(Please write your Exam Roll No.) *Exam Roll No. ....*

END TERM EXAMINATION

FIFTH SEMESTER [B.COM (HONS.)] JANUARY 2024

Paper Code: BCOM-313	***Subject: Basics of Econometrics***
Time: 3 Hours	***Maximum Marks: 75***

Note: Attempt any five questions. All questions carry equal marks.

Q1 Answer **any five** out of the following:-

(a) What do you understand by statistical inference?

(b) Explain the concept of BLUE.

(c) What is the importance of correct specification of a regression model?

(d) Distinguish between R^2 and adjusted R^2.

(e) When do you apply Durbin- Watson Test? Write down the steps.

(f) What do you mean by sampling distribution?

(g) Explain normal probability distribution and its characteristics.

(h) What is test of significance approach and confidence interval approach in hypothesis testing?

Q2 Define econometrics. What basically characterizes an econometric study? Describe the various steps to be followed in an econometric study.

Q3 Critically apprise the problem of multicollinearity in a regression model. Explain its diagnosis and remedial measures for the same.

Q4 What are the assumptions of Classical Linear Regression Model (CLRM)? Interpret these assumptions. What problems do you encounter if these assumptions are violated?

Q5 What is a hypothesis? Explain how a hypothesis can be tested. Briefly describe the concept of rejection region and acceptance region and explain the types of errors in hypothesis testing.

Q6 Specify a multiple regression model. Explain how its parameters can be estimated by OLS method.

Q7 What is meant by a dummy variable? Specify a regression model by using intercept and slope dummies. Interpret the model.

Q8 Does a model suffer from heteroscedasticity? Explain the forms of heteroscedasticity which can take place and how we can detect the same? What are the remedies for the problem of heteroscedasticity.

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