

**28. Statistics**

**B.A. Statistics-Opt**

**Total Mark: 100**

**Appendix 'B'**

**(Syllabi and Courses of Reading)**

**1. Introduction:**

Definition, characteristics and limitations of statistics. Collection, classification and tabulation of data.

**2. Graph and Diagrams:**

Bar and pie diagrams. Graphs of frequency distribution viz. Histogram, frequency polygon, frequency curve, cumulative frequency curve. Graphic interpolation.

**3. Averages:**

Elementary knowledge and numerical illustrations of arithmetic mean, median, mode, and weighted average, smoothing of fluctuations by moving average method.

**4. Dispersion:**

Elementary knowledge and numerical illustrations of range, fractiles, quartile deviation, standard deviation, co-efficient of skewness and co-efficient of variation.

**5. Attributes and Chi-Square:**

Concept of attribute, idea of independence and association, dichotomy, co-efficient of association, contingency table. Chi-square.

**6. Correlation:**

Concept of regression, simple correlation and rank correlation with numerical illustrations.

**7. Sampling:**

Concept of sampling. Definition of population and sampling unit. Purposive and random sampling. Drawing of a random sample without replacement from finite population.

**Recommended Books:**

1. Zia-ud-Din, M., Practical Statistics with Fundamentals of Theory. 8th edition. The Punjab Educational Press, Lahore.
2. Chambers, E.G., Statistical Calculations for Beginners. Cambridge University Press, London.