

THIRD SEMESTER BA DEGREE EXAMINATION, NOVEMBER 2023**(Regular/Improvement/Supplementary)****ECONOMICS****GECO3B03T: QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS - I****Time: 2 ½ Hours****Maximum Marks: 80****SECTION A: Answer the following questions. Each carries *two* marks****(Ceiling 25 marks)**

1. What is primary data?
2. What is schedule?
3. How to convert working class into actual class?
4. What is histogram?
5. Comment on quartiles.
6. Calculate SD of 3, 2, 5.
7. What is Gini coefficient?
8. Define rank correlation coefficient.
9. What are positive and negative correlations?
10. Write a note on deflator.
11. What are the equations for regression lines?
12. What is meant by deviation?
13. Define sex ratio.
14. What is net reproduction rate?
15. Define maternal mortality rate.

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

16. Discuss graphs of frequency distribution.
17. Draw less than ogive and more than ogive for the following data.

Classes:	10-15	15-20	20-25	25-30	30-35	35-40	40-45
Frequency :	4	12	18	20	17	13	7

18. Discuss the merits and demerits of median.

(PTO)

19. Calculate QD for the following data:

Classes:	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency:	1	3	7	11	9	3	2

20. Discuss the properties of regression lines.

21. Explain Scatter diagram.

22. Define time series. Explain the components of time series.

23. Compute Laspeyre's index numbers using the following data.

Commodity	Price		Quantity	
	1970	1980	1970	1980
X	4	10	50	40
Y	2	8	10	5
Z	3	7	5	5

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

24. Calculate mean, median and mode from the following data

Classes:	0-10	10-20	20-30	30-40	40-50	50-60
Frequency:	5	15	40	32	20	8

25. a) Define correlation.

b) Calculate the correlation coefficient for the following data.

x	28	45	40	38	35	33	40	32	36	33
y	23	34	33	34	30	26	28	31	36	35

26. a) What is vital statistics? Discuss the different types of measurement of fertility.

b) The population of a locality is 60,780. The population of women of child bearing age is 15,350. If 1,550 children were born in the year, find the crude birth and general fertility rates.

27. For the following time series, obtain the quadratic trend by the method of least squares and estimate the value in 1990?

Year:	1980	1981	1982	1983	1984	1985	1986
Value:	4	6	10	18	32	51	70

(2 × 10 = 20 Marks)