

## **Recommended Books**

1. Sukhatme P.V., : Sampling theory of Surveys and Applications, Indian Society of Agricultural Statistics, New Delhi.
2. Gupta S.C and Kapoor V.K. : Fundamentals of Applied Statistics, Sultan Chand & Sons, New Delhi

## **Reference Books:**

1. Goon A.M., Gupta M.K & Dasgupta, B. : Fundamentals of Statistics, Vol.II, The World Press Pvt. Ltd., Calcutta.
2. Cochran W.G. : Sampling Techniques (Hindi and English Edition), Kendriya Hindi Granth Academy, New Delhi (Hindi Ed.), Wiley Eastern Ltd, New Delhi (English Ed.)
3. Mukhopadhyay P. (1998) : Theory and Methods of Survey Sampling, Prentice Hall
4. Sampat, S. (2000) : Sampling Theory (Narosa).
5. Srivastava, O.S. (1983) : A text book of demography, Vikas Publishing House, New Delhi
6. Benjamin B. (1959) : Health and vital Statistics, Allen and unwin.

## **STATISTICS. PRACTICAL**

Duration of  
Examination- Four Hrs

Max. Marks.: Arts - 65  
Science - 75

The distribution of marks will be as follows:

	<b>B.A</b>	<b>B.Sc</b>
(a) Practicals	39 Marks	45 Marks
(b) Practical Record	13 Marks	15 Marks
(c) Viva-voce	13 Marks	15 Marks
<b>Total</b>	<b>65 Marks</b>	<b>75 Marks</b>

The following topics are prescribed for practical work

1. Large sample test of significance for mean standard deviation and proportion for one and two sample problems.
2. t-test for the significance of single mean and difference of means (paired and unpaired cases)
3. Test for the significance of correlation coefficient and regression coefficients.
4. F-test for equality of two population variances.
5. Chi-square test for (i) goodness of fit (ii) Independence of attributes (iii) significance of single variance (iv) Homogeneity of several correlation coefficients.

6. Confidence interval for (i) Mean in case of large and small samples and (ii) proportion.
7. Sign test, Run Test and Median Test
8. Analysis of variance for (i) One-way classification, (ii) Two-way classification with one observation per cell.
9. Analysis of (i) CRD (ii) RBD and (iii) LSD.
10. Estimation of single missing value In RBD and LSD
11. Statistical Quality Control: (i) X & R Charts (ii) X and  $\sigma$  charts (iii) p, np and c-charts.
12. Sample Surveys : (i) SRS (ii) Stratified sampling including allocation problems.
13. Vital Statistics : CDR, Age specific death rates, Standardized death rates (ii) CBR, GFR, ASFR, TFR (iii) Standardized birth rate (iv) Crud rate of natural increase GRR and NRR (v) Life tables and to find out certain values with its help.

**Note :**

1. "Students may be tried to familiarize and utilize statistical packages in solving the relevant statistical practical exercises on Computers".
2. Try to give the practical exercises in such a way that the student decide which experimental design, sampling scheme and which method of vital statistics are to be applied, instead of directly telling them.