Reg No
Name

## B.Com. DEGREE (CBCS) EXAMINATION, NOVEMBER 2018

Third Semester
CORE COURSE - CO3CRT08 - QUANTITATIVE TECHNIQUES FOR BUSINESS- 1
(Common to all B.Com Degree Programmes)
2017 Admission Onwards
F98361EA
Maximum Marks: 80
Time: 3 Hours
Part A
Answer any ten questions.
Each question carries 2 mark.

1. What is Descriptive statistics?
2. State the Law of Inertia of Large Numbers.
3. What is classification?
4. What is continuous series?
5. Write the formula for calculating Quartile deviation and its co-efficient.
6. Calculate Mode.

10, 15,20,25,30,35,40,45
7. What is harmonic mean?
8. What are the uses of coefficient of variation?
9. What is skewness?
10. Calculate Skewness, if $\mu 2$ is 6 and $\mu 3$ is 19
11. What is Interpolation?
12. What is Extrapolation
$(10 \times 2=20)$

## Part B

Answer any six questions.
Each question carries 5 marks.
13. "Whenever arithmetic desires to lie, it disguises itself as statistics", Comment.
14. What are the advantages of sample survey?
15. What is secondary data? Which are the sources of secondary?
16. Explain the methods for collecting primary data?
17. Which are the parts of a table?
18. Mention the Mathematical properties of arithmetic mean.
19. Find median from the following distribution

| Age(Year) | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of students | 1 | 2 | 4 | 8 | 11 | 10 | 7 | 4 | 2 | 1 |

20. Explain the properties of moments?
21. Calculate y when x is 50 .

| X | 10 | 20 | 30 | 40 |
| :---: | :---: | :---: | :---: | :---: |
| Y | 100 | 400 | 900 | 1600 |

22. What are the principle steps involved in the planning and execution of a sample survey?
23. Following is the distribution of marks obtained by 100 students. Calculate mean, median and mode. Verify the empirical relationship also.

| Marks | $20-29$ | $30-39$ | $40-49$ | $50-59$ | $60-69$ | $70-79$ | $80-89$ | $90-99$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of <br> students | 8 | 10 | 25 | 31 | 11 | 12 | 2 | 1 |

24. For the following distribution estimate a suitable measure of dispersion

| Income (Rs) | Below 50 | $50-70$ | $70-90$ | $90-110$ | $110-130$ | $130-150$ | More than 150 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of Persons | 54 | 100 | 140 | 300 | 230 | 125 | 51 |

25. Lives of two models of refrigerators in a recent survey are shown in the table. What is the average age of these refrigerators model wise and also taken together? Which model is more consistent?

| Life in <br> Years | $0-2$ | $02-04$ | $04-06$ | $06-08$ | $08-10$ | $10-12$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| Model A | 5 | 16 | 13 | 7 | 5 | 4 |
| Model B | 2 | 7 | 12 | 19 | 9 | 1 |

