$\qquad$
$\qquad$

# FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2022 (CBCSS - UG) 

(Regular/Supplementary/Improvement)

# CC19U STA1 C02 - DESCRIPTIVE STATISTICS 

(Statistics - Complementary Course)
(2019 Admission onwards)
Time : 2.00 Hours

Maximum : 60 Marks
Credit: 3

Part A (Short answer questions)
Answer all questions. Each question carries 2 marks.

1. What are the limitations of statistics?
2. Define sample.
3. Define discrete and continuous variables.
4. What is a Percentage bar diagram?
5. List the different types of frequency distribution.
6. Define mode.
7. Compute geometric mean of $12,13,15,16,17,19$.
8. Define Harmonic mean.
9. List relative measures of dispersion.
10. Define range and coefficient of range.
11. Write any two disadvantages of mean deviation.
12. Define kurtosis.
(Ceiling: 20 Marks)
Part B (Short essay questions - Paragraph)
Answer all questions. Each question carries 5 marks.
13. Draw the ogives and hence estimate the median.

| Class | $0-9$ | $10-19$ | $20-29$ | $30-39$ | $40-49$ | $50-59$ | $60-69$ | $70-79$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 8 | 32 | 142 | 216 | 240 | 206 | 143 | 13 |

14. Write a short note on Histogram.
15. Explain various methods of collecting primary data.
16. The average salary of male employees in a firm was Rs. 5200 and that of females was Rs. 4200. The mean salary of all employees was Rs. 5000 . Find the percentage of male and female employees.
17. Calculate median for the following data

| Classes | $4-8$ | $8-12$ | $12-16$ | $16-20$ | $20-24$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Frequency | 3 | 7 | 16 | 8 | 2 |

18. From the following calculate upper and lower quartiles.

| Marks | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of Students | 8 | 10 | 22 | 25 | 10 | 5 |

19. Calculate Bowley's measures of skewness from the data below.

| Class | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Frequency | 8 | 15 | 24 | 21 | 12 |

(Ceiling: 30 Marks)
Part C (Essay questions)
Answer any one question. The question carries 10 marks.
20. Explain different methods of measuring central tendancy and discuss its merits and demerits.
21. Calculate standard deviation and its corresponding relative measure for the following data.

| Class | $0-9$ | $10-19$ | $20-29$ | $30-39$ | $40-49$ | $50-59$ | $60-69$ | $70-79$ | $80-89$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 8 | 4 | 3 | 12 | 15 | 6 | 8 | 1 | 3 |

( $1 \times 10=10$ Marks )

