D5BEM2002　　　　　　　　　(PAGES 2)　　　　　　　　　Reg.No..............................

Name: ....

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

ECONOMICS & MATHEMATICS (DOUBLE MAIN)

GDEC5B07T: ECONOMETRICS I

Time: 2 ½ Hours　　　　　　　　　　　　　　　　　　　Maximum Marks: 80

SECTION A: Answer the following questions. Each carries *two* marks.
(Ceiling 25 Marks)

1. Why econometrics is a separate discipline?

2. Write a note on the scope of econometrics.

3. Distinguish between time series and cross section data

4. Specify the econometric model of consumption function

5. Define the stochastic disturbance term

6. What is P value

7. Distinguish between type I and type II error

8. What is BLUE property?

9. Distinguish between R^2 and adjusted R^2

10. What is multicollinearity?

11. What is autocorrelation? Mention its importance.

12. Define the specification error. What are the reasons of specification errors?

13. Enlist the solutions for errors in variables.

14. What is the normality assumption for u_i?

15. Define PRF and SRF

SECTION B: Answer the following questions. Each carries *five* marks.
(Ceiling 35 Marks)

16. Elucidate the significance of stochastic disturbance term.

17. Explain the method of maximum likelihood estimation.

18. Explain Durbin-Watson test.

19. Describe the three variable regression model by OLS method.

20. Derive the properties of OLS estimators.

21. Explain the consequences of multicollinearity.

22. Examine the causes of autocorrelation.

23. Examine the errors of measurement by considering an econometric model.

(PTO)

SECTION C: Answer any *two* questions. Each carries *ten* marks.

24. Discuss the different steps in Econometric methodology.

25. Elucidate the assumptions underlying the method of least square in the Classical Linear Regression Model.

26. What is Heteroskedasticity? Explain its detection, consequences and remedial measures.

27. For the following data of Test Score (Y) and Hours Studies (X), fit a regression of Y on X and also estimate the value of Y when X is 15.

Test Score (Y)	2	5	6	7	4	3	8	11	1	9
Hours Studied (X)	25	60	54	67	48	34	72	80	18	75

(2 × 10 = 20 Marks)