Stat-312 Analysis of Variance

50 Marks: 02 Credits

Number of Class: 20-25

Basic Concept of Experimental Design and Non-Experimental Design, Basic Concept of Analysis of Variance, Linear Models, Analysis of Variance in One Way, Two Way and Three Way Classification With Equal Number of Observations Per Cell, Analysis of Variance With Fixed Effects, Mixed Effects and Random Effects Model.

Variance Component Analysis, Method of Variance Component Analysis, Variance Component Analysis in One Way, Two Way and Three Way Classified Data.

Covariance Analysis, Covariance Analysis with One Concomitant Variable, Analysis of Covariance in One-Way and Two-Way Classified Data.

Nested Design, Analysis of Two Stage Nested Design, Analysis of Three Stage Nested Design.

Text

1. Das, M. N. and N. C. Giri (1986): *Design and Analysis of Experiments*, 2nd Edition, Wiley Eastern, India.
2. Montgomery D. C. (2005): *Design and Analysis of Experiments*, 6th edition, Wiley, USA.
3. Bhuiyan, M. R. : *Experimental Design*.

References

1. Bhuyan, K.C.: "*Bangla Book"*, Part I & II.
2. Cochran, W.G. and Cox, G.M. (2000): *Experimental Design*, 2nd Edition, Wiley, New York.
3. Fisher, R.A. (1995): *The Design of Experiments*, 8th edition, Hafner, New York.
4. Hitson, A. (1995): *The Analysis of Variance*, 3rd edition, Wiley, New York.
5. John and Quenouille (1977): *Experiments Design and Analysis*, 2nd Edition, Charles Griffin, London.
6. Scheffe, H. (1959): *Analysis of Variance*, Wiley, New York.