[This question paper contains 4 printed pages.]

Sr. No. of Question Paper : 6067 **Your Roll No.....**

Unique Paper Code : 248304

Name of the Paper : Basic Econometrics

Name of the Course : **B.A. (Hons) Business Economics, 2016**

Semester : III

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **five** questions in all.
3. Question No. 1 is compulsory.
4. If any assumptions are made while attempting a problem, the same must be stated clearly.
5. Use of Non Scientific Calculator and log tables is permitted.

1. Comment whether the following statements are true or false. Give reason or explain for the same in 2-3 sentences. Do any **five** :

   (a) Consistency of the estimator need not be satisfied if we want estimator to be 'BLUE'.

   (b) The term 'Goodness of Fit' and 'Coefficient of Determination' can be used interchangeably.

P.T.O.

(c) For a distribution to be normal the value of Skewness should be around '3' and Kurtosis around '0'.

(d) Regression through the origin means deviations from the mean.

(e) Exact level of significance helps us in taking care of Type I Error.

(f) The confidence interval can be built up using either normal distribution or students 't' distribution.

(g) If the dependent variable is in Log, then we can easily get the growth rate from this model. (5×3=15)

2. (a) A researcher wanted to improve upon his results and therefore raised the acceptance region from 95% to 99%. What type of problem he can face in such a situation ? (5)

(b) What do you understand by 'Joint Testing of Hypothesis ? (4)

(c) What are slope dummies, how these are different from intercept dummies ? (6)

3. (a) What do you understand by the term 'Structural Stability' ? How this is carried out (i) by addition of dummy variable (ii) without the addition of dummy variable ?

(b) What are the practical benefits of adding natural log to a variable ? Can we alter the distribution of a variable by such a process ? Discuss.

(c) Can a researcher get different set of Hypomesis results by using 't' statistics and 'p' values ? Discuss. (7,4,4)

4. (a) A machine produces 1000 bags of urea per day. A sample of 5 bags were drawn whose weights were, 24, 26, 28, 30 & 22. Comment whether the average weight of the bag produced per day by the machine can be considered as 25.

(b) Two samples are drawn from two different rivers, River Yamuna in Delhi & River Narmada in MP. The Dissolved Oxygen levels (ppm) were noted at different levels and the following are the results

Sample A (from Yamuna) :	16	14	18	22	20	
Sample B (from Narmada) :	12	20	28	28	17	18

Test whether the mean Dissolved Oxygen Levels in two rivers is the same.

(c) Write three properties of estimators which revolve around the error term. (6,6,3)

5. Write explanatory notes on **any three** of the following :

(i) Stochastic Error Term

(ii) Properties of a Good Estimator

(iii) Double log (log-log) models.

(iv) Justification of addition of a variable (5×3=15)

6. Distinguish Between **any three** of the following :

(i) Standard Deviation and Standard Error

P.T.O.

(ii) Point and Interval Estimators

(iii) ANOVA and ANCOVA

(iv) Acceptance and Rejection Region (5×3=15)