B.A /B.Sc. 5th SEMESTER
STATISTICS
GENERIC ELECTIVE COURSE (GE) – (FOR NON-STATISTICS STUDENTS)
ST520G: STATISTICS: BASIC STATISTICS-I

CREDITS: THEORY: 4, PRACTICAL: 2
MAXIMUM MARKS: THEORY: 60; PRACTICAL: 30

THEORY (4 CREDITS)

UNIT- I

Concept of Statistical Population and sample form a population. Types of Data-Primary and secondary data, qualitative and quantitative data. Methods of collecting data.

UNIT- II

Diagrammatic and graphical representation of data-Bar diagram, Histogram, Frequency polygon and ogives. Measures of central tendency or location (Arithmetic mean, median, mode, geometric mean and harmonic mean).

UNIT- III

Dispersion: Relative and absolute measures (Range, Quartile Deviation, Mean Deviation and standard Deviation). Coefficient of variation.

UNIT- IV

Skewness, Kurtosis and their measures including those based on quartiles. Moments, relation between central moments in terms of raw moments and vice-versa.

REFERENCES

1. Bhat B.R, Srivenkatramana T and Rao Madhava K.S (1997): Statistics: A Beginner's Text, Vol 1. New Age International (P) Ltd.
2. Croxton F. E, Cowden D.J and Kelin S (1973): Applied General Statistic, Prentice Hall of India.
3. Spiegel, M.R. (1967): Theory & Problems of Statistics, Schaum's Publishing Series
4. S.C Gupta and V.K Kapoor (2007): Fundamentals of Mathematical Statistics.11th edition (reprint) Sultan Chand and sons.
5. S.P.Gupta: Statistical Methods. Sultan Chand and sons.

ADDITIONAL REFERENCES

1. Anderson T.W and Sclove S.L (1978): An introduction to the Statistical Analysis of Data, Houghton Miffin / Co.
2. Cooke, Cramer and Clarke (1996): Basic Statistical Computing, Chapman and Hall.
3. Mood A.M. Graybill F.A and Boes D.C. (1974): Introduction to the Theory of Statistics. McGraw Hill.

PRACTICAL (2 CREDITS) **MAXIMUM MARKS: 30**

1. Diagrammatic and graphical representation of data.
2. Computation of arithmetic mean discrete and continuous data.
3. Computation of median for discrete and continuous data.
4. Computation of mode, for discrete and continuous data.
5. Computation of geometric mean for discrete and continuous data.
6. Computation of harmonic mean for discrete and continuous data.
7. Computation of range, for discrete and continuous data.
8. Computation of mean deviation for discrete and continuous data.
9. Computation of quartile deviation for discrete and continuous data.
10. Computation of standard deviation for discrete and continuous data.
11. Computation of coefficient of variation for discrete and continuous data
12. Computation of measures of skewness and kurtosis.