23CBA313N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCom DEGREE EXAMINATION DECEMBER 2025
(Third Semester)

Branch – **COMMERCE (BUSINESS ANALYTICS)**

ECONOMETRICS

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	The least square estimators are (a) Unbiased (b) Biased (c) Efficient (d) Sufficient	K1	CO1
	2	Independent variable is also called as (a) explained variable (b) regressand variable (c) explanatory variable (d) dependent variable	K2	CO1
2	3	If generated value of tolerance is equals to 1, it is an indication of (a) Low Multicollinearity (b) Perfect Multicollinearity (c) No Multicollinearity (d) High Multicollinearity	K1	CO2
	4	Which test is used for finding out the pattern of multicollinearity (a) Chi-Square Test (b) t-test (c) F-test (d) Z-test	K2	CO2
3	5	Incorrect data transformation is also source of (a) Heteroskedasticity (b) Homoscedasticity (c) Multicollinearity (d) Biasness	K1	CO3
	6	In panel data T is greater than the subject N is called (a) Short (b) Long Panel (c) Balanced Panel (d) Unbalanced panel	K2	CO3
4	7	Input and Output analysis were 1st proposed by (a) prof Wassily Leonitef's (b) Prof Farrar Gulbar (c) Prof R A Fisher (d) Prof Simon D Poisson	K1	CO4
	8	The solution of input and output model is (a) $X=(I-A)F$ (b) $X=(I-A)^{-1}F$ (c) $X=(I-FA)^{-1}$ (d) $X=(A-I)^{-1}F$	K2	CO4
5	9	Durbin Watson test used as (a) Minimum sample size (b) Large sample size (c) As per the requirement (d) Based on population size	K1	CO5
	10	The autocorrelation disturbance tern $E(u_t)$ = (a) 0 (b) 1 (c) 2 (d) ∞	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain the objectives and Scope of Econometric Model?	K2	CO1
		(OR)		
	11.b.	Explain economic forecasting and its types with suitable example.		
2	12.a.	Explain the term Multicollinearity with suitable example.	K3	CO2
		(OR)		
	12.b.	Elucidate the causes of Multicollinearity.		
3	13.a.	Explain the term heteroskedasticity and test for detecting heteroskedasticity.	K3	CO3
		(OR)		
	13.b.	Explain Univariate time series modelling.		
4	14.a.	Explain the limitations of I/O model.	K4	CO4
		(OR)		
	14.b.	Explain the closed input model.		
5	15.a.	Explain the features of ARIMA Model	K4	CO5
		(OR)		
	15.b.	Explain Box-Jenkins Model with suitable example.		

SECTION -C (30 Marks)

Answer **ANY THREE** questions

ALL questions carry **EQUAL** Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain about Method of two variable linear regression model.	K4	CO1
2	17	Explain Multivariate econometric modelling with suitable example.	K4	CO2
3	18	Explain dummy variable and Uses of dummy variable in econometric model.	K4	CO3
4	19	$\begin{matrix} & S_1 & S_2 \\ A= & \begin{pmatrix} 0.2 & 0.4 \\ 0.1 & 0.5 \end{pmatrix} \end{matrix}$ $F_1=60, F_2=40$ Analyze the output level of each other.	K4	CO4
5	20	What is auto correlation? And explain the methods of diagnosing auto correlation.	K4	CO5

Z-Z-Z END