

The figures in the margin indicate full marks
for the questions.

1. Answer the following questions : 2×4=8

- (a) What do you mean by farming system ?
- (b) What is mixed cropping ?
- (c) What is land-lease market ?
- (d) What is crop rotation ?

[Turn over

2. Answer the following questions : $5 \times 4 = 20$

- (a) Mention some characteristics of primary sector.
- (b) State the factors that determine the location of crops.
- (c) What are the factors that affect the demand for farm product ?
- (d) What is Minimum Support Price (MSP) ? How MSP is determined in India ? $2+3=5$

3. Attempt any two of the following questions :

$10 \times 2 = 20$

- (a) Explain the nexus between farm size and agricultural productivity in India.
- (b) What is marketed and marketable supply ? Explain the relationship between the two. $5+5=10$
- (c) What is mobility of labour ? What are the different types of mobility of labour ? Explain the factors that determine the mobility of labour. $2+3+5=10$
- (d) Explain the important features of agricultural price policy followed by Govt. of India since independence. Why agricultural price policy is important in India ? $7+3=10$

4. Answer the following questions : $16 \times 2 = 32$

- (a) (i) What is peasant farming ? Discuss the Chayanovian farm household model.

$2+14=16$

Or

- (ii) Critically explain the Cobweb agricultural market model. 16

- (b) (i) Critically explain Mellor's theory of agricultural development. 16

Or

- (ii) Distinguish between Microcredit and Microfinance. Explain how Microcredit and Microfinance help in the development of rural economy.

$6+10=16$

(Theory Paper)

Paper Code : ECO 4'6

(Econometrics)

Full Marks – 80

Pass Marks – 32

Time – Three hours

The figures in the margin indicate full marks
for the questions.

1. Answer the following questions : 2×4=8

- (a) Under what condition do we use H.S method ?
- (b) What do you mean by binary dependent variable ?
- (c) What is an unit root ?
- (d) What is autocorrelation ?

2. Answer the following questions : 5×4=20

- (a) Differentiate single equation model from simultaneous equation model.
- (b) Explain simulation process.

(c) Prove that autocorrelation is a measure of simple correlation coefficient.

(d) Show that AR(1) model is stationary.

3. Answer any *two* of the following questions : 10×2=20

- (a) Show under what conditions Koyck's distributed lag model can provide a solution to the problem of multi-collinearity.
- (b) Derive the 3 SLS estimators of the coefficient of the equation of SEM.
- (c) Find out the effects of Heteroscedasticity on OLS estimators.
- (d) Explain Granger causality test.

4. Answer the following questions : 16×2=32

(a) (i) Given the demand and supply function :

$$Q_{dt} = A_1 + A_2P_t + A_3X_t + U_{1t}$$

$$Q_{st} = B_1 + B_2P_t + U_{2t}$$

X is income. The quantity demanded is a function of price as well as income of the consumer. Examine which of the

equation is identified ? Which method will be appropriate to estimate the coefficient of the above equation ? Estimate the coefficient by the appropriate method. $4+2+10=16$

Or

- (ii) Explain the features of LPM and Logit model. How are the disadvantages of LPM overcome in Logistic model ?

$8+8=16$

- (b) (i) Illustrate the impact of autocorrelation on OLS estimators.

- (ii) Prove that ARMA model is stationary.

$8+8=16$

Or

- (i) Briefly explain a spurious regression with the help of a non-stationary series.

- (ii) Elaborate the 2-step verification process of error correction model as postulated by Engel and Granger.

$6+10=16$