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Name.

# B.A. DEGREE (CBCS) EXAMINATION, JANUARY/FEBRUARY 2018 <br> First Semester 

Corporate Economics
Core-ELEMENTARY STATISTICS OF ECONOMICS-I
(2017 Admissions)
Time : Three Hours
Maximum Marks : 80
Part A
Answer any ten of the following.
Each question carries 2 marks.

1. What is a frequency table?
2. Distinguish between classification and tabulation.
3. Define a random sample.
4. What is a frequency polygon?
5. The following data indicate daily earnings of 40 workers in a factory :

| Daily earnings in Rs. | $:$ | 5 | 6 | 7 | 8 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No. of Workers | $:$ | 3 | 8 | 12 | 10 | 7 |

Calculate the average income per worker.
6. Define geometric mean.
7. Find the mode from the values $7,8,11,8,16,17,24,10,9$.
8. What is a Lorenz curve ?
9. State the desirable properties of a measure of dispersion.
10. What is Kurtosis ?
11. Distinguish between positive and negative skewness.
12. Give the formula for quartile co-efficient of skewness.

## Part B

Answer any six questions.
Each question carries 5 marks.
13. Discuss briefly the limitations of statistics.
14. Explain the method of selecting a systematic sample.
15. What are ogives? How will you construct it?
16. Draw a histogram for the following data :

| Class | $:$ | $10-15$ | $15-20$ | $20-30$ | $30-40$ | $40-50$ | $50-75$ | $75-100$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency $:$ | 4 | 12 | 20 | 18 | 14 | 25 | 10 |  |

17. Explain what is meant by weighted average and discuss the effect of weighting.
18. What is a relative measure of dispersion ? Distinguish between absolute and relative measure of dispersion.
19. Compute co-efficient of QD from the following data :-

| Marks | $:$ | 10 | 20 | 30 | 40 | 50 | 60 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of students | $:$ | 4 | 7 | 15 | 8 | 7 | 2 |

20. Draw an histogram for a distribution having unequal class intervals.
21. Calculate Bowley's co-efficient of skewness for the following data and comment on the result.

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

$$
(6 \times 5=30)
$$

Part C
Answer any two questions.
Each question carries 15 marks.
22. What is a statistical survey. Explain the different stages of conducting a statistical enquiry.
23. Calculate Karl Pearson's co-efficient of skewness from the following data :

| Monthly Salary (below) : | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No. of Clerks | $:$ | 12 | 30 | 65 | 107 | 157 | 202 | 222 |
| 230 |  |  |  |  |  |  |  |  |

24. What are the special uses of G. M. and H. M. ? Calculate G. M. and H.M. for the following data :

| Value | $:$ | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | $:$ | 8 | 12 | 20 | 6 | 4 |

25. Calculate arithmetic mean and standard deviation from the following data. Also find which series is more consistent :

| Class | $:$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series A $:$ | 10 | 16 | 30 | 40 | 26 | 18 |  |  |
| Series B | $:$ | 22 | 18 | 32 | 34 | 18 | 16 |  |
|  |  |  |  |  |  |  |  | $(2 \times 15=30)$ |

