

H. N. G. University , Patan
M.C.A(5 Years Integrated Programme) – Semester - IV
401: Statistical Methods

Unit: 1

[25%]

Measure of Central Tendency : -

Arithmetic Mean :

- Arithmetic Mean for raw data
- Discrete frequency distribution
- Continuous frequency distribution
- Properties of Arithmetic Mean
- Merits & Demerits of A.M.

Median :

- Median for raw data
- Discrete frequency distribution
- Continuous frequency distribution
- Merits & Demerits of Median

Mode :

- Mode for raw data
- Discrete frequency distribution
- Continuous frequency distribution
- Merits & Demerits of Mode

Measure of Dispersion :-

- Introduction
- Range & its Co-efficient
- Quartile deviation & its Co- efficient
- Mean deviation & its Co-efficient
- Standard deviation & its Co-efficient

Unit: 2

[25%]

Correlation Co-efficient : -

- Definition of Correlation
- Types of Correlation
- Scatter Diagram Method
- Karl Pearson's Correlation Co-efficient
- Correlation Co-efficient for Bivariate frequency distribution
- Probable error for correlation

Unit: 3

[25%]

Regression Analysis :-

- Definition of Regression
- Regression Lines
- Regression Co-efficients
- Properties of Regression Co-efficients
- Least square fit linear regression curve fitting

Unit: 4

[25%]

Time Series and Business forecasting :-

- Utility of Time series Analysis
- Components of Time series
 - Secular Trend -Seasonal Variation
 - Cyclic Variation -Irregular Variation
- Method of Measurement of components : Moving averages method
- Forecasting Model and Method : Exponential Smoothing Method

Text Books :-

1. Fundamental of statistics – Sixth Edition (S.C.Gupta)

Reference Book : -

1. Statistical Methods (S.P.Gupta)
2. Business Statistica (R.S.Bhardwarj)
3. Statistics(R.S.N.Pillai and V.Bagavati)