B.A. /B.Sc. FOURTH SEMESTER-STATISTICS
Sampling Theory
M.M-60 (Theory=56 & Attendance=04)

UNIT -I
Sampling Theory: Need for sampling, Census and sample survey, basic concept in sampling, Principles of sample survey, advantages of sample survey over census. Sampling and non-Sampling errors.

UNIT -II
Simple random sampling (SRS) with and without replacement. Merits and demerits of Simple random sampling (SRS). Methods of selecting SRS. Estimation of mean, Variance and estimate of variance. Unbiased estimate of population mean square.

UNIT-III
Stratified random sampling: Estimation of mean and variance. Need for stratification. Principles of stratification. Advantages of stratified sampling over simple random sampling. Proportion and Optimum allocation: Allocation of sample size under proportional and optimum allocation and variance under these allocations. Comparison of stratified sampling over SRS.

UNIT-IV
Systematic sampling: Estimation of mean and variance. Advantages of systematic sampling over SRS and stratified sampling. Comparison of systematic sampling over SRS and stratified sampling.

REFERENCES

1. Murthy M.N (1967): Sampling theory and Methods, Statistical Publisher Society, Calcutta.
2. Des Raj (2000): sample Survey Theory, Narosa publishing house.
3. Sampath S. (2000): Sampling theory and Methods. Narosa Publishing House.
4. Sukhatme B.V (1984): Sample Survey methods and its Applications, Indian Society of Agricultural Statistics.
5. S.C Gupta and V.K Kapoor: Fundamentals of Applied Statistics. Sultan Chand & Sons.

ADDITIONAL REFERENCES

1. Bhat B.R. Srivenkatramana T and Rao Madhava K.S. (1967): Statistics: A Beginner's Text, Vol. II, New Age International (P) Ltd.
2. Rohatgi V.K (1967): An Introduction to probability Theory and Mathematical Statistics, John Wiley &Sons
3. Snedecor G.W and Coocharn W.G. (1967): Statistical Methods. Lowa State University Press.
4. Goon A.M. Gupta, M.K. Das Gupta (1986); Fundamentals of Statistics, Vol. II, world Press, Calcutta.

B.A./B.Sc. FOURTH SEMESTER (Practical) M. M: 30(28+2)

1. Selection of sample and determination of sample size.
2. Estimation of mean and variance under SRSWR
3. Estimation of mean and variance under SRSWOR
4. Estimation of mean and variance under Stratified sampling