B.A DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, OCTOBER 2024

Third Semester

COMPLEMENTARY COURSE - ST3CMT51 - QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS I

Common to B.A Economics Model II Foreign Trade, B.A Economics Model II Insurance & B.A History Model II Forestry and Environmental History

2017 Admission Onwards

611BF6CD

Time: 3 Hours   Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Define Caption.

2. What are important sources of primary data?

3. Write one application of measure of central tendency in Economics.

4. Find the harmonic mean of the numbers 20,30 and 50.

5. When will you say a data is platykurtic?

6. The first raw moment of a data about zero is ....

7. Lorenz curve is a measure of ....

8. What is the measure of correlation?

9. What is a scatter diagram?

10. What is meant by perfect correlation?

11. If x is a variable, can you say that 2x+1 is also a variable?

12. How can you find whether a number is divisible by 3 ?

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. State the general rules of forming a frequency table.

14. Draw a histogram for the following data amount of:

Rain (in MM)	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29
No. of places	3	7	9	5	4

15. Describe the merits and uses of Standard Deviation as a measure of dispersion.

16. Explain skewness of a data. What are its important measures?

17. Calculate Standard Deviation of the following data.

Size	2	4	6	8	10
Frequency	8	10	16	9	7

18. Find the first four central moments of the numbers 2,3,7,8 and 10.

19. The regression equations of two variables X and Y are as follows. 2x + 3y - 8 = 0 and x + 2y – 5 = 0. Obtain the arithmetic mean of X and Y. Also find the coefficient of correlation between X and Y.

20. Explain how the coefficient of correlation can be found out from the regression equations.

21. A man took loan from a bank at the rate of 12% p.a. simple interest. After 3 years he had to pay Rs. 5400 interest only for the period. Find the principal amount borrowed by him.

(6×5=30)

Part C

Answer any two questions.

Each question carries 15 marks.

22. Explain the guidelines are to be followed white constructing a questionnaire.

23. What is meant by a measure of central tendency? What are the characteristics of a good measure of central tendency? Discuss the merits and demerits of the various statistical averages in light of these characteristics.

24. (I)Explain Geometric mean. What are its demerits?
    ii)Calculate the Geometric Mean of the following data.

Marks obtained	5	10	15	20	25	30
No. of students	8	12	11	10	6	3

25. (i)Explain how tied ranks can be resolved while calculating rank correlation.
    (ii)Calculate the rank correlation coefficient from the sales and expenses of 10 firms given.

Sales	50	50	55	60	65	65	65	60	60	50
Expense	11	13	14	16	16	15	15	14	13	13

(2×15=30)