22ECP208

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MA DEGREE EXAMINATION MAY 2023
(Second Semester)

Branch – **ECONOMICS**

ECONOMETRIC METHODS & APPLICATIONS

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1. The name 'Econometrics' was coined by.....
   (i) Irving Fischer (ii) J.M Keynes
   (iii) Ragnar Frisch (iv) Alfred Marshall
2. In a regression model, Y= a+bX+ui:
   (i) Y is the regressor; X is the explanatory variable
   (ii) Y is the regressant; X is the explanatory variable
   (iii) Y is the independent variable; X is the dependent variable
   (iv) Y is the independent variable; X is the outcome variable
3. What is the meaning of the term 'heteroscedasticity'?
   (i) The variance of the errors is not constant.
   (ii) The variance of the dependent variable is not constant.
   (iii) The errors are not linearly independent of one another.
   (iv) The errors have non-zero mean
4. The combination of Time series and Cross section data is termed as.....
   (i) Primary data (ii) Secondary data
   (iii) Panel data (iv) None of these
5. Exogenous variables are:
   (i) fixed at the moment they enter the model
   (ii) determined within the model
   (iii) the outputs of the model
   (iv) explained by the model

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6. a) Explain the methodology of econometric research.
   OR
   b) State the assumptions of ordinary least square.

7. a) Show the concept of ANCOVA.
   OR
   b) Write a note on Chow test.

8. a) Produce the tests for detecting multicollinearity.
   OR
   b) Organise the sources of Autocorrelation.

9. a) Prepare the meaning spurious regression.
   OR
   b) Illustrate the ARIMA Modelling.

Cont...

10. a) Explain the two stage least square.

OR

b) Write a short note on AMOS.

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11. a) Explain the statistical properties of the least squares estimators.

OR

b) Enumerate the scope of econometrics.

12. a) A random sample of five families yields the following data

Family		A	B	C	D	E
Saving S(in hundred Rs)	6	12	10	7	3	
Income Y(in thousand Rs)	8	11	9	6	6	
No. of children, N	5	2	1	3	4	

Estimate the regression line of S on Y and N.

OR

b) Elucidate testing the overall significance of a regression.

13. a) Predict the sources and remedies for heteroscedasticity.

OR

b) Invent the meaning and consequences of multi-collinearity.

14. a) Survey the various types of forecasts.

OR

b) Appraise the Dickey Fuller Test.

15. a) Analyse the order and rank condition of identification.

OR

b) Design the methods of Estimation.

Z-Z-Z

END