

VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT

F.Y. B.A. Yearly (External)

ELEMENTS OF STATISTICS

[Effective from June-2014-15]

UNIT - 1 : Nature and scope of statistics: (20%)

Meaning and definition of statistics, uses of statistics, limitations of statistics, distrust of statistics.

Compilation of data :

Primary data, secondary data, methods of collecting primary data, sources of secondary data, precautions in the use of secondary data, characteristics of the ideal questionnaire.

Classification and Tabulation:

Meaning of classification and tabulation, merits of classification and tabulation, construction of tables, rules for the construction of a good table.

Frequency distribution :

Discrete and continuous frequency distribution,

Cumulative frequency distribution.

UNIT – 2 : Diagrammatic and graphic presentation of data : (20%)

Importance and limitations of diagrams and graphs, types of diagram- one dimensional and two dimension diagrams pictorial diagrams, types of graphs – histogram, frequency polygon, frequency curves, ogives or cumulative frequency curves, finding median and mode from graphs.

Measures of central tendency :

Meaning of average or central tendency, measures of average: mean (arithmetic mean, geometric mean, harmonic mean), median, mode, merits and demerits of different measures of average, characteristic of a good average, quartiles, deciles, percentiles.

UNIT – 3 : Dispersion : (20%)

Meaning of dispersion, absolute and relative measures of dispersion – range, mean deviation, variance, coefficient of variation.

Skewness :

Absolute and relative measures of skewness, Karl Pearson's coefficient of skewness, Bowley's coefficient of skewness.

UNIT – 4 : Correlation : (20%)

Definition of correlation, types of correlation, methods to study correlation – scattered diagram method, Karl Pearson's correlation coefficient, method of concurrent deviations.

UNIT – 5 : Association of attributes : (20%)

Notations and terminology, consistence of data, types of association, methods of studying association for (2x2) data, comparison of abserved and expected frequency, proportion method, Yule's method (coefficient of association)

Regression :

Definition, utility, lines of regression, regression coefficients, properties of regression coefficients, interrelation of correlation coefficient and regression coefficients.

Reference books :

1. Fundamentals of Statistics – D.N.Elhance, Veena Elhance.
2. Fundamentals of Statistics – S.C.Gupta.
3. Statistics – D.C.Sancheti, V.K.Kapoor.
4. Business Statistics – S.P.Gupta, M.P.Gupta.
5. Elements of Statistics – P.G.Hoel
6. Fundamentals of Statistics –Goon Gupta, Das Gupta.