Exam. Code : 103206

Subject Code :   1201

B.A./B.Sc. 6th Semester

QUANTITATIVE TECHNIQUES—VI

Time Allowed—3 Hours]   [Maximum Marks—100

Note :— Attempt **five** questions in all, including question No. **1** which is compulsory and selecting **one** question from each unit. Marks of each question are given in brackets. Use of Non-programmable non-scientific simple calculator is allowed.

I.   Write short notes on all **ten** sub-parts :

    (a) Differentiate between Statistics and Econometrics.

    (b) Define BLUE.

    (c) What is D-W test ?

    (d) What do you mean by consistency of estimator ?

    (e) What do you mean by errors of measurement ?

    (f) What is the nature of Heteroscedasticity ?

    (g) What is Dummy variable ?

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(h) What is Distributed Lag model ?

(i) Define adjusted R^2.

(j) What is the problem of Auto-Correlation ?

$10 \times 2 = 20$

UNIT—I

II. What is Econometrics ? Explain the scope, types and Methodology of Econometrics. 20

III. Discuss Simple Linear Regression Model with the help of an example. Will it be useful to fit a linear regression to the following data ? Support your argument by computing the relevant measures :

X	12	10	14	18	16
Y	9	10	8	9	7

$10+10=20$

UNIT—II

IV. Explain assumptions and properties of General Linear Regression Model. 20

V. (a) What is Gauss-Markov Theorem ?

(b) What is R^2 ? What is its use ?

(c) Give a note on test of significance. $7+7+6=20$

UNIT—III

VI. What is multicollinearity problem ? What are the sources, consequences and tests of multicollinearity problem in regression analysis ?   20

VII. What is specification bias ? Give types and consequences of specification errors.   20

UNIT—IV

VIII.(a) Give a note on Auto-Regressive models.

(b) Explain the uses of Dummy Variable.

$$10+10=20$$

IX. Explain the sources, tests and remedial measures of auto-correlation problem in regression analysis. 20