22100633

QP CODE: 22100633

Reg No : .....

Name : .....

B.A DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, APRIL 2022

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

BFB91AE7

Time: 3 Hours Max. Marks : 80

Part A

*Answer any **ten** questions.*

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

1. Define Probable Error .
2. What is meant by Tabulation?
3. Define median.
4. Define Geometric mean.
5. What is Bowle's coefficient of skewness?
6. The standard deviation of a set of 10 observations is 24. If 3 is subtracted from all observations, the standard deviation becomes .....
7. Express arithmetic mean in terms of raw moments.
8. What is meant by correlation?
9. If the correlation between two variables X and Y is r, the correlation between X+2 and Y is .....
10. For a data the regression line of y on x is $3x - 4y + 32 = 0$. Find the value of y when x = 64.
11. Write an example of a second degree equation.

12. Writhe the 16th term of the progression 5,9,13,17.....

(10×2=20)

Part B

*Answer any **six** questions.*

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

13. What are the limitations of Statistics?

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. Calculate standard deviation for the following values.
5 ,8,7,11,9,10,8,2,4,6

16. Write the importance of Lorenz curve in Economics.

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

18. Explain Lorenz curve and its economic applications.

19. Explain rank correlation and its importance.

20. What are regression coefficients?

21. How much time will it take for an amount of Rs. 450 to yield Rs. 81 as interest at 4.5% per annum of simple interest?

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. (i)Distinguish between frequency polygon and frequency curve.
(ii) Construct a frequency polygon for the following data.

X	5	10	15	20	25	30	35	40
Frequency	12	23	45	54	39	28	18	9

23. (i)Explain the merits and demerits of Arithmetic Mean over other measures of central Tendency.
(ii) Calculate the arithmetic mean from the following data.

Age(Year)	18 - 21	22 - 25	26 - 35	36 - 45	46 - 55
No. of employees	8	32	54	36	20

24. (I) Distinguish between absolute and relative measures of central tendency.

(ii) The scores of two batsmen A and B in six innings a certain match are as follows. Examine which of the two batsmen is more consistent in scoring.

Batsman A	10	12	80	70	60	43	65	48
Batsman B	25	19	56	32	67	16	67	31

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)