Catalogue

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I hope your students are working hard and preparing for a bright career with promising opportunities. The preparation for examinations will be crucial for their career and for that besides what they learn in the class room, they need support from the good text-books related to the subject. No doubt a book is a bridge between the teacher and the taught. They deserve to be provided goodtext-books which provides greater insight into the subject. M/s Sultan Chand & Sons is committed to fulfil this task by making available low priced more valuable text-books for the students so that they successfully excel in their exams and achieve higher aims.

The books published by us provides more reading material, more solved illustrations, more exercises with answers, more up-to-date information and more interesting and lucidly presented topics. The speciality of our publications are that comparatively the books are lower priced than other books in the market and very well served the purpose of a tutor sitting by side of the students at their home.

The present catalogue provides you some information about our publication which will enable you and your colleagues to decide their suitability for recommendation to the students. We will also send some specimen copies of books, so that you are satisfied with the apt materials provided in our publications and would like to know your esteemed opinion about these books.

We request you to kindly provide us the names of your colleagues along with subject taught by them in the current year so that we can also inform them about our books and execute your order for supply of books.

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Awaiting your favourable reply.

With kind regards.

Yours sincerely,

SULTAN CHAND & SONS

CONTENTS

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Sultan Chand & Sons, 23, Daryaganj, New Delhi 110 002
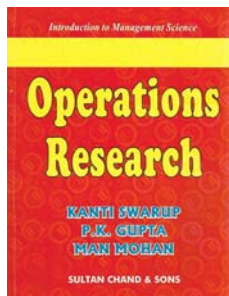
AUTHOR'S INDEX

Notes:
1. While every effort has been made to ensure accuracy of prices in this catalogue, prices are subject to change without prior notice.
2. In case of any disputes jurisdiction will be Delhi only.

Introduction to Management Science
Operations Research

Dr. Kanti Swarup
Former Professor, Indian Institute of Public Administration, New Delhi

Dr. P.K. Gupta, Ph. D.
J.V. Jain College, Saharanpur

Dr. Man Mohan, M.Sc., Ph. D.
Ramjas College, University of Delhi, Delhi

The book covers the latest syllabi in Operations Research / Management Science of Various Universities, Engineering Institutes, Management Institutions and Professional bodies.

Special Features

- The entire text has been restructured, re-written and updated.
- Chapters on Network Routing Problems, Forecasting, and Learning Curve.
- Theory have been included in this edition of book.
- A conscientious effort has been made all through to keep the treatment simple and in lucid style. The language of the text is uniquely simple.
- *Sample Problems* and *Unsolved Latest Examination Problems* have been given at the end of each section.
- Multiple Choice Questions are given with answers at the end of each chapter.

Contents

- Prerequisite
- Operations Research – An Overview
- Linear Programming Problem – Mathematical Formulation
- Linear Programming Problem – Graphical Solution and Extension
- Linear Programming Problem – Simplex Method
- Duality in Linear Programming
- Post-optimal Analysis
- Integer Programming
- Goal Programming
- Linear Programming Problem – Advanced Techniques
- Transportation Problem
- Assignment Problem
- Sequencing Problem
- Dynamic Programming
- Probabilty
- Markov Analysis
- Decision Analysis
- Games and Strategies
- Replacement Problem and System Reliability
- Inventory Control – I, Inventory Control – II
- Queueing Theory
- Simulation
- Investment Analysis and Break-even Analysis
- Network Routing Problems
- Network Scheduling by *PERT / CPM*
- Resource Analysis in Network Scheduling
- Non-Linear Programming
- Non-Lienear Programming – Methods
- Geometric Programming
- Informating Theory
- Forecasting
- Learning Curve Theory
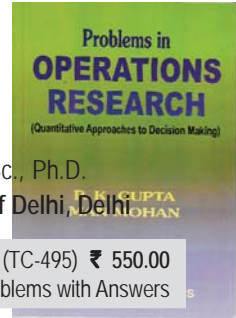- Some Cases in O.R.
- Appendices
- Index.

Problems in Operations Research

Dr. P.K. Gupta, Ph.D.
J.V. Jain College, Saharanpur

Dr. Man Mohan, M.Sc., Ph.D.
Ramjas College, University of Delhi, Delhi

|			
14th Edition 880 Typical Problems Fully Solved	Pp. *viii* + 936 24 × 16 cm.	Chapters 34	ISBN 978-93-5161-007-6 (TC-495) ₹ 550.00 690 Unsolved Problems with Answers

Special Features

Book Covers the latest syllabus in Operation Research / Quantitative Techniques / Management Science of most of the Universities, Civil Services Examination and other Professional Examinations • Each Chapters begins with a brief synopsis of solved problems mostly taken from recent examination papers of various universities • At the end of each chapter unsolved problems by their answers are presented of self practice • At the end of each chapter "Multiple Choice" Problems and "True / False" Problems and Presented • The revised edition of the book now includes more than 880 solved problems and more than 690 unsolved problems with answers together with about 280 "Multiple Choice" Problems with 330 illustrative diagrams and 200 Tables for recapitulation and better grasp over the subject.

Contents

Operations Research – An Overview • Linear Programming Model-Formulation • Linear Programming Problem – Graphical Solution • Linear Programming – Standard Form & Basic Solution • Simplex Method • 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 Problems • Transportation and Transhipment Problems • Assignment Problem • Sequencing Problem • Dynamic Programming • Decision Analysis • Game Theory • Markov Analysis • Queuing Problems • Inventory Problems • 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.

Operations Research

Quantitative Techniques for Management

V.K. Kapoor
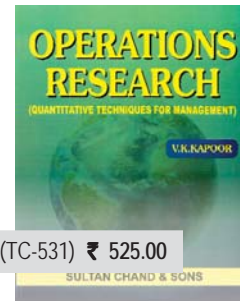
9th Revised Edition Reprint 2018	Pp. *xvi* + 632	Chapters 16	ISBN 978-93-5161-011-3 (TC-531) ₹ 525.00

At a Glance of the Book

- Chapters Synopsis. Brief Description of Entire Chapter.
- Learning objectives. Each chapter begins with Learning objectives.
- Main Body. Various concepts and procedures relating to a particular topic have been fully explained in a well-kint manner.
- Graded solved examples. For a better grasp of the subject matter, numerous example have been provided at appropriate places in each chapter of the book.
- Graded Self Practice (Self-assessment) Review Problems (Exercises). In keeping in the view that Quantitative Techniques can be learned only by practice numerous practical questions including those which have appared in different examinations have been (with hints) in the form of graded exercise sets.
- Glossary of Key Terms is provided at the end of the chapter.

- Chapter Summary. An overview of the chapter has been presented in a capsule form in terms of Points to Remember at the end of chapter.
- Review Questions for Discussion. In ordered to help to readers in Evaluating their level of understanding, each chapter contains self questions ranging from short concept questions to descriptive essay type questions.

Contents

Introduction to Operations Research • Linear Programming : Problem Formulation and Solution by Graphic Method • Linear Programming : Simplex Method • Linear Programming : 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.

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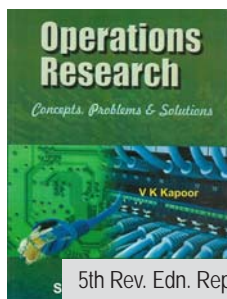
Operations Research
Concepts, Problems and Solutions

V.K. Kapoor

Salient Features of the Revised Edition

- An ideal book for independent study
- The book elucidates the Key Concepts and Methods of Operations Research.
- The book supplements text books on Operations Research and upgrades students knowledge in the subject.
- No special mathematical knowledge is assumed and the techniques are developed as situation generates. Each chapter begins with an introduction highlighting the development, application meeds and prospects. In a nut-shell mathematical proofs are carefully avoided.
- One of the noble features of the manual is that all the major steps in the computational produre of important technique are presented in a step-by-step algorithm format.
- To enhance the understanding of the subject by the students of various descilpines, a conceptual rather than mathematical approach is adopted. Inffact, throughout the test, each concept is followed by numerous illustrations from different functional areas of management and latest examination papers.

- The book is student friendly containing plenty of problems from real life situations, which are included in each chapter to enable the reader to gain further insight and clarity of the application of various Operationals Research techniques.

Contents

Introduction to Operations Research

Kanti Swarup • P.K. Gupta • Man Mohan

Special Features

- This book is designed to cater to the needs of B.A., B.Sc., B.Com. students of all Indian Universities.
- It provides an introduction to various basic O.R. techniques.
- The language is simple and the text material self-explanatory.
- All important algorithms have been summarised in a step-by-step manner followed by their Flow Charts.

Brief 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.

Linear Programming and Theory of Games

P.K. Gupta • Man Mohan

Ninth Thoroughly Rev. Edition (Reprint)	Pp. *xvi* + 841	ISBN 81-7014-690-9 (TC-490) ₹ 125.00
106 Solved Examples	295 Discussion Ques.	Over 284 Unsolved Problems

Special Features

- Standard text on L.P. for the students of Mathematics, Statistics, O.R. Management and Engineering
- The text is rigorous in its treatment of the theory and lucid in its explanation of techniques.
- Emphasis on the Mathematical Formulation of LPP, through Sample Problems arising in the fields of industrial management, economics, defence, manpower research, etc.
- All important Algorithms summarised in a step-wise manner, followed by their Flow-Charts.
- In each chapter a large number of carefully graded problems, mostly selected from latest university examination papers, given as exercise sets.

Contents

Linear Programming : What it is • Vector and Convex Set • Linear programming Problem • General L.P.P. • The Simplex Method • Duality in L.P. • Sensitivity Analysis • Parametric Programming • Revised Simplex Method • Integer Programming • Transportation Problem • Assignment Problem • Theory of Games • Non-linear Programming • Bibliography • Answers • Index.

Fundamentals of Mathematical Statistics

S.C. Gupta	V.K. Kapoor
Hindu College	Shri Ram College of Commerce
University of Delhi, Delhi	University of Delhi, Delhi

Eleventh Thoroughly Revised Edition Reprint 2018	22 × 14 cm.	Pp. *xii* + 1166	ISBN 978-81-8054-528-3 (TC-499)	₹ 590.00
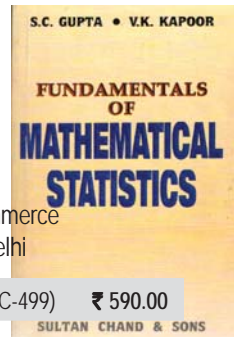
Salient Features

- Comprehensive coverage of topics on Statistics.
- Systematic arrangement and analytical presentation of the subject matter.
- Large number of illustrative solved examples.
- Requires no previous knowledge of the subject.
- Difficult concepts have been explained in simple and easy manner.
- Provides an in-depth understanding of the subject.
- Hints and Answers to selected Self-practice Problems enable readers to learn the subject first.
- Problems have been graded according to the intricacies involved.

Pedagogical Features

- A most up-to-date book on the subject.
- Chapter learning objectives.
- Simple, lucid and easily retainable language.
- Clear, exhaustive and conceptual treatment of every topic.
- Unsolved problems for self-assessment.
- Incorporates earlier year's examination papers of numerous universities.
- Step by step explanation of concepts.
- All chapters are well organized.
- Completely written on modern lines.

Contents

Introduction (Meaning & Scope) • Descriptive Measures • Probability–I • Probability–II • Random Variables & Distribution Function • Mathematical Expectation • Generating Functions and Law of Large Numbers • Special Discrete Probability Distributions • Special Continuous Probability Distributions • Correlation • Linear and Curvilinear Regression • Additional Topics on Correlation and Regression • Theory of Attributes • Large Sample Theory • Exact Sampling Distributions–I (Chi-square Distribution) • Exact Sampling Distributions–II (t) F and Z Distributions) • Statistical Inference–I (Theory of Estimation) • Statistical Inference–II (Testing of Hypothesis) • Finite Difference and Numerical Analysis • Some Additional Topics • Appendix: Hints & Answers to selected assorted review problems.

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5

Fundamentals of Applied Statistics

S.C. Gupta   V.K. Kapoor

Salient Features

- Comprehensive coverage of topics on Statistics.
- Systematic arrangement and analytical presentation of the subject matter.
- Large number of illustrative solved examples.
- Requires no previous knowledge of the subject.
- Difficult concepts have been explained in a simple and easy manner.
- Provides an in-depth understanding of the subject.
- Hints and answers to selected Self-practice Problems enables readers to learn the subject faster. Problems have been grated according to the intricacies involve.

Pedagogical Features

- A most up-to-date book on the subject.
- Chapter learning objectives.
- Simple, lucid and easily retainable language.

- Clear, exhaustive and conceptual treatment of every topic.
- Illustrative solved examples.
- Incorporates earlier year's examination papers of numerous universities.
- Step by step explanation of concepts.
- All chapters are very well organized.
- Completely written on modern line.

Contents

Chapter One – Statistical Quality Control
Chapter Two – Analysis of Time Series
Chapter Three – Index Numbers
Chapter Four – Demand Analysis
Chapter Five – Analysis of Variance
Chapter Six – Design of Experiments
Chapter Seven – Design of Sample Surveys
Chapter Eight – Statistics in Psychology and Education
Chapter Nine – Vital Statistics
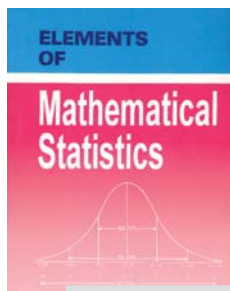
Elements of Mathematical Statistics

S.C. Gupta   V.K. Kapoor

Prepared specially for B.A. & B.Sc. students, studying Statistics as subsidiary or ancillary subject.

Brief 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
- Curve Fitting and Principle of Least Squares

- Correlation and Regression
- Theory of Attributes
- Sampling and Large Sample Tests
- Chi-square Distribution
- Exact, Sampling Distribution
- Theory of Estimation
- Testing of Hypothesis
- Analysis of Variance
- Design of Experiments
- Design of Sample Surveys
- Tables.

Statistical Methods

Dr. S.P. Gupta

Dean, Faculty of Management Studies,
University of Delhi, Delhi
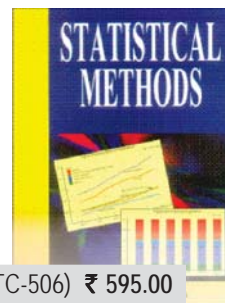
45th Revised Edition (Reprint 2018)	24 × 16 cm.	ISBN 978-93-5161-112-7 (TC-506) ₹ 595.00
	Pp. *xxiv* + 1440, 152 Diagrams, 1500 Solved Illustrations, 2000 Exercises with Answers	

Special Features

- The book has been written in a very simple and lucid style. The text material is self-explanatory and even the students of correspondence courses can follow it without much stress and strain.
- The treatment is non-mathematical in character and the readers can easily understand the text material without much taxing their brains.
- Besides good theory the book contains a large number of solved illustrations (to be exact, 1,500). These illustrations have been very carefully selected mainly from the latest examination question papers of various Universities all over India and neighbouring countries.
- This book is primarily meant to cater to the needs of undergraduate and postgraduate students of commerce and economics.

Contents

Volume – I • Statistics – What & Why • Organising a Statistical Survey • Collection of Data • Sampling & Sample Design, Classification and Tabulation of Data • Diagrammatic and Graphic Presentation • Measures of Central Value • Measures of Despersion • Skewnass, Moments and 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 Distribution • Statistical Inference – Text of Hypotheses • x^2 and Goodness of Fit • F-Test and Analysis of Variance • Experimental Designs • Statistical Quality Control • Business Forcasting • Partial and Multiple Correlation • Statistical Decision Theory • Non-Parametric Tests • Revision Exercises Volume I and Volume II • Appendix.

Elementary Statistical Methods

Dr. S.P. Gupta
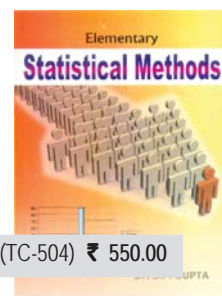
18th Edition Reprint 2017	214 × 18 cm.	Pp. *viii* + 648	ISBN 978-81-8054-596-2 (TC-504) ₹ 550.00

Special Features

- It covers the syllabus completely.
- It primarily meant for B.Com and B.A. students of various Indian Universities.
- The language is simple and the Test Material Self-Explanatory
- There are about 421 solved illustrations of varied types in the book to enable the students to do practice.
- Unsolved 722 Questions given in the form of 'Try Your Self' at the end of each chapter. This would help the students acquire Proficience and Develop Confidence that they can handle any type of Problem.
- At the end of each chapter, Conceptual Questions (1 Mark Question) in the form of 'Fill in the Blanks', 'True or False' and 'Tick the correct answer' dealt within the chapter are presented.

Contents

• Introduction to Statistics • Classification and Tablulation • Diagrammatic and Graphic Representation • Measures of Central Tendency • Measures of Variation • Skewness, Moments and Kurtosis • Correlation and Analysis • Regression Analysis • Index Numbers • Analysis of Time Series • Probability Theory • Chi-square Test • Analysis of Variance • Ststistical Quality Control • Interpolation and Extrapolation • Interpretation of Data • Appendix • Symbol, Abbreviation and Formulae • Statistical Tables.

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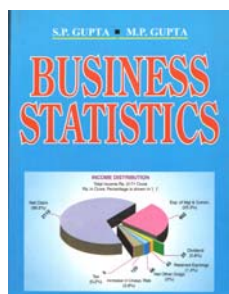
Business Statistics

Dr. S.P. Gupta
Formerly Dean, Faculty of Management Studies, University of Delhi, Delhi

Dr. M.P. Gupta
Formerly Dean, Faculty of Management Studies, University of Delhi, Delhi

19th Revised Edition 2018	Pp. *xxiv* + 800	ISBN 978-93-5161-106-6 (TC-518) ₹ 490.00
582 Solved Illustrations	Soft cover	917 Exercises with Answers

This text is written with the basic object of introducing students of Business Administration to the statistical concepts that help in decision-making. The book is essentially non-mathematical in character and an attempt has been made to illustrate the application of statistical techniques with the help of business data.

Special Features

- The entire text of this edition has been thoroughly revised. More attention has been given to chapters like – Test of Hypothesis, Estimation, Chi-Square Test, Statistical Decision Theory.
- A unique feature of the book is that most chapters ends with an interesting write-up in the form of **Ethical Considerations**. The matter has been put in very distinct block.

- Every effort has been made to reduce to the minimum printing or calculation mistakes.

Brief Contents

Business Statistics – What and Why • Collection of Data • Presentation of Data • Measures of Central Tendency • Measures of Variation • 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 • Tests 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.
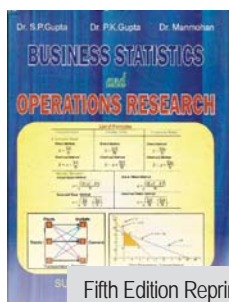
Business Statistics & Operations Research

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

Fifth Edition Reprint	Pp. *xii* + 980	ISBN 978-81-8054-864-2 (TC-508) ₹ 435.00

Special Features

- The language is simple and the text-material self-explanatory in character.
- Besides good theory, the book contains a large number of illustrations of varied types.

Contents

Part I – Business Statistics (Pp. 608)
    Introduction of Statistics – Classification & Tabulation • Diagrammatic and Graphic Presentation • Measures of Central

Value • Measures of Variation • Skewness, Moments & Kurtosis • Correlation Analysis • Regression Analysis • Index Numbers • Analysis of Time Series • Probability Theory • Small Sampling Theory • Chi-Square Test • Analysis of Variance • Statistical Quality Control • Appendix.

Part II – Operations Research (Pp. 372)
    Introduction • Linear Programming – Formulation • Graphical Method • Simplex Method • Transportation Problem • Assignment Problem • Decision Theory • Game Theory • Queuing Models • Network Analysis • Appendix I. Statistical Tables.

8

Statistics

D.C. Sancheti

Ex-Principal, Shri Ram College of Commerce, University of Delhi, Delhi
Formerly, Joint Director, Board of Studies,
Institute of Chartered Accountants, New Delhi

V.K. Kapoor

Shri Ram College of Commerce,
University of Delhi, Delhi

Seventh Thoroughly Revised and Enlarged Edition Reprint 2018	Pp. *xii* + 1456	ISBN 978-81-8054-612-9 (TC-555) ₹ 525.00
152 Diagrams, 600 Solved Illustrations, 1510 Problems with Answers		22 × 14 cm.

Special Features

- The subject matter has been presented in a rigorous manner and in simple and effective langauge, so as to make the exposition clear and lucid even beginner.
- A conscientious effort has been made all through to keep the treatment simple, lucid and non-mathematical.
- The theoretical description of each sub-section has been followed by simple illustrations. Complex problems have been solved thereafter.
- Various new solved examples have added in each chapter. These examples have been selected in such a manner that, after carefully doing these examples, a student would be able to tackle all the questions asked in the set of exercises. Moreover these examples keep in view of the trend of questions asked in the examinations. Solved examples and unsolved problems have been drawn from examination papers of M.Com., B.Com., M.A. (Eco.), B.A. (Eco.), C.A., I.C.W.A. etc.

- Exercises at the end of each chapter are substantially reorganised. Hints and answers have been provided for most of the exercises.
- In order that a student does not stuck up while trying the questions, hints have been giving for inportant questions not covered by solved questions.
- 'Objective Type' questions are also there at the end of each chapter.

Contents

Meaning and Scope • Statistical Survey • Classification and Tabulation • Diagrammatic and Graphic Representation • Measures of Averages • Measures of Dispersion • Skewnass, Moments and Kurtosis • Correlation Analysis • Index Numbers • Analysis of Time Series • Association of Attributes • Interpolation • Probability and Expected Value • Statistical Decision Theory • Theoretical Distribution • Sampling and Designing of a Sample Survey • Test of Survey • Test of Hypothesis • Chi-Square Test • *F*-Test and Analysis of Variance • Statistical Quality Control • Multiple and Partial Correlation Regression • Vital Statistics • Linear Programming.

Modern Approach to Fundamentals of
Statistics for Business and Economics

V.K. Kapoor
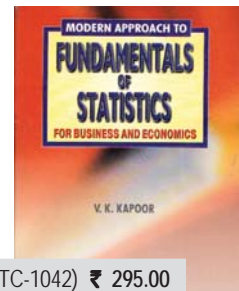
First Edition Reprint 2010	Pp. *xii* + 864	ISBN 978-81-8054-797-3 (TC-1042) ₹ 295.00

This book of covers syllabi of CA (PEE-I), B.Com, M.Com, BA (Hons.), MA (Eco), MBA , Computer Courses of all Universities.

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, Moments 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 • Interpolation and Extrapolation • Statistical Quality Control • Linear Programming.

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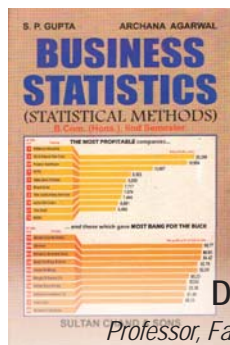
Business Statistics
Statistical Methods

For B.Com. (Hons.) I year, Second Semester Delhi, University

DR. S.P. Gupta
Professor, Faculty of Management Studies,
University of Delhi , Delhi

Archana Agarwal
Sri Aurobindo College, University of Delhi

This book has been specially designed to meet the requirements of B.Com. (Hons.) 1st Year, *SECOND SEMESTER* students of Delhi University as per their latest syllabus.

Special Features

- The language is simple and the text material is self-explanatory in character.
- It incorporates latest examination question papers of B.Com. (Hons.), BA (Hons.) & Eco. Delhi University and also of some other Universities.
- Besides good theory, the book contains a large number of illustrations of varied types (to be precise 631).
- Sufficient number of problems are given at the end of each chapter to enable students to work them out to feel confident that they have thoroughly understood the method.

- The book contains true or false statements, multiple choice, and fill in the blanks questions so vital for testing understanding of the concepts but generally not found in other books.

Brief Contents

Business Statistics – What and Why • Classification and Tabulation of Data • Measures of Central Value • Measures of Dispersion • Skewness, Moments and Kurtosis • Correlation Analysis • Index Numbers • Analysis of Time Series • Probability Theory • Theoretical Distribution • Statistical Decision Theory • Sampling and Sample Design • Sampling Distribution and Theory of Estimation • Question Paper of B.Com (Hons.) Examination Semester II • Appendices.
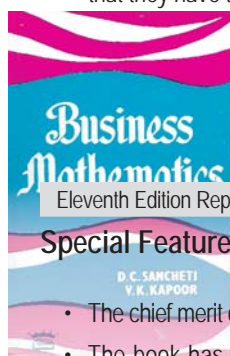
Business Mathematics

D.C. Sancheti, Ph.D. • V.K. Kapoor

Special Features

- The chief merit of the book is its simplicity.
- The book has 989 illustrations, 112 diagrams and 1149 exercises with answers for practice.
- All efforts have been made to remove misprints and to include and delete matter as considered necessary for updating. In particular editions of new advanced topis have been made in supplement. Also we have incluu in the supplement section on Linear Programming. A new feature of this edition is that a section has been Appended at the end on Application to Commerce, Economics & Probability.

Contents

Logical Statements and Truth Tables • Theory of Sets • Boolean Algebra • Real Number Systems • Groups, Ring and Field • Indices and Surds • Logarithms • Equations : Linear, Quadratic, Cubic and Higher Order • Permutations and Combinations • Binomial Theorem • Mathematical Induction, Sequence and Series • Arithmetic and Geometric Progressions • Convergence and Divergence of Series. Circular Functions and Trigonometry • Co-ordinate Geometry • Functions, Limits and Continuity • Differential Calculus • Integral Calculus • Vector Algebra • Matrix Algebra.

Supplement.

Statistics – Problems and Solution

V.K. Kapoor

Seventh Revd. Reprint Edition	Pp. *xvi* + 800	ISBN 81-7014-686-0 (TC-535) ₹ 175.00
Solved Problems 682	Revisional Problems 627 (With Hints & Answers)	

Special Features

- The book is designed for C.A. Professional Education—I Course, I.C.W.A. Inter, M. Com., M.A. (Eco.), B.Com., B.A. and M.B.A. students.
- Each chapter contains sufficiently large number of properly graded typical and thought-provoking problems with full length solutions for all categories of students.
- Questions set at the various professional and university latest examinations have been incorporated.

Contents

- Classification and Tabulation
- Measures of Averages
- Dispersion, Skewness & Kurtosis
- Correlation
- Regression Analysis
- Index Numbers
- Time Series Analysis
- Probability and Expected Values
- Statistical Decision Theory
- Theoretical Distributions
- Sampling & Test of Significance
- Chi-Square Test
- F-Test and Analysis of Variance
- Association of Attributes
- Multiple & Partial Correlation.

Business Mathematics

For C.A. Professional Education Examination-I

D.C. Sancheti
Formerly Joint Director of Studies,
Institute of Chartered Accountants of India,
Ex-Principal, Shri Ram College of Commerce, New Delhi

V.K. Kapoor
Reader, Department of Mathematics
Shri Ram College of Commerce,
University of Delhi, Delhi
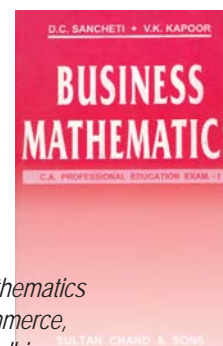
8th Thoroughly Revised Edn. Reprint Solved Examples 355 Exercises 710	Pp. *xii* + 482	ISBN 978-81-8054-835-2 (TC-877) ₹ 200.00

Special Features

- During the course of re-writing, it has been specially borne in mind that the subject develops in a smooth and coherent manner so as to provide an orderly presentation.
- Examples have been selected in such a manner that, after carefully doing these examples, a student will be able to tackle all questions asked in the set of exercises. Moreover, these example keep in view the trend of questions asked in the examination.
- Exercises (710) at the end of each chapter are substantially reorganized. Many new problems are included in the exercise sets.
- In order that a student does not get stuck while trying questions, hints have been given for important questions not covered by solved examples.
- Solved examples and unsolved problems have been drawn from latest examination papers.

Contents

Chapter One – Functions and Applications

Chapter Two – Arithmetic & Geometric Progressions

Chapter Three – Permutations & Combinations

Chapter Four – Matrices

Chapter Five – Linear Inequalities

Chapter Six – Limit & Continuity

Chapter Seven – Differentiation

Chapter Eight – Integration

Chapter Nine – Mathematics of Finance-I

Chapter Ten – Mathematics of Finance-II

Appendix

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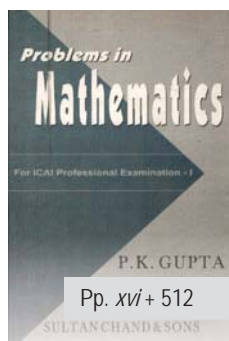
Problems in Mathematics

for ICAI Professional Education – I, Examination and ICWA Intermediate Exam.

Dr. P.K. Gupta
Reader (Retd.) J.V. Jain College, Saharanpur

The book provides the basic knowledge of mathematical tools required to solve a large number of business problems.

The book is divided into 13 chapters and each chapter starts with the problems on the concepts of the topic to be discussed in that chapter. Detailed and complete solutions to the problems are then presented followed by a set of unsolved problems (with their answers) which provides an opportunity to the reader to review the grasp of the concepts.

A distinguishing feature of the book is the inclusion of "Multiple Choice Problems" at the end of every chapter.

Contents

• Functions • Graph Linear Inequalities • Matrices • Applications of Matrices • Progression • Applications of Progression • Permutation and Combination • Limit and Continuity • Simple Differentiation • Applications of Derivatives • Simple Integration • Applications of Integration • Mathematics of Finance • Sample Papers and their Solutions • Tables • Question Paper with Solution.
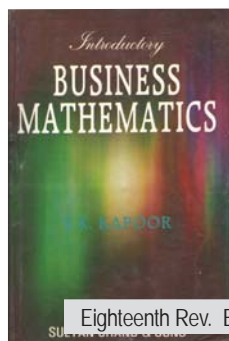
Introductory

Business Mathematics

V.K. Kapoor
Shri Ram College of Commerce, University of Delhi, Delhi

Special Features

- Comprehensive, step-by-step explanation for easier understanding of all the topics.
- Each chapter contains sufficiently large number of properly graded typical and thought-provoking problems with full-length solutions for all categories of students.
- For speedy revision, a set of important results and basic theoretical concepts are given in the beginning of each chapter.
- Questions set at the latest university examinations have been incorporated.
- Sufficient number of revisional problems are provided at the end of each chapter.
- Working rules, aids to memory, short cuts, alternative methods are the special attractions of the book.
- An ideal book suited for independent study.

Contents

1. Matrices – I
2. Matrices – II Applications
3. Functions
4. Limit & Continuity
5. Differentiation – I Basic Concepts
6. Differentiation – II (Applications)
7. Partial Differentiation – I Basic Concepts
8. Partial Differentiation – II Applications
9. Integration – I Basic Concepts
10. Integration – II Applications
11. Linear Programming – I Formulation & Graphic Solution Method
12. Linear Programming – II Simplex Method
13. Linear Programming – III Duality
14. Mathematics of Finance – I Compound Interest
15. Mathematics of Finance – II Annuities Certain
16. The Transportation and Assignment Problems
Appendix

Quantitative Methods

Text-Cum-Problems and Solutions

for ICWA Stage II (*Revised Syllabus*) *and M.B.A.*

B.M. Aggarwal, B.Sc. (Hons), M.A. (Maths), Grad., I.L.T.E. (Miece)
Member Teaching Faculty (*i*) *NIRC of ICWA* (*ii*) *NIRC of ICA*

First Edition Reprint	Knowledge Packed Pp. *xiv* + 1271 (TC-946)	₹ 300.00

Special Features

* Solved examples covering every type of problems from latest question papers set by different Institutes and Universities have been given.
* Over 1100 unsolved questions with Hints and Answers have also been given for independent practice.

Contents

Part I – Mathematical Techniques
Part II – Statistical Techniques
Part III – Economic Techniques
Scanner ICWA & MBA and Important Results

Quantitative Methods

for I.C.W.A. Intermediate Revised Course, Stage II

D.C. Sancheti, Ph.D.
Principal, Shri Ram College of Commerce, University of Delhi, Delhi
Formerly, Joint Director, Board of Studies,
Institute of Chartered Accountants of India, New Delhi

V.K. Kapoor · P.L. Mehta
Shri Ram College of Commerce, University of Delhi, Delhi

4th Revised Edition Reprint Over 634 Solved Examples	Pp. *xviii* + 1030 Over 1000 Unsolved Exercises	ISBN 81-7014-858-5 (TC-558) ` **275.00**

The present volume is the fourth revised edition wherein the Economic Techniques portion has been completely re-written, besides substantial changes in Mathematic & Statistics portions. An effort has been made to make the presentation so simple and to develop the subject matter in such step-by-step manner that the book can serve as self-study material for the student.

Contents

Section A : Mathematics Pp 285 ; 175 Solved Examples; 253 Unsolved Exercises.
Vector Algebra • Matrix Algebra • Limits and Continuity • Differential Calculus • Integral Calculus • Linear Programming.

Section B : Statistics Pp 444; 163 Solved Examples; 557 Unsolved Exercises.

Correlation Analysis • Regression Analysis • Probability and Expected Value • Statistical Decision Theory • Sampling and Designing of a Sample Survey • Text of Hypothesis • Chi-Square Test.

Section C : Economic Techniques Pp. 284; 150 Solved Examples; 193 Unsolved Exercises.
The Demand • Consumer Behaviour • Elasticity of Demand • Demand Forecasting: An Introduction • Demand Forecasting of Established Products—Opinion Polling Method • Demand Forecasting of Established Products Mechanical Extrapolation Techniques • Demand Forecasting of Established Products • Barometric (or, Leading Indicator) Techniques • Demand Forecasting of Established Products—Regression Analysis and Econometric Methods • Forecasting Demand for New Products • Production Function • Cost Function.

Quantitative Techniques – I
For Business Studies

Prof. S.P. Gupta
Ex-Dean and Head, Faculty of Management Studies,
University of Delhi, Delhi

Dr. Man Mohan
Reader, Department of Mathematics and Statistics
Ramjas College, University of Delhi, Delhi

Dr. P.K. Gupta
Reader in Mathematics (Rtd.), J.V. Jain College, Saharanpur
(Formerly visiting faculty member, Department of Mathematics,
Cochin University of Science and Technology, Kochi

Second Edition	Pp. VIII + 640	ISBN 81-8054-131-2 (TC-869) ₹ 125.00

- The text has been thoroughly revised and enlarged and each concept has been explained in a simple way.

- A new chapter on Indices has been added.

- Each chapter contains a sufficiently large number of worked out examples and unsolved problems followed by their answers on each concept.

- The book is unique in its emphasis on the applications of Quantitative Techniques in decision making. In this context, each of the chapters on mathematical tools is followed by a chapter on its applications to business problems.

- Old stereotype problems have been replaced by the latest ones appearing in recent examinations of various universities.

- *Fill in Blank and True/False* problems based on various concepts discussed in the chapter have been introduced at the end of each chapter.

- A set of *multiple-choice problems* followed by their answers is also included at the end of each chapter.

Contents

- Statistics – What and Why

- Conducting a Statistical Enquiry

- Primary and Secondary Data and Sources

- Sampling Techniques

- Classification and Tabulation

- Diagrammatic and Graphic Presentation

- Measures of Central Value

- Measures of Variation

- Skewness, Moments and Kurtosis

- Correlation Analysis

- Regression Analysis

- Statistical System in India

- Set Theory

- Indices

- Sequences and Series

- Matrices and Determinants

- Applications of Matrices and Determinants

- Statistical Tables, Logarithms, Antilogarithms.

*Education is the ability to listen to almost anything
without losing your temper or self-confidence*

14

Quantitative Techniques – II

For Business Studies

Prof. S.P. Gupta
Head & Dean, Faculty of Management Studies, University of Delhi, Delhi

Dr. P.K. Gupta
Reader
J.V. Jain College, Saharanpur

Dr. Man Mohan
Reader
Deptt. of Mathematics & Statistics, Ramjas College, Delhi
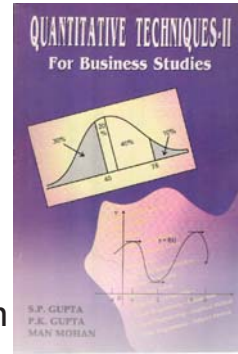
This book is primarily meant for the undergraduate students of Commerce of all universities in A.P. where the subject is taught.

The lucidity of style and simplicity of expression have been our twin objects to remove the awe which is usually associated with most mathematical and statistical textbooks. The only mathematical background needed for understanding the entire book is a little arithmetic and elementary algebra. In order that the students may not feel any difficulty in following the text, steps in calcualtions alongwith the related formulae have also been given.

A large number of properly graded questions and problems, mainly from latest examination papers of various universities, are given at the end of the each chapter in Section I. Answers to the problems, along with hints, where necessary, have also been provided. In Section II, each concept is followed by illustrations and well-graded examples. An exercise containing unsolved problems followed by their answers is also given before starting the next concept.

Another novel feature of the book is its emphasis on application of Quantitative Techniques in business decision-making.

Contents

Section I – Analysis of Time Series • Index Numbers • Probability • Theoretical Distributions.

Section II – Real Functions and Limits • Differentiation • Applications of the Derivative • Maxima and Minima • Simple Integration • Applications of Integration • Linear Programming – Introduction • Linear programming – Graphical Method • Linear programming – Simplex method. Question Paper.

Appendix – Logarithms, Antilogarithms and Statistical Tables.

Introductory Algebra and Calculus

V.K. Kapoor
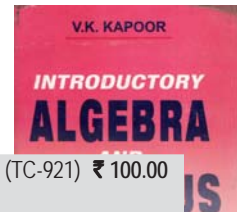
It is an indispensable, authoritative and well-written textbook for all introductory courses in Mathematics and completly covers the syllabi of various undergraduate courses.

Comprehensive coverage of topics on Algebra and Calculus • Systematic arrangement and analytical presentation of the subject matter • Large number of illustrative solved examples • Requires no previous knowledge of the subject • Difficult concepts have been explained in a simpler and easier manner • Provides an indepth understanding of the subject • Hints and answers to Self-Practice Problems enable readers to learn the subject faster • Problems have been graded according to the intracacies involved • Meet the complete requirement of students pursuing undergraduate courses in Mathematics, Statistics, Computer Science & Engineering.

Pedagogical Features

Chapter Learning Objectives • Simple, lucid and easily retainable language • An uptodate book on the subject • Clear, exhaustive and conceptual treatment of every topic • Illustrative solved Examples • Unsolved Problems for Self-assessment • Incorporates previous years' examination questions • Step by step explanation of concepts • All chapters are well organised • Scanner of Past Examination Papers • Step by step explanation of concepts • Completly written on modern lines • Designed on 'Teach Yourself' basis • Low-price text as compared to other competitive titles available.
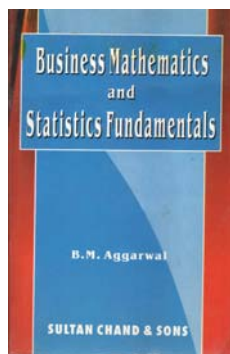
Business Mathematics and Statistics Fundamentals

Text-cum-Problems and Solutions
for I.C.W.A. Foundation Course Revised Syllabus

B.M. Aggarwal, B.Sc. (Hons), M.A., (Maths), GRAD. I.E.T.E. (M.I.E.T.E)
Member : Teaching Faculty, Business Mathematics and Statistics
NIRC, I.C.W.A., New Delhi, NIRC of ICA

Ist Edition	Knowledge-Packed Pp. *viii* + 1172	ISBN 978-81-8054-633-4 (TC-940) ₹ 300.00

Salient Features

- The book covers the syllabus fully.

- It contains 1304 solved examples and 1099 unsolved problems with hints for independent practice.

- Solved examples are based on the latest question papers of I.C.W.A., ICAI and AIMA, B.Com. and B.Com. (Hons.) of many Indian Universities to represent every type of problem and latest trends.

- Important results have been given at the end for quick reference near the examination.

- The book is two-books-in-one. It is a text book as well as Problems and Solutions book on the subject.

Contents

Part I – Mathematics (Chapter 1-12) : Percentage, Mixtures, Ratio Proportion and Variation • Indices and Surds • Number System • Permutations and Combinations • Theory of Equations • Logarithms • Interest (Simple Interest, Compound Interest and Discounting of Bills) • Elements of Set Theory • Truth Tables and its Applications to Statements • Mensuration • Averages • Plain Analytical Geometry • Miscellaneous Solved Examples-I • Calculus-Differential Calculus (with Applications) • Integral Calculus (with Application).

Part II – Statistics (Chapter 1-4) : Frequency Distribution • Measures of Central Tendency • Measures of Dispersion • Moments, Skewness and Kurtosis • Miscellaneous Solved Examples-II.

Scanner

Short Answer Questions
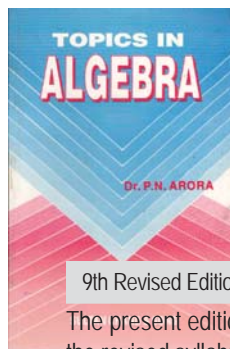
Topics in Algebra

Dr. P.N. Arora
Dyal Singh College, University of Delhi, Delhi

9th Revised Edition	Pp. *xvi* + 530	ISBN 81-7014-358-6 (TC-478) ₹ 110.00

The present edition of the book has been written in the light of the revised syllabus of B.Sc. (Gen.) / B.A. (Pass), B.Sc. (Hons.) of Delhi University and other Indian Universities.

Salient Features

- The subject-matter has been presented in a rigorous manner and the language used is simple.
- The subject matter is developed in a smooth and coherent manner.
- 427 solved examples and 735 unsolved problems have been selected from the examination papers of various universities. Every concept has been explained by means of solved examples.

Contents

Modern Algebra
   • Group • Ring and Fields • Vector Spaces • Permutation Groups.
Algebra
   • Real Numbers • Complex Numbers • De Moivre's Theorem and its Applications • Summation of Trigonometric Series • Theory of Equations • Matrix Algebra • Determinations • Adjoint and Inverse of a Matrix • Rank of a Matrix • Linear Equations and Cayley Hamilton Theorem • Infinite Series.

Appendix

Delhi University Examination Papers.

Business Statistics *and* Business Mathematics

S.P. Gupta · P.K. Gupta
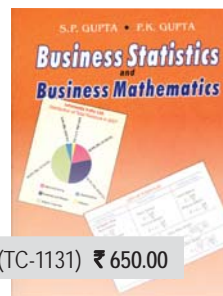
4th Revised Edition 2017	Pp. *x* + 870	ISBN 978-93-5161-060-1 (TC-1131) ₹ 650.00

This main features of this book are :
- The matter has been presented in a very simple and lucid style and is self-explanatory.
- There are 270 solved illustrations in the section relating to Business Statistics.
- There are about 500 solved examples to explain various mathematical techniques.
- Each mathematical concept is illustrated with solved examples which have been designed to clarify the principles involved.
- Special care has been taken to develop the topics of Mathematics in an easy to understand form.
- The basics and solved examples are followed by an exercise for self-practice
- At the end of each chapter, objective questions an practical problems based on various concepts dealt within the chapter are presented.
- Unsolved problems are given in the form of exercises followed by their answers.

- At the end of each chapter a set off multiple-choice problems with answers is given.
- Solved past university questions are given in the form of Review Illustrations.

Business Statistics : Introduction to Statistics • Classification and Tabulation • Diagrammatic and Graphic Presentation • Measures of Central Tendency • Measures of Variation • Correlation Analysis • Regression Analysis • Index Numbers • Analysis of Time Series • Interpretation of Data • List of Symbols, Abbreviations and Formulae Statistical Tables • Question Papers.

Business Mathematics : Matrices and Determinants • Applications of Matrices and Determinants • Functions, Limits and Continuity • Simple Differentiation • Applications of Differentiation • Integration and Its Applications • Mathematics of Finance • Scanner of Paper VI (2006-2012) • Question Papers.

An Introduction to Matrices

S.C Gupta

Hindu College, University of Delhi, Delhi
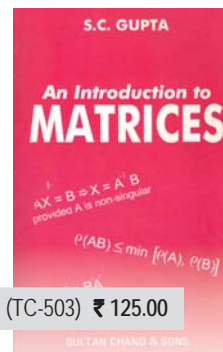
First Edition Reprint 2014	Pp. *viii* + 304	ISBN 978-81-8054-926-7 (TC-503) ₹ 125.00

It is a textbook for B.A./B.Sc. Pass and Honours courses of Mathematics and Statistics; and subsidiary courses of Physics (Hons.) and Chemistry (Hons.) of all Indian universities.

Salient Features

- Lucid style and simple expression.
- A comprehensive and analytic treatment is given of all the topics.
- A number of stimulating problems have been solved as illustrations.
- Large number of carefully graded problems.
- Answers to all the problems are given.

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.

Differential Calculus
for B.A/B.Sc. Maths Courses
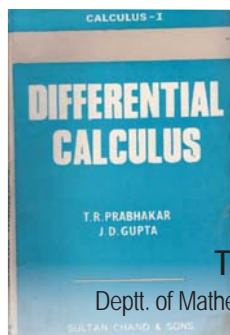
T.R. Prabhakar
Deptt. of Mathematics, University of Delhi, Delhi

J.D. Gupta
Kirorimal College, University of Delhi, Delhi

Second Revised Reprint Edition	Pp. *xvi* + 407 (TC-544)	₹ 50.00

The treatment is in keeping with the principles of modern analysis.

Contents

Real Numbers, Functions and Graphs • Limits and Continuity • Derivatives • Meaning of the Derivative and Simple Applications • Trigonometric Functions • Exponential and Logarithmic Functions • Successive Differentiation and Leibnitz Theorem • Mean Value Theroems, and Applications • Maxima and Minima • Partial Derivatives • Tangent and Normals • Linear Asymptotes • Curvature • Concavity, Points of Inflexion and Singular Points • Envelopes and Evolutes • Curve Tracing • Appendix : Limit Theorem and Some Important Limits.
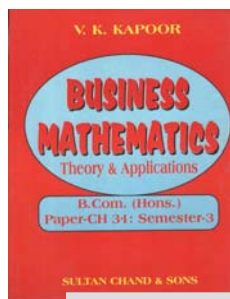
Business Mathematics
Theory & Applications

V.K. Kapoor

19th Revised Edition	Pp. *xvi* + 508	ISBN 978-81-8054-925-0 (TC-1193) ₹ 350.00

Business Mathematics Theory & Application has been especially designed and written for the new syllabus of paper Ch. 3.1 (Business Mathematics Theory & Application) for the B.Com. (Hons.) semester III course of Delhi University. The book will also be useful for similar courses at the undergraduate level.

Salient Features of the Revised Edition

- The book maintains student friendly simple language, lucid style, congent presentation, clarity of exposition, self-contained and practical approach and provides both motivation and physical insight to the readers.
- Working rules, aid to memory, short-cuts, alternative methods are special attractions of the book.
- It is oriented towards applied approach.
- The book reveals a refreshing new touch to every topic discussed with a score of valuable points which the student is unlikely to find in any other competitive title and which will give him the confident feeling of knowing something extra about the subject.
- In short, no pains have been spared to make the book useful for all types of students.

Contents

- Matrices and Determinants
- Applications of Matrices
- Functions
- Limits and Continuity
- Differentiation Basic Concepts
- Applications of Differentiation
- Partial Differentiation (Basic Concepts)
- Applications of Partial Differentiation
- Integration (Basic Methodology)
- Applications of Integration
- Mathematics of Finance
- Linear Programming-I (Formulation and Graphic Solution Method)
- Linear Programming-II (Simplex Method)
- Linear Programming-III (Duality).

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18

First Course in Real Analysis

P.N. Arora • Ranjit Singh

Fifth Thoroughly Rev. Rep. Edition	Pp. *viii* + 388	ISBN 81-8054-443-5 (TC-477) ₹ 85.00

The Book has been thoroughly revised in the light of the suggestions and the changes in the syllabus. Presents the subject-matter in a simple and logical manner.

Contents

- Preliminaries
- Real Numbers
- Neighborhoods and Limit Points
- Sequences
- Infinite Series
- Limits and Continuity
- Derivatives
- Mean Value Theorems and Power Series
- Maxima and Minima
- Indeterminate Form & L'Hospital's Rule
- On the Series of Arbitrary Terms
- Answers. Latest University Exam. Question Papers.
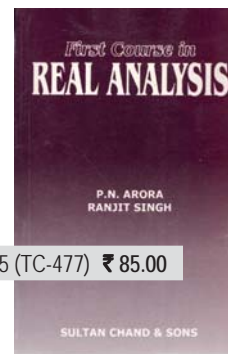
Real Analysis

P.K. Gupta • Sharda Gupta

J.V. Jain College, Saharanpur

Solved illustrations 302, Unsolved Exercises 446	Pp. *xii* + 468	(TC-498) ₹ 55.00

This book provides an introduction to Real Analysis and is meant primarily for students of mathematics at the under-graduate level. It presents, in a simple and systematic manner, the fundamental concepts, the modern techniques and the main results of Real Analysis, all within the projected scope of the book.

In the present book, it has been tried to formulate clear definitions of various concepts and to state the results precisely in the form of theorems, corollaries etc. Complete proofs are given wherever these are feasible ; more over wherever it is not found necessary to give full-fledged proof, a clear mention to this effect is made. An attempt has been present the subject matter in a lucid style. It is aided by illustration, solved examples and exercises in adequate number to make the theory to grasp and remember.

Contents

Real Numbers and Real Valued Functions • Neighborhoods and Limit Points • Convergence of Sequences • Limits and Continuity of Functions • Derivatives • Mean Value Theorems and their Applications • Infinite Series • Taylor's Theorem and Applications • Riemann Theory of Integration • Riemann Stieltjes Integral • Answers • Index.
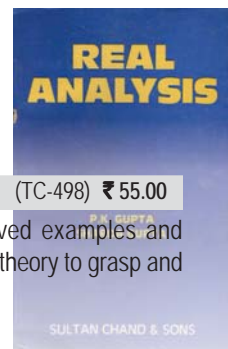
Computer Fundamentals & Software

Sushil Kumar Azad, M.Tech. (Computer Science)

Rajdhani College, University of Delhi, Delhi

First Edition	Pp. 300	ISBN 81-7014-166-0 (TC-485) ₹ 75.00

Salient Features

- Basic requirements to work on computer such as knowledge of Operating system and editor are explained in the book in a very simple and easy form.
- It is the first introductory book where efforts have been made to use software, like LOTUS 1-2-3 for solving numerical and statistical problems.
- Those who have no prior knowledge of computer will find the first four chapters of the book very useful.

Contents

The Fundamentals of Computer System • Data Representation • General Purpose Software • Productivity Software – MS-DOS VER-5.0 • Productivity Software – LOTUS 1-2-3 VER-2.2. • Annexure.

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Scientific & Statistical Computations Using Fortran 77

Sushil Kumar Azad

First Edition   Pp. *xvi* + 328   ISBN 81-7014-536-8 (TC-820) ₹ 105.00

Salient Features

- This book covers the syllabus of "Computer Programming" of B.Sc. (Hons.) Statistics/Electronics, B.A./B.Sc. (Hons.) Maths., B.Sc. (Hons.) Physics., B.Sc. (General) and B.E. (Computer Science).
- FORTRAN 77 fundamentals are provided to assist the students in understanding the essentials of programming.
- Computational steps for each Scientific and statistical method are provided to help develop efficient programs.
- Actual output of the programs has been included.
- Each chapter contains a number of Examples/Illustrations.

Contents

- The Basic of Computer Programming
- Flow Charts and Algorithms
- The Fundamentals of FORTRAN 77
- Numerical Computations
- Statistical Computations (Frequency Distribution Analysis)
- Statistical Computations (Applied Statistics).

Annexures
- Fortran Library Functions
- Fortran 77 Compiler
- Statistical Tables
- More FORTRAN Features
- Question Papers • Index.

Fortran Programming & Numerical Techniques

Dr. Suresh Chandra
Department of Physics, IGNOU, New Delhi

First Edition   Pp. *xvi* + 232   (TC-567) ₹ 50.00

Contents

Part I – Fortran Programming (Pp. 96)
- Introduction
- Elements of Fortran Language
- Structure for a Fortran Program
- Formatted Input/Output Statements
- Control Statements
- Arrays and Subscripted Variables
- Functions and Subroutines (Sub-Programs)
- Double Precision and Complex Types of Data
- Other Facilities in Fortran Language.

Part II – Numerical Techniques (Pp. 122)
- Interpolation
- Numerical Integration
- Numerical Solution of Ordinary Differential Equations
- Roots of Equations
- Numerical Computation of Some Special Functions
- Monte-Carlo Method and Simulation
- Statistical Methods
- Matrices and Solutions of Linear Algebraic Equations.

Appendices, Index.

A teacher's job is to take a bunch of live wires and see that they are well-grounded

Information Technology & Computer Applications

V.K. Kapoor

Shri Ram College of Commerce, University of Delhi, Delhi

Fifth Revised Edition Reprint	Knowledge Packed Pp. *xvi* + 679	ISBN 81-7014-568-6 (TC-530) ₹ 140.00

The book serves ideally as a single-source reference for students of C.A., I.C.W.A., M.B.A. and C.S. for basic concepts as a self-study material, or the non-EDP executives to help them feel at home in a computer environment and as a refresher material for those holding computer-related jobs.

Contents

Data Processing Fundamentals • Data Representation • Computer Hardware • Computer Software • Programming Languages • Electronic Data Processing Systems • File Organisation • Decision Tables • Flowcharts • Managerial Applications of Computers • Systems Analysis and Design • Data Processing Resources • Organisation of Data Processing Department • Data Processing Standards and Documentation • Control in EDP Environment • EDP & Audit • Management Information Systems (MIS).

Information Systems and Technology

Dr. L.M. Prasad • Usha Prasad

First Edition. Reprint	Pp. *xx* + 636	ISBN 81-8054-152-5 (TC-977) ₹ 195.00

Providing information in a timely fashion is possible only when an organisation has developed effective information systems and managers as users know how information systems work in their organisation. Keeping this phenomenon in view, institutions offering management courses have made the study of Management Information Systems compulsory to their students. Similarly, many professional institutions like Institute of Cost and Works Accountants of India have made the study of Management Information Systems compulsory to their aspiring professionals. The present comprehensive book has been prepared primarily to serve the needs of such students.

Each chapter contains the following in that order: Textual material of the chapter • Key concepts used in the chapter • Leading questions • Mind stretching questions.

Contents

Part I – Framework of Information Systems and Technology : An Overview of Management Information Systems • Decision Making and Information Systems • Technology for Information Systems • Computer Networks • Database Management Systems.

Part II – Components of Information Systems : Transaction Processing Systems • Decision Support Systems • Executive Information Systems • Artificial Intelligence and Expert Systems.

Part III – Developing Information Systems : Planning and Implementation of IS Strategy • System Development • System Analysis and Design • System Implementation and Maintenance • Social and Organisational Impact of IS/IT.

Part IV – Computerised Systems in Business Applications : Computerised Applications in Accounting and Inventory Control • Enterprise Resource Planning.

Part V – Information System Control and Security : Controls Applicable to Information Systems • Information Security • Detection of Computer Frauds • Audit of Information Systems • Cyber Laws.

Part VI – Management of Information Systems Resources : Managing Information Resources • Abbreviations • Glossary • Subject Index Scanner • Latest Examination Question Papers.

Computers and Information Technology

For students of ICAI (PEE-II), PGDCA, M.A. IGNOU BCA, B.Sc. (Computer Science)

V.K. Kapoor

It is an indispensable book for all introductory courses in Computers and Information Technology. Comprehensive, well-written and reader friendly, this book completely covers the syllabi of various undergraduate courses and Professional Education Exam.-II of ICAI.

This book which is simply a 'First Course' in computers, is a computer manual, self-instruction guide, computer self-tutor, all rolled in one. The book has a one point agenda : to make a person '*computer savvy*' and self-sufficient in computers – starting from zero level with no previous knowledge of computers. It virtually teaches you step-by-step learning process of doing different things on a computer.

Salient Features

* *Deals* with fundamentals of computers, system hardware, software and operating systems.
* Systematic and sequential arrangement of topics.
* *Presents* recent trends and developments in Information Technology.
* *Includes* numerous illustrations.
* *Contains* information on IT resources – Computers, communication systems, networks, MS Word, MS Excel, MS Power Point, DOS, Windows 95, Windows 2000, Internet basics, etc.

* *Gives* a detailed step-by-step insight into Windows 2000, MS Word 2000 and MS Power Point.
* *Highlights* usage of E-mail and internet services.
* *Offers* a case study in some of the chapters.
* *Provides* numerous review questions including descriptive and objective questions.
* *Chapter outline* to give a bird's-eye view of the topics covered in every chapter.

Contents

Computers : An Overview • Computer Organization System • Peripherals : Data Entry and Input Devices • Output Devices • Auxiliary Storage Devices • Computer Software • Operating Systems • Data Storage & Retrieval • Data Base Management Systems • Some Advanced Modes of Data Processing • Telecommunication and Networking • Internet and Emerging Technologies • Introduction to Flowcharting • Decision Tables • Cyberlaws & Information Technology Act, 2000 • System Analysis & Design • Computer Assisted Audit Techniques (CAAT) • Word Processing • Spread Sheet Basic • Business Project Management & Presentation Tools • Introduction to an Accounting Package • Information Security & Computer Frauds • Glossary of Computer Terms. C.A. PEE-II Examination Papers (Nov. 2002 to Nov. 2004).

Heat & Thermodynamics (Thermal Physics)
for Degree (Pass and Honours) Classes

D.S. Mathur
Formerly Head of Deptt., of Physics, Hindu College,
Delhi University, Delhi
Renowned Author of Properties of Matter

Revised by **Dr. M.N. Bapat**
Regional Institute of Education, Mysore
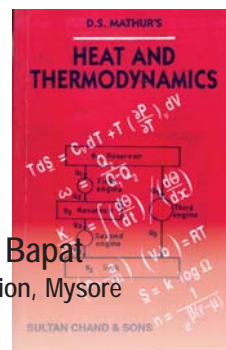
An extremely successful text book on Heat & Thermodynamics courses is now further improved for greater clarity and precision in its fifth edition. The focus is on making the book a modern under-graduate text. The equations and symbols used in the text are put according to SI system. A large collection of fully-worked examples and numerous problems promote the clarity of the topics covered. Twenty new solved examples have been added in this edition. Longer problems of general nature are supplied at the end of various chapters. The revised edition incorporates the statistical theory which is intimately related to understanding the behavior of the particles carrying heat. This has been included along with partition function. The application of particles function to explain sum physical phenomena, however may be omitted at first reading.

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.

Heat, Thermodynamics & Statistical Physics
for B.Sc., B.Sc. (Hons.) and B.E. Students

Dr. S.L. Kakani, M.Sc., Ph.D.
M.L.V. Govt. College, Bhillwara
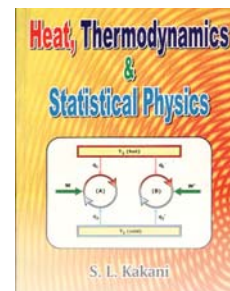
Special Features

- Basic principles and fundamental concepts are explained in simple and lucid language.
- 171 solved numerical problems which appeared in the various university examinations have been given.
- A large number of short answer questions and objective type questions provided.
- Exercises and Problems are also provided.
- Summary of each chapter is provided.

In the present edition good number of new topics on Heat, Statistical Physics along with a large number of typical problems with correction have been added. Good number of new objective & short question-answers have also been added so that student may find it useful for UGC-CSIR, NET-SLET, GATE & other all India entrance examinations. Every care has been taken to cover the latest syllabus proposed by UGC and revised syllabi by various university.

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.

Heat and Thermodynamics
for B.Sc. Students

S.R. Shankara Narayana
Head, Department of Physics, St. Philomena's College, Mysore

Second Revised Edition Ques-with Ans. 300 Diags. 156	Pp. x + 314	(TC-580) ₹ 30.00

Special Features

- The book gives a clear, simple, unambiguous account of the subject.
- A very large number of worked examples are included.

Contents

- Thermometry
- Thermal Expansion
- Calorimetry
- Change of State
- Isothermal and Adiabatic Changes
- Kinetic theory of Gases
- Diffusion
- Osmosis
- Properties of Real Gases
- Low Temperatures
- Thermodynamics
- Thermodynamical Relations
- Classical Statistics
- Conduction
- Radiation
- Thermo-electricity
- Quantum Statistics
- Quantum Theory of Specific heats.

Modern Physics & General Electronics

S.R. Shankara Narayana
Ex-Head, Department of Physics, St. Philomena's College, Mysore

Second Revised Edition	Ques. with Ans. 424	Diags. 470	Pp. v + 553	(TC-583) ₹ 65.00

Special Features

- The book is intended to serve as a compact textbook for B.Sc. students.
- The subject-matter has been developed systematically. Many questions have been chosen from the question papers of Indian Universities, but many have been independently formulated in order to help maintain continuity of development of the subject.
- A large number of diagrams, worked numerical examples and objective type questions are special features of the book.
- One important change in the book is enlarging the part devoted to General electronics. The topics on both vacuum tubes and solid state devices have been exhaustively dealt with in this edition.

Contents

- Special Theory of Relativity Electron
- Photoelectricity
- Atomic Structure
- X-Rays
- Wave Mechanics
- Molecular Spectra: Raman Effect
- Elements of Statistical Mechanics
- Specific Heats of Solids
- Free-Electron Theory of Metals
- Solid State Physics
- Mass Spectrographs
- Radioactivity
- Basic Properties of Nucleus
- Particle Accelerators
- Artificial Transmutation
- Alpha, Beta and Gamma Ray Spectra
- Nuclear Models
- Nuclear Reactions
- Cosmic Rays and Elementary Particles
- Electron Vacuum Tubes
- Solid State Electronics
- Transmission and Reception of Signals
- Appendix.
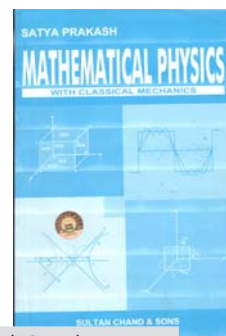
Mathematical Physics
(Including Classical Mechanics)

Satya Prakash
Vardhaman College, Bijnor

6th Revised Edition Reprint 2018	Solved Examples 627	Pp. *xxiv* + 1576	ISBN 978-81-8054-928-1 (TC-587) ₹ 745.00

'Mathematical Physics' is written for Honours, Engineering and Postgraduate classes of all Indian Universities according to the latest syllabi.

To make the book more useful for TDC, Postgraduate and Engineering students the following changes have been made:

Chapter 1 – Vectors (with applications) contains sixteen latest problems from examinations question papers

Chapter 2 – Matrices, contains three examination problems with solutions

Chapter 3 – Tensors, contains three latest examination problems with solutions

Chapter 4 – The Beta, Gamma & Error Functions, contains two latest examination problems with solutions

Chapter 5 – Infinite Series, contains one latest examination problem with solutions.

Special Features

- In this concise book only the problems required for Physics students and selected from various university papers have been added.
- Moreover the subject-matter is written in simple and comprehensive manner.
- After each topic, important examples, concerned with the fundamental aspects of the topic, have been included.
- At the end of each chapter the book contains a number of selected problems from university papers and other standard courses.

Brief 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 or Errors • Group Theory • Numerical Analysis • Classical Mechanics • Special Theory of Relativity • Quantum Mechanics.

Mathematical Physics
(With Mechanics & Properties of Matter)

Satya Prakash
Vardhaman College, Bijnor

First Edition	Pp. *xvi* + 516	ISBN 81-7014-314-4 (TC-588) Rs. 120.00

Special Features

- Efforts have been made to make the treatment simple, lucid and rather comprehensive.
- After each topic a sufficient number of solved examples have been added.
- At the end of each chapter the selected set of 'Questions and Problems' has been given.

Contents

Section A : Mechanics (Pp. 144) – **Unit I** : Dynamics : Kinetic Concepts and Motion Along a Curve • Projectile Motion : Impulse and Impact • Moment of Inertia. **Unit II** : Statics, Hydrostatics and Hydrodynamics : Equilibrium of Rigid Bodies and Friction • Centre of Gravity and Equilibrium • Pressure of Liquids and Floatation • Hydrodynamics.

Section B : Mathematical Methods (Pp. 216) – Vector Analysis • Matrices • Classical Mechanics • Beta and Gamma Functions • Series Solutions of Second-Order Equations and Special Function.

Section C : Properties of Matter (Pp. 156) – Elasticity • Surface Tension • Viscosity • Gravitation • Motion of Satellites : Escape Velocity.

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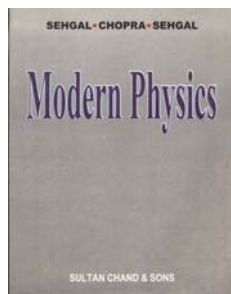
Modern Physics
(In S.I. Units) for B.Sc. (Pass) and (Hons.), B.E., B.Tech. and A.M.I.E.

N.K. Sehgal • K.L. Chopra • D.L. Sehgal
Hans Raj College, University of Delhi, Delhi

The present edition has been thoroughly revised and updated and has been almost completely rewritten. The format and arrangement of different chapters and units has been changed and practically all the diagrams have been redrawn in a clearer and more informative manner. The following are among the main changes introduced in the present edition :

- Complete revision of the unit on 'Structure of Atom' including a detailed theory of alpha particle scattering, the discussion of critical potentials and their importance and the Bohr Sommerfeld theory of the atom.
- Complete revision of the unit on the 'Vector Model of the Atom', including detailed discussion of the Zeeman effect, the exclusion principle, the Paschen-Beck effect and the Stern-Gerlach experiments.
- Complete revision of the unit on the 'Particle Properties of Waves' with a new chapter on 'Raman Effect'.
- Complete revision of the unit on 'Wave Nature of Matter' including a more detailed and complete discussion of the Uncertainty principle and its implications and applications.
- A more detailed and complete discussion on the basic postulates and formalism of quantum mechanics.
- A unitwise discussion on application of quantum mechanism to simple 'free state' and 'bound state' problems.
- A new unit on the basic properties of nucleus with a more detailed and thorough discussion on the basic simple models of the nucleus.
- A completely new unit on 'Introductory Statistical Physics' including a discussion on the basic ideas and formulae of the three statistical distribution laws.
- A thoroughly revised, updated and more detailed discussion on the 'Theory of Relativity'.
- Considerable editing, pruning and rearrangement of the basics of elementary electronics.

Brief Contents

• Conduction of Electricity through Gases • The Phenomenon of the Discharged Tube – Discovery of Cathode Rays • Motion of Charged Particles in Electric and Magnetic Field • Discovery of Cathode Rays – Determination of their Charge and Mass • Positive Rays and Thomoson's Parabola Method • Mass Spectrographs • Initial Studies : Thomoson and Rutherford's Model of the Atom • Bohr's Theory of the Hydrogen Atom • Critical Potentials and their Experimental Determination • The Bhor-Sommerfeld Theory • Introductory Ideas; Zeeman Effect and Space Quantization • The 'Spin' of the Electron : Quantum Mechanical Explanation of the Anomalous Zeeman Effect • The Exclusion Principle and the Periodic Table of Elements • The Paschen-Beck Effect, The Stark Effect and the Stern-Gerlach Experiment • Photoelectric Effect • X-Rays & Compton Effect • Raman Effect • De-Broglie Hypothesis • Experimental Support for the De-Broglie Hypothesis and Principle of Complimentarily • The Uncertainty Principle • Inadequacy of Classical Mechanics – Need for a New Mechanics • The Schrödinger Equation • Basic Postulates and Formalism of Quantum Mechanics • Problem of 'Free Particle' and 'The Step Barrier Problem' • The 'Barrier Penetration' Problem and the Problem of the Square Wall Potential • Problems of a 'Particle a Box' and 'A Particle in a one Dimensional Square Wall' Potential of Finite Depth • The Harmonic Oscillator • The Problem of the Hydrogen Atom • The Rigid Rotator • The Basic Properties of the Nucleus • Nuclear Energy and Nuclear Forces • Models of the Nuclear • Radioactivity • Radioactive Radiation • Introductory Statistical Physics • Theory of Relativity • General Features of the Electron Tubes • Electron Tubes • Rectifiers and Filters • Amplifiers • Oscillators • Semiconductors • Radio Communication • Practical Electronic Devices • Appendix I • Appendix II

Children have to be educated,
but they have also to be left to educate themselves

Electricity & Magnetism

for B.Sc. Pass and Hons., I.C.S., P.C.S. & A.M.I.E. Exams.

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

Hans Raj College, University of Delhi, Delhi
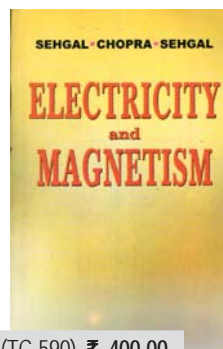
Sixth Edition Reprint	Pp. *xxiv* + 892	ISBN 978-81-8054-583-2 (TC-590) ₹ 400·00

Special Features

- A detailed chapter on Vector Analysis has been added in the beginning of the book. This has been done to reduce the mathematical requirements on the part of the student.
- The book has been written in SI units.
- Several new topics have been added at appropriate places.
- The book has a very large number of solved and unsolved numerical problems from different university and competitive examinations.
- At the end of each chapter, all kinds of objective type questions have been included.
- In the present edition the style of presentation as well as the content have been revised/altered for quite a few topics to make reader friendly. These include, among others the chapter on 'The Electric Field', Steady Currents, 'Magnetic Effects of Currents', 'Heating Effects of Currents' and 'Network Analysis'. We have added number of new solved numerical examples and deleted others so as to make them more relevant to the current situation. A number of diagrams have been altered / re-drawn to give them a more attractive / explanatory form.

Brief Contents

Vectors • Electrical Units • The Fundamental Principles of Electrostatics • The Electric Field • Electric Potential • Systems of Conductors and Capacitance • Electro-static Energy of Charges • The General Electrostatic Problem • Dielectrics • Electrostatic Instruments • Primary and Secondary Cells • Steady Currents • Magnetic Effects of Currents • Electrical Instruments • Measurement of Resistance and Potential • Heating Effects of Currents • Thermoelectricity • Chemical Effects of Currents • Electromagnetic Induction • Transient Currents • Alternating Currents • Alternating Current Bridges • Network Analysis • Magnetic Properties of Materials • Magnetic Circuits • Maxwell's Equations – Electromagnetic Waves.

Electricity & Magnetism

S.R. Shankara Narayana

Ex-Head, Deptt. of Physics, St. Philomena's College, Mysore

Second Revised Edition	Diags. 340	Pp. *vii* + 408	(TC 579) ₹ 45.00

This book is intended to cover exhaustively the syllabi of various Indian Universities on Electricity and Magnetism for the B.Sc. Degree course.

Special Features

- In this edition a non-vectorial method is widely used and all results are expressed entirely in SI units.
- Considerable new material has been added to the previous edition. Many Chapters have been rewritten.

Contents

- Electrostatics
- Magnetism
- Electric Current
- Magnetic Effect of Currents
- Force of Magnetic Field on Current
- Electromagnetic Induction
- Alternating Current
- Heating Effect of a Current
- Electrolysis
- Thermo-Electricity
- Magnetic Properties of Matter
- Electromagnetic Field Theory
- Electrical Circuit Analysis.

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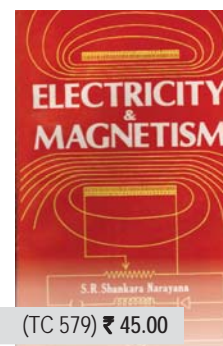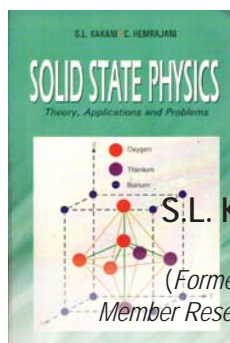
Solid State Physics – *Theory, Applications and Problems*

S.L. Kakani, M.Sc., Ph. D.
Principal (Retd.)
(*Formerly Convener BOS and
Member Research Board MDS Univ., Ajmer*)

C. Hemrajani, M.Sc., Ph. D.
*P.G. Deptt. of Physics, M.L.V. Govt. College,
Bhilwara*

Special Features

The purpose of this book is to provide a suitable textbook in Solid State Physics for M.Sc. (Physics), B.Sc. (Hons.) and B.E. (Material Science) students.

In writing the present text authors' principal concern has been the student. They have taken special care to present the concepts of the mathematical approaches so as to make them more natural and straightforward. The subject-matter has been methodically and systematically arranged.

To make the book more useful, at the end of each chapter summary and large number of selected problems which appeared in various university examinations have been given.

The latest edition of this book includes several additions, improvements, corrections and a number of new topics. Besides, significant advances in the field have been added and discussed in detail. New chapters on High Temperature Superconductivity, Applications of Superconductivity, Super fluidity and Fiber Optics have been added. Several chapter for examples Semiconductors, Magnetism have been rewritten. A good number of new worked out problems have been added. To make the book more useful for UGC-CSIR: NET, SLET and other entrance examinations, a good number of objective and short question-answers have been added.

Brief 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 & Devices • Magnetism & Magnetic Materials • Dielectrics and Ferro electronics, Optical Properties of Solids • Imperfections in Crystals • Magnetic Resonance • Superconductivity • New Superconductors & High Temperature Superconductivity • Application of superconductivity • Super fluidity • Mössbauer Effect • Masers and Lasers • Optical Fiber • Quantum Statistics • Experimental Techniques • Group Theory • Appendices • Suggested Reading • Subject Index.
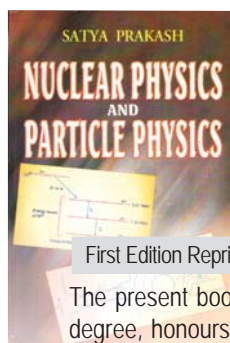
Nuclear Physics & Particle Physics

Satya Prakash
Vardhaman College, Bijnor

The present book Nuclear Physics & Particle Physics is for degree, honours and post-graduate of students of all Indian Universities.

Special Features

- The subject matter has been divided into twelve chapters. The initial nine chapters are devoted to Nuclear Physics; the net chapter deals with Nuclear Instrumentations. This chapter gives the knowledge to accelerate and detect all types of particles. The last two chapters have been devoted to Elementary Particles and Cosmic Rays.
- The subject matter has been discussed physically and mathematically in a systematic way starting from basic concepts, keeping in mind the actually difficulties of students.
- Efforts have been made to make the treatment simple, lucid and rather comprehensive.
- After each topic a sufficient number of solved examples have been added.
- At the end of each chapter the selected set of 'Questions and Problems' has been given.

Contents

General Properties of Atomic Nuclei • Two Body Problem and Nuclear Forces • Radioactivity • Alpha – Decay • Beta – Decay • Gamma Transitions • Nuclear Models • Nuclear Reactions • Nuclear Energy ; Nuclear Fission and Fusion • Nuclear Instrumentation • Nuclear Accelerations & Detectors • Elementary Particle Physics • Cosmic Rays.

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Mathematical Sciences, Physics & Chemistry

Quantum Mechanics
(Theory and Problems)

S.L. Kakani, M.Sc. (Phy.), Ph.D
Principal (Retd.)
(Formerly Convener BOS and Member Research Board
MDS Univ., Ajmer)

H.M. Chandalia
M.S.J. College, Bharatpur (Raj.)
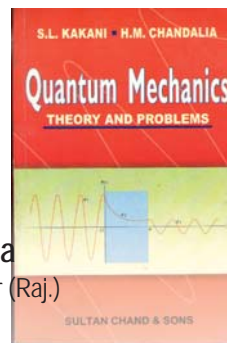
Special Features

The subject-matter is developed in a natural way and systematically. Attempts have been made to give mathematical and physical basis for various assumptions in Quantum Theory wherever found necessary. Many problems have been solved in full and every step follows from the previous one. The authors have prepared it for M.Sc. (Phy. and Chem.), M. Phil., B.Sc. (Hons.) and Research Students.

The book has been thoroughly revised and following changes have been made:

Good number of solved and unsolved problems and new chapters have been added • Good number of *short question answers* and *objective questions* have been added so that book may be found useful for UGC-CSIR: NET, SLET and other entrance examinations • Several chapters have been rewritten, enlarged and subject matter upgraded • The misprints and omissions have been removed as far as possible.

Contents

Inadequacy of Classical Mechanics and the Empirical Foundation of Quantum Theory • Wave Packets • Schödinger Wave Equation and Linear Operators • Coordinate and Momentum Representations and Heisenberg's Uncertainty Relations for a set of Non-commuting Operators • Potential Probs. in One Dimension • Harmonic Oscillator (Vibrational Motion of a Particle) • Potential Problems in Three Dimensions and the Hydrogen Atom • Orbital Angular Momentum & Spin • Identical Particles • Vector Spaces and Matrix Formulation of Quantum Mechanics • Angular Momentum • Invariance Principles and Conservation Laws • Approximate Methods • Semiclassical Theory of Radiations • Quantum Theory of Radiations • Scattering • Relativistic Wave Equation • Elements of Quantum Field Theory • Elementary Particles • Appendices • Suggested Readings • Subject Index.

Mechanics

S.R. Shankara Narayana
St. Philomena's College, Mysore

K.L. Chopra
Hans Raj College, Delhi

Contents

- Kinematics of A Particle
- Elements of Vector Analysis and its Application to Kinematics
- Relative Motion
- Newton's Laws of Motion : Frames of Reference
- Circular Motion: Rotating Frames of Reference
- Special Theory of Relativity
- Conservation Laws
- Motion of a System of Particles
- Oscillation
- Gravitation
- Motion of Rigid Body
- Motion of Charged Particles in Electric and Magnetic Fields
- Index.

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Mechanics and Properties of Matter

S.R. Shankara Narayana

Head, Department of Physics, St. Philomena's College, Mysore

Second Edition	Diags. 425	Pp. *xxiv* + 596	22 × 14 cm.	(TC 582) ₹ 40.00

Contents

Units and Dimensions • Vector Analysis • Coordinate Systems • Mechanics of Particles • Rotational Motion of Rigid Bodies • Surface Tension • Viscosity • Hydrodynamics • Elasticity • Hydrostatics • Production and Measurement of Low Pressure • Appendices (Friction, Statics, Centre of Gravity, Impact, Simple Harmonic Motion).
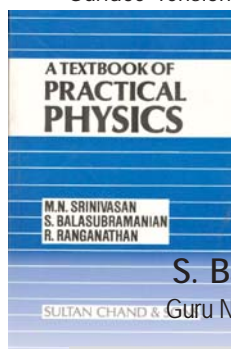
A Textbook of Practical Physics
for B.Sc. Students with Physics Major

M.N. Srinivasan

C. Abdul Hakeem College, Melvishram

S. Balasubramanian

Guru Nanak College, Chennai

R. Ranganathan

Voorhees College, Vellore

Second Rev. Edition Reprint 2017	Pp. *viii* + 684	ISBN 978-81-8054-744-7 (TC-601) ₹ 110.00

This books has been written for B.Sc students who have taken Physics as a subject of study at the Major level. It covers the syllabi of all Universities of Tamil Nadu and Pondicherry in general and Madras University in particular. In this book the experiments have been dealt with exhaustively keeping in mind the requirements and expectations of the students in the university examinations. They are presented in a simple and lucid style to make the students follow the procedure very easily while doing the experiments. A large number of illustrative diagrams are given in such a way that the students may fine them easy to draw.

Contents

Mechanics and Properties of Matter • Heat • Sound • Light • Magnetism • Electricity • Electronics • University Questions • Data of Physical Constants.

Light

S.R. Shankara Narayana

St. Philomena's College, Mysore

Second Edition	Ques. with Ans. 206	Diags. 249	Pp. *xi* + 317	(TC 581) ₹ 35.00

Special Features

- A very large number of worked examples are included to make the book more useful.
- The book is for the B.Sc. Degree classes of Indian universities.
- The emphasis has been on giving a clear, simple and correct account of the subject.
- Many new topics have been added in the revised edition. Five new chapters on Electro-magnetic Theory of Light, Lasers Holography, Photometry and Spectroscopy have been added. Some topics which are specially useful in some university have been given in separate section under the title Miscellaneous Topics.

Contents

Velocity of Light • Refraction at Spherical Surfaces • Dispersion • Lenses • Wave Theory • Interference • Diffraction • Polarisation • Electro-magnetic Field • Photometry • Scattering of Light • Spectroscopy • Doppler Effect • Laser and Holography • Appendix • Miscellaneous Topics.

A Textbook of Optics with Atomic Physics

Dr. S.L. Kakani
M.L.V. College, Bhilwara

K.C. Bhandari
Sukhadia University, Udaipur
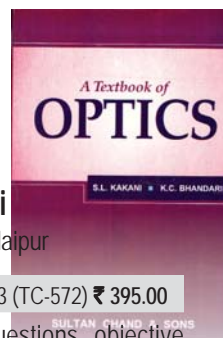
The book has been thoroughly revised and enlarged. Some of the new topics included are : Photometry, Fibre Optics, Optical Instruments, Lasers and Holography, Non-linear Optics, Explanation of Total Internal Reflection, Reflection and Refraction of a Spherical Wavefront at Spherical Surface, Febry Perot Interferomater, Focault's Rotating Mirror Method, Michelson's Method, Pease and Pearson Method, Velocity of Wireless Waves, Microwave Cavity Method, Laws of Refraction at Spherical Surface etc. have been added. Chapters on Electromagnetic Ways, Interference, Velocity of Light, Matter waves and Uncertainty Principle and Wave Mechanics have been thoroughly revised and enlarged. Many new solved problems are included in this edition. The exercises at the end of each chapter have been enlarged and brought up-to-date.

Salient Features

- Written in accordance with latest syllabi of B.Sc. (Pass), B.Sc. (Hons.) and B.E. Courses.
- Basic principles and fundamental concepts are explained in simple language.
- A large number of self-explanatory accurate diagrams and tables have been given.

- A large number of short answer questions, objective questions, True/False and Fill in the Blanks type questions have been added for testing understanding of the concepts. These will be useful also for various competitive entrance examinations for example IIT, IAS, NET-SLET, UGC-CSIR etc.

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 Plan of Polarisation) • Non-linear Optics • Cardinal Points of a System of Coaxial Lenses • Dispersion of Light • Velocity of Light • Fermart'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.

Elements of Electronics

A. Prakash • N.K. Sehgal • K.L. Chopra • D.L. Sehgal
Hans Raj College, University of Delhi, Delhi

Special Features

- Simple language and lucid style.
- A large number of illustrative diagrams.
- Solved Examples illustrating the various fundamental concepts.
- Network Theorem – The Basic 'Foundation' of 'Electrical' and 'Electronic Engineering' – Discussed in detail (using simple Mathematics) in the very first chapter of the book.

- 'Electronics' syllabi of B.Sc. (Hons.) Physics, B.Sc. (General) as well as substantial portions of B.Sc. (Hons.) Electronics syllabi covered in detail and in depth.

Brief Contents

Elements of Network Analysis • Electron Tubes and their Characteristics • Semi-Conductors • Rectifiers and Filters • Simple Triode Amplifiers • Transistor Amplifiers • Operational Amplifiers • Valve Sinusoidal Oscillators • OP-AMP, FET and BJT, Sinusoidal Oscillators.

012019

Sound: Waves and Oscillations

S.R. Shankara Narayana

Head, Department of Physics, St. Philomena's College, Mysore

Second Rev. Edition	Ques. with Ans. 187	Diags. 115	Pp. *viii* + 184 ₹ 13.00

Special Features

- The emphasis has been on giving a clear, simple and correct account of the subject.
- A very large number of worked examples are provided.

Contents

- Simple Harmonic Motion
- Composition of Simple Harmonic Motion
- Damped and Forced Oscillator
- Wave Motion
- Superposition of Waves
- Vibrations of Strings, Bars and Air Columns
- Fourier Analysis
- Doppler Effect
- Intensity of Sound; Acoustics of Buildings
- Recording and Reproduction of Sound
- Ultrasonic.

Numerical Problems in Physics
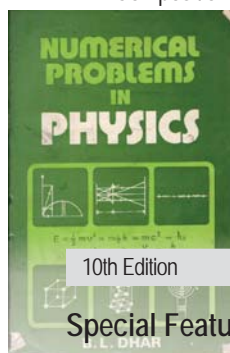
B.L. Dhar

10th Edition	Pp. *viii* + 1042	ISBN 81-7014-196-6 (TC 568) ₹ 125.00

Special Features

A compact volume with 1050 solved examples and 700 unsolved ones for practice. Latest question papers of IIT-JEE, etc. provided. A useful guide for those appearing for XI, XII, IIT, AIIMS, CPMT, AFMC, JIPMER, BHU, BITS etc. Level : Higher Secondary and Entrance Tests

Brief Contents

- Units & Dimensions, Significant Figures, Errors
- Vectors
- Equation of Motion
- Laws of Motion
- Circular Motion, Gravity and Gravitation
- Moment of Inertia
- Universe
- Work, Energy, Power and Friction
- Moment of Inertia, Centre of Mass
- Optics
- Liquids-Surface Tensions, Viscosity, Bernoulli's Theorem, Stoke's Law
- Kinetic Theory of Gases
- Thermodynamics
- Simple Harmonic Motion
- Wave Motion, Vibrations of Strings, Rods and Air Columns, Beats, Doppler's Effect, Superposition of Waves
- Optics
- Electricity–I
- Electricity–II (Electrical Measurements and Chemical Effects of Current
- Electromagnetic Induction Alternating Currents
- Structure of Solids
- Solids
- Physics of the Atom Bohr's Theory, Photoelectric Effect, De-Broglie Waves
- Concepts of Space, Time and Mass in Relativity
- Nuclear Physics, Radioactivity, Nuclear Reactions and Nuclear Energy
- Elementary Electronics
- Mechanics
- Heat
- Light
- Magnetism
- Electrostatistics
- Multiple Choice Type of Questions, Typical Short Answers Type Questions.

012019

32

Senior School Physics (For Class XI, CBSE)

N.K. Sehgal, K.L. Chopra & D.L. Sehgal

6th Edition	Pp. *xvi* + 1208	ISBN 81-7014-331-4 (TC-592) ₹ 195.00

The present edition of the book has been thoroughly revised, updated and brought in tune with the requirements of the CBSE latest syllabus. Its UNIQUE SALIENT FEATURES are :

- Each unit is provided with a 'GIST' at its start. This provides a list of the formulae, SI units of physical quantities and value of physical constants.
- A 'FOOD FOR THOUGHT' section has been provided at the end of each chapter to give additional ideas to stimulate thinking and enhance grasp of that chapter.
- At the end of each unit, there is a set of MCQ's (WITH ANSWERS) to enable the students to revise the contents of each unit form the point of view of various competitive examinations.
- The number of solved numerical examples as well as the number of unsolved numerical problems (with answers) has been considerably increased keeping in view of the Recent Engg. & Medical entrance exams.

Brief Contents

- Introduction to Physical World and Measurement
- Description of Motion in One Dimension
- Description of Motion in Two and Three Dimensions
- Laws of Motion
- Work, Power and Energy
- Rotational Motion
- Gravitation
- Properties of Matter
- Heat & Thermodynamics
- Oscillations
- Waves
- Multiple Choice Questions.
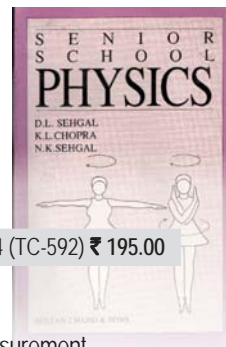
Senior School Physics (For Class XII, CBSE)

D.L. Sehgal, K.L. Chopra & N.K. Sehgal

5th Edition	Pp. *xvi* + 1046	(TC-593) ₹ 175.00

The book has been thoroughly revised and its 'format' thoroughly changed completely 'student friendly' form with the following SALIENT FEATURES :

Each unit is provided with a 'GIST' that provides a comprehensive list of the formulae, and SI units of physical quantities. A 'Food for Thought' section that gives, in a 'question-answer' form additional ideas and concepts on that chapter. A special section, at the end of each chapter of each unit, that gives in a 'questions with answers' from the various CBSE Class XII Papers. A set of MCQ's (with answers in a 'Key' form) at the end of each unit. An increase in the number of solved numerical examples as well as the number of unsolved numerical problems have been given keeping in view of the recent Engg. & Medical entrance exams (with answers).

Contents

- Electrostatics
- Current Electricity
- Thermal and Chemical Effects of Currents
- Magnetic Effects of Currents
- Magnetism
- Electromagnetic Induction and Alternating Currents
- Electromagnetic Waves
- Wave Optics
- Ray Optics and Optical Instruments
- Electrons and Photons
- Atoms, Molecules and Nuclei
- Solids and Semi-conductor Devices
- The Universe.

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33
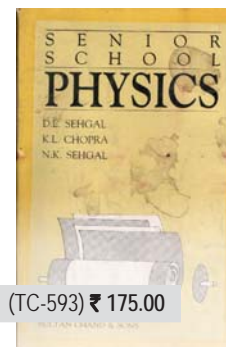
Practical Physics
For Class XI & XII CBSE

N.K. Sehgal, D.L. Sehgal & K.L. Chopra

Class XI CBSE	Pp. : xii + 350	ISBN 81-7014-510-4 (TC-595) ₹ 80.00
Class XII CBSE	Pp. : xii + 360	₹ 37.50

Special Features

The present book has been designed to be a complete book in itself wherein all the experiments, their theory and relevant 'background knowledge' have been discussed in detail and depth. The book will help the students in learning systematically the methodology, underlying theory, and techniques of the various experiments.

Contents

Introductory Concepts • Graphs and Logarithms • Optics and Magnetism Experiment • Ohm's Law • Whetstone Bridge • Temperature Dependence of Resistance • Potentiometer • Joule's Mechanical Equivalent of Heat • Faraday's Laws of Electrolysis • Galvanometer • Ammeter and Voltmeter • Charging and Discharging of a Capacitor • Investigatory Projects • Projects from Electronics • Projects on 'Logic Gates' • Appendices.

Numerical Physics

N.K. Sehgal, D.L. Sehgal & K.L. Chopra

1st Edition (TC-596)	Pp. : 1376	Price : Rs 125.00
	Level : XI, XII, CBSE & Entrance Tests	

Special Features

The motivated physics student will find mastering the technique of solving numerical problems easy once he goes through this book. About 1525 solved problems covering the latest syllabi of major entrance tests especially recent IIT-JEE & Medical entrance problems have been given. Innumerable diagrams help make understanding concepts easy. The book is a must for students preparing for engineering and medical entrance tests.

Contents

Measurements • Motion • Law of Motion • Work • Gravitation • Molecules • Matter • Oscillations • Waves • Electrostatics • Current Electricity • Magnetism • Electromagnetic Waves • Optical Instruments • Atoms • Semiconductor Devices • The Universe.

Objective Physics

S.L. Kakani

10th Edition	Pp. *xlviii* + 1524	ISBN 81-7014-519-8 (TC-570) Rs 250.00
	Level : Entrance Tests, Medical, Engineering	

Special Features

This book starts with syllabi of various entrance tests and ends with entrance test examination papers. In between it gives formula, relations, units, symbols and several multiple choice questions. In short it is an entrance test guide in a capsule.

The chapter on Synopsis has been enlarge. Two new chapters have been added these are Photometry and Musical Sound.

Contents

Synopsis • Part A – Mechanics and Properties of Matter • Part B – Heat and Thermodynamics • Part C – Optics and Sound • Part D – Magnetism, Electrostatics, Electricity, Modern Physics and Electronics • Miscellaneous Objective Questions • Appendices (Five) • Test Papers (Three).

012019

34

Physics

S.R. Shankara Narayana

3rd Edition	Pp. : viii + 1080 Level : IIT-JEE, Medical Entrance	(TC-578) ₹ **110.00**

Special Features

This is a guide with a difference. Not just formulae and questions but also contains brief explanations to basic principles. With about 400 solved problems taken from I.I.T. and Medical entrance question papers, this book will help prepare the students for entrance tests. About 400 diagrams make the concepts more understandable.

Contents

- Mechanics and Properties of Matter
- Sound
- Heat
- Light
- Electricity
- Modern Physics
- Additional Topics
- IIT-JEE Question Papers (Solved) and Objective Questions.

Physics

Model Papers with Complete Solutions

S.L. Kakani & C. Hemrajani

1st Edition	Pp. x + 458 Level : Engineering & Medical Entrance	(TC-575) ₹ **45.00**
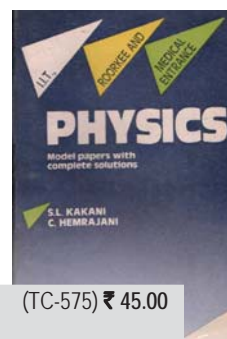
Special Features

This compilation of model test papers starts with syllabi of different entrance examinations. Past IIT-JEE exam. papers with solutions are given. Fifteen model papers on the pattern of IIT-JEE, and five papers on the pattern of Medical entrance have been given. Questions with answers and suggested readings provide guidance to students for entrance exams.

Contents

- Synopsis
- Syllabus : IIT-JEE Physics entrance examination
- Ten Model Papers: IIT-JEE with Solutions
- IIT-JEE Physics Examination Papers
- Solution of IIT-JEE, Physics Paper
- Syllabus : Delhi PMT, MBBS/BDS Entrance
- Five Model Papers with Complete Solutions
- Suggested Readings
- Physical Constants.

Education not only teaches our children facts but also teaches them how to think and learn on their own

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35
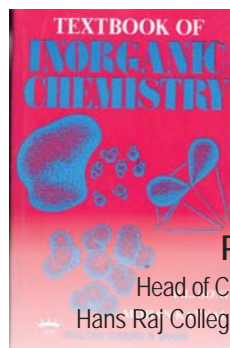
Textbook of Inorganic Chemistry
for B.Sc. and B.Sc. (Hons.) Students

P.L. Soni
Head of Chemistry Department
Hans Raj College, University of Delhi, Delhi

Mohan Katyal
St. Stephen's College
University of Delhi, Delhi

Special Features

- Solved examples, wherever possible.
- Newer topics like Organometallic Compounds, Coordination Behaviour and Analytical Expects (both Qualitative and Quantitative) of Elements, Sulphur-Nitrogen compounds, Cyclophosphenes, etc. have been included.
- Structural Features of the Compounds have been Emphasized with Figures.
- All Figures and Diagrams of the text have been redrawn mechanically which adds to the correctness, clarity and aesthetic.
- Latest IUPAC recommendations have been incorporated. For example $Å$ has been replaced by *pm*, l (Litre) by L, etc.

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 (Classical Approach) • Theory of Chemical Bonding – II (Modern Approach) • Structure of Solids • Oxidation-Reduction Reactions • Acids, Bases and Non-Aqueous Solvents • Standard Electrode Potentials • Appendix: New Type Question Bank – I.

Part II – Elements & Their Compounds : Principles and Processes of Metallurgy • Hydrogen • Water and Hydrogen Peroxide • The Elements of Group IA (i) General Characteristics • The Elements of Group IA (ii) Chemistry of Elements and their Compound • Elements of Group IIA (i) General Characteristics • Elements of Group IIA (ii) Chemistry of Elements and their Compound • The p-Block Elements General Characteristics • Elements of Group IIIA (i) General Characteristics • Elements of Group III A (ii) Chemistry of Elements and their Compound • Elements of Group IVA (i) General Characteristics • Elements of Group IVA (ii) Carbon • Elements of Group IVA (iii) Silicon • Elements of Group IVA (iv) Gernanium, Tin and Lead • Elements of Group VA (i) General Characteristics • Elements of Group VA (ii) Nitrogen • Elements of Group VA (iii) Phosphorus • Elements of Group VA (iv) Arsenic, Antimony and Bismuth • Elements of Group VIA (i) General Characteristics • Elements of Group VIA (ii) Oxygen • Elements of Group VIA (iii) Sulphur, Sulphides • Elements of Group VIA (iv) Compounds of Sulphur • Elements of Group VIA (v) Selenium, Tellurium and Polonium • Elements of Group VIIA (i) General Characteristics of Halogens • Elements of Group VIIA (ii) The Halogens • Elements of Group VIIA (iii) Halogen Acids • Elements of Group VIIA (iv) Compounds of Halogen • Elements of Group Zero.

Part III – Transition Elements : The d-Block Elements – General Characteristics • Coordination Compounds • Elements of Group IIIB – The Scandium Group • Elements of Group IVB – The Titanium Group • Elements of Group VB – The Vandium Group • Elements of Group VIB – The Chromium Group • Elements of Group VIIB – The Manganese Group • Elements of Group VIII (i) – The Iron Triad • Elements of Group VIII B (ii) – The Platinum Triads • Elements of Group IB – The Copper Group • Elements of Group IIB – The Zinc Group • Inner Transition or f-Block Elements • Analytical Aspects of d-Block Elements • Pollution.

Appendix – 1. Typical Questions on Qualitative Analysis, 2. Volumetric analysis, 3. New Type Question Bank – (*ii*) • Index.

Education is the passport to the future, for tomorrow belongs to those who prepare for it today

Fundamental Principles of Inorganic Chemistry
for M.Sc. & B.Sc. (Hons.) Students

D. Banerjea
Sir Rashbehary Ghose Professor of Chemistry, Calcutta University, Kolkata
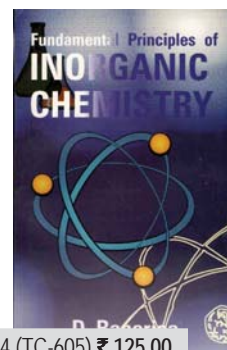
Special Features

- Covers the postgraduate course in Inorganic Chemistry of all Indian universities.
- Coverage of the topics has been done from different sources.
- Three new chapters on acid-base theories, oxidation-reduction and non-aqueous solvents have been introduced.
- Separate chapters have been given on Organometallic Compounds of Transition Elements, Role of Metal Complexes in Biological Systems, Inorganic and Coordination Polymers and Mechanism of Inorganic Reactions.

Contents

- Periodic Classification of Elements
- Structure of the Atom
- The Nucleus
- Valency: Introduction and General Concepts
- Electrovalency
- Covalency
- The Metallic Bond
- General Theories of Acids and Bases
- Oxidation and Reduction
- Non-Aqueous Solvents
- Theory of Metal-Ligand Bond Properties of Coordination Compounds
- Organometallic Compounds of Transition Elements
- Role of Metal Complexes in Biological Systems
- Inorganic and Coordination Polymers
- Mechanisms of Inorganic Reactions
- Appendices (I-IV)
- Subject Index.

Inorganic Chemistry Concepts
for B.Sc. and B.Sc. (Hons.) Students

P.L. Soni   •   Mohan Katyal

Vol. I – Pp. *viii* + 299	(TC 647) ₹ 15.00
Vol. II – Pp. *viii* + 326	(TC 648) ₹ 22.50
Vol. IIIA – Pp. *xiii* + 345	(TC 649) ₹ 22.50
Vol. IIIB – Pp. *viii* + 332	(TC 650) ₹ 27.50

Contents

Volume I – Introduction • Structure of Atom • Classification of Elements • Theory of Chemical Bonding • Theory of Acids and Bases • Standard Electrode Potentials.

Volume II – General Principles of Metallurgy • Hydrogen • Elements of Group IA • Group IIA • Group IIIA • Group IVA • Group Zero.

Volume IIIA – The p-Block Elements • Elements of Group VA • Group VI A • Group VIIA • Some Important Topics.

Volume IIIB – The d-Block Elements • Coordination Compounds • Elements of Group IIIB • Group IVB • Group VB • Group VIB • Group VIIB • Group VIII • Group IB • Group IIB • Inner Transition of f-Block Elements • Analytical Aspects of d-Block Elements • Metal Complexes in Biological Systems • Micro Elements in Environment.
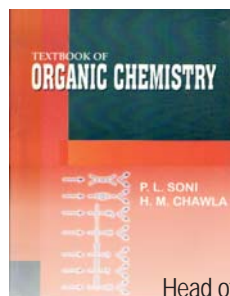
Textbook of Organic Chemistry
for B.Sc. and B.Sc. (Hons.) Students

P.L. Soni
Head of Chemistry Department
Hans Raj College, University of Delhi, Delhi

H.M. Chawla
Department of Chemistry
IIT, New Delhi

Special Features

- 'Explain' the matter rather than presenting the facts in an encyclopaedic manner.

- Used reaction mechanisms throughout the text.

- The chapter on Stereo-chemistry has been thoroughly rewritten.

- Re-written the sections on Stereo-chemistry of cyclic compounds, correlation of different conformers of substituted cyclohexanes.

- The *E* and *Z* designations, the *R* and *S* nomenclature of stereo-isomers, details of symmetry elements, etc. have been added and expanded.

- Greatly expanded and rewritten 'Principles of mass spectroscopy, UV, IR and NMR spectroscopy.

- Included spectroscopic analysis of type of compounds discussed in each chapter throughout the book. These chapters have been rewritten.

- New sections on Feiser-Woodward and Feiser-Kuhn rules in UV spectroscopy, additional explanations and conclusions of various electronic transitions have been included.

- The chapter on biochemistry now includes structure and composition of the living cell.

- The chapters dealing with aromatic chemistry and heterocyclic compounds have been greatly improved over the previous editions.

- The chemistry of carbohydrates has been rewritten.

- Conformational isomerism in monosaccharides, disaccharides and polysaccharides has been explained and conversions encountered in carbohydrate chemistry have been provided.

- The chapter on proteins now includes principles of peptide bond formation and a discussion on primary, secondary, tertiary and quaternary structures of proteins.

- Newer synthesis have been added in the sections on alkaloids, terpenoids, ureides, purines and pyrimidines and synthesis and natural dyes.

- Retained resonance structures rather than the more advanced, frontier molecular orbital diagrams.

Brief Contents

Part I – General Organic Chemistry (12 Chapters & Pp. 342).

Part II – Organic Compounds (21 Chapters & Pp. 488).

Part III – Aromatic Compounds (15 Chapters & Pp. 428).

Part IV – Special Topics (9 Chapters Pp. 262).

Question Bank (Appendix 1 to 9 & Pp. 150).

Index (Pp. 8).

Aim for success, not perfection.
Never give up your right to be wrong,
because then you will lose the ability to learn new things and move forward with your life.
Remember that fear always lurks behind perfectionism

Principles of
Reaction Mechanism in Organic Chemistry
for B.Sc. (Hons.) and M.Sc. Students

V.S. Parmar
University of Delhi, Delhi

H.M. Chawla
IIT, New Delhi
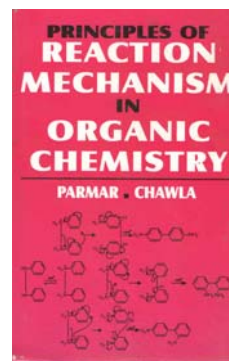
The need for the second edition has given us an opportunity not only to correct the mistakes which inadvertently crept in the earlier edition but also to revised the subject matter in the light of recent advances in the field of Organic Reaction Mechanism which indeed have gone a long way in improving our understanding during such a short span of time. An important contribution to the field has been the development of Woodward-Hoffmann Rules of Orbital Symmetry to explain the so-called 'No Mechanism Reactions'. A new chapter comprising the Introduction to these rules and their role determining the Stereochemical course Electrocyclic Reactions have been added. Another striking advancement during recent year has been the revision of the structure of Hexaphenylethane. It has proved by ESR and NMR Spectroscopy that in reality like Hexaphenylethane i.e. Ethane Molecule with all the Six Hydrogens replaced by Phenyl Groups is hitherto unknown. This necessitated the re-writing of chapter fourteen.

Contents

Part I – Atomic Architecture • Molecular Framework • Shapes of Organic Molecules • Configuration and Conformation : Stereochemistry • Possibility of a Chemical Reaction • Reaction Rates and Energetics • Types of Organic Reactions and Reagents • Scale of Acidity and Related Concepts.

Part II – Nucleophilic Substitution at the Saturated Carbon Atom • Addition to Multiple Bonds • Aromaticity and Aromatic Substitution • Elimination Reactions • Carbonium Ions and Carbanions • Unstable-Uncharged, Intermediates : Free Radicals • Molecular Rearrangements, Tautomerism • Woodward-Hoffmann Rules of Orbital Symmetry : Pericyclic Reactions • Questions • Selected References • Index.

Chemistry of Natural Products

H.M. Chawla
Indian Institute of Technology, New Delhi

B. Prakash
Regional College of Education, Ajmer

Special Features

- The use of spectroscopic methods has been outlined for structure elucidation.
- A list of references is provided for further reading.

Contents

Volume I
- Carbohydrates
- Amino acids, Peptides and Proteins
- Purines and Pyrimidines
- Nucleotides and Nucleic Acids
- Chemotherapy and Chemotherapeutic Agents
- Antibiotics
- Synthetic and Natural Dyes
- Organic Polymers and Polymerization
- Carcinogenic Polynuclear Hydrocarbons.

Volume II
- Terpenoids
- Steroids
- Steroidal Hormones
- Vitamins, Alkaloids, Flavonoids and other Natural pigments
- Porphyrins and Haemotohydroprosis
- Lipids, Biosynthesis and Biogenesis of Natural products.
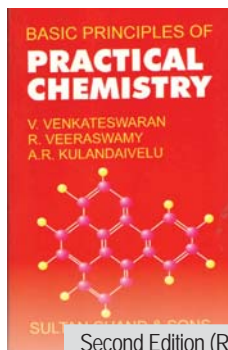
Basic Principles of Practical Chemistry
for B.Sc. & B.Sc. (Hons.) Students

V. Venkateswaran, R. Veeraswamy & A.R. Kulandaivelu
Department of Chemistry, Erode Arts College, Erode-638 009

Second Edition (Reprint) 2017	Pp. *xvi* + 360	ISBN 978-81-8054-776-8 (TC-659) ₹ 200.00

This book covers the entire Practical Chemistry for B.Sc. degree course in a way which is very simple to follow. The basic principles have been explain for every experiment and calculations have been illustrated nicely. The subject matter has been dealt with in a proper sequence as the division of the subject matter has been done systematically. The material presented and the experimental procedure outlined have been written in a clear, lucid and logical manner. Above all, the book has been written in a simple language making every one feel very comfortable.

Special Features

- Describes the qualitative and quantitative analyses of inorganic and organic compounds.
- Basic principles of each experiment have been explained.
- Division of the subject-matter has been done systematically.

- Model calculations and illustrations have been given for easy understanding.
- Preparation of organic complexes has been included.
- Important physical constants have been given in 15 Appendices.
- Preparation of Reagents and Solutions is given in one chapter.

Contents

Practical Inorganic Chemistry • Volumetric Analysis • Gravimetric Analysis • Physical Chemistry Experiments • Practical Organic Chemistry • Reagents and Solutions • Appendices • References • Some Additional Experiments for Madras University Students • Logarithm Table • Antilogarithm Table • Index.

Allied Chemistry
(For Non-Chemistry Majors)
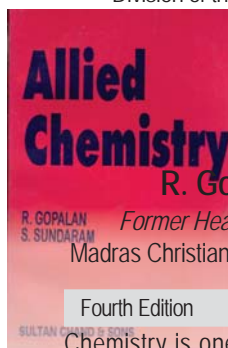
R. Gopalan, M.Sc., Ph. D
Former Head, Department of Chemistry
Madras Christian College (Autonomous), Chennai

S. Sundaram, M.Sc., Ph.D.
Former Reader, Department of Chemistry
Ramakrishna Mission Vivekananda College, Chennai

Fourth Edition	Pp. *viii* + 316	ISBN 81-8054-408-7 (TC-614) ₹ 85.00

Chemistry is one way of viewing and understanding man, his environment and his problems. A basic knowledge of chemistry is essential for understanding several principles and applications of physics, botany and zoology. Therefore students majoring in these branches of science are required to study chemistry as an allied or ancillary subject. This book, 'Allied Chemistry – For Non-Chemistry Majors' has been written with a view to fulfill this requirement. In this book, the basic concepts of chemistry are presented in a simple manner that can be easily understood by students of other sciences. The coverage of the subject is not, however, complete, but aims to provide a map of the important areas of basic chemistry.

The applications of chemistry in physics and biological sciences have been highlighted when dealing with various chemical principles. Each chapter contains solved problems and a set of questions and key definitions.

This edition conforms to the revised B.Sc. Allied Chemistry Syllabus of the University of Madras.

This book can be used by the chemistry major students also as an introductory guide-book.

Contents

Covalent Bond • Hydrides and Nitrides • Interhalogen Compounds • Compounds of Sulphur • Metals and Alloys • Extraction of Metals • Coordination Chemistry–I • Coordination Chemistry–II • Industrial Chemistry • Chemistry of Environmental Pollution • Isomerism • Some Industrially Important Organic Compounds • Chemotherapy • The Covalent Bond • Electron-Displacement Effects • Aromatic Compounds : Substitution Reactions • Aromatic Compounds : Naphthalene • Carbohydrates • Amino Acids and Proteins • Energetics • Solutions • Chromatography • Electrochemistry–I • Electrochemistry–II • The Phase Rule • Photochemistry • Question Bank • University Question Papers.

Textbook of Physical Chemistry
for B.Sc. and B.Sc. (Hons.) Students

P.L. Soni
Hans Raj College, University of Delhi, Delhi

O.P. Dharmarha
Rajdhani College, University of Delhi, Delhi

U.N. Dash
Department of Chemistry, Utkal University, Bhubaneswar, Orissa
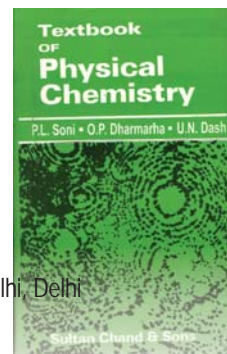
Special Features

- Emphasis on Correlation of various properties of elements and their compounds with their electronic structure and othe modern concepts.
- Explains the various physical concepts of chemistry in a very lucid form.
- Mathematical deductions are presented in a simple and logical manner.
- New type of questions, numerical problems, etc. have been incorporated.
- Emphasis on questions from IIT/PMT/Engg. and Civil Services Examinations.

The major improvements in the latest edition are :
- Thorough revision of first ten chapters of Part I of the book, that is, up-to page 1.360
- Addition of two new chapters namely Irreversible Thermodynamics and Statistical Thermodynamics at the end of Part II of the book.
- The chapters have been improved by making suitable additions and modifications to facilitate understanding of the subject matter. The solved numerical problems in the relevant chapters have been dealt with in SI units.

Contents

Part One

Unit I – Chemical Principles – Introduction • Structure of Atom • Structure of Atom (Modern Picture) • Classification of Elements • Nuclear Chemistry • Radioactivity and Nuclear Transformation • Theory of Chemical Bonding (i) Classical Approach • Theory of Chemical Bounding (ii) – Modern Approach • Appendix : New Type Question Bank (I).

Unit II – States of Matter – The Gaseous State • Real Gases • Properties of Liquids • The Solid State.

Unit III – Thermodynamics – Introduction to Chemical Thermodynamics • The First Law of Thermodynamics • Thermo Chemistry • The Second Law of Thermodynamics • The Third Law of Thermodynamics • Chemical Equilibrium • Nernst Distribution Law • The Phase Rule.

Part Two

Unit IV – Solutions – Solutions • Theory of Dilute Solutions.

Unit V – Surface Chemistry – Adsorption • The Colloidal State.

Unit VI – Rates and Mechanisms – Chemical Kinetics • Catalysis • Photochemistry.

Unit VII – Electrochemistry – Electrolysis and Electrical Conductivity • Migration of Ions • Ionic Equilibria • Acids and Bases • Solubility Product and Hydrolysis • Electromotive Force.

Unit VIII – Structure of Molecules – Physical Properties and Chemical Constitution • Spectroscopy • Macro-molecules • Irreversible Thermodynamics • Statistical Thermodynamics.

Appendix: Conversion Factors and Fundamental Constants • Greek Alphabets • Statistical Tables.

Additional University Examination Questions.

Subject Index.

Education not only teaches our children facts but also teaches them how to think and learn on their own

012019

41

Pharmaceutical Chemistry
for B.Sc. Degree Course

S. Lakshmi

Department of Chemistry, Sri Sarada College for Women, Salem

Special Features

- Covers the syllabus in simple and effective style.
- Comprehensive yet crisp presentation of each topic.

Contents

- Introduction
- Clinical Chemistry
- Indian Medicinal Plants
- Medicinally Important Compounds of Al, P, Hg and Fe
- Antibiotics
- Sulpha Drugs
- Vitamins
- Analgesics
- Antiseptics and Disinfectants
- Anesthetics
- Alkaloids
- Tranquilizers, Sedatives, Hypnotics and Psychedelic Drugs
- Anti-Neoplastic Drugs and Hypoglycemic Drugs
- Organic Pharmaceutical Aids
- Blood Composition and Functions
- Hematological Agents
- Biological Role of Certain Salts, Trace Elements
- Chemistry of Heterocyclic Compounds
- Anti-Ineffective Agents and Antiviral Drugs
- Supplement
- Appendices
- Bibliography
- Index.
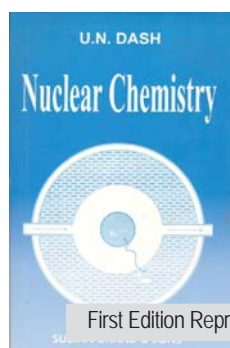
Nuclear Chemistry
for B.Sc. (Hons.) & M.Sc. Students

U.N. Dash, Ph.D., C. Chem., FRSC (London)
Department of Chemistry, Utkal University, Bhubaneswar

The present book includes topics which help to make the subject clear to the students of B.Sc. (Hons.) & M.Sc. of the Indian Universities offering Nuclear Chemistry as one of their subject.

Contents

- Atomic and Nuclear Structure
- Radioactivity
- Radioactive Decay and Growth
- Isotopes and their Separations
- Nuclear Reactions
- Nuclear Fission and Nuclear Energy Sources
- Isotope Effects and Isotopic Exchanges
- Radiation Chemistry
- Effects of Radiation on Matter
- Applications of Nuclear Chemistry
  Appendix 1 – Fundamental, Physics Chemistry rest masses other important values
  Appendix 2 – Radioactive Disintegration Series (4n and 4n + 2)
  Appendix 3 – Radioactive Disintegration Series (4n + and 4n + 3)
  Appendix 4 – Interaction of Electrons and Protons with Matter
  Appendix 5 – Glossary.

Chemical Tables

N.S. Gnanapragasam, M.Sc., Ph.D., FRSC
Professor of Chemistry, Loyala College, Madras

Second Revised Edition	Pages 75	(TC-612) ₹ 25.00
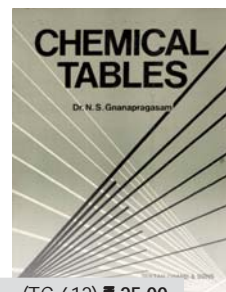
This book contains a collection of numerical data on the structure and properties of the chemical elements and their numerous compounds. It will found useful to Higher Secondary, B.Sc., M.Sc. students and Teachers of Chemistry and will also serve as a reference volume for all science students. The values quoted have been carefully selected from textbooks, monographs and handbooks. In this edition, data are given in SI units, for example Kelvin (K) for temperature, Joule (J) for energy, and Picometre (pm) for wave length.

Special Features

- Unique collection of more than 90 Tables on Chemical data.
- Useful for teachers as well as students.
- An alphabetical index has been provided.

Contents

- General
- Elements & Their Properties
- Periodic Table and Periodic Properties
- Chemical Bond
- Properties of Components
- Electrochemical Data
- Analytical Chemistry
- Nuclear Chemistry
- Index.

Analytical Chemistry : Theory & Practice
for B.Sc. (Hons.) & M.Sc. Students

U.N. Dash, D.Sc., C.Chem., FRSC (London)
Department of Chemistry, Utkal University, Bhubaneswar

Third Revised Edition	Pp. *xx* + 672	ISBN 978-81-8054-953-3 (TC-609) ₹ 297.00
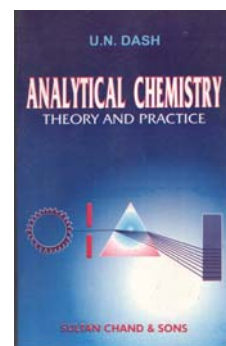
In this third revised edition we have, retaining all that in previous edition, incorporated new subject area like, Statistical Methods in Analytical Chemistry, Nephelometry, Turbidimetry, ICP-AES, etc. All chapters have been up-dated with inclusion of more solved problems. Latest university questions are given at the end of each chapter. Step-by-step answers are provided for the in-chapter problems.

Special Features

- Explains the key concepts of analytical chemistry in a simple, lucid and logical manner.
- The approach in the book is on 'Why' and 'How' basis.

Contents

- Introduction
- Electromagnetic Radiation
- Ultraviolet Spectroscopy
- Infrared Spectroscopy
- Nuclear Magnetic Resonance Spectroscopy
- Mass Spectrometry
- Mössbauer Spectroscopy
- Electron Spin Resonance Spectroscopy
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- Radiometry
- Chromatography
- Polarography
- Thermoanalytical Methods
- Author Index
- Subject Index.

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43
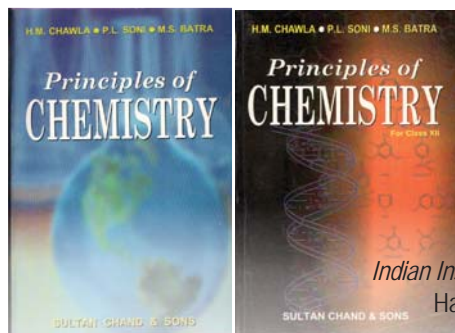
Principles of Chemistry

H.M. Chawla
Indian Institute of Technology
Hauz Khas, New Delhi

P.L. Soni
Hans Raj College
University of Delhi, Delhi

M.S. Batra
Khalsa College, Guru Nanak Dev University, Amritsar

For Class XI CBSE	Pp. *xii* + 940	ISBN 81-8054-100-2 (TC-936) ₹ 250.00
For Class XII CBSE	Pp. *xx* + 1290	ISBN 81-8054-188-6 (TC-986) ₹ 350.00

A Textbook for Classes XI and XII students Preparing for Senior Secondary. Examination of the Central Board of Secondary Education, Delhi and I.I.T., Engineering and Medical Entrance Examinations.

Special Features

- Strictly according to the syllabus prepared by the NCERT and adopted by the Central Board of Secondary Education, Delhi for its examinations in 2006 onwards.
- Though primarily meant for students following the CBSE syllabus, it will also be useful to students preparing for ICSE and other systems of education.
- Extremely useful to students desirous of admission to universities and professional courses in India and abroad.
- Thoroughly modern in approach.
- SI units have been adopted throughout the Text.
- Simple language and exhaustive treatment of the subject.
- Explains Principles of Chemistry by taking suitable examples from common life.
- The entire syllabus has been divided into various sections termed as '*Lectures*' to introduce to the students and the teachers about concepts of Time Management. This we believe will go a long way for readers to evaluate themselves and to set their own goals and pace of teaching and learning.
- Additional Study Material has been provided at appropriate places to cater to the needs of exceptionally bright students.
- Various concepts have been interspersed with "*Attempt the following Questions to Test Your Understanding,*" problems, illustrations and other recognized educational aids to increase understanding of the basic principles.
- All the Units are self-contained and have been developed *ab initio.*
- A large number of new type questions such as long answer type questions, short answer type questions, objective type

questions, fill in the blanks, selection of an appropriate answer, true or false type of questions have been given at the end of each Unit to help students prepare not only for the Board examinations but also for Competitive Examinations. Many of these questions are designed to test understanding of the subject rather than memorizing facts.
- Latest questions asked in the previous Board examinations on the concepts developed have been provided so that they may be used in class room discussion, in revision or for home work.

Contents

Class XI

Some Basic Concepts of Chemistry • States of Matter • Atomic Structure • Classification of Elements and Periodicity in Properties • First Law of Thermodynamics and Chemical Energetics • Chemical Bonding and Molecular Structure • Equilibrium I : Equilibrium in Physical and Chemical Processes • Equilibrium II : Ionic Equilibrium in Solution • Redox Reactions • Principles and Processes of Extraction of Elements • Hydrogen • The s-Block Elements • Some p-Block Elements : Boron, Carbon, Nitrogen and Oxygen • Organic Chemistry – Some Basic Principles • Hydrocarbons • Purification and Characterization of Organic Compounds • Organic Compounds with Functional Groups Containing Halogens (Haloalkanes and Haloarenes) • Environmental Chemistry.

Class XII

Atomic Structure and Chemical Bonding • The Solid State • Solutions • Thermodynamics • Electrochemistry • Chemical Kinetics • Surface Chemistry • p-Block Elements • d- and f-Block Elements • Coordination Compounds and Organometallics • Nuclear Chemistry • Stereochemistry • Organic Compounds with Functional Groups Containing Oxygen – I • Organic Compounds with Functional Groups Containing Oxygen – II • Organic Compound with Functional Groups Containing Nitrogen • Polymers • Biomolecules • Chemistry in Everyday Life • Appendices.

012019

44

Elements of Analytical Chemistry
for B.Sc. and B.Sc. (Hons.) Students

R. Gopalan • P.S. Subramanian • K. Rengarajan
Madras Christian College, Chennai
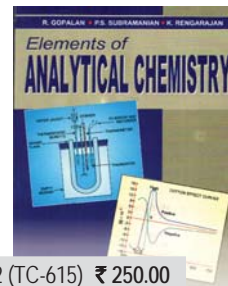
The third edition of this contains additional features to enhance its value for the students. Solved problems have been included in each of the chapters on Spectroscopy. The chapter on Photoelectron Spectroscopy is another edition to the book.

Special Features

- Explains the basic principles in a simple manner.
- The book explains in detail not only the traditional methods like volumetric and gravimetric, but also modern methods like visible and UV, IR, Raman, Absorption, and EPR spectroscopy.

Contents

Laboratory Hygiene and Safety • Analytical Balance • Laboratory Glassware • Data Analysis • Separation Techniques • Purification Techniques • Principles and Techniques of Semi-micro Methods • Principles of Volumetric Analysis • Principles of Gravimetric Analysis • Analytical Electrochemistry • Thermoanalytical Methods • Dipole Moment • X-Ray Diffraction • Neutron Diffraction • Magnetic Properties • Calorimetric Analysis • Absorption Spectroscopy • Infrared Spectroscopy • Raman Spectroscopy • Photoelectron Spectroscopy • Flame Photometry & Atomic Absorption Spectroscopy • Mass Spectrometry • Applications of Isotopes in Analytical Chemistry • Nuclear Magnetic Resonance Spectroscopy • Electron Spin Resonance Spectroscopy • Experimental Techniques in Reaction Kinetics • Polarimetry • Organic Estimations • Analytical Chemistry in Consumer Protection • Appendix 1 – Questions • Appendix 2 – Physical and Chemical Constants • Appendix 3 – Atomic Weights of Elements • Appendix 4 – Ionisation Constants • Appendix 5 – Formula Weights • Appendix 6 – Oxidation Potentials • Appendix 7 – Solubility Products of Sparingly Soluble Salts • Appendix 8 – References.

Chemistry Objective Tests
for all competitive exams, entrance exams, admission exams and B.Sc. Students

N.S. Gnanapragasam
Loyala College, Madras
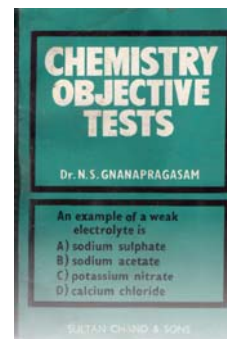
Special Features

- The questions in each subject area have been arranged in a systematic sequence, with sub-headings in each chapter, to enable taking or setting test papers after the study of each topic.
- While rearranging the questions, duplicates have been eliminated ; thus facilitating the addition of many new questions in the third edition especially in Industrial Chemistry
- A total of more than 2,500 questions are included
- All types of Objective Type questions, viz. 'Multiple Choice', 'Right/Wrong', 'Fill in the blanks', 'Match the columns' etc. have been included.
- Most suitable for all Civil Service exams, IIT-JEE., M.B.B.S. Entrance exams, admission tests, general graduate studies, etc.

Contents

General Chemistry • Inorganic Chemistry • Organic Chemistry • Physical Chemistry • Analytical Chemistry • Industrial Chemistry • Topic Index.

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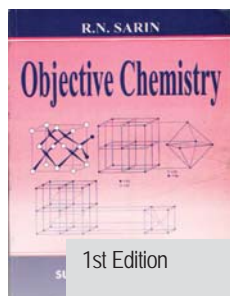
Objective Chemistry

R.N. Sarin

Special Features

This book is intended to help in revision of the entire course. Meant for those preparing for Medical and Engineering entrance exams.

The salient features of the book are as follows :

- Complete study material at the start of each chapter
- Abundance of solved examples
- Abundance of multiple choice questions and 'fill-in-the-blanks' questions with answers
- A separate chapter on 'Test Your Understanding'
- Product of experience of 50 years.

Brief Contents

Section A : Physical and General Chemistry – Structure of Atom and Nuclear Chemistry • Periodic Classification of Elements • Chemical Bonding and Molecular Structures • Gas Laws, Kinetic Theory of Gases and Molecular Concept • Solutions, Colligative Properties and Molecular Weight of Non-Volatile Substances • Problems on Volumetric Analysis • Redox Reactions and Problems Based on Equations • Chemical Kinetics and Gaseous Equilibria • Ionic Equilibria • Chemical Energetics • Equivalent Weights and Electrochemistry • Surface Chemistry • Solid State.

Section B : Inorganic Chemistry – Hydrogen and its Compounds • Alkali and Alkaline Earth Metals and their Compounds • Study of *S*-Block Elements • Transition Elements of *d*- and *f*-blocks and Coordination Compounds • Miscellaneous Reactions and Problems in Analytical Chemistry.

Section C : Organic Chemistry – General Study of Organic Compounds • Estimation of Elements and Determination of Formulae of Organic Compounds • Determination of Structural Formula, Typical Organic Reactions and Conversions • Biomolecules and Polymers • Test Your Understanding • Appendix.
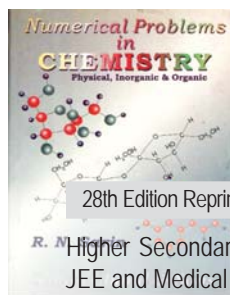
Numerical Problems in Chemistry

R.N. Sarin

Higher Secondary, Inter, PUC, and B.Sc. I Year and for IIT-JEE and Medical Entrance Exams. The present volume which has been cast in an entirely new set-up has been divided into three sections namely, General and Physical, Inorganic and organic a number of chapters in the past edition have been merged together for being akin to each other. 'Test Your Understanding' containing over 30 examples with many sub-parts and 38 exercises with many sub-parts an answers, several useful appendices, model papers and latest question papers are the new features of the present edition.

Special Features

A thoroughly revised edition which has proved to be a standard book on numericals which form the backbone of Chemistry. Not only as a textbook it is also highly popular among students preparing for IIT-JEE, Medical and other entrance exams. The authors have drawn heavily from university and entrance exam. papers to devise examples and exercises. Solved latest question papers of entrance exams. have also been included with solutions.

Contents

A – Physical and General Chemistry : Measurements, Significant Figures and Uncertainty in Measurement • Percentage Composition, Empirical Molecular Formulae • Laws of Chemical Combination • Gas Laws, Kinetic Theory of Gases and Mole Concept • Molecular Weight of Volatile Substances and Gases • Solutions, Colligative Properties and Molecular Weights of Non-Volatile Substances • Equivalent Weights and Electrochemistry • Problems on Volumetric Analysis • Atomic and Molecular Structures & Nuclear Reactions Electrochemical cells • Thermochemical & Thermodynamical Calculations • Chemical Kinetics and Reversible Reactions and Equilibria • Ionic Equilibria • Solid State

B – Inorganic Chemistry : Periodic Classification of Elements • Chemical Bonding • Problems based on Equations • Redox Reactions and Oxidation Numbers • Miscellaneous Reactions and Problems on Analytical Chemistry

C – Organic Chemistry : Estimation of Elements and Determination of Formulae of Organic Compounds • Nomenclature, Typical Reactions, Structural Formulae & Conversions in Organic Compounds • Test Your Understanding • Model Papers • Latest Question Papers • Appendix.

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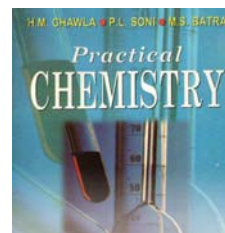
Practical Chemistry

H.M. Chawla • P.L. Soni • M.S. Batra

For Class XI CBSE	Pp. *xvi* + 196	ISBN 81-8054-130-4 (TC-983) ₹ 60.00
For Class XII CBSE	Pp. *xvi* + 360	ISBN 81-8054-185-1 (TC-987) ₹ 100.00

Special Features

Elegant and lucid in style, this book discusses the principles of experiments at length. Methods of preparing reagents, solubility charts, basic laboratory techniques and a list of precautions have been provided to assist the students. Thirty-one investigatory projects and a large number of questions asked in the viva-voce will come in handy for the student. Well-being of students has been kept in mind by giving first aid information right in the first chapter.

Contents for Class XI

- Acquaintance with the Chemistry Laboratory
- Basic Laboratory Techniques
- Preparation of Crystals from Impure Samples
- Solubility and Solubility Curves
- Determination pH of Solutions
- Study of Chemical Equilibria
- Thermochemistry
- Volumetric Analysis
- Simple Volumetric Calculations
- Qualitative Inorganic Analysis
- Determination of Melting Points and Boiling Points
- Detection of Elements
- Preparation of Acetylene.

Contents for Class XII

- Working in a Chemical Laboratory
- Preparation of Double Salts
- Preparation, Purification and Coagulation of Solutions
- Emulsions and Emulsifying Agents
- Rate of a Reaction : Effect of Concentration and Temperature
- Chromotographic Analysis
- Titrations Involving Potassium Permanganate
- Qualitative Inorganic Analysis
- Analysis of Common Fertilizer
- Carbohydrates, Fats and Proteins
- Indentification of Functional Groups
- Distinction between Pairs of Organic compounds
- Organic Preparations.

Fundamental Inorganic Chemistry

P.L. Soni

19th Edition	Pp. *vi* + 826	₹ 100.00
	Level : Higher Secondary & Intermediateand IIT-JEE and Medical Entrance Examinations	

Special Features

In keeping with the rapid pace with which chemistry is developing, this revised edition presents a completely modern outlook. Profusely illustrated the book is a pleasure to read as illustrations make understanding of the concepts very easy. A simple language and lucid style make the book all the more utilitarian.

Contents

- Laboratory Processes
- Elements
- Chemical Equations
- Atomic and Molecular Theory
- Periodic Properties
- Bonding
- Gases
- Molecular Weight
- Solution
- Electrolysis
- Acids, Bases & Salts
- Hydrogen
- Oxygen
- The Halogens
- Atmosphere • Compounds of Phosphorus
- Fuel Gases
- Alkali Metals
- Alkaline Earth Metals
- Tin and Lead
- Iron
- Appendix.

Fundamental Organic Chemistry

P.L. Soni

Special Features

Modern in outlook, this book presents the modern concepts about the structure of the atom. A new section has been added on intermolecular forces, dipole-dipole interactions, and Van der Waals' forces and physical properties. Hybridization and resonance have been treated in a simple language. Revision exercises increase the worth of this book.

Contents

Part I – General : **Introduction** • Purification of Organic Compounds • Detection of Elements • Quantitative Analysis • Determination of Molecular Weight • Empirical and Molecular Formulae • Constitution of Organic Compounds • Nomenclature of Organic Compounds • IUPAC System of Nomenclature • The General Nature of Organic Reactions • Isomerism.

Part II – Aliphatic Compounds : Alkanes or Paraffins • Alkanes or Olefins • Alkynes or Acetylenes – Appendix – Revision Exercises Set II • Halogen Derivatives of Paraffins • Monohydric Alcohols • Dihydric and Trihydric Alcohols • Ethers, Appendix – Revision Exercise Set III • Aldehydes and Ketones • Carboxylic Acids • Acid Derivatives • Esters • Oils and Fats • Amines • Substituted Acids • Carbohydrates • Appendix – Revision Exercises Set IV.

Part III – Aromatic Compounds : Introduction to Aromatic Compounds • Coal Tar • Benzene and Its Homologues • Aromatic Halogen Compounds • Sulphonic Acids • Aromatic Nitro Compounds • Aromatic Amino-Compounds • Diazonium Salts • Phenols and Aromatic Alcohols • Aromatic Aldehydes and Ketones • Aromatic Acids – Appendix – Revision Exercise Set V.

Part IV – Miscellaneous : Appendix – I. Our Food • Problem in Aromatic Synthesis • Typical Conventions • Important Reactions • Isomerism • Structure Formulae • Logarithms • Antilogarithms • Index.
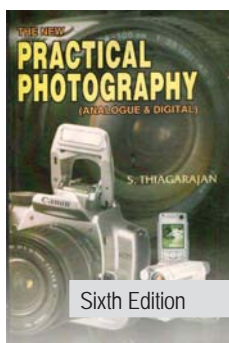
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53

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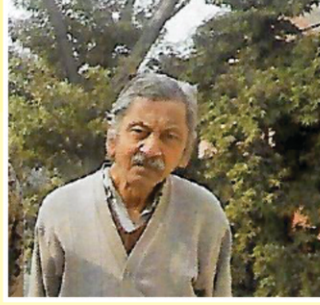| Main Subjects currently taught by you	Course	Annual Enrolment	Semester & Start Date
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56

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REMEMBERANCE

Late Shri Subhash Chand Aggarwal
(1-11-1939 to 17-6-2017)

Shri Subhash Chand Aggarwal, an esteemed teacher, pioneer in publishing college-level texts and renowned philanthropist, was a true karmayogi. He dedicated his entire life of seventy-eight years to the service of humanity, mainly committed to the teachers and students in particular. After his retirement as a Professor of Commerce from Ramjas College, University of Delhi, he devoted his remaining life to publishing industry and social service.

Shri Subhash Chand Aggarwal belonged to an illustrious family. His grandfather, Master Amir Chand ji, was a dedicated teacher, social reformer and revolutionary, who took an active part in the freedom movement. He was awarded death sentence in 1915 for his involvement in the Hardinge Bomb Case by the then British Government. His father, Shri Sultan Chand ji, was the founder of M/s S. Chand & Company (1917) and M/s Sultan Chand & Sons (1950) and a pioneer in the field of publishing school and college-level text books by Indian teachers. He set up several trusts, prominent being Shri Sultan Chand Trust, Sultan Chand Dropadi Devi Education Foundation and Dr Usha Aggarwal Trust, to award scholarships to meritorious students. Besides creating Endowment Funds in more than two hundred colleges across the country providing financial support to students / institutions under the book bank scheme.

Besides giving charity in the field of education Shri Aggarwal Ji was also a great philanthropist who donated funds to Ramakrishna Sevashram, Vrindavan for building a female hospital block. Such acts of charity by him will be remembered by the society and the beneficiaries across the country.

At present Dr (Miss) Usha Aggarwal, the younger sister of Shri Subhash Chand Aggarwal is carrying on the rich legacy of her visionary father and energetic brother. She is a strong guiding force to the publishing house who work relentlessly towards realizing the dreams and mission of her predecessors.

Needless to mention that the authors, chartered accountants, the staff of M/s Sultan Chand & Sons and all other individuals who are directly or indirectly associated with Shri Aggarwal like a 'family' will always cherish the moments spent with him and continue to support with full commitment.