VEER NARMAD SOUTH GUJARAT UNIVERSITY
University Campus, Udhana-Magdalla Road,
Surat - 395 007.

M.Sc.: APPLIED STATISTICS
Effective From: 2007 – 2008

**SEMESTER – III**

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<th>Paper No.</th>
<th>Title of the Paper</th>
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SEMESTER : III

PAPER : MAS-301

STATISTICS FOR ECONOMICS

1. Analysis of Time-Series.
2. Index Numbers.
3. Demand Analysis.
4. Input-Output Analysis.
5. Growth Models.

REFERENCES

M.Sc.: APPLIED STATISTICS
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SEMESTER : III
PAPER : MAS-302
OPERATIONS RESEARCH – I

1. Linear Programming.
2. Duality.
3. Transportation and Assignment Problems.
4. Inventory Management Systems.
5. Game Theory.

REFERENCES
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PAPER : MAS-303  
DATA MINING - I  

1. Introduction to DBMS.  
2. Introduction to Data Mining.  
3. Types of data for Data Mining.  
4. Data description.  
5. Predictive Data Mining.  
6. Models and Patterns.  

REFERENCES  
1. Jiawei Han, Micheline Kamber : "Data Mining"; Morgan Kaufmann Publishers.  
2. Hillol Kargupta, Anupam Joshi, Yelena Yesha, Krishnamoorthy Sivakumar : "Data Mining - Next Geneartion Challenges and Future Decisions"; PHI.  
3. Danuham : "Data Mining - Introductory and Advance Topics"; Pearson.
Concept and history of Design of experiments.
The need for Designed experiments.
Elementary ideas of blocking and randomized block design.
Elementary idea of treatment structure and Basic principles of Design of experiments
Concept of complete and incomplete block designs. Completely Randomized Design (CRD),
Randomized Block Design (RBD), Latin square design (LSD), their analysis with applications.
Missing plot technique for RBD, LSD with their applications.

**Analysis of Covariance** : Analysis of covariance for CRD, RBD and LSD.
Concept of BIBD and its properties. Intra block analysis of BIBD, Youden square design, Cross over
design, construction of BIBD, Missing plot technique for BIBD.

**Factorial Experiments** : Characterization of experiments, factorial experiments, factorial
experiments with factors at two levels, grouping for interaction contrasts, confounding, confounding
in more than two blocks, experiments with factors at three levels each, analysis of factorial
experiments, split-plot designs.

**REFERENCES**

   Press.
7. Panse V.G. and Sukhatme P.V. : “Statistical Methods for Agricultural Workers”; Indian
   Council of Agricultural Research, New Delhi.
8. R. Mead : “The Design of Experiments - Statistical Principles for Application” ; Cambridge
   Uni. Press.
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M.Sc.: APPLIED STATISTICS
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SEMESTER : III

PAPER : MAS-305
INTRODUCTION TO STATISTICAL SOFTWARES

Introduction and use of Matlab, Sys-STAT, SPSS and other such statistical packages for analysis of practical problems.

REFERENCES