

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BCom DEGREE EXAMINATION DECEMBER 2018
(Third Semester)

Branch - COMMERCE (BUSINESS ANALYTICS)

ECONOMETRICS

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)

- 1 What is an econometrics?
- 2 State any two scope of an econometrics.
- 3 What are the assumptions of bivariate model?
- 4 Define serial con-elation.
- 5 What is a distributed - Lag model?
- 6 What do you mean by error measurement?
- 7 What is input and output model?
- 8 What is output analysis simulation?
- 9 What is an auto regressive process?
- 10 What is a first order moving average?

SECTION - B (25 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 5 = 25)

- 11 a Explain the limitations of econometrics.
OR
b Explain dependent variable and independent variable in a linear model.
- 12 a How can you form a single equation with two variables?
OR
b Write a brief note on auto - correlation.
- 13 a Explain the Spearman rank correlation test to identify the heteroscedasticity.
OR
b Explain the dummy variable.
- 14 a Determine if the open Leontief model with input matrix T given by
$$T = \begin{pmatrix} 0.5 & 0.6 \\ 0.3 & 0.7 \end{pmatrix}$$
 is feasible.
OR
b What are the assumptions of input - output model?
- 15 a Explain first order auto regressive model.
OR
b Explain the ARCH(p) model.

SECTION - C (30 Marks)

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 How can you fit a two variable linear model? Explain its testing method of parameter.
- 17 Explain the method of least square for the estimation of the parameter of a bivariate linear model.
- 18 What is the problem of heteroscedasticity of disturbance? How does it arise? Discuss with illustration.
- 19 Briefly discuss about Leontief's input - output model.