Avinashilingam Institute for Home Science and Higher Education for Women
Coimbatore – 641 043
Continuous Internal Assessment –I (February, 2025)
Semester – I

Class : I M.A. **Time: 2hours**
Major: Economics **Max.Marks: 60**

23MECC10- Econometrics

Course outcome:

CO1 Knowthebasicsofmodelconstructionwithapplicationinconsumptionandproductiontheory.
CO2 Comprehendtheapplicationofordinaryleastsquareestimationanddiagnostictesting.
CO3 Apprehendmethodstotestforandresolveautocorrelation,HetroscadasticityandMulticollinearity
CO4 Estimateeconometricmodelsusingrealworlddata.
CO5 Developanalyticalskillsintheapplicationofeconometrictechniques.

PART–A **6 X 1 = 6**

Circlethecorrectanswer

1. Econometrics deals with -----------. **CO1K2**
   a) Exact relationship b)Inexact relationship
   c) No relationship d)Partial relationship
2. Mathematical economics deals with ------------- **CO2K2**
   a) Exact relationship b) Inexact relationship
   c) No relationship d) Partial relationship
3. Coefficient of determination measures **CO3K2**
   a) ThecorrelationbetweenXand Y
   b) Fitofthefunctionalform
   c) Theresidual sumof squaresas aproportion ofthetotalsum of square
   d) Theexplained sumof squares asaproportionof thetotalsum of squares
4. The term econometrics was coined by? **CO1K1**
   a) Ragnar Frisch b)James Shortle c) Jayson Lusk d)David Gilberman
5. Whatis themeaningoftheterm "heteroscedasticity"? **CO3K1**
   a) Thevarianceof theerrors is not constant
   b) Thevarianceof thedependentvariableis not constant
   c) The errorsarenot linearlyindependentof one another
   d) Theerrors havenon-zero mean
6. What is auto correlation? **CO3K1**
   a) Correlation(Ui Uj) =0
   b) Correlation(Ui Uj) is not equal to 0
   c) Explanatory variables are correlated
   d) Explanatory variables are not correlated

PART–B

Answer the following questions **3x6=18**

(Answer should not exceed 400 words)

7a.What are the differences among Economics, Mathematical Economics and Econometrics. **CO1K2**

(or)

7b.Describethedesirableproperties ofan econometric model. **CO2K3**

8a.Descrip the types of heteroscedasticity? **CO2K3**

(or)

8b.Describe the steps in Spearman's Rank Correlation Test **CO3 K4**

9a.What are the sources of auto correlation? **CO4 K5**

(or)

9b.Write a note on coefficient of determination **CO4 K6**

PART–C

Answer the following questions **3 x 12=36**

(Answer should not exceed 800 words)

10a.Explain the stages in methodologyof Econometric Research **CO2K3**

(or)

10b.Statethestochastic andnon-stochasticassumptionsofOLS method. **CO2K3**

11a.Estimate the regression model $Y=\beta 0+\beta_1 X_1+\beta_2 X_2+u$ and summarize the results. **CO2K5**

Y	:	30	35	42	43	38
X1	:	36	65	58	60	56
X2	:	34	25	22	55	29

(or)

11b.Explain the causes and consequences of Heteroskedasticity **CO4K5**

12a.Discuss the consequences and solutions for Autocorrelation **CO4K5**

(or)

12b.Describe the solutions for Heteroscedasticity? **CO4K5**

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