



K25U 3382

Reg. No. :

Name :

First Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Supplementary)

Examination, November 2025

(2019 to 2023 Admissions)

COMPLEMENTARY ELECTIVE COURSE IN STATISTICS

1C01STA(G&P) : Descriptive Statistics

Time : 3 Hours

Max. Marks : 40

Instruction : Use of calculators and statistical tables are **permitted**.

PART – A

(Short Answer)

Answer **all 6** questions.

(6×1=6)

1. What is the difference between primary data and secondary data ?
2. Find median of 11, 19, 21, 17, 12, 13.
3. Write any two merits of Arithmetic Mean.
4. Define standard deviation of raw data.
5. What is probability sampling ?
6. What do you mean by census ?

PART – B

(Short Essay)

Answer **any 6** questions.

(6×2=12)

7. What do you mean by a frequency curve ?
8. What is pie diagram ?
9. Find the arithmetic mean of first n natural numbers.

P.T.O.



10. Show that sum of deviations of the observations taken from AM is zero.
11. For a distribution mean = 15, median = 12 and mode = 10. Comment on the skewness of the distribution.
12. Calculate Range of 7, 9, 12, 3, 15, 10.
13. Define sampling errors.
14. Explain simple random sampling.

PART – C

(Essay)

Answer **any 4** questions.

(4×3=12)

15. What is a histogram ? How will you construct it ?
16. For two positive numbers a and b, prove that $AM \geq GM$.
17. Calculate standard deviation of the data.

X	6	7	8	9	10	11	12
f	3	6	9	13	8	5	4

18. Two workers on the same job show the following results over along period of time.

	Worker A	Worker B
Mean time of Competing Job	30	25
Standard deviation	6	4

Which worker is more consistent ?

19. Explain the concept of population and sample.
20. Explain stratified sampling.



PART – D
(Long Essay)

Answer **any 2** questions.

(2×5=10)

21. Draw less than and more than ogives for the following distribution of 500 workers. Hence find the median.

Weekly Wages (In Rs.)	50 – 60	60 – 70	70 – 80	80 – 90	90 – 100	100 – 110	110 – 120	120 – 130
No. of Workers	20	60	100	150	75	50	25	20

22. Calculate arithmetic mean and median of the following data and hence calculate mode using empirical relation between the three.

Class limits	130 – 134	135 – 139	140 – 144	145 – 149	150 – 154	155 – 159	160 – 164
Frequency	5	15	28	24	17	10	1

23. Define dispersion. Explain various measures of dispersion.
24. i) What are sampling and non-sampling errors.
ii) Define census and sampling. Explain advantages of sampling over census.