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ECH 502

Third Semester M.A. Degree Examination, December 2018
(CBCS)
ECONOMICS
Econometrics – I

Time : 3 Hours

Max. Marks : 70

- Instructions :** 1) Answer **all** the **three** Parts.
2) Part – **A** : Answer to **each** question **not** exceeding $\frac{1}{2}$ page.
3) Part – **B** : Answer to **each** question **not** exceeding **four** pages.
4) Part – **C** : Answer to **each** question **not** exceeding **six** pages.

PART – A

1. Define/Answer **any ten** of the following : **(10×2=20)**
- Distinguish between parameter and statistic.
 - Estimation.
 - Mathematical model.
 - Confidence limit.
 - Significance level.
 - One-side and two-sides test.
 - Regression model.
 - Disturbance term.
 - Goodness of fit.
 - Standard error.
 - Log-log model.
 - Quota sampling technique.

PART – B

- Answer **any five** questions. **(5×6=30)**
- How would econometrics differs from mathematical economics and mathematical statistics ? Discuss.
 - What is sampling ? Explain its need and importance in econometrics.
 - Discuss the procedure of generating sample from normal distribution.

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5. Explain the method of stratified sampling technique. Give one real life situation where it can be used.
6. Discuss the steps involved in hypothesis testing.
7. A sample of 12 cars of a particular brand average miles per gallon in 35 and standard deviation is 15. Test the manufacture’s claim of 40 miles per gallon as population average with 5 percent level of significance t value = 1.796.
8. Does a meaningful relationship exist between education level and salary of employees ? Test at 5% significance level test value =

		Education level	
		School	College
Salary group	Low	40	10
	High	15	35

9. Explain the procedure to calculate growth rate in econometrics.

PART – C

Answer **any two** of the following.

(2×10=20)

10. Critically examine the nature and scope of econometrics.
11. Define random sampling technique. Compare and contrast various types of random sampling techniques.
12. Discuss the significance of the use of disturbance term in econometric modeling.
13. Following table represents the information pertaining to sales and advertising cost of a product. Estimate the influence of advertising cost on sales and interpret the results.

Sales (in 1000s Rs.) Advertising	368	380	420	500	530	480	450	600
Cost (in 1000s Rs.)	1.7	2.0	2.3	2.8	3.0	2.7	2.4	4.0
