



Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment – II (October, 2024)
Semester V

Class: III UG
Major: Economics

Time: 2 Hours
Max. Marks: 60

Course Outcomes:

- CO 1** Know the basic concepts in Econometrics
CO 2 Understand the methodology of Econometric Research
CO 3 Comprehend the use of regression analysis for analysing economic data.
CO 4 Familiarise the use of computer software to estimate models and interpret the results.
CO 5 Apply econometric techniques to validate economic theories

21BECC15 - Basic Econometrics I

SET - 1

Practical Questions:

(2x15= 30)

1. Estimate the savings function by a standard regression analysis and interpret the results.
Use dummy variable for family size, D=0 when family size is below 4 and D=1 otherwise.

CO4K5

Annual savings (Y)	5	4	3	2	6	7	9
Annual Income (X1)	6	6	4	4	7	8	10
Family size (X2)	4	3	2	2	5	6	6

2. Given the following set of data on annual sales and years of experience of sales persons for two different periods. Test whether the annual sales changed between two periods.

Periods	Period 1						Period 2					
Experience in years	2	2	1	1	5	5	3	4	4	3	8	10
Annual sales	20	12	8	10	70	60	32	90	30	30	100	60

Theory Questions:

(2 x 15 = 30)

- 1a. Discuss the significance of the various types of dummy variable, paying specific attention to the differences between intercepts and slope dummies. **CO5K3**
(Or)
- 1b. What do you mean by proxy variable? What are the advantages and disadvantages? **CO5K3**
- 2a. Describe the assumptions and prerequisites for conducting a chow test. What are the consequences of violating these assumptions? **CO5K4**
(Or)
- 2b. Explain the relationship between F and t – tests in a simple linear regression **CO5K4**

Number of copies: 25

Staff In-charge: Dr.M.Shanthi



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21BECC15 - Basic Econometrics I

SET - 2

Practical Questions:

(2 x 15= 30)

1. Estimate the wage function ($Y = \beta_0 + \beta_1 D + u$) by OLS method, using dummy variable for Gender, $D = 1$ for Male and $D = 0$ for female.

CO4K5

Y (Wage)	1900	1850	1700	2000	3500	4000	3800	4500
X (Gender)	Female	Female	Female	Female	Male	Male	Male	Male

2. The following data represents the household consumption expenditures of households living in the south and north regions. Test the hypothesis that the structure is the same in the two regions.

CO4K5

Regions	Southern					Northern				
Y (Expenditure)	500	700	600	800	400	1000	800	700	500	900
X (Income)	12000	13000	12200	7000	11000	50000	45000	50000	85000	63000

Theory Questions:

(2 x 15= 30)

- 1a. Discuss how dummy variables can be used to control for seasonal effects in time-series analysis.

CO5K4

(Or)

- 1b. Describe the differences between dummy variables and categorical variables. How do dummy variables help avoid the dummy variable trap.

CO5K4

- 2a. Write the procedure for estimating non – linear regression model with an example

(Or)

CO5K4

- 2b. Explain the procedure for calculating the Chow test statistic by additive / multiplicative dummy variable approach

CO5K3

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