# SAINTGITS COLLEGE OF APPLIED SCIENCES KOTTAYAM, KERALA 

# First Internal Examination, September 2023 

Department of Commerce, Semester 3

## QUANTITATIVE TECHNIQUES FOR BUSINESS - I

Total: 40 marks
Time: I. 5 hours

## Section A

## Answer any 5 questions. Each question carries $\mathbf{2}$ marks.

I. Write a short note on distrust of statistics.
2. What do you mean by measure of central tendency?
3. The mean wages of 40 male workers in a factory is Rs. 100 and that of 60 female workers in the same factory is Rs. 80. Find the combined mean wages of 100 workers of the factory.
4. Calculate median: $-12,19,8,14,3,21,13$.
5. Calculate Harmonic Mean.

X: 2, 4, 7, I2, 19
6. From the following data calculate Mode.

| 8 | 10 | 5 | 8 | 12 | 7 | 8 | 9 | 8 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

(5 x 2 = 10 Marks)

## Section B

Answer any $\mathbf{3}$ questions. Each question carries $\mathbf{5}$ marks.
7. Outline the properties of Arithmetic Mean?
8. Explain the functions of statistics.
9. Calculate the median from the following. If $60 \%$ of students pass the test, find the minimum marks obtained by a pass candidate.

| Marks | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No. of <br> Students | 10 | 20 | 10 | 7 | 2 | 1 |

10. Compute Geometric Mean from the following:

| Size of Item | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Frequency | 8 | 12 | 18 | 26 | 16 | 12 | 8 |

( $3 \times 5=15$ Marks)

## Section C

## Answer any I question. The question carries 15 marks

II. Find the missing frequency from the data given below, if the arithmetic mean is 28 .

| Profits per <br> shop | $0-$ <br> 10 | $10-$ <br> 20 | $20-$ <br> 30 | $30-$ <br> 40 | $40-50$ | $50-60$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No of shops | 12 | 18 | 27 | $?$ | 17 | 6 |

12. Find Median, Quartiles, 6th Decile and 70th percentile of the following frequency distribution.

| Marks (More <br> than) | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No. of <br> Students | 100 | 95 | 87 | 80 | 68 | 40 | 20 | 10 | 0 |


[Scan QR code for Answer Key]

