QP CODE: 23146208

23146208

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR/IMPROVEMENT/REAPPEARANCE EXAMINATIONS, DECEMBER 2023

First Semester

Complementary Course - ST1CMT01 - STATISTICS - DESCRIPTIVE STATISTICS

(Common for B.Sc. Mathematics Model I , B.Sc Physics Model I, and B.Sc Computer Applications Model III Triple Main)

2017 Admission Onwards

A57C7F39

Time: 3 Hours Max. Marks : 80

Part A

*Answer any **ten** questions.*

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

1. Define geographical classification of data.
2. Mention any two advantages of tabulation.
3. Define a frequency data.
4. Mention any two situations where sampling only can be adopted.
5. Define weighted arithmetic mean.
6. Mention the names of four measures of dispersion.
7. Find the range of the data set 3, 12, 15, 3, 15, 8, 20, 19, 3, 15, 12, 19, 9.
8. Calculate mean deviation from median for the data 8, 12, 14, 3, 13.
9. Explain the effect of change of origin on central moments.
10. In a certain distribution, the first four central moments are 0, 2.5, 0.7 and 18.75 respectively. Comment on the kurtosis of the distribution.
11. Distinguish between simple and weighted index numbers.
12. Define factor reversal test. Is it satisfied by Fisher's index number?

(10×2=20)

Part B

*Answer any **six** questions.*

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

13. What are the limitations of Statistics?

14. Explain various scaling techniques in statistical analysis.

15. Explain Simple Random Sampling.

16. Define central tendency. What are the desirable properties of a good measure of central tendency?

17. Calculate arithmetic mean and median for the data

X	10	12	15	18	20
Frequency	3	5	8	12	7

18. Draw greater than ogive for the data given below.

Class	0-20	20-40	40-60	60-80	80-100	100-120
Freq.	3	14	16	20	12	5

19. Obtain moment measure of skewness for the following data:

X	5	10	15	20
Frequency	4	8	5	3

20. What are the uses and limitations of index numbers?

21. Define cost of living index numbers. Mention its uses.

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Explain various methods for collecting primary data.

23. Obtain the standard deviation for the data.

Class	13-17	18-22	23-27	28-32	33-37	38-42	43-47	48-52
Freq.	3	12	13	14	7	6	3	2

24. Find the percentile measure of kurtosis .

Class	1-3	3-5	5-7	7-9	9-11	11-13	13-15	15-17
Freq.	2	5	6	8	5	4	3	2

25. Construct Laspeyer's, Paasche's and hence Fisher's index numbers for the following data

Items	Price (p_0)	Quantity (q_0)	Price (p_k)	Quantity (q_k)
A	6	50	10	60
B	4	100	6	120
C	10	60	12	75
D	8	30	14	35

(2×15=30)