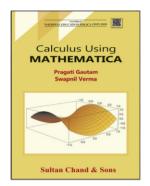


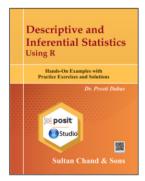
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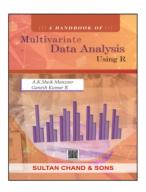
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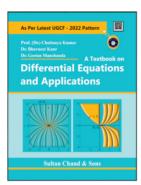
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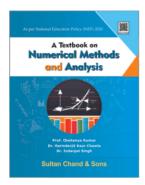




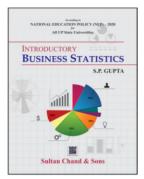


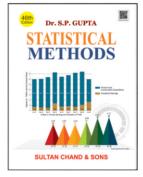


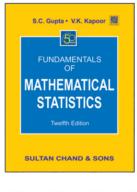


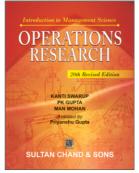


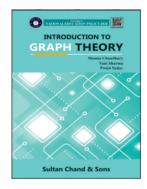


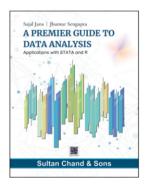














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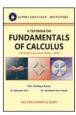
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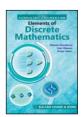


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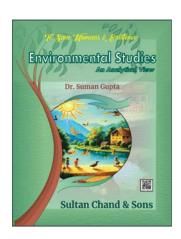
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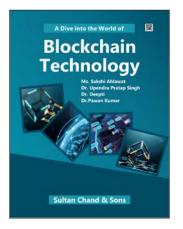
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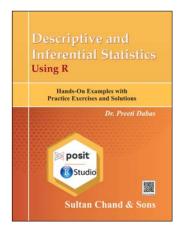


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# Descriptive and Inferential Statistics using R

Dr. Preeti Dabas



### **Contents**

**Part 0: Getting Started** – Background Concepts • Hypothesis Testing • Handshake with RStudio

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**Part III: Multivariate Analysis** – Multivariate Analysis: With Binary Dependent Variable • Multivariate Analysis: With Nominal Dependent Variable • Multivariate Analysis: With Ordinal Dependent Variable • Multivariate Analysis: With Metric Dependent Variable

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ISBN: 978-93-91820-80-0 (TC-1307)

MRP: ₹ 450.00

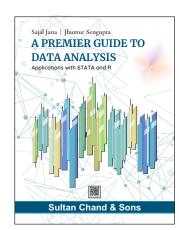
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Applications with STATA and R

Sajal Jana • Jhumur Sengupta

## **Contents**

- · Data Management and Data Source
- Basic Data Analysis
- · Getting Started with MS-Excel
- An Introduction to STATA
- An Introduction to R
- Distribution Functions
- Sampling Techniques and Survey Design
- Index Number
- Hypothesis Testing and Statistical Inference
- · Linear Correlation and Regression
- Time Series, Panel and Non-LinearRegression Model
- · Analysis of National Accounts Statistics in RStudio
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0

Mathematical Sciences



# A Textbook on Differential Equations and Applications

As per Latest UGCF - 2022 Pattern

Prof. (Dr.) Chaitanya Kumar • Dr. Bhavneet Kaur • Dr. Geetan Manchanda

# **Contents**

- Preliminaries
- Ordinary Differential Equations of Order One and First Degree
- Differential Equations of First Order but Not to First Degree
- The Wronskian and its Properties
- Linear Differential Equations with Constant Coefficients
- Homogeneous Linear Differential Equations
- Method of Variation of Parameters and Undetermined Coefficients
- Simultaneous Linear Differential Equations
- Total Differential Equations
- Compartmental Models
- Models of Single Population
- Interacting Population and Phase-Plane Analysis
- Practicals in Differential Equations
  - · Mathematica Software
  - · Maxima Software
  - Octave Software

University Question Papers (2018 – 2022)

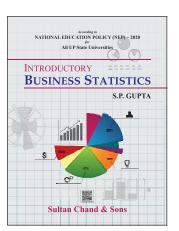
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ISBN: 93-91820-32-9; (TC 1289)

# **Introductory Business Statistics**

According to National Education Policy 2020

S.P. Gupta



### **Contents**

- Introduction
- Classification and Tabulation
- Diagrammatic and Graphic Presentation
- · Measures of Central Tendency
- Measures of Variation
- Skewness, Moments and Kurtosis
- Correlation Analysis
- Regression Analysis

Index Numbers
Analysis of Time Series
Appendix



As Per Latest UGCF - 2022 Pattern

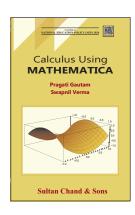
and Applications

Differential Equations



# Calculus Using MATHEMATICA

# Pragati Gautam • Swapnil Verma



## **Contents**

- Introduction: Mathematica Software
- Functions in Mathematica
- Limit, Continuity and Differentiability of Functions in Mathematica
- Tracing of Parametric Curves
- Tracing of Polar Equations
- Hyperbolic Functions in Mathematica
- Parabola, Ellipse and Hyperbola in Mathematica
- Revolving Surfaces in Mathematica
- Complex Numbers in Mathematica
- Finite and Infinite Subsets of R
- Matrices
- Sequence and its Convergence in Mathematica
- Series in Mathematica

Model Question Paper I Model Question Paper II Bibliography

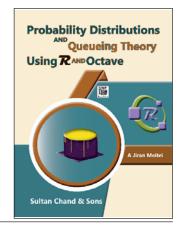
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# Probability Distributions and Queueing Theory Using **7** and Octave

# A Jiran Meitei

# **Contents**

- Random Variables
- Mathematical Expectation
- Special Univariate Discrete Probability Distributions
- Special Univariate Continuous Probability Distributions-I
- Special Univariate Continuous Probability Distributions-II
- Exact Sampling Distributions
- Fitting of Distribution
- · Stochastic Processes and Basics of Queueing Theory
- Markovian Queues



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# **Statistical Methods**

Dr. S.P. Gupta

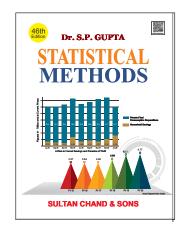
## **Contents**

**Volume I:** Statistics – What and Why • Organising A Statistical Survey • Collection of Data • Sampling and Sample Designs • Classification and Tabulation of Data • Diagrammatic and Graphic Presentation • Measures of Central Value • Measures of Dispersion • Skewness, moments & Kurtosis

- Correlation Analysis Regression Analysis Association of Attributes
- Index Numbers Analysis of Time Series Interpolation and Extrapolation
- Vital Statistics Statistical Fallacies.

**Volume II:** Probability and Expected Value • Theoretical Distributions • Statistical Inference – Test of Hypothesis • Chi² test and Goodness of Fit • F-Test and Analysis of Variance • Experimental Designs • Statistical Quality Control • Business Forecasting • Partial and Multiple Correlation • Statistical Decision Theory • Non-Parametric Tests.

Revisionary Exercise • Appendices.

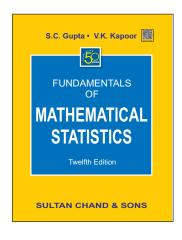


Edition: 46th, 2021 Pages: xxiv + 1,304 ISBN: 978-93-5161-176-9 (TC 506) MRP: ₹ 795.00

# Fundamentals of Mathematical Statistics

S.C. Gupta • V.K. Kapoor

# **Contents**



Introduction (Meaning and Scope) • Descriptive Measures (Measures of Central Tendency, Measures of Dispersion, Measures of Skewness, Measures of Kurtosis) • Theory of Probability – I • Theory of Probability – II • Random Variables and Distribution Functions • Mathematical Expectation • Generating Functions and Law of Large Numbers • Special Discrete Probability Distributions • Special Continuous Probability Distributions • Correlation • Curve Fitting and Regression Analysis • Multiple and Partial Correlation and Regression Analysis • Theory of Attributes • Large Sample Theory • Exact Sampling Distributions-II [t, F and Z Distributions] • Statistical Inference – I (Theory of Estimation) • Statistical Inference – II (Testing of Hypothesis and Non-Parametric methods) • Finite Differences and Numerical Analysis • Bivariate and Multivariate Normal Distributions • Some Additional Topics.

Appendices • Index.

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# **Fundamentals of Applied Statistics**

S.C. Gupta • V.K. Kapoor

# S.C. GUPTA V.K. KAPOOR Fundamentals of APPLIED STATISTICS SULTAN CHAND & SONS

### **Contents**

- · Statistical Quality Control
- Analysis of Time Series
- Index Number
- · Demand Analysis
- · Analysis of Variance
- Design of Experiments
- Design of Sample Surveys
- · Statistics in Psychology and Education
- · Vital Statistics.

Edition: 4th, 2007 Pages: xvi + 712 ISBN: 978-81-8054-705-8 (TC 502) MRP: ₹ 625.00

# **Business Statistics**

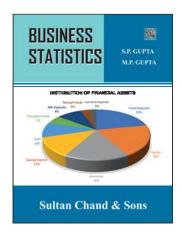
S.P. Gupta • M.P. Gupta

## **Contents**

- Business Statistics What & Why
- · Collection of Data
- · Presentation of Data
- Measures of Central Tendency
- Measures of Variations
- Skewness, Moments and Kurtosis
- Correlation analysis
- Regression Analysis
- Index Numbers: Concepts and Applications
- Business Forecasting and Time Series Analysis

- Probability
- Probability Distributions
- Sampling and Sampling Distributions
- Estimation of Parameters
- Test of Hypothesis
- · Small Sampling Theory
- · Chi-Square Test
- Analysis of Variance
- Statistical Quality Control
- Partial and Multiple Correlation and Regression
- Statistical Decision Theory

Appendix: Statistical Tables.



Edition: 19th, 2017

Pages: xxiv + 800

ISBN: 978-93-5161-106-6 (TC 518)

MRP: ₹ 595.00



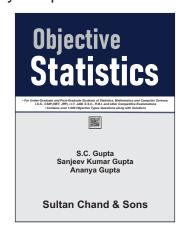
# **Objective Statistics**

For Under-Graduate and Post-Graduate Students of Statistics, Mathematics and Computer Science;
 I.S.S., CSIR (NET, JRF), I.I.T. JAM, S.S.C., R.B.I. and other Competitive Examinations
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# S.C. Gupta • Sanjeev Kumar Gupta • Ananya Gupta

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Descriptive Measures: Measures of Central Tendency, Dispersion, Skewness and Kurtosis • Theory of Probability • Random Variables and Distribution Functions • Mathematical Expectation and Generating Functions • Discrete Probability Distributions • Theoretical Continuous Distributions • Chebyshev's Inequality, Strong and Weak Law of Large Numbers, and Central Limit Theorems • Correlation and Regression • Chi-Square, *t*, *F* and *Z* Distributions, and *Z* Transformation • Bivariate Normal Distribution • Theory of Estimation–1 (Point Estimation) • Theory of Estimation–2 (Interval Estimation) • Testing of Hypothesis.

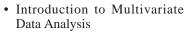


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# A Handbook of Multivariate Data Analysis Using R

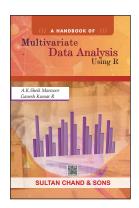
# A.K. Sheik Manzoor • Ganesh Kumar R

### **Contents**



- Assessing the Characteristics of Data
- Multiple Linear Regression
- Discriminant Analysis
- Logistic Regression
- MANOVA

- Conjoint Analysis
- · Cluster Analysis
- Multidimensional Scaling
- Correspondence Analysis
- Exploratory Factor Analysis
- Confirmatory Factor Analysis
- Structural Equations Modelling. *Glossary*

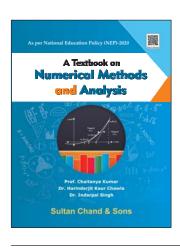




# A Textbook on Numerical Methods and Analysis

According to National Education Policy (NEP)-2020

Prof. Chaitanya Kumar • Dr. Harinderjit Kaur Chawla • Dr. Indarpal Singh



# **Contents**

- Basic Elements of Numerical Methods and Error Analysis
- Methods for Solving Algebraic and Transcendental Equations
- Techniques to Solve System of Linear Algebraic Equations
- Finite Differences and Interpolation
- Numerical Differentiation
- Numerical Integration
- Numerical Solution of Ordinary Differential Equations
- Practicals in Numerical Analysis

University Question Paper-2021

University Question Paper-2022

University Question Paper-2023

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# Problems & Solutions in Mathematical Statistics

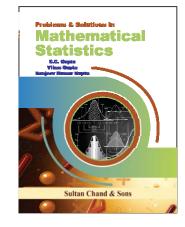
S.C. Gupta • Vikas Gupta • Sanjeev Kumar Gupta

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- Descriptive Measures [Measures of Central Tendency, Dispersion, Skewness and Kurtosis]
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- Discrete Probability Distributions
- · Continuous Probability Distributions
- Correlation
- Regression
- Bivariate Normal Distribution
- Exact Sampling Distributions-(I) (Chi-Square Distribution)
- Exact Sampling Distributions-(II) (t and f Distributions)

Appendix 1 – Numerical Tables Appendix 2 – Bibliography.

pperiodic 2 Statiography.



Edition: 1st, 2016 Pages: viii + 640

ISBN: 978-93-5161-086-1 (TC 1232)

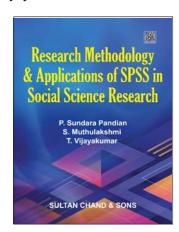


# Research Methodology & Applications of SPSS in Social Science Research

P. Sundara Pandian • S. Muthulakshmi • T. Vijayakumar

### **Contents**

- Introduction to Research Types to Research Steps in Research Process
- Identification of Research Problems Review of Literature Research Design
- Methods of Data Collection Hypothesis Sampling Techniques
- Introduction to Statistical Package for Social Sciences (SPSS) Descriptive Statistics Cronbach's Alpha Test Parametric Test One Sample T-test
- Two-sample T-test or Independent Sample t-test Paired Sample T-test
- Analysis of Variance (ANOVA) Two-way ANOVA Factorial ANOVA
- Multivariate Analysis of Variance (MANOVA) Chi-square Test Non-parametric Tests Friedman's Test Mann-whitney Test or U-test Wilcoxon Signed Rank Test Kruskal Wallis Test Meaning of Correlation Analysis
- Multiple Regression Analysis Factor Analysis Cluster Analysis
- Multidimensional Scaling Discriminant Analysis Structural Equations Modelling Interpretation and Report Preparation



**Bibliography** 

Edition: 1st, 2022

Pages: xxxvi + 324

ISBN: 978-93-91820-18-3; (TC 1256)

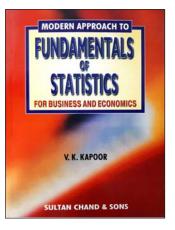
MRP: ₹ 350.00

# Modern Approach to Fundamentals of Statistics

For Business and Economics

V.K. Kapoor

# Contents



Statistics: An Overview • Organising and Presenting Univariate Data
• Descriptive Measures – I (Measures of Central Tendency)
• Descriptive Measures – II (Measures of Dispersion) • Descriptive Measures
– III (Skewness, Moment and Kurtosis) • Correlation Analysis • Linear Regression Analysis • Analysis of Time Series and Forecasting • Index Numbers • Introductory Probability • Random Variables and Probability Distributions • Special Probability Distribution • Statistical Decision Theory
• Sampling and Statistical Inference • Hypothesis Testing – I • Hypothesis Testing – II • The Chi-square Distribution • Analysis of Variance • Theory of Attributes • Multiple and Partial Correlation and Regression Analysis
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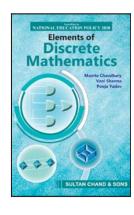
MRP: ₹ 295.00



# Elements of **Discrete Mathematics**

According to National Education Policy-2020

Mamta Chaudhary • Vani Sharma • Pooja Yadav



# **Contents**

- Number Systems
- Set Theory
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- · Types of Lattices
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- · Boolean Algebra
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Miscellaneous Questions Question Papers.

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# Introduction to **Graph Theory**

According to National Education Policy-2020

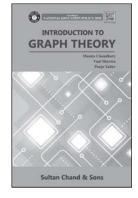
Mamta Chaudhary • Vani Sharma • Pooja Yadav

### **Contents**

- Graphs
- · Representation of a Graph and Graph Isomorphism
- Paths and Circuits
- Shortest Path Algorithms
- Trees
- Planar Graphs and Coloring
- · Networks, Flows and Cuts
- Applications of Graphs
- Important Questions Solved

Miscellaneous Questions

Question Papers



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According to National Education Policy-2020

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### Part - I

- Real Numbers
- Sequences
- Infinite Series

### Part - II

- Limits of Functions
- Continuous Functions
- Differentiation
- Applications of Derivatives

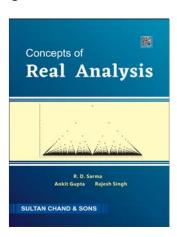
### Part-III

• Riemann Integration

- · Improper Integrals
- Sequence of Functions
- Series of functions and Power Series.

Appendix A: Tools for Curve Tracing

Appendix B: Tracing of Rational and Polar Curves Hints/Answers of the Exercises Bibliography



Edition: 1st, 2023 Pages: x + 678 ISBN: 978-93-91820-27-5 (TC 1266) MRP: ₹ 595.00

# A Textbook on Fundamentals of Calculus

As per Latest UGCF – 2022 Pattern Based on NEP-2020

Prof. Chaitanya Kumar • Dr. Bhavneet Kaur • Dr. Harinderjit Kaur Chawla

# **Contents**

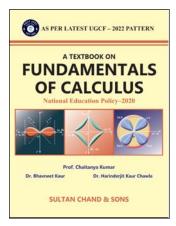
• Limits, Continuity and Differentiability

Index.

- Successive Differentiation
- Partial Differentiation
- Tangents and Normals
- Asymptotes and Singular Points
- Maxima and Minima

- Curve Tracing
- Mean Value Theorems
- Indeterminate Forms
- Reduction Formula.

University Questions Papers.



# **Business Mathematics**

D.C. Sancheti • V.K. Kapoor

# BUSINESS MATHEMATICS 1. C. SAMOHETI • V. K. KAPUUR SULTAN CHAND & SONS

### **Contents**

Logical Statements and Truth Tables • Theory of Sets • Boolean Algebra • Real Number System • Groups, Ring and Field • Indices and Surds • Logarithms • Equations : Linear Quadratic, Cubic and Higher Order • Permutations and Combinations • Binomial Theorem • Mathematical Induction, Sequences and Series • Arithmetic and Geometric Progressions • Convergence and Divergence of Series • Circular Functions and Trigonometry • Coordinate Geometry • Functions, Limits and Continuity• Differential Calculus • Integral Calculus • Vector Algebra • Matrix Algebra Supplement • Applications to Business and Economics • Linear Programming • Probability.

Some Additional Topics Numerical Tables.

Edition: 11th, 2011 Pages: xvi + 1,200 ISBN: 978-81-8054-538-2 (TC 552) MRP: ₹ 595.00

# **Elements of Mathematical Statistics**

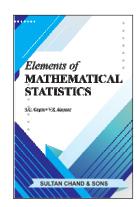
S.C. Gupta • V.K. Kapoor

## **Contents**

- Introduction Meaning and Scope
- Frequency Distributions and Measures of Central Tendency
- Measures of Dispersion, Skewness and Kurtosis
- · Theory of Probability
- Random Variables Distribution Functions
- Mathematical Expectation, Generation Functions and Law of Large Numbers
- · Theoretical Discrete Distributions
- Theoretical Continuous Distributions

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- Correlation and Regression
- Theory of Attributes
- Sampling and Large Sample Tests
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- Testing of Hypothesis
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- Design of Experiments
- · Design of Sample Surveys.

Tables



Edition: 3rd, 2015



# **Business Statistics & Business Mathematics**

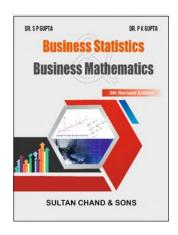
Dr. S.P. Gupta • Dr. P.K. Gupta

# **Contents**

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**Part II: Business Mathematics** – Matrix Algebra • Functions, Limits and Continuity • Differentiation and its Applications • Integration and its Applications • Mathematics of Finance.

**Appendix** 



Edition: 5th, 2022

Pages: xxxii + 744

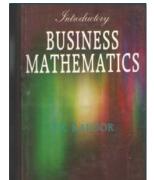
ISBN: 978-93-5161-143-1 (TC 1131)

MRP: ₹ 650.00

# **Introductory Business Mathematics**

V.K. Kapoor

### **Contents**



**SULTAN CHAND & SONS** 

- Matrices I
   (Basic Concepts)
- Matrices II (Applications)
- Functions
- Limit & Continuity
- Differentiation I (Basic Concepts)
- Differentiation II (Applications)
- Partial Differentiation I
   (Basic Concepts)
- Partial Differentiation II (Applications)
- Integration I
   (Basic Concepts)

- Integration II (Applications)
- Linear Programming I (Formulation & Graphic Solution Method)
- Linear Programming II (Simplex Method)
- Linear Programming III (Duality)
- Mathematics of Finance I (Compound Interest)
- Mathematics of Finance II
   (Annuities Certain)
- The Transportation and Assignment Problems.

Appendix

*Edition:* 18th, 2011 *Pages: xvi* + 858

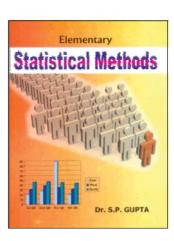
ISBN: 978-81-8054-832-1; (TC 1059)

MRP: ₹ 325.00



# **Elementary Statistical Methods**

Dr. S.P. Gupta



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- Introduction
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- Chi-Square Test
- · Analysis of Variance
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- Interpolation and Extrapolation
- Interpretation of Data

Appendix.

Edition: 19th, 2022 Pages: xxiv + 696 ISBN: 978-81-8054-596-2 (TC 504) MRP: ₹ 595.00

# **Business Mathematics**

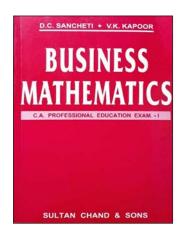
C.A. Professional Education Exam.-I

D.C. Sancheti • V.K. Kapoor

## **Contents**

- Functions and Applications
- Arithmetic & Geometric Progressions
- Permutations & Combinations
- Matrices
- Linear Inequalities
- · Limit & Continuity
- Differentiation
- Integration
- Mathematics of Finance I
- Mathematics of Finance II

Appendix.





# **Business Statistics and Operations Research**

Dr. S.P. Gupta • Dr. P.K. Gupta • Dr. Man Mohan

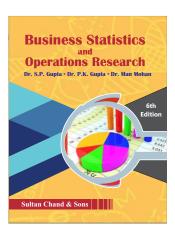
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- Measures of Variation Skewness, Moments and Kurtosis Correlation Analysis • Regression Analysis • Index Numbers • Analysis of Time Series
- Tests of Hypotheses Chi-Square Test Analysis of Variance Statistical Quality Control.

Appendix

**Operations Research** — Operations Research — An Overview • Linear Programming • Linear Programming Problem – Solution Methods • Duality in Linear Programming • Transportation Problem • Assignment Problem • Network Analysis — PERT/CPM.



Edition: 6th, 2022

Pages: xvi + 768

ISBN: 978-93-91820-35-0 (TC 508)

MRP: ₹ 595.00

# Introduction to Management Science

# **Operations Research**

Kanti Swarup • P.K. Gupta • Man Mohan

# OPERATIONS RESEARCH 20th Revised Edition KANTI SWARUP PK GUPTA MAN MOHAN Assisted by Priyanshu Gupta SULTAN CHAND & SONS

# **Contents**

Operations Research – An Overview • Linear Programming • Solving Linear Programming Problems • Theory of Simplex Method • Duality in Linear Programming • Post – optional Analysis • Transportation Problem • Assignment Problem • Other Methods of Solving Linear Programming Problems • Operations Scheduling • Integer Programming • Goal Programming

- Scheduling Techniques Resources Analysis in Project Management
- Dynamic Programming Network Routing Problems Probability Markov Analysis Decision Theory Queuing Theory Replacement Decisions
- Inventory Management Deterministic Inventory Management Probabilistic Simulation Non-Linear Programming and Optimization
- Solving Non-Linear Programming Problems Geometric Programming
- Information Theory Investment Analysis and Break-even Analysis
- Business Forecasting Learning Curve Theory Statistical Quality Control.

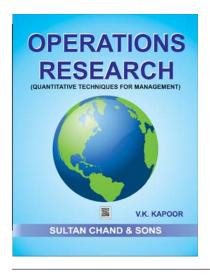
Some Case Problems, Appendices, Index.

Edition: 20th, 2022 Pages: xxiv + 1,160 ISBN: 978-93-5161-183-7 (TC 525) MRP: ₹ 795.00

# **Operations Research**

(Quantitative Techniques for Management)

# V.K. Kapoor



## **Contents**

- · Operations Research
- Linear Programming I: Problem Formulation and Solution by Graphical Method
- Linear Programming II: Simplex Method
- Linear Programming III: Duality and Sensitivity Analysis
- Transportation Problem
- Assignment Problem
- · Sequencing Problem

- Replacement Theory
- · Queuing Theory
- · Decision Analysis
- Theory of Games
- Inventory Management
- Project Network Analysis: CPM/PERT
- Simulation
- Goal Integer and Dynamic Programming
- · Markov Chains.

Edition: 9th, 2014 Pages: xvi + 624 ISBN: 978-93-5161-011-3 (TC 531) MRP: ₹ 625.00

# **Operations Research**

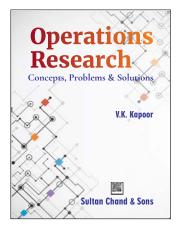
Concepts, Problems & Solutions

# V.K. Kapoor

# **Contents**

- Operation Research: An Overview
- Linear Programming-I: Model Formulation
- Linear Programming-II: Graphical Method
- Linear Programming-III: Simplex Method & Duality
- Transportation Problem
- Assignment Problem

- · Replacement Theory
- · Sequencing Problem
- · Decision Theory
- Inventory Management
- Queuing Theory
- Network Analysis: CPM & PERT
- · Game Theory
- · Simulation.





# **Quantitative Techniques and Operations Research**

Dr. S.P. Gupta • Dr. P.K. Gupta

## **Contents**

**Part I: Quantitative Techniques** – Quantitative Techniques – Introduction • Introduction to Statistics • Classification and Tabulation • Diagrammatic and Graphic Presentations • Measures of Central Tendency • Measures of Variation • Skewness Moments and Kurtosis • Correlations Analysis • Regression Analysis.

Questions Papers, Appendix.

**Part II: Operations Research** – Managerial Decision-making and Operations Research • Linear Programming • Linear Programming Problem – Solution Methods • Duality in Linear Programming • Transportation Problem • Assignment Problem • Operations Scheduling.



Edition: 4th, 2022

Pages: xvi + 600

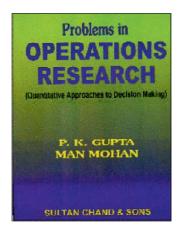
ISBN: 978-93-5161-182-0 (TC 1017)

MRP: ₹ 495.00

# Problems in **Operations Research**

(Quantitative Approaches to Decision Making)

P.K. Gupta • Man Mohan



Edition: 14th, 2014

# **Contents**

Applied Operations Research – An Overview • Linear Programming – Model Formulation • Linear Programming Problem – Graphical Solution • Linear Programming Problem – Standard Form & Basic Solution • Simplex Method – I • Simplex Method – III • Simplex Method – III • Degeneracy in Linear Programming • Duality in Linear Programming • Dual Simplex Method • Revised Simplex Method • Bounded Variable Problem • Integer Programming • Post Optimal Analysis • Parametric Linear Programming • Transportation and Transshipment Problems • Assignment Problems • Sequencing Problems • Dynamic Programming • Decision Analysis • Game Theory • Markov Analysis • Queueing Problems • Inventory Models • Replacement Problems • Non-Linear Programming • Quadratic Programming • Network Scheduling by PERT/CPM • Resource Analysis in Network Scheduling • Simulation • Investment Analysis and Break-Even Analysis • Business Forecasting • Network Routing Problems • Learning Curve Theory • Information Theory.

Appendix: Statistical and Other Tables.

\_\_\_\_\_

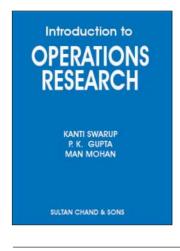
Pages: viii + 936

ISBN: 978-93-5161-007-6 (TC 495) MRP: ₹ 550.00



# Introduction to **Operations Research**

Kanti Swarup • P.K. Gupta • Man Mohan



## **Contents**

- Operations Research An Overview
- The Linear Programming Problem
- The Simplex Method
- Duality in Linear Programming
- Integer Programming
- The Transportation Problem
- The Assignment Problem
- Sequencing Problems
- Dynamic Programming

- · Game Theory
- Queuing Theory
- Inventory Problems
- Replacement Problem
- Decision Analysis
- Markov Analysis
- · Network Analysis
- · Simulation.

Appendices Statistical Tables Answers Index.

 ISBN: 978-81-8054-351-X; (TC 526)

MRP: ₹ 80.00

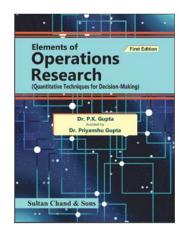
# Elements of **Operations Research**

(Quantitative Techniques for Decision-Making)

Dr. P.K. Gupta

# **Contents**

- · Decision-Making and Operations Research
- Linear Programming
- Linear Programming Problem Solution Methods
- Duality in Linear Programming
- Transportation Problem
- Assignment Problem
- Network Analysis PERT/CPM
- · Decision Theory
- · Game Theory
- · Queuing Models
- · Inventory Control
- Replacement Decisions
- · Sequencing: Operations Scheduling



Edition: 1st, 2022

Pages: xvi + 472

ISBN: 978-93-91820-46-6 (TC 1268)

MRP: ₹ 395.00



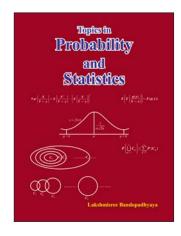
# Topics in **Probability and Statistics**

# Lakshmisree Bandopadhyaya

## **Contents**

- I. Basic Probability
- II. Random Variable and Expectation
- III. Special Discrete Distributions
- IV. Special Continuous Distributions
- V. Joint Distributions
- VI. Inequalities, Limit Theorems and Markov Chains.

Topics in Probability & Statistics Delhi University Question Papers.



Edition: 1st, 2016 Pages: xiv + 250 ISBN: 978-81-7211-370-4 MRP: ₹ 300.00

# **Statistics**

BA (Programme) – DSE-2

# Lakshmisree Bandopadhyaya

# Statistics BA (Programme) – DSE-2

# **Contents**

Section 1: Basic Probability, Random Variable and Expectation

Section 2: Special Discrete and Continuous Distributions

Section 3: Bivariate Distribution, Central Limit Theorem,

Laws of Large Numbers

Section 4: Sampling and Test of Significance.

Edition: 1st, 2018 Pages: xiv + 202 ISBN: 978-81-7211-377-3 MRP: ₹ 250.00

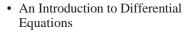


# Ordinary and Partial Differential Equations

Based on Latest CBCS Pattern

# Dr. Chaitanya Kumar

## **Contents**



- Ordinary Differential Equations of Order One and First Degree
- Differential Equations of First Order but Not to First Degree
- The Wronskian and its Properties
- Linear Differential Equation with Constant Coefficients
- · Homogeneous Linear

Differential Equations

- Method of Variation of Parameters
- Simultaneous Linear Differential Equations
- Total Differential Equations
- Partial Differential Equations Formation, Solution of First Order Equations
- Non-Linear Partial Differential Equations of Order One.

Examination Papers.

Edition: 1st, 2021

Pages: xvi + 320

ISBN: 978-93-5161-197-4; (TC 1238)

MRP: ₹ 250.00

# **Statistics**

# **Problems & Solutions**

V.K. Kapoor

# **Contents**

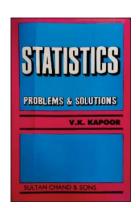
- · Classification and Tabulation
- Averages
- Dispersion, Skewness & Kurtosis

Based on Latest

ORDINARY AND PARTIAL

- · Correlation
- Regression
- · Index Numbers
- · Time Series
- Probability

- · Statistical Decision Theory
- Theoretical Distributions
- Sampling & Test of Significance
- Chi-Square Test
- F-Test and Analysis of Variance
- Association of Attributes
- Multiple & Partial Correlation.





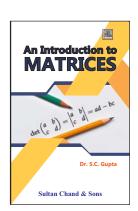
# **An Introduction to Matrices**

Dr. S.C. Gupta

## **Contents**

- · Algebra of Matrices
- · Matrices Associated with a Given Matrix
- Determinants
- · Adjoint and Inverse of a Matrix
- · Rank of a Matrix
- Linear Equations
- The Characteristic Roots and the Characteristic Equation of a Matrix
- · Quadratic Forms.

Bibliography Index.

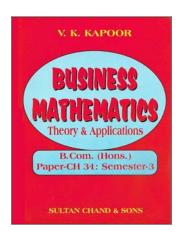


Edition: 1st, 1978 Pages: viii + 288 ISBN: 978-81-8054-926-7; (TC 503) MRP: ₹ 275.00

# **Business Mathematics**

Theory and Applications *B.Com. (Hons.) Paper-CH 3.1: Semester-3* 

V.K. Kapoor



# **Contents**

- Matrices and Determinants
- · Applications of Matrices
- Functions
- · Limits and Continuity
- Differentiation (Basic Concepts)
- Applications of Differentiation to Business & Economics
- Partial Differentiation (Basic Concepts)

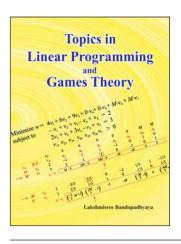
- Applications of Partial Differentiation
- Integration (Basic Methodology)
- Application of Integration
- Mathematics of Finance
- Linear Programming-I (Formulation and Graphic Solution Method)
- Linear Programming-II (Simplex Method)
- Linear Programming-III (Duality).

Edition: 19th, 2012 Pages: xvi + 508 ISBN: 978-81-8054-925-0; (TC 1193) MRP: ₹ 350.00



# Topics in Linear Programming and Games Theory

Lakshmisree Bandopadhyaya



## **Contents**

Section 1 Preliminaries: Linear Programming Problems

Section 2 Solution Techniques: Simplex Algorithm

Section 3 Applications: Concept of Duality

Transportation ProblemsAssignment Problems

Section 4 Games: Games Theory.

Edition: 3rd, 2016 Pages: xviii + 334 ISBN: 978-81-7211-226-2 MRP: ₹ 300.00

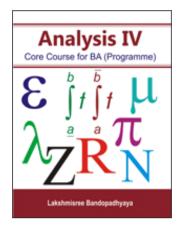
# **Analysis IV**

Core Course for BA (Programme)

Lakshmisree Bandopadhyaya

# **Contents**

- I. Properties of Real Numbers, Continuous Functions and Uniformly Continuous Functions
- II. Sequence and Series
- III. Riemann Integral.



Edition: 1st, 2018 Pages: x + 106 ISBN: 978-81-7211-376-5 MRP: ₹ 200.00



# Introductory Calculus with Geometry

for B.Sc. (Hons.), First Semester as per Syllabus of University of Delhi

# Pradip Narain • Tajender Singh Saluja

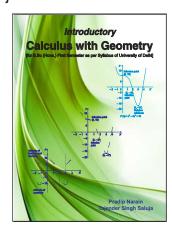
# **Contents**

**Section I** – Hyperbolic Functions • Leibniz Rule and its Applications • Application of Derivatives • Curve Tracing in Cartesian Coordinates • L' Hôpital's Rule • Optimization in Business, Economics, and the Life Sciences • Parametric Representation of Curves and Their Tracing • Polar Coordinates and Tracing of Polar Curves.

Section II - Reduction Formulae • Volumes • Arc Length and Surface Area.

**Section III** – Conic Sections and their Tracing • Rotation of Axes.

**Section IV** – Physical Quantities • Introduction to Vector-Valued Functions and Graphs • Calculus of Vector-Valued Functions • Modeling Ballistics and Planetary Motion • Curvature, Tangential and Normal Components of Acceleration.

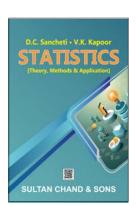


Edition: 1st, 2014 Pages: xxii + 512 ISBN: 978-81-7211-345-5 MRP: ₹ 400.00

# **Statistics**

(Theory, Methods & Application)

D.C. Sancheti • V.K. Kapoor



# **Contents**

- Meaning and Scope
- Statistical Survey
- Classification and Tabulation
- Diagrammatic and Graphic Presentation
- Measures of Averages
- Measures of Dispersion
- Skewness, Moments & Kurtosis
- Correlation Analysis
- Regression Analysis
- Index Numbers
- Analysis of Time Series
- Association of Attributes
- Interpolation

- Probability and Expected Value
- Statistical Decision Theory
- Theoretical Distributions
- Sampling and Designing of a Sample Survey
- · Test of Hypothesis
- Chi-Square Test
- F-Test and Analysis of Variance
- · Statistical Quality Control
- Multiple & Partial Correlation and Regression
- Vital Statistics
- Linear Programming.

Edition: 7th, 2010 Pages: xii + 1447 ISBN: 978-81-8054-612-9 (TC 555) MRP: ₹ 695.00

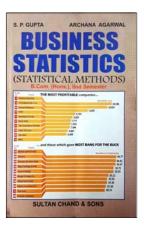


# **Business Statistics**

(Statistical Methods)

S.P. Gupta • Archana Agarwal

# **Contents**



- Business Statistics What and Why
- Classification and Tabulation of Data
- · Measures of Central Value
- Measures of Dispersion
- Skewness, Moments and Kurtosis
- · Correlation Analysis
- Regression Analysis
- Index Numbers

- · Analysis of Time Series
- · Probability Theory
- Theoretical Distributions
- Statistical Decision Theory
- Sampling and Sample Designs
- Sampling Distribution and Theory of Estimation

Question Papers of B.Com. (Hons.) Examination, Semester II Appendices.

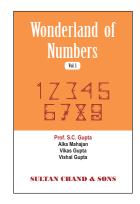
Edition: 10th, 2016 Pages: xvi + 732 ISBN: 978-81-5161-074-8 (TC 519) MRP: ₹ 425.00

# Wonderland of Numbers - Vol. I

Prof. S.C. Gupta • Alka Mahajan • Vikas Gupta • Vishal Gupta

# **Contents**

- Numbers Meaning and Classification
- Digits: (0, 1, 2, ..., 8, 9)
- Mathematical Tricks
- · Some Interesting Numbers
- Arithmetic Potpourri (Marvels in Arithmetic)
- Square Numbers
- Cube Numbers
- Srinivas Aiyenger Ramanujan (FRS) and His Contributions to Mathematics.



Edition: 1st, 2022

**Mathematical Sciences** 



## **Commercial Arithmetic**

B.G. Iyer • S.A. Bari

#### **Contents**

- Rapid Methods of Calculations
- · Ratio, Proportion and Percentage
- · Commission, Brokerage and Discount
- Insolvency
- · Rates and Taxes
- Insurance
- · Average Due Date
- Partnership
- Joint Stock Companies
- · Foreign Bills
- Indices and Logarithms
- Simple and Compound Interest

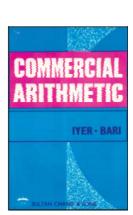
- Installment Buying
- Simple Annuities
- · Present Worth and Discount
- Profit and Loss
- · Stocks and Shares
- · Mensuration-Areas
- Mensuration-Volumes
- Variation
- · Time, Work and Speed
- · Approximation and Errors.

Miscellaneous Topics

Answer

Examination Papers

Tables.



Edition: 10th, 1984 Pages: vi + 366 ISBN: 978-81-8054-827-7 (TC 523) MRP: ₹ 175.00

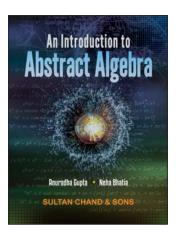
## An Introduction to **Abstract Algebra**

Anuradha Gupta • Neha Bhatia

#### **Contents**

- Sets
- Numbers
- · Permutations
- Groups
- Rings
- · Vector Spaces
- Examination Papers on Group Theory
- Examination Papers on Rings and Vector Spaces.

*Bibliography* 

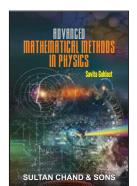


Pages: xii + 284



# Advanced Mathematical Methods in Physics

#### Savita Gahlaut



#### **Contents**

- Sets, Relations and Operations
- · Matrices and Determinants
- Groups
- Homomorphism and Isomorphism
- Vector Spaces
- Linear Transformations
- · Linear Transformations and Matrices
- Eigenvalue Problems and Diagonalization
- Function of Matrices
- Cartesian Tensors
- · Physical Tensors.

Question Papers Index.

*Edition:* 1st, 2021

Pages: xvi + 368

ISBN: 978-93-91820-04-6; (TC 1250)

MRP: ₹ 250.00

## **Mathematical Physics**

#### With Classical Mechanics

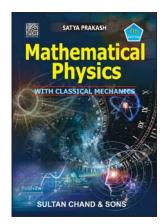
## Satya Prakash

#### **Contents**

- Vectors (with applications)
- Matrices
- Tensors
- · Beta-gamma and Error Functions
- · Infinite series
- Complex Variables
- Differential Equations and Special Functions
- · Fourier Series and Integrals
- Partial Differential Equations in Physics
- Fourier's and Laplace's Integral Transforms

- Dirac Delta Function & Green's Function
- Probability, Statistics and Theory of Errors
- Group Theory
- Numerical Analysis
- Classical Mechanics
- Special Theory of Relativity
- Quantum Mechanics
- · Statistical Mechanics.

University Question Papers Index.



Physics



## A Textbook of **Practical Physics**

M.N. Srinivasan • S. Balasubramanian • R. Ranganathan

#### **Contents**

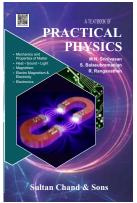
- · Mechanics and Properties of Matter
- Heat
- Sound
- Light
- Magnetism
- Electro-Magnetism & Electricity
- · Electronics.

Appendix University Questions Data of Physical Constants.

**ELECTRICITY** 

MAGNETISM

SULTAN CHAND & SONS



Edition: 1st, 1990 *Pages: xii* + 388 ISBN: 978-81-8054-744-7; (TC 601)

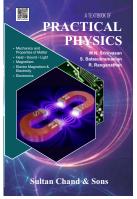
**Electricity and Magnetism** 

D.L. Sehgal • K.L. Chopra • N.K. Sehgal

#### **Contents**

- Vectors
- · Electrical Units
- The Fundamental Principles of Electrostatics
- · The Electric Field
- Electric Potential
- Systems of Conductors, Capacitance
- Electrostatic Energy
- The General Electrostatic Problem
- · Dielectrics
- Steady Currents
- Magnetic Effects of Currents

- · Electrical Instruments
- · Measurement of Resistance and Potential
- · Heating Effects of Currents
- · Thermoelectricity
- · Electromagnetic Induction
- Transient Currents
- Alternating Currents
- · Alternating Current Bridges
- Network Analysis
- Magnetic Properties of Materials
- Magnetic Circuits
- · Maxwell's Equations and Electromagnetic Waves.



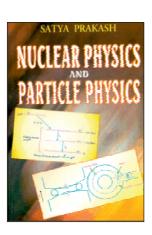
MRP: ₹ 250.00

Edition: 7th, 2020 Pages: xxiv + 960 ISBN: 978-93-5161-144-8 (TC 590) MRP: ₹ 540.00



## **Nuclear Physics and Particle Physics**

#### Satya Prakash



#### **Contents**

- General Properties of Atomic Nuclei
- Two Body Problem an Nuclear Forces
- · Radioactivity
- · Alpha Decay
- Beta Decay
- Gamma Transitions
- · Nuclear Models
- Nuclear Reactions
- Nuclear Energy; Nuclear Fission and Fusion

- Nuclear Instrumentation Nuclear Accelerations and Detectors
- Elementary Particle Physics
- · Cosmic Rays.

Edition: 1st, 2005

Pages: xvi + 480

ISBN: 978-81-8054-993-9; (TC 589)

MRP: ₹ 400.00

## **Heat and Thermodynamics**

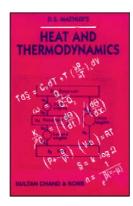
#### D.S. Mathur

#### **Contents**

- Heat and Temperature Thermometry
- Thermal Expansion
- · Calorimetry
- Change of State
- · Kinetic Theory of Heat
- · Kinetic Theory of Gases
- Continuity of State Study of Real Gases
- · Thermodynamics
- Entropy
- Thermodynamic Relations
- Production of Law Temperatures

- Transmission of Heat Conduction
- Transference of Heat Convection
- Radiation of Heat
- Elements of Statistical Mechanics
- Classical and Quantum Statistics.

Appendices



Edition: 5th, 2004

Pages: xx + 664

ISBN: 978-81-8054-259-9; (TC 577)

MRP: ₹ 350.00



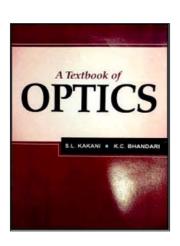
## A Textbook of Optics

S.L. Kakani • K.C. Bhandari

#### **Contents**

Introduction: Nature of Light • Electromagnetic Waves • Interference (Division of Wavefront, Division of Amplitude) • Lasers and Holography (Quantum Optics) • Diffraction • Polarisation of Light • (Double Refraction, Production and Analysis of Polarised Light, Rotation of Plane of Polarisation) • Non-Linear Optics • Cardinal Point of a System of Coaxial Lenses • Dispersion of Light • Velocity of Light • Fermat's Principle • Photometry • Fibre Optics • Optical Instruments • Quantum Nature of Light • Matter Waves and Uncertainty Principle • Atomic Structure • Optical Phenomena • Elements of Crystal Structure and X-Rays • Special Theory of Relativity • Wave Mechanics.

Suggested Readings.

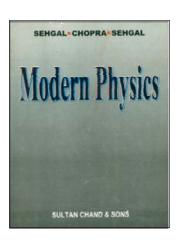


Edition: 15th, 2002 Pages: xvi + 564 ISBN: 978-93-5161-040-3; (TC 572) MRP: ₹ 395.00

## **Modern Physics**

N.K. Sehgal • K.L. Chopra • D.L. Sehgal

#### **Contents**



Unit I – Electrical Conduction in Gases; Discharge Tube Phenomenon
 Unit II – Cathode Rays • Unit III – Positive Rays and mass Spectrographs
 Unit IV – Structure of the Atom • Unit V – The Vector Atom Model
 Unit VI – Particle Properties of Waves • Unit VII – Wave nature of Matter
 Unit VIII – Introduction to Quantum Mechanics • Unit IX – Application of Quantum Mechanics to 'Free State' Problems • Unit X – Application of Quantum Mechanics to Bound State Problems • Unit XI – The Nucleus
 Unit XII – The Phenomenon of Radioactivity • Unit XIII – Introductory Statistical Physics • Unit XIV – Theory of Relativity • Unit XV – General Features of the Electron Tubes • Unit XVII – Rectifiers and Filters
 Unit XVII – Amplifiers • Unit XVIII – Oscillators • Unit XIX – Semiconductors • Unit XX – Radio Communication • Unit XXI – Practical Electronic Devices.

 Physics

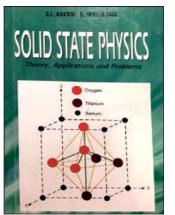


## **Solid State Physics**

Theory, Applications and Problems

S.L. Kakani • C. Hemarajani

#### **Contents**



Crystal Structure • Crystal Diffraction and The Reciprocal Lattice • Crystal Binding • Elastic Properties of Solids • Lattice Vibrations • Thermal Properties of Solids • Free Electron Theory of Metals • Band Theory of Metals • Semiconductors and Devices • Magnetism and Magnetic Materials • Dielectrics and Ferroelectrics, Optical Properties of Solids • Imperfections in Crystals • Magnetic Resonance • Super – conductivity • New Superconductors and High Temperature Superconductivity • Applications of Superconductivity • Superfluidity • Mossbauer Effect • Masers and Lasers • Optical Fiber • Quantum Statistics • Experimental Techniques • Group Theory.

Appendices A to C Suggested Reading Subject Index.

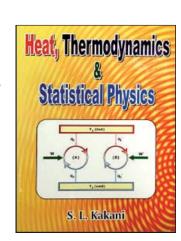
Edition: 4th, 2005 Pages: xviii + 1,056 ISBN: 978-81-8054-399-4; (TC 574) MRP: ₹ 500.00

## Heat, Thermodynamics & Statistical Physics

S.L. Kakani

#### **Contents**

Temperature and Thermometry • Ideal Gas, Isothermal and Adiabatic Processes, Specific Heat • Zeroth Law and First Law of Thermodynamics • Second Law of Thermodynamics and Entropy • Maxwell's Thermodynamic Relations and Phase Transition • Liquefaction of Gases and Production of Very Low Temperatures • Thermal Radiations, Quantum Theory of Radiations and Pyrometers • Quantum Theory of Specific Heats • Heat (Thermal) Conduction • Kinetic Theory of Gases and Transport Phenomena • Statistical Physics: Classical Statistics and M.B., F.D. and B.E. Distribution Laws • Quantum Statistics • Energy Equipartition Principle, Partition Functions and Ensembles • Statistical Mechanics of M.B., B.E. and F.D. Systems, Independent and Dependent Particle Systems and Imperfect Gases • Fluctuations and Non-Equilibrium States • Phase Transitions • The Ising Model.



**Appendices** 

Edition: 2nd, 2009 Pages: xx + 560 ISBN: 978-81-8054-609-9; (TC 571) MRP: ₹ 225.00



## **Textbook of Organic Chemistry**

P.L. Soni • H.M. Chawla

#### **Contents**

Part I – General Organic Chemistry

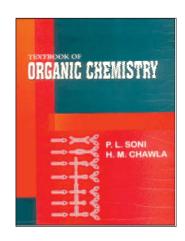
Part II - Organic Compounds

Part III – Aromatic Compounds

Part IV – Special Topics.

Appendix 1 – 9

Some Questions From University Examination.

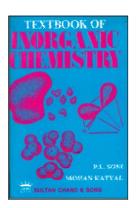


Edition: 29th, 2007 Pages: xxiv + 1,704 ISBN: 978-81-8054-767-6 (TC 632) MRP: ₹ 795.00

## **Textbook of Inorganic Chemistry**

P.L. Soni • Mohan Katyal

#### **Contents**



Part I: Chemical Principles – Introduction • Structure of Atom (Classical Model) • Structure of Atom (Modern Picture) • Classification of Elements • Nuclear Chemistry

- Radioactivity and Nuclear Transformations Theory of Chemical Bonding I
- Theory of Chemical Bonding II Structure of Solids Oxidation-Reduction Reactions • Acids, Bases and Non-Aqueous Solvents • Standard Electrode Potentials.

Part II: Elements & Their Compounds – Principles and Processes of Metallurgy • Hydrogen • Water and Hydrogen Peroxide • The Elements of Group IA - (i & ii) • The Elements of Group IIA- (i & ii) • The p-Block Elements • Elements of Group IIIA - (i & ii) (ii) • Elements of Group IV – (i, ii, iii & iv) • Elements of Group VA (i, ii, iii & iv) • Elements of Group VIA (i, ii, iii & iv) • Elements of Group VIIA (i, ii, iii & iv) • Elements of Group Zero.

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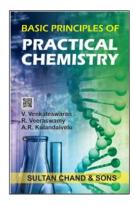
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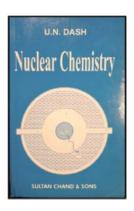
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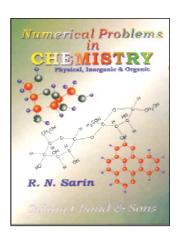
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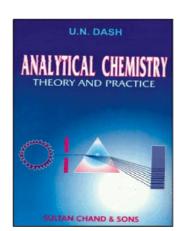
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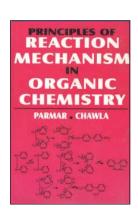
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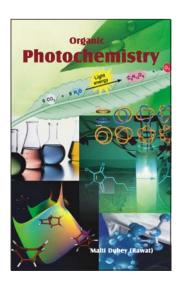
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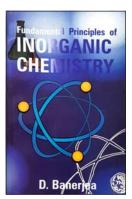
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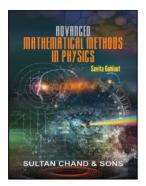
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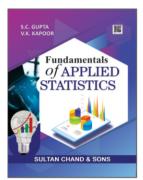


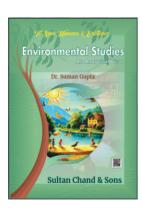
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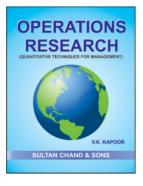
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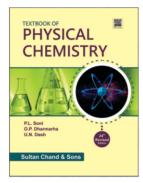
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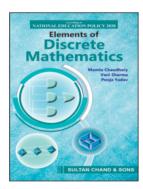


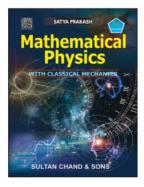


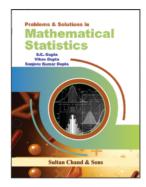




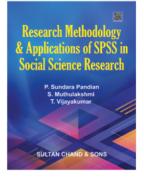




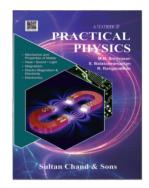


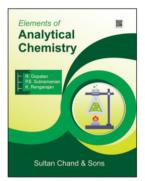


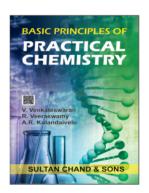












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