

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2025
(Sixth Semester)

Branch – STATISTICS

ECONOMETRICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Which of the following is an endogenous variable?
(i) Government policies (ii) Interest rate in an economic model
(iii) Climate conditions (iv) Population growth
- 2 The Harrod-Domar model focuses on
(i) Economic growth (ii) Trade policies
(iii) Government taxation (iv) Inflation control
- 3 Open input-output models consider
(i) External trade factors (ii) Only domestic production
(iii) Only demand side economics (iv) Only supply side economics
- 4 Economic forecasting helps in
(i) Predicting future economic trends (ii) Controlling market demand
(iii) Stopping inflation completely (iv) Avoiding investments
- 5 Dummy variables are used to represent
(i) Categorical data in regression models (ii) Continuous data
(iii) Only time-series data (iv) Measurement errors

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Define Econometrics and explain its scope in economic analysis.
OR
b Differentiate between Exogenous and Endogenous variables with an examples.
- 7 a Explain the concept of the multiplier effect with an example.
OR
b What is the cobweb model? How does it explain market fluctuations?
- 8 a Discuss the key assumptions of the input-output model.
OR
b What are the limitations of Leontief's Input-Output analysis?
- 9 a What is the significance of linear and non-linear models in economic forecasting?
OR
b Explain the key steps involved in testing a linear model.
- 10 a Define multicollinearity and explain its impact on regression analysis.
OR
b What is specification error in econometric models? How can it be corrected?

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Describe the role of economic models in economic theory and their practical applications.

OR

- b Discuss the significance of static and dynamic models in econometric analysis.

- 12 a Elucidate accelerator principle and how it influences investment and economic growth.

OR

- b Explain the Harrod-Domar model of economic growth and state its assumptions.

- 13 a Summarize Leontief's Input-Output analysis and its significance in economic planning.

OR

- b Describe the practical applications of input-output analysis in economic development and policy-making.

- 14 a Narrate the importance of economic forecasting and the methods used for prediction.

OR

- b Sketch the different testing methods used in linear and non-linear econometric models.

- 15 a Explain the concept of autocorrelation and how it affects time-series models.

OR

- b Examine the role of dummy variables in econometric models with examples.

Z-Z-Z

END