

2017

M.Phil.

1st Semester Examination

ECONOMICS

PAPER—ECO-111

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group-A

1. Answer any *two* questions from the following : 2×5
- (a) What is Stratified Sampling? Give an example where this method of sampling works best.
 - (b) Design a questionnaire for assessing the effect of demonitisation on urban unorganised sector. (Only state those questions that are related to the research topic, no need to gather any kind of general information like name, address etc.)
 - (c) Define research question in empirical research in Economics and explain how research questions are formulated in such research.

(Turn Over)

(d) What are the various steps of writing a Ph.D thesis in Economics ? Discuss.

2. Answer any *one* question from the following : 1×10

(a) Explain that ANOVA, though stands for Analysis of Variance, is actually meant for analysis of means of a variable for a number of groups/classes of a population. Show how and under what conditions you can apply a two way ANOVA for a sample classified in two ways. 4+6

(b) (i) Explain the different types of variables.

(ii) Explain the different types of research. 5+5

(Group-B)

3. Answer any *two* questions from the following : 2×5

(a) What are the major steps involved in hypothesis testing? When is the test significant?

(b) How to write a Literature Review?

(c) What are the different components of research report writing?

(d) Write down the steps to select the appropriate Panel Data Regression Model in STATA.

4. Answer any *one* question from the following : 1×10

(a) (i) How would you differentiate between parametric and non-parametric hypothesis testing? 2

- (ii) Suppose that we are interested in determining if a new drug is effective in reducing cholesterol. The data set is given below :

The Critical and Acceptance Region; $n = 10$.

Case	Cholesterol	
	Initial	Final
1	240	228
2	237	222
3	264	262
4	233	224
5	236	240
6	238	237
7	264	264
8	241	219
9	260	252
10	256	253

x	p(x)
0	0.0010
1	0.0098
2	0.0439
3	0.1172
4	0.2051
5	0.2461
6	0.2051
7	0.1172
8	0.0439
9	0.0098
10	0.0010

Clearly specifying the null and alternative hypotheses and using the Sign test, draw the conclusions from the above data set. 4

- (iii) A sample of 400 male students is found to have a mean height of 171.38 centimeters. Can it be reasonably regarded as a sample from a large population with mean height 171.00 centimeters and standard deviation 3.37 centimeters? 4

- (b) (i) Construct the hypothesis of testing the equality of two means and write the steps of this testing in MS-Excel.
- (ii) The estimation of Cobb-Douglas Production function is given as follows :

	Coefficients	Standard Error	t Stat	P - value		
Intercept	-1.652	0.606	-2.726	0.014	R Square	0.99508
Ln(L)	0.340	0.186	?	0.085	F	17192
Ln(K)	0.846	0.093	?	0.000	Significance	0.000

Find out the missing t-values of Ln(L) and Ln(K) and interpret the results of the estimated regression model.

- (iii) Interpret the D-W statistic's estimated value 0.2187 in case of pooled regression model ($i = 4$ and $t = 20$) (where $d_L = 1.41$ and $d_U = 1.54$).
3+5+2