

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MA DEGREE EXAMINATION MAY 2022
(Second Semester)

Branch – ECONOMICS

ECONOMETRICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions.

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 Choose the correct answer which is related to the values that the correlation coefficient
(i) -1 to +1 (ii) 0 to 1
(iii) 1 to 5 (iv) 5 to 10
- 2 What is the degrees of freedom of explained sum of square (ESS) for k number of parameters is
(i) $(n-1)-(n-2)$ (ii) $(n-1)$
(iii) $(n-k)$ (iv) $(n-1)-(n-k)$
- 3 Which the data set is applicable for Chow Test
(i) Cross-Sectional Data (ii) Time Series Data
(iii) Panel Data (iv) Pooled Data
- 4 What is the reasons for the Multicollinearity problem
(i) Estimation (ii) Measurement
(iii) Sample (iv) Inference
- 5 Identify the right answer which is related to stationary stochastic process
(i) Mean and variance are constant
(ii) Mean and covariance constant
(iii) Covariance depends on actual time period
(iv) Not applicable to this

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a Discuss the limitations of correlation theory.
OR
b Explain the scope of econometrics.
- 7 a Evaluate the test of goodness of fit.
OR
b Analyse the co-efficient of multiple determination.
- 8 a Analyse the difference between Regression and ANOVA.
OR
b Illustrate the methods of ANOVA (F-test).
- 9 a Explain the Heteroscedasticity: Meaning – Sources.
OR
b Analyze the test for Detecting of Auto Correlation.
- 10 a Differentiate the stationarity and non- stationarity.
OR
b Discuss the concept of spurious regression.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11 a Explain the methodology of Econometrics Research.

OR

b Calculate the Correlation coefficient between two variables.

Y	10	20	50	40	50	60	80	90	90	120
X	3	4	12	8	15	16	20	85	50	30

12 a The following table gives data on Income and Expenditure in Millions of dollars for India for the period 1970 – 1984.

Year	1970	1971	1972	1973	1974	1975
Expenditure	85689	94459	105243	123506	147582	165334
Income	9070	10187	11662	13320	14055	16665

1. Estimate the regression line and interpret the results

2. Find the coefficient of determination r^2

3. Compute the 't' ratio

OR

b Analyse the test of significance of estimates.

13 a Enumerate the concepts of testing the stability of regression coefficient (Chow test).

OR

b Explain the methods of testing the improvement fit.

14 a Analyse the testing the detecting of multi-collinearity.

OR

b Discuss the remedial measures of heteroscedasticity.

15 a Explain the concepts of Correllogram.

OR

b Elucidate the Spurious regression.

Z-Z-Z

END