

SRI Y.N.COLLEGE(Autonomous),Narsapur Affiliated to Aadikavi Nannaya University Accredited by NAAC with 'A' Grade with a CGPA of 3.40 Recognized by UGC as 'College with potential for Excellence' Mathematics Certificate Course Business Statistics (w.e.f.2013-14)

The objective of this paper is to impart knowledge on the application of statistical tools and techniques in business decision-making & use of MS-Excel in interpretation of statistical data.

Unit-I: Introduction to Statistics:

Meaning , definition, importance and limitations of statistics. Collection of data - Primary data and Secondary data - (Sampling - Random - Non Random - Census) - Schedule and questionnaire - Frequency distribution - Tabulation.

Unit-II: Measures of Central Tendency:

Definition, Objectives and Characteristics of measures of Central Tendency – Types of Averages – Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Mode, Deciles, Percentiles, properties of averages and their applications. Calculation of averages using computers.

Unit-III: Measures of Dispersion:

Meaning, Definitions, Properties of dispersion – Range – Quartile Deviation – Mean Deviation – Standard Deviation, Coefficient of Variation.

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Mathematics Certificate Course

Business Statistics Model Paper (w.e.f.2013-14)

Time: 2Hrs SECTION-I Total Marks:50M

Answer any **TWO** of the following questions

 $2 \times 10 = 20M$

1. Compute Standard Deviation from the following data

Classes	40-50	50-60	60-70	70-80	80-90	90-100
Frequencies	10	15	25	35	8	7

2. By using the following information show that AM>GM>HM

Classes	0-5	5-10	10-15	15-20	20-25	25-30
Frequencies	2	8	10	15	12	3

3. Calculate Mode using Mean and Median

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Classes	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequencies	4	6	20	32	33	17	10

4. Find out the Geometric mean and Harmonic mean from the following data

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Classes	100-120	120-140	140-160	160-180	180-200	200-220	220-240	240-260
Frequenc	2	4	6	9	8	6	4	1
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SECTION-II

Answer any **FIVE** of the following questions.

 $5 \times 4 = 20M$

- 5. Define Statistics and give characteristic features of statistics.
- 6. What are the sources of the secondary data.
- 7. What is an Average? What are the qualities of a good average?
- 8. State the parts of table?
- 9. Find out Harmonic mean for the following values 60, 120, 150, 240, 300, 450
- 10. The total two quartiles is 40 and their difference is 1. Find the quartile deviation and its Co efficient.
- 11. From the following data of the marks obtained by 60 students of a class, calculate the arithmetic mean

Marks	20	30	40	50	60	70
No. of students	8	12	20	10	6	4

12. Calculate mean deviation and its coefficient for the series 6, 10, 26, 28, 30, 32, 35.

SECTION-III

Answer **ALL** of the following questions.

 $5 \times 2 = 10M$

- 13. Define the range.
- 14. Define the range coefficient.
- 15. Write the merits of arithmetic mean.
- 16. Define the relation between arithmetic mean, median, mode.
- 17. Define the relation between arithmetic mean, geometric mean, harmonic mean.

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