# New Syllabus of Gujarat University for B. Com. **Semester - I**

## C E 101B  STATISTICS – I  (Basic Statistics)

**Unit1: Linear Correlation and Association of Attributes** (25%)

Meaning and Definition of correlation, Types of linear correlation, Interpretation of correlation coefficient, Methods of finding correlation namely (i) Scatter Diagram (ii) Karl-Pearsson's product moment method (iii) Spearman's rank correlation, simple examples of the above methods including examples based on bivariate frequency distribution using K-P method and examples of rank method when ranks are repeated.

Concept of Qualitative data Meaning of Association of attributes, Meaning and interpretation of  2 x 2 contingency table, Types of Association of attributes, method of studying association namely (i) Comparison method of observed and expected frequency (ii) Proportion method (iii) Coefficient of Association by Yule's method. (with its interpretation ) examples based on 2 x 2 contingency table only.

**Unit 2: Linear Regression** (25%)

Meaning and definition of Regression, Linear regression model, meaning of linear regression, Equation of a regression line $y = a + bx$ , Examples of obtaining estimate of y from the line, need for two regression lines , Definition and properties of regression coefficient, Examples based on both the regression lines and properties of regression coefficient including bivariate frequency distribution.

**Unit 3: Business Forecasting** (25%)

Meaning and uses of Business Forecasting, Different methods of Forecasting: Regression Analysis, Index Numbers, Economic models, Input output models, Opinion poll method, Extrapolation, Graphical method (Only theoretical explanation of these methods), Least Square method for linear and quadratic relationship between the variables and exponential smoothing method. Examples based on these two methods along with their theoretical explanation.

**Unit 4: Demographic Method** (25%)

Meaning, definition and uses of demographic statistics, methods of collecting demographic statistics namely (1) Registration method (2) Census method (3) Analytical method. Mortality Rates like (i) CDR (ii) SDR (iii) IMR, Birth and Fertility rates like (i) CBR (ii) GFR (iii) SFR (iv) TFR and simple sums on all above rates.


**Recommended reading :**

1. Ken Black, Business Statistics, John Wiley & Sons (Asia) Pte Ltd.  Singapore
2. J. K. Sharma, Business Statistics, Pearson, New  Delhi.
3. Sancheti & Kapoor, Business Statistics, Sultan Chand & Sons, New  Delhi.
4. Srivatava O.S.: A Text Book of Demography, Vikas  publishing.
5. Trivedi and Trivedi: Business Mathematics, Pearson India Ltd. New  Delhi.

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