

B.Com(CS) DEGREE EXAMINATION, APRIL 2019
II Year III Semester
Statistics - I

Time : 3 Hours

Max.marks :75

Section A ($10 \times 2 = 20$) Marks

Answer any **TEN** questions

1. Define Statistics
2. What is questionnaire by mail?
3. What are the sources of secondary data.
4. What is Ogive?
5. Write short note on Histogram.
6. What is Frequency Distribution?
7. Give two merits and demerits of Harmonic Mean.
8. Define the Term quartile Deviation
9. Find the median of the set of obseravations 27, 36, 28,18,35,26,20,35,40,26.
10. What is Standard deviation? Formulate?
11. Define Skewness.
12. Formulate Karl Pearson's Coefficient of skewness and Bowley's Coefficient of skewness.

Section B ($5 \times 5 = 25$) Marks

Answer any **FIVE** questions

13. Prepare a frequency distribution from the following figures relating to bonus paid in rupees to workers.

67 60 69 70 62 63 69 70 58 56 67 54 55
 70 60 60 60 61 70 56 57 58 60 59 61 73
 69 67 61 60 59 57

14. Describe the classifications of data.
15. Draw a pie Diagram from the following data

| Type of Commodity | Expenditure in Rupees | |
|-------------------|-----------------------|----------|
| | Family A | Family B |

| | | |
|---------------|-----|-----|
| Food | 300 | 500 |
| Rent | 200 | 350 |
| Cloths | 125 | 250 |
| Education | 110 | 225 |
| Miscellaneous | 75 | 125 |
| Savings | 90 | 150 |

16. Find the Range and the Coefficient of range from the following data.
25,36,41,39,22,46,24,29,40,36,28,31,45,29,34.
17. Calculate A.M, G.M and H.M of the following quantities: 3,6,24,48.
18. Find out the quartile deviation and its coefficient from the following data:

| Class Interval | Frequency |
|----------------|-----------|
| 10-15 | 4 |
| 15-20 | 12 |
| 20-25 | 16 |
| 25-30 | 22 |
| 30-40 | 10 |
| 40-50 | 8 |
| 50-60 | 6 |
| 60-70 | 4 |
| Total | 82 |

19. Calculate the pearson's coefficient of skewness for the following data:

| Class | 3-7 | 8-12 | 13-17 | 18-22 | 23-27 | 28-32 | 33-37 | 38-42 |
|-----------|-----|------|-------|-------|-------|-------|-------|-------|
| Frequency | 2 | 108 | 580 | 175 | 80 | 32 | 18 | 5 |

Section C ($2 \times 15 = 30$) Marks

Answer any **TWO** questions

20. Explain the different types of Diagrams.
21. Give below is the frequency distribution of the marks obtained by 90 students. Compute the A.M, Median and mode.

| Marks | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80-89 | 90-99 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| No Of Students | 5 | 12 | 15 | 20 | 18 | 10 | 6 | 5 |

22. From the given frequency distribution of height of 360 boys in the age of 10-20 years. Calculate the A.M, Coefficient of variation, quartile deviation.

| Height (in cms) | No of boys |
|-----------------|------------|
| 126-130 | 31 |

| | |
|---------|----|
| 131-135 | 44 |
| 136-140 | 48 |
| 141-145 | 51 |
| 146-150 | 60 |
| 151-155 | 55 |
| 156-160 | 43 |
| 161-165 | 28 |

23. Find out Bowley's coefficient of skewness for the following data.

| | | | | | | |
|----------------|-----|-----|-----|----|----|----|
| Weight(in kgs) | 40 | 50 | 60 | 70 | 80 | 90 |
| No of persons | 185 | 167 | 132 | 82 | 38 | 12 |