

- e) Calculate the confidence interval of the coefficient for the geographic location and interpret the result.
- f) Calculate the adjusted- $R^2$ . Is this a better goodness-of-fit measure than the  $R^2$ ?
- g) Give an exact interpretation of the  $\ln(pce)$  coefficient
- h) Determine which of the coefficients are statistically significant at the 5% level.

$(1+1+1+1+1+1+3)=10$

3. Use Table1 given below to answer the following questions: (a) How STATA software can be used to get results as in table 1?

(b) Interpret the results of Table 1.

(c) What test statistic can be used to check whether the mean difference of time allocation for husband and wife over different types of activities are significantly different at 5% level?

(d) Analyse whether intrahousehold allocation of time is different between husband and wife.

Table1: Intrahousehold time allocation of Wife and Husband

Types of Activities	Individual	Mean	Median	Standard Error	Coefficient of Variation
Market Activity	Husband	312.10	320	196.10	0.6283
	Wife	160.06	110	170.34	1.0642
Household Activity	Husband	52.02	30	60.44	1.1618
	Wife	346.64	361.67	164.94	0.4758
Travel Activity	Husband	102.5541	85	84.31	0.8221
	Wife	76.47852	75	71.19	0.9309
Leisure and Personal Care Activity	Husband	973.32	970	199.19	0.2047
	Wife	856.8163	850	151.12	0.1764

$(2+3+1+4)=10$

4. (a) What steps should a researcher follow in designing a questionnaire for primary data collection?

(b) Discuss different methods of collecting primary data.

(c) Suppose a researcher want to estimate the prevalence of low birth weight pregnancy outcome in women who are exposed to carbon mono oxide (CO) due to use of biomass fuel. How will you calculate the sample size? Explain with an example.

$(3+3+4)=10$