



23104619

QP CODE: 23104619

Reg No :

Name :

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

First Semester

B.Sc Statistics Model I

Core Course - ST1CRT01 - DESCRIPTIVE STATISTICS-COURSE I

2017 Admission Onwards

1B2B77E0

Time: 3 Hours

Max. Marks : 80

Part A

*Answer any **ten** questions.*

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

1. Write down any two uses of Statistics.
2. Explain continuous data with examples.
3. Explain geographical classification.
4. Define weighted arithmetic mean.
5. Find the mean of first ten even positive integers.
6. Find the geometric mean of 1, 4 and 2.
7. Distinguish between arithmetic mean and harmonic mean of a data.
8. Give any two advantages and disadvantages of range.
9. Given that σ^2 is the variance of the observations $x_1, x_2, \dots, x_n$, prove that the variance of $ax_1, ax_2, \dots, ax_n$ is $a^2\sigma^2$ where ' a ' is any number different from zero.
10. What are the uses of coefficient of variation?
11. Express the first 4 central moments in terms of raw moments about zero.
12. State any two measures of skewness.

(10×2=20)

Part B





Answer any **six** questions.
Each question carries **5** marks.

13. Explain the various method of collecting primary data.
14. Distinguish between qualitative classification and quantitative classification.
15. Explain the method of drawing Stem and Leaf Chart.
16. Briefly explain the desirable properties of a good average.
17. Define median. Explain how median can be obtained graphically.
18. Define quartile deviation.
19. Find out the mean and variance of 1st n natural numbers?
20. Calculate the Coefficient of kurtosis of the following data

Mark :	0-10	10-20	20-30	30-40
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Frequency:	11	23	34	22
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21. Calculate the moment measure of skewness and kurtosis of the following data
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|------------|------|-------|-------|-------|
| Class: | 0-10 | 10-20 | 20-30 | 30-40 |
| Frequency: | 1 | 3 | 4 | 2 |

(6×5=30)

Part C

Answer any **two** questions.
Each question carries **15** marks.

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

Class:	10-19	20-29	30-39	40-49	50-59	60-69	70-79
Frequency:	14	20	42	54	45	18	7

23. Find mean deviation about mean, median and mode of the following data:

Class	0-20	20-40	40-60	60-80	80-100
Frequency	1	6	16	6	1

24. (a) Define raw moments and central moments.
(b) Establish the relationship between raw moments and central moments.





(c) Explain how we can use moments to study the skewness and kurtosis.

25. (a) Define Kurtosis.

(b) Briefly explain the various measures of kurtosis.

(c) Find the coefficient of skewness of the data.

Salary:	10 – 20	20 – 30	30- 40	40 – 50	50 – 60
Frequency:	24	38	65	90	70
					(2×15=30)

