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

ECONOMICS

PAPER — ECO-305(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-305(A)

(*Econometrics*-IV)

GROUP—A

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

1. How would you measure labour input in empirical studies ?

2. Define household. How do you measure its size in the context of family budget studies.

3. How would you measure capital input in empirical studies ?

4. What are the major variables included in the study by H. G. Lewis on impact of unionisation on real wages ? Explain.

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

5. Explain the identification problem in the estimation of demand function.

6. Explain the estimation of employment function. Why one period lag is included ?

7. Explain the basic problems in the estimation of Cobb-Douglas production function. How can you solve them ?

8. Critically analyse the estimation process of the investment function.

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

9. Critically analyse the estimation process of the consumption function.

10. Explain the basic determinants of cost function. Discuss the various methods of estimating cost. Explain the basic problems in the estimation of it. How would you solve them ?

2 + 2 + 2 + 2

GROUP—B

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

2 × 2

11. What do you mean by income homogeneity property of an inequality measure ?

12. Define standard deviatio of logarithms as a measure of income inequality.

13. Explain Pigou-Dalton criterion in the context of inequality measure.

14. Define equally distributed equivalent income.

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

4×2

15. Explain the basic steps involved in evaluating structural breaks.

16. Write a note on RBI-MSE model.

17. Explain the Theil's entropy measure of inequality.

18. How would you estimate money demand and money supply function in a Simultaneous equation framework ?

Answer any **one** of the following question :

8×1

19. What are macro-econometric models ? What are their characteristics ? What trend do you notice in their construction over time ?

(Continued)

20. Define Gini-coefficient and serive its maximum and minimum values.

[Internal Assessment — 10 Marks]

PAPER — ECO-301(B)

(*Agricultural Econometrics*-IV)

GROUP—A

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

1. Suppose a production function in the agriculture sector involving private capital (P) and public capital (G) is given as $Y = AP^{\mu}G^{\lambda}$. Show that elasticity of output with respect to the public capital is λ.

2. Make a relation between MSP and Input Price.

3. Write two differences between FDI and FPI ?

4. Mention two major agricultural sub-sectors in India inviting foreign capital for their expansion.

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

5. Discuss how the linkages between the sub-sistence farm sector and a non-farm capitalist sector make rural development in line with the Lewis model.

6. Write a note on the structure of agricultural financing in India.

7. Define private capital and public capital in the agricultural sector. Explain in this context the concepts of forward linkage and backward linkage. $2 + 2$

8. Define crop insurance. Explain in this context the problem of Moral Hazard. 2 + 2

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

9. Construct a model on the linkages between the Farm sector and the Non-farm sector, the former is the labour intensive and latter is the capital intensive and show that increase in stock of labour in the economy leads to expansion of the farm sector and contraction of the non-farm sector.

10. What are the determinants of MSP ? Discuss how they impact MSP from theoretical perspectives. Intuitively correlate the levels of MSP with the yield rates in the food crops in India. 2 + 4 + 2

GROUP — B

Answer any **two** questions : 2×2

11. Evaluate the CAGR and EAGR of the part of GDP coming from agriculture (GDPA) in the period from 1950-51 to 2019-20 from the following estimated regression equation of In-GDPA on time (T) : In-GDPA = 11.80 + 0.0269T. [It is given that In(1.0273) = 0.0269].

12. How is nature of acceleration or deceleration of a macro variable measured from the log cubic equation ?

13. Define RSS-based measure of fluctuation.

14. Why is year-to-year fluctuation more prevalent than other types of fluctuation in Indian agriculture ?

(Continued)

Answer any **two** questions : 4×2

15. Define CAGR and EAGR. Explain the relevance of the distinction between them.

16. How is year-to-year growth of a macro variable defined ? Give an estimate of it for GDP of India in the year 2010-11 over the previous year and comment on it. [It is given that value for GDP for 2009-10 and 2010-11 at 2004-05 prices are 4790847 (million rupees) and 5282386 (million rupees) with log values 15.3822 and 15.4799 respectively]

17. Make a distinction between RSS-based measure of fluctuation and the Coppock measure of fluctuation and explain the relevance of this distinction.

18. Define break in the trend path of a macro variable. Explain different types of breaks *generally observed in a time series.*

Answer any **one** question : 8×1

19. Explain briefly different methods of measuring growth of a macro variable over a long period of time.

20. Explain the nature of growth of GDP (Gross Domestic Product) of India in the period from 1950-51 to 2019-20 from the estimated equations In (GDP) = 12.38 + 0.0492T (R-square = 0.9790, Adjusted R-squar = 0.9787, F-value = 3174.84 with P-value = 8.36E-59) and In (GDP) = 12.68 + 0.0228T + 0.00038T^2. (R-square = 0.9984, Adjusted R-square = 0.9983) F-value = 20578.20 with P-value = 3.70E-94).

[Internal Assessment — 10 Marks]

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