

M.A./M.Sc. 3rd Semester Examination, 2022

ECONOMICS

(Econometrics-IV/Agricultural Economics-IV (Spl. Paper))

PAPER — ECO-305 (A & B)

Full Marks : 40

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 output while estimating a production function ?**

2. What are the major limitations of time series and cross-section data ?
3. State the basic variables used in family budget studies. Mention any significant outcome of this study.
4. State the mathematical forms used in the estimation of investment function.

Answer any **two** questions : 4 × 2

5. Explain the basic variables used to study the impact of labour union on real wages. Explain the finding of H.G. Lewis in this respect. 2 + 2
6. Explain the method used to estimate the money demand function where money supply is exogenously given by the monetary authorities.
7. Explain the basic problems in the estimation of Cobb-Douglas production function. Explain how these problems can be solved. 2 + 2

8. What do you mean by MTD ? Explain the method to solve the identification problem in estimating a demand function. 1 + 3

Answer any one question : 8 × 1

9. Critically analyse the problems involved in the estimation of short-run consumption function. How would you solve them ? 5 + 3

10. How do you measure cost of a firm in the context of analysis ? Explain the techniques used for solving the problems involved in estimating a cost function. 3 + 5

GROUP-B

Answer any two of the following questions : 2 × 2

11. State the purposes of estimating macro-economic models.
12. Explain the weak-income transfer axiom.

13. Briefly explain the macro-economic variables included in macro-econometric model.
14. Verify whether Relative Mean Deviation satisfies the IHP.

Answer any two questions : 4×2

15. Explain the Theil's entropy measure of inequity.
16. Write a note on MPS model.
17. How would you test the presence of structural breaks in a long time series? Explain your answer.
18. Distinguish between IHP and Translation criteria.

Answer any one question : 8×1

19. Briefly point out the recent developments in the construction of macro-econometric model. Discuss the RBI-MSE model. $4 + 4$

20. Explain the concept of equally distributed equivalent income by Sen and Atkinson. Find maximum and minimum values of Atkinson measure. Why these measures are known as normative measures ? 3 + 3 + 2

PAPER – ECO-305(B)

(Agricultural Economics-IV(Spl. Paper))

GROUP – A

Answer any two questions : 2 × 2

1. Define a Farm Sector and Rural Non Farm Sector.
2. Make a relation between MSP and Input Price.
3. What are the 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 subsistence 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. Mention two positive and two negative impacts of FDI in the agricultural sector in India.
8. Define crop insurance. Mention two advantages of crop insurance facility. $2 + 2$

Answer any one question : 8×1

9. Construct a model on the linkages between the Farm sector, Rural Non Farm sector and Formal Industrial sector in India mentioning the underlying assumptions. Determine the 'terms of trade' between the Farm and RNF sector from the model. $2 + 2$

10. What are the determinants of MSP ? Intuitively correlate the levels of MSP with the yield rates in the food crops in India. 6 + 2

GROUP—B

Answer any two questions : 2 × 2

11. What is CAGR ? How is it measured ?
12. Define Coppock's measure of fluctuation.
13. Write a note on different types of breaks observed in a macro time series.
14. Why is year-to-year fluctuation more prevalent than other types of fluctuation in Indian agriculture ?

Answer any two questions : 4 × 2

15. Distinguish between CAGR and EAGR.

16. Assuming 8 years as the minimum length of a policy regime, GDPA of India for the period from 1950-51 to 2013-14 is found to have four regimes, e.g., 1950-51 to 1964-65, 1965-66 to 1978-79, 1979-80 to 2001-02 and 2002-03 to 2013-14 with growth rates 2.62, 3.12, 3.29 and 3.89%. Identify possible reasons for these three breaks.
17. How is year-to-year growth of a macro variable defined? Give an estimate of it for GDP of India in the year 1981-82 over the previous year and comment on it. It is given that GDP at 2004-05 prices in the year 1980-81 was 866340 (million rupees) with log value = 13.67 and that in the year 1981-82 was 918374 (million rupees) with log value = 13.73.
18. How is acceleration or deceleration of a macro variable measured from the log quadratic equation? Explain.

Answer any one question :

8 × 1

19. Explain briefly different methods of measuring fluctuation of a macro variable over a long period of time.
20. Explain the nature of growth of GDPA (Gross Domestic Product accruing from Agriculture) of India in the period from 1950-51 to 2019-20 from the estimated equations $\ln(\text{GDPA}) = 11.80 + 0.0269T$ (R-square = 0.9885, Adjusted R-squar = 0.9883, F-value = 5854.10 with P-value = 1.07E-67) and $\ln(\text{GDPA}) = 11.9044 + 0.0185t + 0.0001t^2$. (R-square = 0.9947, Adjusted R-square = 0.994) F-value = 6336.91 with P-value = 4.46E-77).
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