S. CHAND HIGHER ACADEMIC

S. CHAND PUBLISHING
Higher Education

2024

CATALOGUE

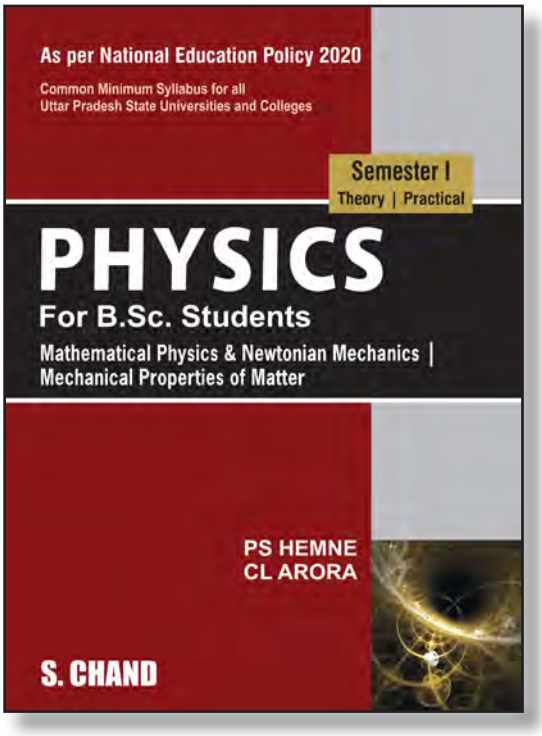
# PHYSICS & MATHEMATICS

www.schandpublishing.com

# Contents

## Sciences

## Books as per National Education Policy (NEP) 2020
## Common Minimum Syllabus for all Uttar Pradesh State Universities




# Physics for B.Sc. Students - Semester I NEP 2020 - Uttar Pradesh

PS Hemne & CL Arora

### About the Book

This textbook has been conceptualised to meet the needs of B. Sc. First Semester students of Physics as per Common Minimum Syllabus prescribed for all Uttar Pradesh State Universities and Colleges under the recommended National Education Policy 2020. Designed strictly as per the syllabus, the first part of the textbook comprehensively covers the theory paper, Mathematical Physics & Newtonian Mechanics, which discusses important topics such as Newton's axioms of motion, dynamics of particles, pseudo forces and the mathematical base including tensors. The second part of the textbook systematically covers the practical paper, Mechanical Properties of Matter, to help students achieve solid conceptual understanding and learn experimental procedures.

### Salient Features

- Well drawn illustrations and examples have been provided not only to substantiate the basic principles involved but also to make reading interesting and engaging
- Includes apt number of solved/unsolved numerical problems, frequently asked in various university examinations, for students' practice
- Evaluate Yourself feature at the end of each chapter provides short/long answer questions to test students' understanding of the concepts

**ISBN: 9789355011541 | Price: ₹ 425 | Pages: 456 | Size: 6.5" X 9.25" (Paperback)**

### Contents

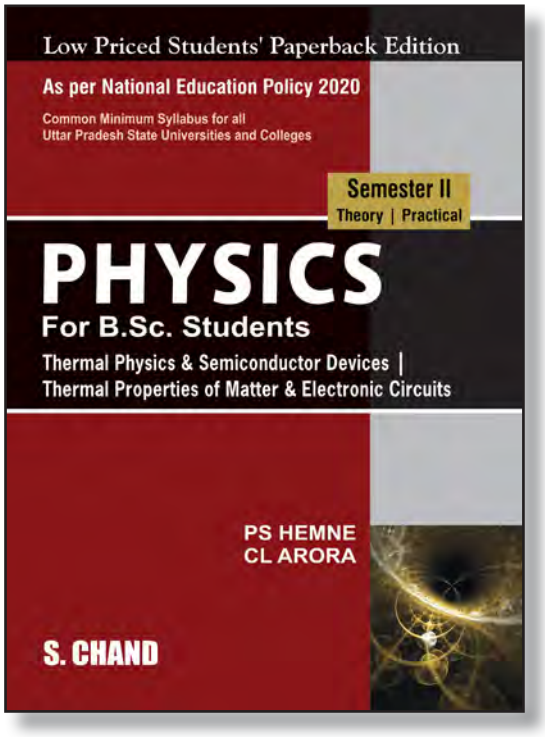


**Dr. P. S. Hemne**, Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.

(NEP 2020, CMS, Uttar Pradesh State Universities)

(NEP 2020, CMS, Uttar Pradesh State Universities)




# Physics for B.Sc. Students (Semester-II) NEP-2020-Uttar Pradesh

PS Hemne & CL Arora

## About the Book

This textbook has been designed to meet the needs of B. Sc. First Semester sThis textbook This textbook has been conceptualised to meet the needs of B.Sc. Second Semester students of Physics as per Common Minimum Syllabus prescribed for all Uttar Pradesh State Universities and Colleges under the recommended National Education Policy 2020. Designed strictly as per the syllabus, the first part of the textbook comprehensively covers the theory paper, Thermal Physics & Semiconductor Devices, which discusses important topics such as laws of thermodynamics, kinetic theory of gases, theory of radiation, DC & AC circuits, semiconductors & diodes and transistors. The second part of the textbook systematically covers the practical paper, Thermal Properties of Matter & Electronic Circuits, to help students achieve solid conceptual understanding and learn experimental procedures.

## Key Features

- Well drawn illustrations and examples have been provided not only to substantiate the basic principles involved but also to make reading interesting and engaging
- Includes apt number of solved/unsolved numerical problems, frequently asked in various university examinations, for students' practice
- Evaluate Yourself feature at the end of each chapter provides short/long answer questions to test students' understanding of the concepts

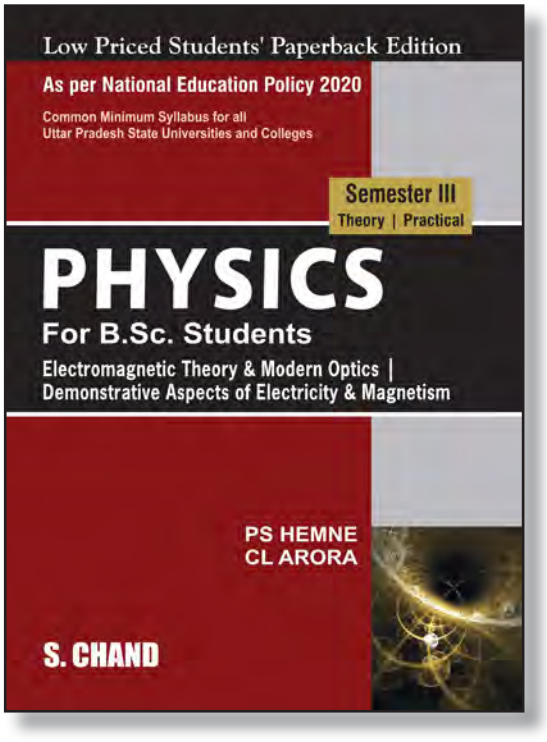
**ISBN: 9789355012814 | Price: ₹ 425 | Pages: 536 | Size: 6.25" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics for B.Sc. Students (Semester-III) NEP-2020-Uttar Pradesh

PS Hemne & CL Arora

## About the Book

- This textbook has been designed to meet the needs of B.Sc. Third Semester students of Physics as per Common Minimum Syllabus prescribed for all Uttar Pradesh State Universities and Colleges under the recommended National Education Policy 2020.
- Maintaining the traditional approach to the subject, this textbook comprehensively covers both the parts of the theory papers, namely, Electromagnetic Theory and Modern Optics as well as the Practical Paper.
- The theory part includes important theoretical topics such as Electrostatics, Magnetostatics, Time Varying Electromagnetic Fields, Electromagnetic Waves, Interference, Diffraction, Polarisation and Lasers are aptly discussed to give a complete overview of Electromagnetic Theory & Modern Optics.
- The practical part covers experiments which are on Carey Foster bridge, Earth inductor, deflection and vibration magnetometer, study of variation of magnetic field along the axis of a single and double coil. Ballistic galvanometer-based experiments to determine high resistance, low resistance, self-inductance and comparison of capacitances are explained in detail.

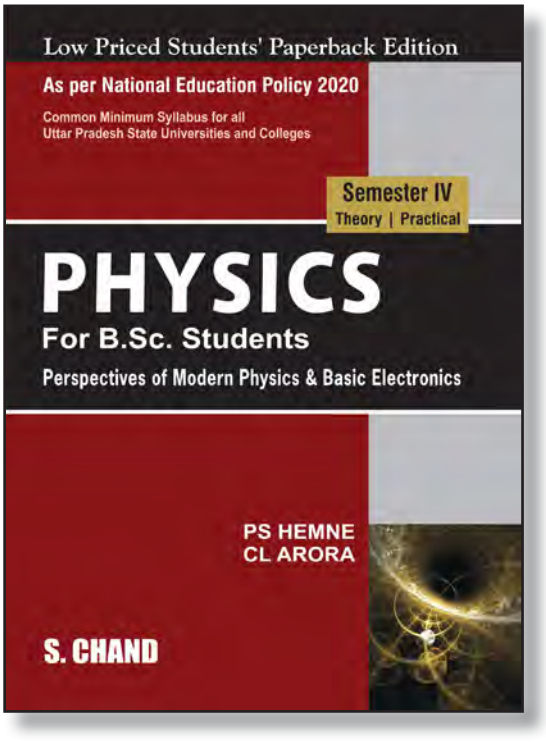
**ISBN: 9789355012142 | Price: ₹ 475 | Pages: 496 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics for B.Sc. Students: Semester IV NEP-2020-Uttar Pradesh

PS Hemne & CL Arora

## About the Book

This book has been conceptualized as per the recommended National Education Policy (NEP) 2020 and as per syllabus prescribed by Universities of Uttar Pradesh for B. Sc. Students of Physics for the Fourth Semester. This textbook comprehensively covers two papers: Theory and Practical. Part A begins with Structure of Space-Time in Newtonian Mechanics, Galilean Transformation and Electromagnetism Leading to the Foundation of Theory of Relativity is studied in detail. The experimental background of Michelson-Morley Experiment and its Significance of Discarding the Existence of either developed the relativistic kinematics. Inadequacies of Classical Mechanics, Black Body Radiation, Max-Planck's Quantum Hypothesis and Concept of Matter Waves are elaborately explained in a simple manner. Part B deals with the electronics branch which covers transistor biasing, amplifiers, feedback, and oscillator circuits are lucidly explained with suitable examples.

## Key Features

- This textbook comprehensively covers the subject Perspectives of Modern Physics and Basic Electronics.
- Close to 300 figures and solved examples for easy understanding of concepts
- More than 250 questions (short- and long-answer) strengthen the well-explained theoretical concepts

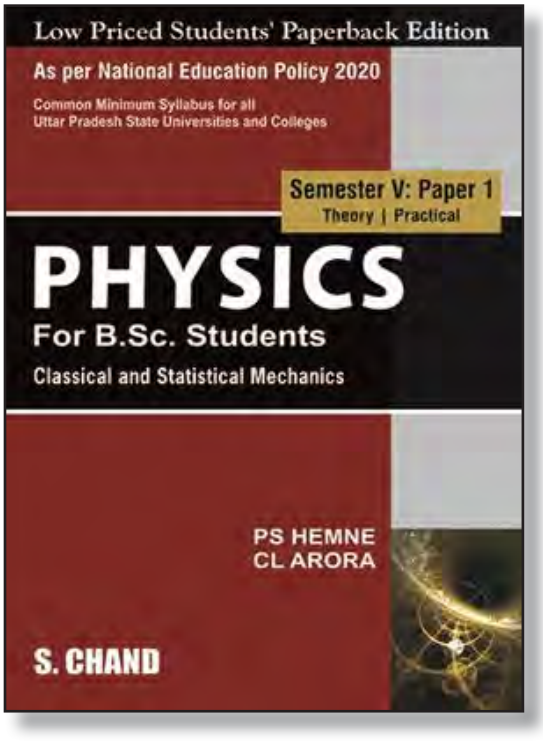
**ISBN: 9789355017017 | Price: ₹ 349 | Pages: 344 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics For B.Sc. Students Semester V: Paper 1 | Classical and Statistical Mechanics | NEP 2020 For the University of Uttar Pradesh

P S Hemne & C L Arora

## About the Book

This textbook has been specifically developed on the directives of National Education Policy (NEP 2020) and is as per latest curriculum of B. Sc. Physics (Fifth Semester) for the Universities of Uttar Pradesh. This book comprises of two parts: Part A and Part B. Part A deals with the Introduction of Classical Mechanics. This begins with Constrained Motion followed by Lagrangian Formalism, Hamiltonian Formalism and Motion under Central forces. Part B on Introduction of Statistical Mechanics starts with Macrostate and Microstate followed by Concept of Ensemble, Three Statistical Distribution Laws namely Maxwell-Boltzmann Statistics, Bose-Einstein Statistics and Fermi-Dirac Statistics. Their applications are lucidly explained at the end of the book.

## Key Features

- This textbook comprehensively covers the subject Classical and Statistical Mechanics.
- Close to 200 figures and solved examples for easy understanding of concepts.
- Close to 250 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

**ISBN: 9789355018281 | Price: ₹ 299 | Pages: 328 | Size: 6.5" X 9.25" (Paperback)**

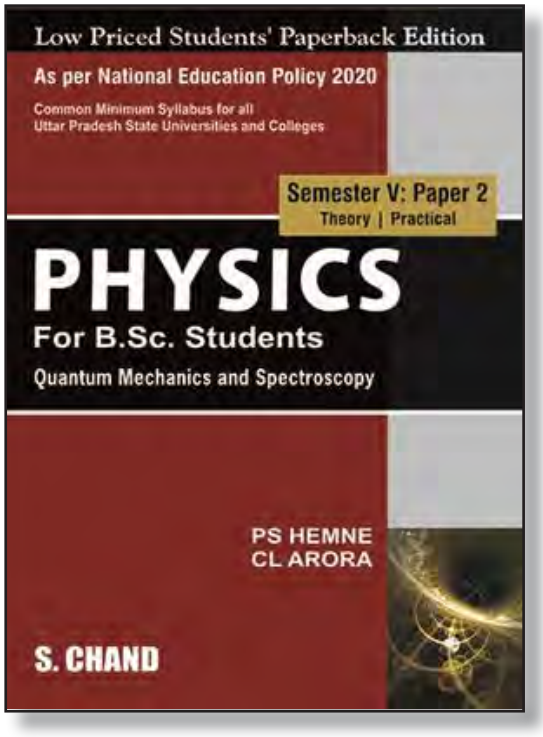
## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.

(NEP 2020, CMS, Uttar Pradesh State Universities)




# Physics for B.Sc. Students Semester V : Paper 2 | Quantum Mechanics and Spectroscopy | NEP 2020 – For the University of Uttar Pradesh

P S Hemne & C L Arora

## About the Book

This textbook has been specifically developed on the directives of National Education Policy (NEP 2020) and is as per latest curriculum of B. Sc. Physics (Fifth Semester) for the Universities of Uttar Pradesh. This book comprises of two parts: Part A deals with Operator formalism, Eigen & Expectation values, Uncertainty principle, Schrödinger Equation, Applications of Schrödinger Equation and Part B deals with Vector Atomic Model, Spectra of Aalkali and Aalkaline Elements, X-rays and X-ray Spectra and Molecular Spectra. Maximum number of Laboratory experiments are incorporated in Practical paper. These experiments are mostly on Dispersive power of Prism, Specific rotation of sugar solution by Polarimeter and wavelength of Laser beam by diffraction due to single slit experiment. All topics are lucidly explained in this book.

## Key Features

- This textbook comprehensively covers the subject Quantum Mechanics and Spectroscopy.
- Close to 200 figures and solved examples for easy understanding of concepts.
- Close to 300 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

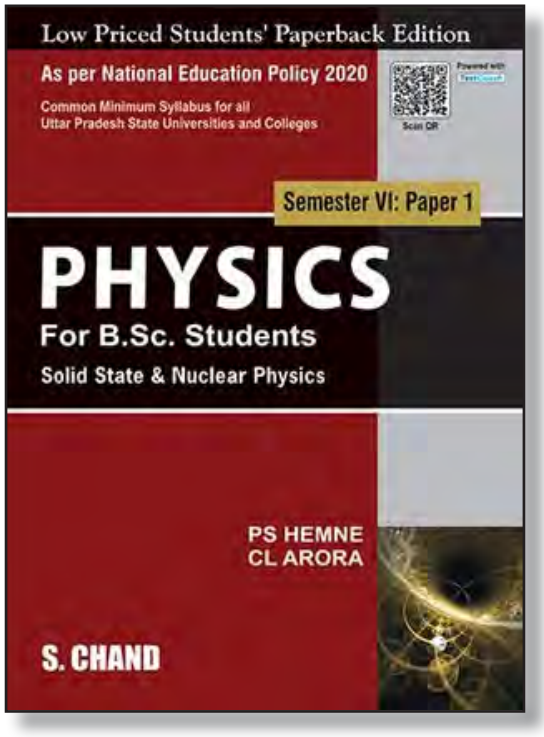
**ISBN: 9789355018199 | Price: ₹ 349 | Pages: 360 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics For B.Sc. Students Semester VI: Paper 1 | Solid State & Nuclear Physics - NEP 2020 Uttar Pradesh

P S Hemne & C L Arora

## About the Book

This textbook has been specifically developed on the directives of National Education Policy (NEP 2020) and is as per latest curriculum of B.Sc. Physics (Sixth Semester) for the Universities of Uttar Pradesh. This book comprises of two parts: Part A deals with Introduction to Solid State Physics and it begins with Crystal Structure followed by Crystal Diffraction, Crystal Bindings and Lattice Vibrations. Part B on Introduction to Nuclear Physics starts with Nuclear Forces and Radioactive Decays followed by Nuclear Models and Nuclear Reactions, Accelerators & Detectors and Elementary Particles. All topics are lucidly explained in this book.

## Key Features

- This textbook comprehensively covers the subject Solid State and Nuclear Physics.
- More than 200 figures and solved examples for easy understanding of concepts.
- More than 400 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

**ISBN: 9789358707526 | Price: ₹ 350 | Pages: 368 | Size: 6.5" X 9.25" (Paperback)**

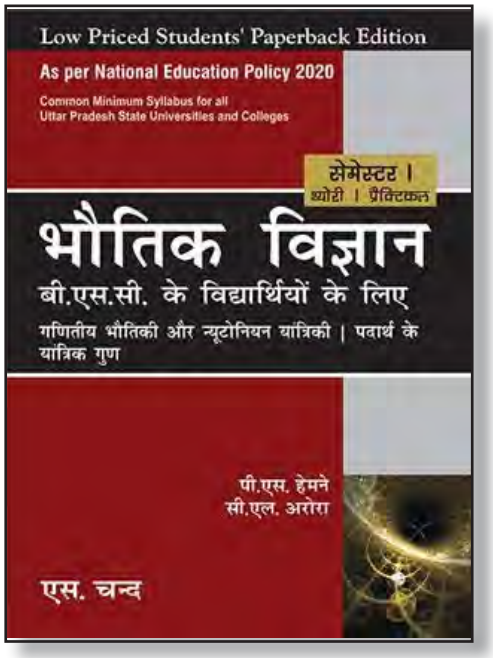
## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.

(NEP 2020, CMS, Uttar Pradesh State Universities)




## Bhautik Vigyan Semester I: B.Sc. ke Vidyarthiyon ke liye | NEP 2020 UP

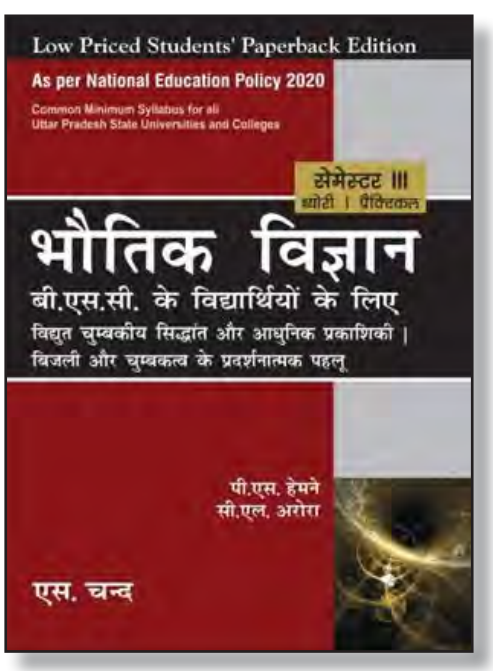
P S Hemne & C L Arora

### About the Book

BhautikmVigyan, B.Sc. ke Vidyarthiyon ke liye: Ganitiya Bhautiki aur Neutonian Yantriki | Padarth ke Yantrik

**ISBN: 9789355019059 | Price: ₹ 399 | Pages: 464 | Size: 6.5” X 9.25” (Paperback)**

---




## Physics For B.Sc. Students Semester III: Vidut Chumbakiya Sidhant aur Adhunik Prakashiki | Bijali aur Chumbaktva ke Pradarshnatmak Pehlu - NEP 2020 UP

P S Hemne & C L Arora

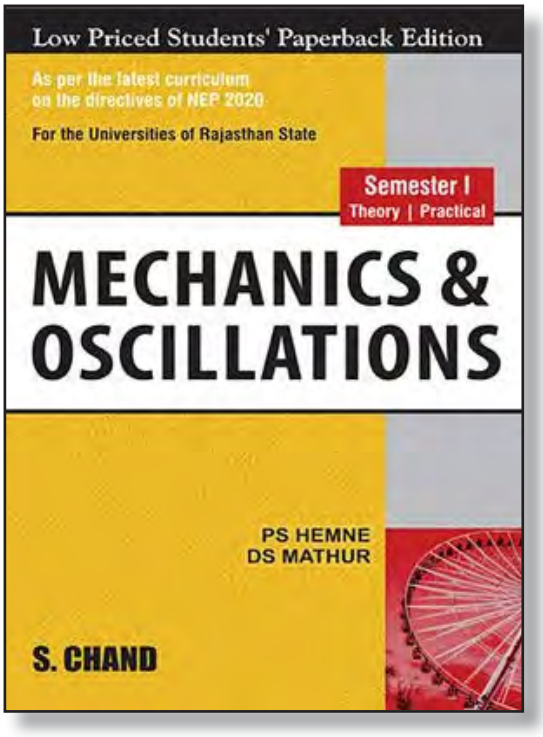
### About the Book

Physics For B.Sc. Students Semester III : Vidut Chumbakiya Sidhant aur Adhunik Prakashiki | Bijali aur Chumbaktva ke Pradarshnatmak Pehlu - NEP 2020 UP

**ISBN: 9789355019066 | Price: ₹ 399 | Pages: 488 | Size: 6.5” X 9.25” (Paperback)**



e-mail: info@schandpublishing.com




# Mechanics & Oscillations Semester I: For the Universities of Rajasthan State | LPSPE Edition

P S Hemne & D S Mathur

## About the Book

This textbook has been designed to meet the needs of B.Sc. First Semester students of Physics as per Common Minimum Syllabus prescribed under the recommended National Education Policy 2020 for Universities and Colleges in the state of Rajasthan. This textbook comprehensively covers the subject ';Mechanics & Oscillations'. The book covers the entire syllabus in Four Units. Unit I is devoted to Physical Laws and Frame of Reference, Unit II for Centre of Mass and Rigid Body Dynamics, Unit III for Motion under Central Forces, Damped Harmonic Oscillations and Unit IV for Driven Harmonic Oscillations and Coupled Oscillations. The textbook is further divided into 12 detailed laboratory experiments to help students to achieve strong conceptual understanding and learn experimental procedures.

## Key Features

- This textbook comprehensively covers the subject Mechanics & Oscillations.
- Close to 200 figures and solved examples for easy understanding of concepts
- Close to 300 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

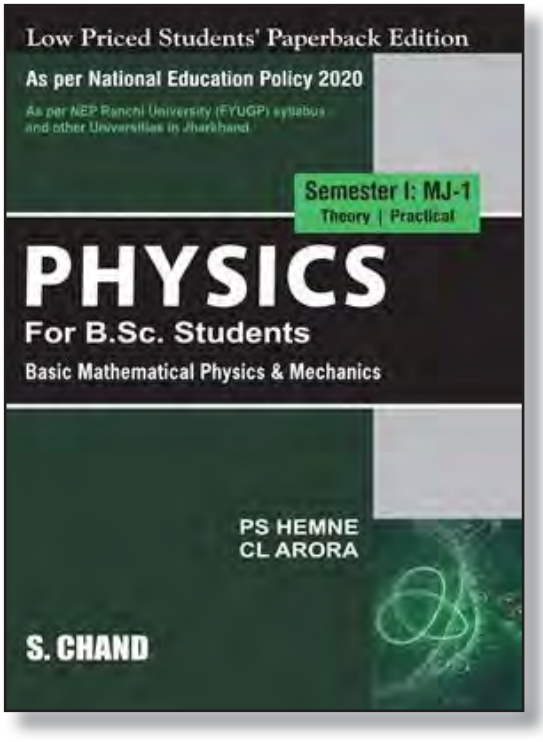
**ISBN: 9789358700220 | Price: ₹ 350 | Pages: 360 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics For B.Sc. Students Semester I: MJ-1 | Basic Mathematical Physics & Mechanics - NEP 2020 - For the University of Jharkhand

P S Hemne & C L Arora

## About the Book

This textbook has been designed to meet the needs of B.Sc. First Semester students of Physics as per Common Minimum Syllabus prescribed for Ranchi University and other Universities and Colleges under the recommended National Education Policy 2020 in Jharkhand. The theory starts with Differential Calculus, Vector Calculus, Orthogonal Curvilinear Coordinates, Elasticity, Flexure of Beam, Surface Tension, Fluid Motion, Central Force Motion, S.H.M. and Special Theory of Relativity. The practical part contains experiments such as Measurements & Random errors, Elastic constants, Acceleration due to Gravity and Viscosity. Oral questions are incorporated at the end of each experiment which are useful for Practical examination. These all are lucidly explained in this book.

## Key Features

- This textbook comprehensively covers the subject Basic Mathematical Physics & Mechanics.
- Close to 300 figures and solved examples for easy understanding of concepts.
- More than 300 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

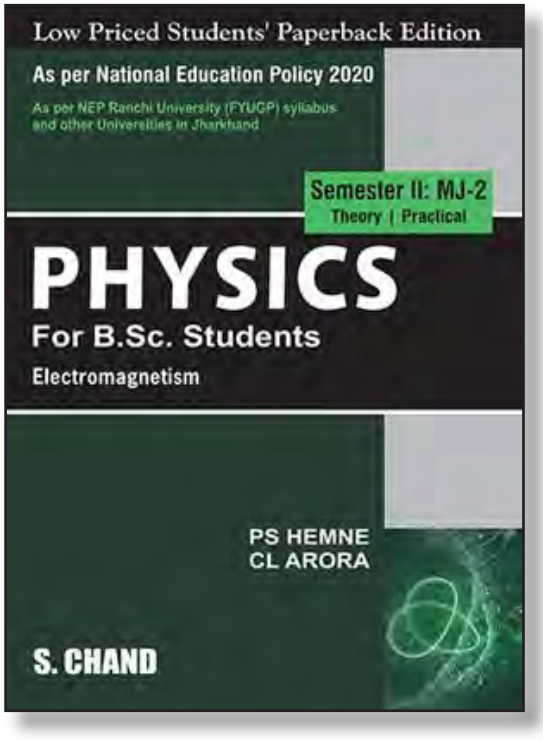
**ISBN: 9789355018427 | Price: ₹ 450 | Pages: 424 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics for B.Sc. Students Semester II: MJ-2 | Electromagnetism - NEP 2020 Jharkhand Universities

P S Hemne & C L Arora

## About the Book

This textbook has been designed to meet the needs of B.Sc. Second Semester students of Physics as per Common Minimum Syllabus prescribed for Ranchi University and other Universities and Colleges under the recommended National Education Policy 2020 in Jharkhand. The theory starts with Electric Field and Potential, Dielectric Properties of Matter, Magnetostatics, Electrical Circuits (A.C.), Ballistic Galvanometer, Maxwell's Equations, E.M. Wave Propagation in Unbounded Media, and Electro-Magnetic Wave (In Bounded Media). The practical part contains experiments such as Measurements and Random errors, Elastic constants, Acceleration due to Gravity, Coefficient of Viscosity by Poiseuille's Flow Method, Design and Use of a Multimeter, Low Resistance by Potentiometer, Comparison of Two Capacities by De' Sauty's Bridge, Study of Series LCR Circuits, Study of Parallel LCR Circuit. Oral questions are incorporated at the end of each experiment which are useful for Practical examination. These all are lucidly explained in this book.

## Key Features

- This textbook comprehensively covers the subject Electromagnetism.
- More than 250 figures and solved examples for easy understanding of concepts
- Close to 300 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

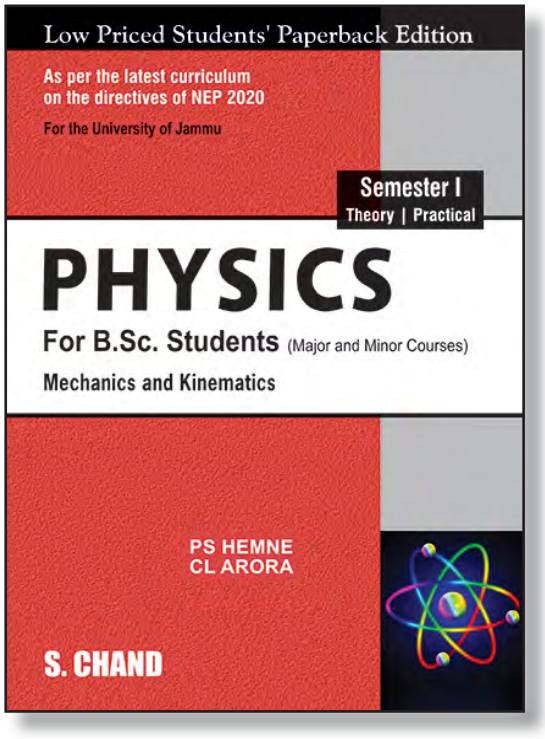
**ISBN: 9789355018410 | Price: ₹ 325 | Pages: 368 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics for B.Sc. Students (Semester I) (NEP 2020 for the University of Jammu)

PS Hemne & CL Arora

## About the BooK

This book has been conceptualized as per the recommended National Education Policy (NEP) 2020 and as per syllabus prescribed by University of Jammu for B. Sc. Students of Physics for the First Semester. It covers important topics such as Coordinate Systems, Inertial and Non-Inertial Frames, Mechanics of Centre of Mass and Collision of Particles, Motion Under a Central Force, Simple Harmonic Motion, Damped and Forced Harmonic Oscillator and Elasticity. It also contains the "First Step in Laboratory".

## Key Features

- The textbook systematically covers 10 detailed laboratory experiments to help students to achieve strong conceptual understanding and learn experiment procedures
- More than 200 figures and solved examples for easy understanding of concepts
- Close to 200 questions (short- and long-answer) strengthen the well-explained theoretical concepts

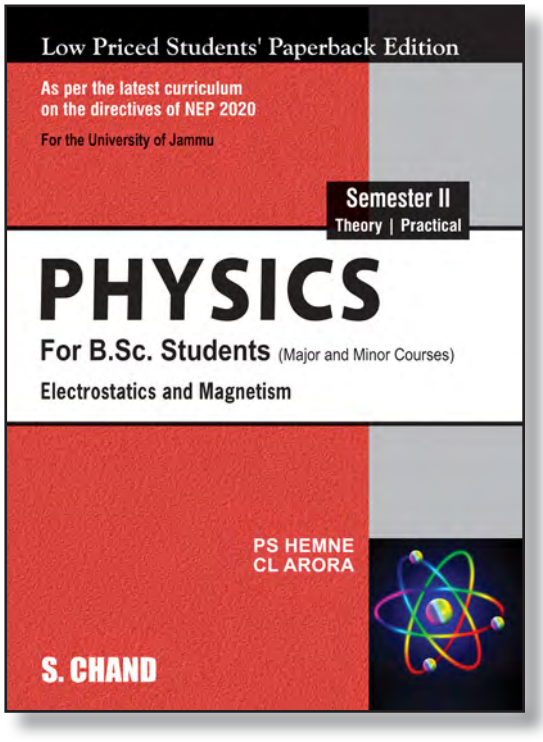
**ISBN: 9789355012074 | Price: ₹ 350 | Pages: 360 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics for B.Sc. Students (Semester II) NEP 2020 for the University of Jammu

PS Hemne & CL Arora

## About the BooK

This book has been conceptualized as per the recommended National Education Policy (NEP) 2020 and as per syllabus prescribed by University of Jammu for B. Sc. Students of Physics for the Second Semester. The textbook begins with coverage on Scalar and Vector Fields, Gauss's Divergence Theorem and Stokes Theorem. Starting from the Concept of Electric Field, Relation between Electric Intensity and Electric Potential, Electric Flux, Faraday and Lenz's Law, Electric Dipole and Gauss's Law of Electrostatics are discussed in detail. Electric and Magnetic Fields in Matter, Polarization Vector, Magnetostatics and Time Varying Electromagnetic Fields are incorporated in detail with suitable examples.

## Key Features

- Designed strictly as per B.Sc. Physics Second Semester syllabus for Theory (Major Course as well as Minor Course each of 3 Credits). This textbook comprehensively covers the subject Electrostatics and Magnetism.
- Close to 300 figures and solved examples for easy understanding of concepts.
- More than 200 questions (short- and long-answer) strengthen the well-explained theoretical concepts

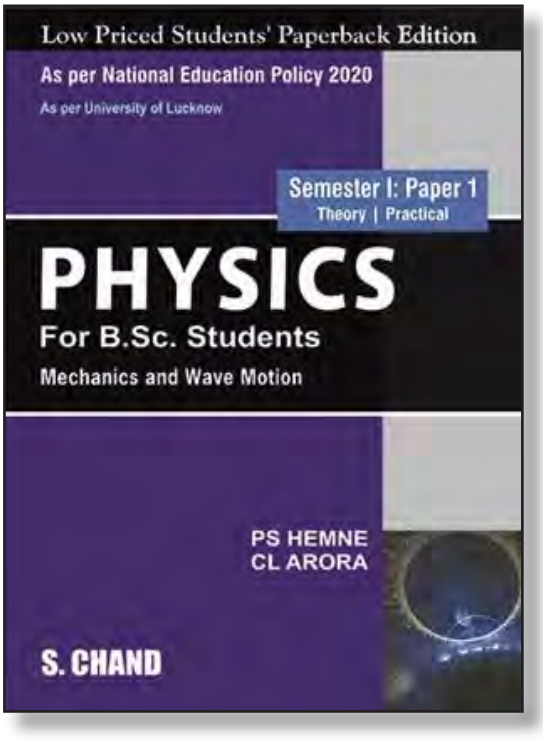
**ISBN: 9789355016737 | Price: ₹ 325 | Pages: 328 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics For B.Sc. Students Semester I: Paper 1 | Mechanics and Wave Motion | NEP 2020 For the University of Lucknow

Dr. P S Hemne & C L Arora

## About the Book

This textbook has been specifically developed on the directives of National Education Policy (NEP 2020) and is as per latest curriculum of B. Sc. Physics (First Semester) for the University of Lucknow. The book comprised of Four units. Unit I cover important topics such as Galilean Transformation of Space and Time, Newton's Laws of Motion, Michelson - Morley experiment, Postulates of Special Theory of Relativity, Concepts of Gradient, Divergence and Curl, Stoke's Curl Theorems and Pseudo Forces in Rotating Frame. Unit II highlights the Elastic and Inelastic Collisions in 1D and 2D, Concept of Centre of Mass Frame, Moment of Inertia Principles and their Applications to Different Shaped Bodies, Elasticity and Elastic Constants, Torsion Pendulum, Bending of Beam and Cantilever. Unit III includes Reduction of Two Body Central Force Problem to One Body Problem, Centre of Mass Motion, Motion of Planets and Satellites in Solar System, Kepler's Laws of planetary Motion, GPS and Motion Four Galaxy. Unit IV covers S.H.M., Damped and Forced Harmonic Oscillations, Sharpness of Resonance, Plane Progressive Waves, Standing Waves, Phase and Group Velocity.

## Key Features

- This textbook comprehensively covers the subject Mechanics and Wave Motion.
- Close to 300 figures and solved examples for easy understanding of concepts.
- Close to 300 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

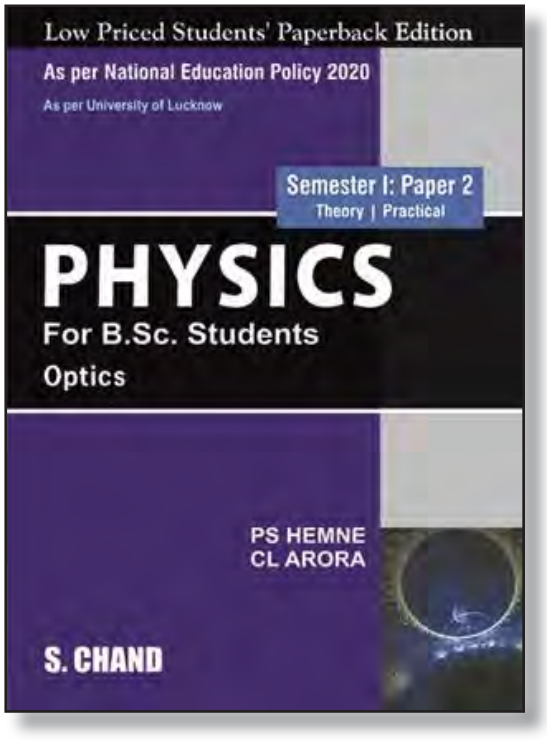
**ISBN: 9789355018373 | Price: ₹ 325 | Pages: 376 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics For B.Sc. Students Semester I: Paper 2 | Optics | NEP 2020 For the University of Lucknow

Dr. P S Hemne & C L Arora

## About the Book

This textbook has been specifically developed on the directives of National Education Policy (NEP 2020) and is as per latest curriculum of B.Sc. Physics (First Semester) for the University of Lucknow. The book comprised of Four units. Unit I cover Electromagnetic Nature of Light, Spacial and Temporal Coherence, Fresnel Biprism, Lloyd's Mirror, Thin Films, Michelson Interferometer, Febry Perot Interferometer and Etalon. Unit II includes Fresnel and Fraunhofer Diffractions, and Diffraction Grating, Principal Maxima and Missing Orders. Unit III highlights Rayleigh's criterion of resolution, Resolving power of grating and telescope. Unit IV describes the Optical Activity, Specific Rotation, Polarimeters, Jones Matrix, Metrics for polarizers and Retarding Plates are lucidly explained at the end of the book.

## Key Features

- This textbook comprehensively covers the subject Optics.
- Close to 300 figures and solved examples for easy understanding of concepts.
- Close to 250 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

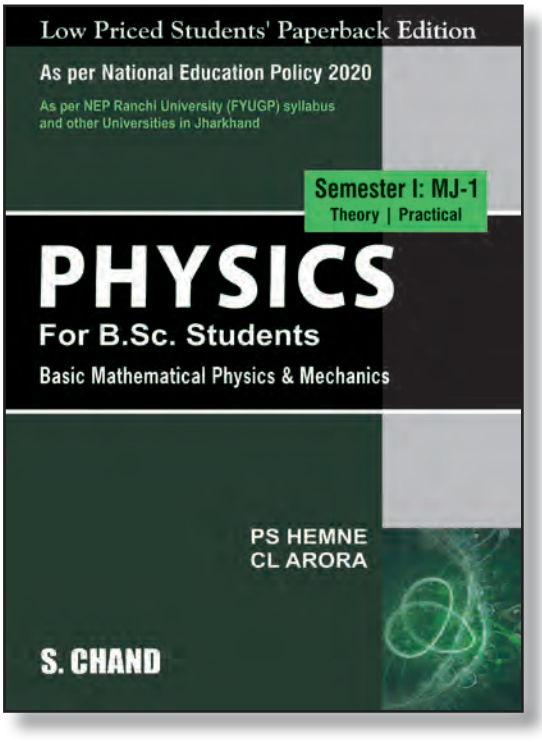
**ISBN: 9789355018434 | Price: ₹ 225 | Pages: 256 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics For B.Sc. Students Semester I: MJ-1 | Basic Mathematical Physics & Mechanics - NEP 2020 Patna University Syllabus and other Bihar Universities

P S Hemne & C L Arora

## About the Book

This textbook has been designed to meet the needs of B.Sc. First Semester students of Physics as per Common Minimum Syllabus prescribed for Patna University and other Universities and Colleges under the recommended National Education Policy 2020 in Bihar. The theory starts with Differential Calculus, Vector Calculus, Orthogonal Curvilinear Coordinates, Elasticity, Flexure of Beam, Surface Tension, Fluid Motion, Central Force Motion, S.H.M. and Special Theory of Relativity. The practical part contains experiments such as Measurements & Random errors, Elastic constants, Acceleration due to Gravity and Viscosity. Oral questions are incorporated at the end of each experiment which are useful for Practical examination. These all are lucidly explained in this book.

## Key Features

- This textbook comprehensively covers the subject Basic Mathematical Physics & Mechanics.
- Close to 300 figures and solved examples for easy understanding of concepts.
- More than 300 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

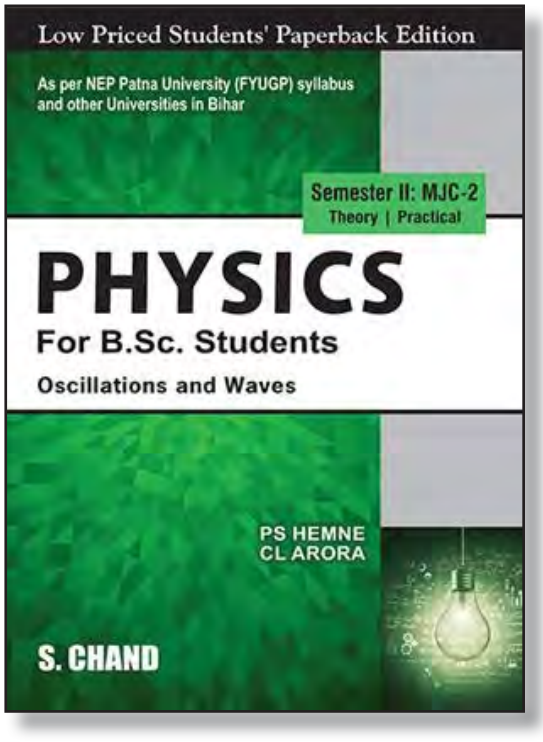
**ISBN: 9789355018427 | Price: ₹ 450 | Pages: 424 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics For B.Sc. Students Semester II: MJC-2 | Oscillations and Waves - NEP 2020 Patna University Syllabus and other Bihar Universities

P S Hemne & C L Arora

## About the Book

This textbook has been designed to meet the needs of B.Sc. Second Semester students of Physics as per Common Minimum Syllabus prescribed for Patna University and other Universities and Colleges under the recommended National Education Policy 2020 in Bihar. The theory paper is comprised of Four Units and starts with Free Forced and Damped Harmonic Oscillations, Lissajous Figures and Stationary Waves, Wave Front and Wave Motion, Sound Waves, Sharpness of Resonance, Sonometer, Beats, Musical Instruments, Newton's Formula for Velocity of Sound and Laplace's Correction, Musical Scale & Consonance etc. These all are lucidly explained in this book.

Experiments are incorporated mostly on frequency of a tuning fork, Melde's experiment, Sonometer, Kundt's tube, Ultrasonic Waves, Spring-Mass system, Characteristic of Microphone, Damping Constants using Bobs of Different Materials, Torsional Pendulum and Speed of Sound using Resonance Column Apparatus.

## Key Features

- This textbook comprehensively covers the subject Oscillations and Waves.
- More than 150 figures and solved examples for easy understanding of concepts
- Close to 150 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

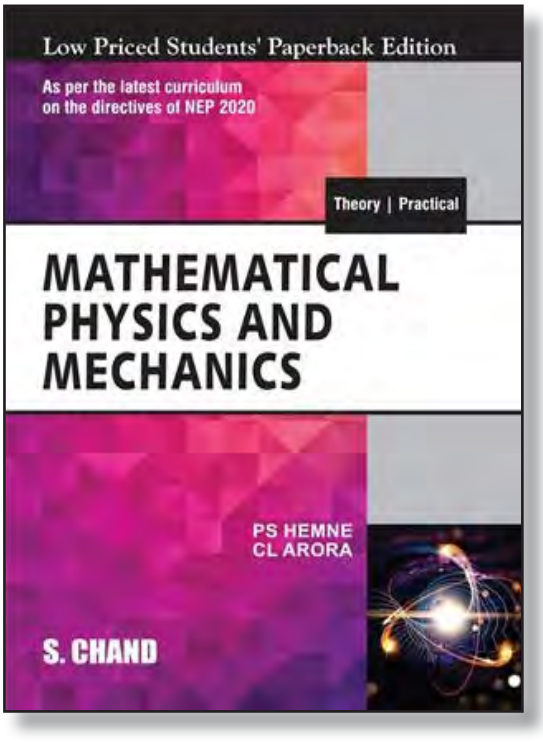
**ISBN: 9789358707755 | Price: ₹ 200 | Pages: 240 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Mathematical Physics And Mechanics: As per the latest curriculum on the directives of NEP 2020 Guwahati

P S Hemne & C L Arora

## About the Book

This textbook has been designed to meet the needs of B.Sc. First Semester students of Physics as per the Common Minimum Syllabus prescribed for Universities and Colleges under the recommended National Education Policy 2020. The book covers the entire syllabus in two parts, Part A: Mathematical Physics in 3 Units and Part B: Mechanics in 7 Units. In Part A, the first 3 chapters are on Vector Calculus, Curvilinear coordinates, and Dirac Delta Function. Part B is devoted to Mechanics consisting of 7 chapters on Reference frames, Gravitational and Central Force motion, Conservation laws, Dynamics of Rigid bodies, Work & Energy, Oscillations and Properties of matter. The textbook systematically covers 9 detailed laboratory experiments to help students to achieve strong conceptual understanding and learn experimental procedures. All topics are lucidly explained in this book.

## Key Features

- This textbook comprehensively covers the subject Mathematical Physics and Mechanics.
- More than 300 figures and solved examples for easy understanding of concepts.
- More than to 300 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

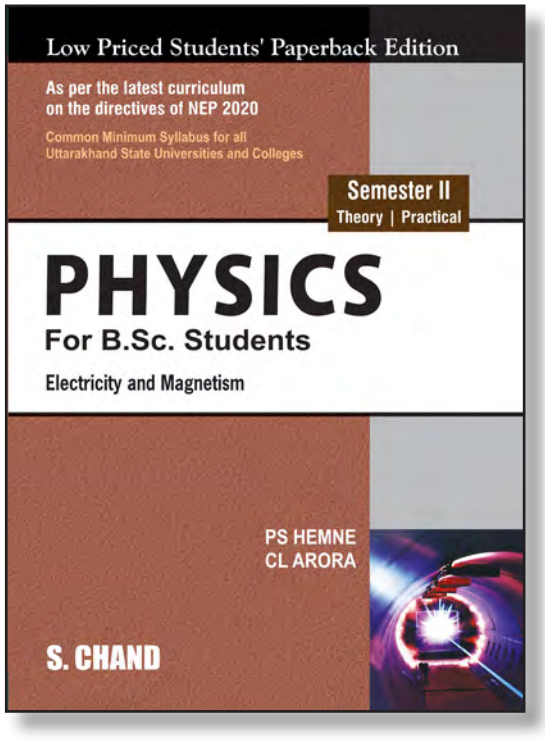
**ISBN: 9789358700701 | Price: ₹ 350 | Pages: 416 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Physics for B.Sc. Students Semester II: (NEP 2020 – For the University of Uttarakhand)

PS Hemne & CL Arora

## About the Book

This book has been conceptualized as per the recommended National Education Policy (NEP) 2020 and as per syllabus prescribed by Universities of Uttarakhand for B. Sc. Students of Physics for the Second Semester. The textbook begins with coverage on Coulomb's law of electrostatic force and Gauss's theory. Also, concept of Electric Field, relation between Electric Intensity and Potential, Electric Flux, Faraday and Lenz's Law, Electric Dipole and Gauss's Law of Electrostatics are discussed in detail. Electric and Magnetic Fields in Matter, Polarization Vector, Clausius-Mossotti Relation, Steady and Varying Electric Currents, Growth and Decay in LCR Combination Circuits, a Magnetostatics and Time Varying Electromagnetic Fields, Maxwell's Equations are well described with suitable examples.

## Key Features

- The textbook systematically covers 23 detailed laboratory experiments to help students to achieve strong conceptual understanding and learn experimental procedures.
- Close to 400 figures and solved examples for easy understanding of concepts
- Close to 300 questions (short- and long-answer) strengthen the well-explained theoretical concepts

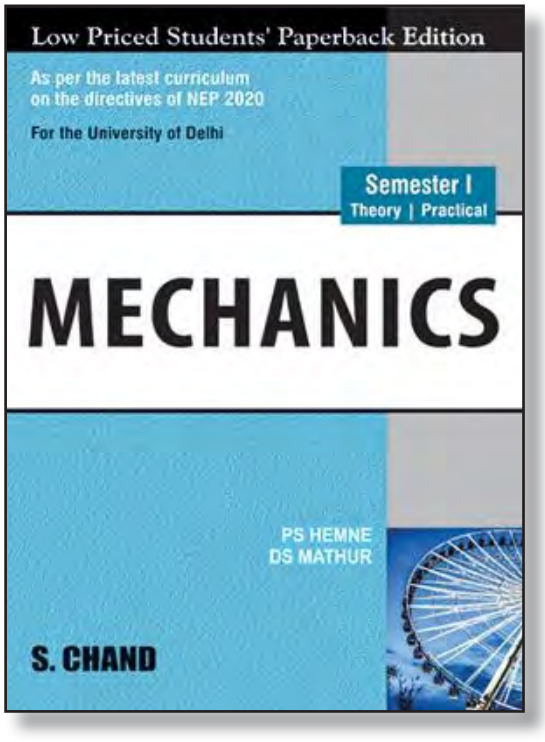
**ISBN: 9789355016720 | Price: ₹ 375 | Pages: 432 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

**C.L. Arora** was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




# Mechanics (Semester I)

## NEP 2020 for the University of Delhi

PS Hemne and DS Mathur

### About the BooK

This book has been conceptualized as per the recommended National Education Policy (NEP) 2020 and as per the syllabus prescribed by the University of Delhi for B. Sc. Students of Physics for the First Semester. It covers important topics such as Reference Frames and Mechanics of Centre of Mass, Work and Energy, Collisions, Dynamics of a Rigid Body, Newton's Law of Gravitation, Motion Under Central Force Field, Simple Harmonic, Damped and Forced Oscillations and Non-Inertial Frame: Fictitious Forces for strong conceptual understanding. It also contains "First Step in Laboratory" which engages the learner to understand laboratory experiments in a clearer fashion.

### Key Features

- The textbook systematically covers 12 detailed laboratory experiments to help students to achieve strong conceptual understanding and learn experiment procedures.
- More than 200 figures and solved examples for easy understanding and concepts.
- More than 250 questions (short- and long-answer) strengthen the well-explained theoretical concepts.

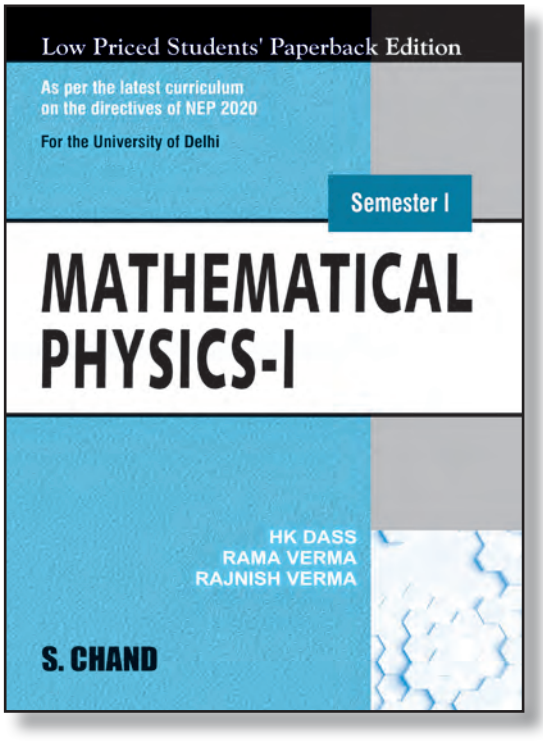
**ISBN: 9789355015419 | Price: ₹ 350 | Pages: 392 | Size: 6.5" X 9.25" (Paperback)**

### Contents



**Dr. P. S. Hemne,** Ph.D., was formerly Principal and Head of Postgraduate Department of Physics at Nevjabai Hitkarini College (RTM Nagpur University, Nagpur). He has 40 years of teaching experience and has served as Chairman of Physics, Board of Studies (BOS), Gondwana University, Gadchiroli.

D. S Mathur: M.Sc. (Physics), Ph.D., Principal and Head of Post Graduate Department of Physics, Nevjabai Hitkarini College, Bramhapuri, (RTM Nagpur University)




# Mathematical Physics-I for B.Sc. Students: Semester I (NEP 2020 for the University of Delhi)

HK Dass, Rajnish Verma & Dr. Rama Verma

## About the Book

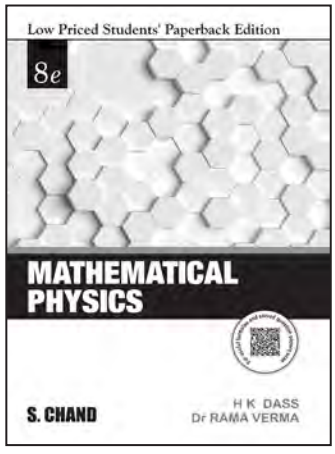
Conceptualized specifically for the University of Delhi as per the recommendations of National Education Policy 2020 (NEP 2020), Mathematical Physics - I covers important topics such as "Concept of Functions", "Graphs of Functions Using Calculus Concepts", "Homogeneous Equations with Constant Coefficients", "Applications Physics Problems Second Order Differential Equations", "Vector Algebra, Differentiation, and Integration", "Binomial, Poisson, and Normal Distribution" for sound conceptual understanding for students.

## Key Features

- Divided in Three Units which are sub-divided in 24 chapters for a 100% coverage of the recommended syllabus.
- Close to 400 examples in the text illustrate all major topics thereby providing ample support to the theory explained.
- More than 100 practice sets which carry close to 1500 questions provide rich practice
- Special Appendix on Double and Triple Integral

**ISBN: 9789355015181 | Price: ₹ 525 | Pages: 504 | Size: 6.5" X 9.25" (Paperback)**

## Contents




## Mathematical Physics, 8e (LPSPE)

H K Dass & Rama Verma

### About the Book

*"Mathematical Physics"* has been written to provide the readers a clear understanding of the mathematical concepts which are an important part of modern physics. The textbook contains 49 chapters on all major topics in an exhaustive endeavour to cover syllabuses of all major universities. Some of the important topics covered in these chapters are Vectors, Integration, Beta and Gamma functions, Differential Equations, Complex Numbers, Matrix and Determinants, and the Laplace transforms.

### Key Features

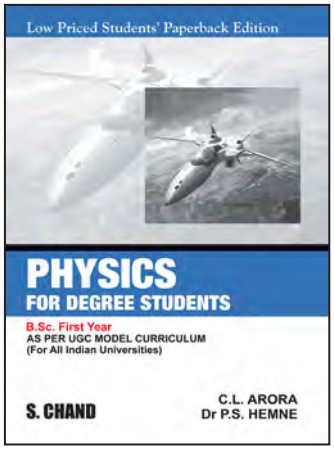
- Comprehensive: Coverage to cater to syllabuses of major universities.
- On the Website: One will find solved question papers of 2016 and 2017 along with useful formulae for easy download.
- Student friendly: In the way that the text goes in depth of the subject with as many as 49 chapters which contain over 1600 examples and over 225 exercise sets.

**ISBN: 9789352837229 | Price: ₹ 850 | Pages: 1,440 | Size: 6.5" X 9.25" (Paperback)**

### Contents

Unit-I 1. Review of Vector Algebra, 2. Differentiation of Vectors, 3. Integration of Vectors, 4. Orthogonal Curvilinear Coordinates, 5. Double Integrals, 6. Application of the Double Integrals, 7. Triple Integration, 8. Application of Triple Integration, 9. Gamma, Beta Function, 10. Theory of Errors, 11. Fourier Series, Unit-II 12. Differential Equations of First Order, 13. Linear Differential Equations of Second Order, 14. Cauchy–Euler Equations, Method of Variation of Parameters, 15. Differential Equation of other Types, 16. Coupled Differential Equations, 17. Applications to Differential Equations, 18. Calculus of Variation, 19. Maxima and Minima of Functions (two variables), Unit-III, 20. Complex Numbers, 21. Expansion of Trigonometric Functions, 22. Functions of Complex Variable, Analytic Function, 23. Conformal Transformation, 24. Complex Integration, 25. Taylor's and Laurent's Series, 26. The Calculus of Residues (Integration), 27. Series Solutions of Second Order Differential Equations, 28. Legendre's Functions, 29. Bessel's Functions, 30. Hermite Function, 31. Laguerres Functions, Unit-IV 32. Abstract Vector Spaces, 33. Vectors in $R^n$, 34. Linear Transformations, 35. Basis of Null Space, Row Space and Column Space, 36. Real Inner Product Spaces, 37. Determinants, 38. Algebra of Matrices, 39. Rank of Matrix, 40. Consistency of Linear System of Equations and their Solution (Linear Dependence), 41. Eigen Values, Eigen Vector, Cayley Hamilton Theorem, Diagonalisation (Complex and Unitary Matrices), 42. First Order Lagrange's Linear and Non-Linear Partial Differential Equations, 43. Linear and Non-linear Partial Differential Equations with Constant Coefficients of 2nd Order, 44. Applications of Partial Differential Equations, 45. Integral Transforms, 46. Laplace Transform, 47. Inverse Laplace Transforms (Solution of differential equations), 48. Dirac-Delta Function 49. Tensor Analysis,• *Useful Formulae and Solved Question Papers provided on the S Chand website*

**H K Dass,** MSc. Diploma in Specialist Studies (Mathematics), University of Hull (England). He is also the winner of Secular India Award – 1998.
**Rama Verma,** Head of Department - Mathematics, Mata Sundri College, University of Delhi




## Physics for Degree Students (For B.Sc. First Year) (LPSPE)

C L Arora & P S Hemne

### About the Book

"Physics for Degree Students" is written exclusively for B.Sc. first year students. For close to 10 years, the text provides close to 1500 pedagogical elements spread across 24 chapters to the students while covering the entire syllabus.

### Key Features

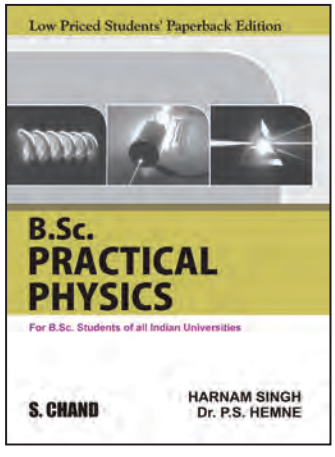
- Divided in two sections – "Mechanics, Oscillations and Properties of Matter" and "Electricity, Magnetism and Electromagnetic Theory" for delineated understanding of concepts.
- Enriched with more than 450 figures for better understanding of the concepts
- 1000+ engaging chapter-end theoretical and numerical questions to test student's understating of the concepts

**ISBN: 9789352837281 | Price: ₹ 599 | Pages: 904 | Size: 6.5" X 9.25" (Paperback)**

## Contents

Section-I: Mechanics, Oscillations and Properties of Matter: 1. Mechanics: Laws of Motion, 2. Motion Under a Central Force, 3. Conservation of Momenta and Mechanics of Centre of Mass, 4. Dynamics of Rigid Body, 5. Oscillations: Simple Harmonic Motion, 6. Lissajous' Figures, 7. Damped, Forced Harmonic Oscillator, 8. Coupled Oscillators, 9. Motion of Charged Particles in Electric and Magnetic Fields, 10. Properties of Matter: Elasticity, 11. Fluid Mechanics: Viscosity, 12. Surface Tension, Section-II: Electricity, Magnetism and Electromagnetic Theory: 13. Mathematical Background-I: Vector Analysis, 14. Mathematical Background-II: Partial Derivatives, 15. Repeated Integrals, 16. Electrostatics: Electric Field, 17. Electric Potential, 18. Electric Fields in Dilectrics, 19. Electric Currents: Steady Current, 20. Alternating Current (A.C.), 21. Magnetostatics-I: Force on a Moving Charge, 22. Magnetostatics-II: Magnetic Field due to Steady Currents, 23. Time Varying Fields: Electromagnetic Induction, 24. Electromagnetic Waves • *Index*

**C L Arora,** M.Sc., Formerly Principal, DAV College, Jalandhar, and Dean of College & Guru Nanak Dev University, Amritsar.
**P S Hemne,** M.Sc., Ph.D. Principal and Head of Post Graduate Department of Physics, Nevjabai Hitkarini College, Bramhapuri.




# B.Sc. Practical Physics (LPSPE)

Harnam Singh & P S Hemne

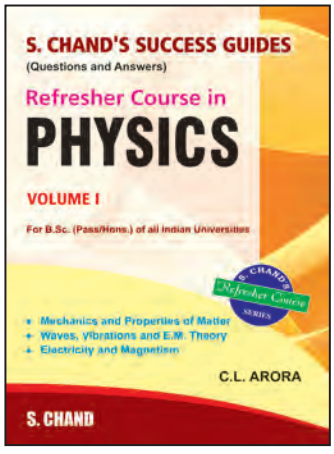
**ISBN: 9789355010940**
**Price: ₹ 695**
**Pages: 1064**
**Size: 6.5" X 9.25" (Paperback)**

## Contents

• Introduction: 1. First Step in Physics Laboratory, 2. Errors Analysis and Graph Drawing, Section-I: Properties of Matter: 3. Mechanics and Oscillations, 4. Moment of Inertia, 5. Elastic Constants, 6. Surface Tension and Viscosity, Section-II: Heat, Thermodynamics and Statistical Physics: 7. Kinetic Theory, 8. Thermal Conductivity, 9. Specific Heat Capacities of Solids, Liquid and Gases, 10. Statistical Physics, Section-III: Waves and Acoustics: 11. Vibrations of Stretched Strings, 12. Acoustics, 13. Ultrasonics, Section-IV: Geometric Optics (Ray Optics): 14. Mirror and Lenses, 15. Refraction, 16. Telescopes and Microscope, Section-V: Physical Optics (Wave Optics): 17. Interference, 18. Diffraction 19. Polarization, 20. Photometry and Some Miscellaneous Experiments, Section-VI: Electricity: 21. Accumulators and Resistance Thermometry, 22. Direct Current (DC) Instruments, 23. Chemical Effects of a Current, 24. Ballistic Galvanometer and Potentiometer, 25. Transient Currents, 26. Network Theorems, 27. Thermo-EMF Thermometry, 28. Alternating Currents (A.C.) Measurements, 29. A.C. Bridges, 30. CRO and its Use, Section-VII: Magnetism: 31. Measurement of Magnetic Properties, Section-VIII: Modern Physics: 32. Solid-State Physics, 33. Atomic Physics, 34. Quantum Mechanics, 35. Laser, Section-IX: Linear Electronics: 36. Thermionic Emission, 37. Semiconductor Diodes and Power Supply, 38. Transistors, 39. FET and SCR, 40. Oscillators, 41. Operational and Amplifiers and Analog Techniques, Section-X: Digital Electronics: 42. Logic States, 43. Flip-Flops and Registers, 44. Experiments in 'C' Language (As per UGC Curriculum) Computer Programming • *Appendices: A. From Viva-Voca Point of View, B. Nuclear Power Plant, C. Vacuum Technique, D. Production of Low Temperatures, E. Low Temperature Work, F. Technique of Dating* • *Physical Constants* • *Mathematical Tables*

LOW PRICED STUDENTS' PAPERBACK EDITION

LOW PRICED STUDENTS' PAPERBACK EDITION



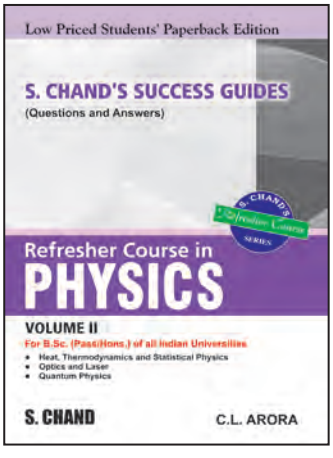

## Refresher Course in Physics - Volume I (LPSPE)

C L Arora

**ISBN: 9788121904650**
**Price: ₹ 750**
**Pages: 1250**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

Section-I: Mechanics and Properties of Matter: 1. Vectors, 2. Co-ordinate System, 3. Conservation of Momentum and Energy, 4. Moment of Inertia and Rigid Body Dynamics, 5. Frames of Reference, 6. Gravitation, 7. Motion under a Central Force, 8. Rockets and Satellites, 9. Elastic and Inelastic Collisions, 10. Relativity, 11. Elasticity, 12. Surface Tension, 13. Viscosity, 14. Classical Mechanics (Lagrangian and Hamiltonian Formulation), Section-II: Waves, Vibrations and E.M. Theory: 1. Simple Harmonic Motion, 2. Damped Simple Harmonic Motion, 3. Forced Oscillator and Resonance, 4. Coupled Oscillators, 5. Transverse Waves, 6. Longitudinal Waves, 7. Interference, Beats, Stationary Waves, Doppler Effect and Ultrasonics, 8. Electromagnetic Waves, 9. Fourier Analysis, Section-III: Electricity and Magnetism: 1. Vector Calculus, 2. Coulomb's Law and Electric Field, 3. Gauss's Theorem and Its Applications, 4. Electric Potential, 5. Electric Fields in Dielectrics, 6. Electric Current 7. Fields of Charges in Motion, 8. The Magnetic Field, 9. Magnetism in Matter, 10. Electromagnetic Induction, 11. Alternating Currents




## Refresher Course in Physics - Volume II (LPSPE)

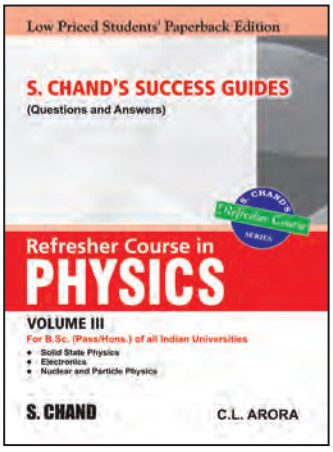
C L Arora

**ISBN: 9789355010858**
**Price: ₹ 695**
**Pages: 1192**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

Section-I: Heat, Thermodynamics And Statistical Physics: 1. Kinetic Theory of Gases, 2. Behaviour of Real Gases, 3. Basic Ideas of Statistical Physics, 4. Maxwell-Boltzmann Statistics, 5. Quantum Statistics and Radiation, 6. First Law of Thermodynamics, 7. Second Law of Thermodynamics, 8. Entropy, 9. Maxwell's Thermodynamical Relations, 10. Liquefaction of Gases, Section-II: Optics and Laser: 1. Refraction at Spherical Surfaces, 2. Refraction through Lenses, 3. Matrix Methods in Geometrical Optics, 4. Dispersion, 5. Aberrations and Eye-Pieces, 6. Velocity of Light, 7. Wave Theory, 8. Interference (Division of Wave Front), 9. Interference by Division of Amplitude, 10. Interferometry, 11. Coherence and Laser, 12. Holography and Fibre-Optics, 13. Fresnel Diffraction, 14. Fraunhofer Diffraction, 15. Resolving Power and Dispersive Power, 16. Polarisation, 17. Production and Analysis of Polarised Light, 18. Rotatory Polarisation, Section-III: Quantum Physics (Containing Quantum Mechanics, Spectroscopy, Atomic and Molecular Physics): 1. The Electron, 2. Quantum Theory-Particle Properties of Waves, 3. Quantum Theory-Wave Properties of Particle, 4. Schrodinger's Theory of Quantum Mechanics, 5. Applications of Quantum Mechanics, 6. Schrodinger's Theory of Hydrogen Atom, 7. Atoms with One Electron and Zeeman Effect, 8. Atoms with Many Electrons, 9. X-rays, 10. Molecules and Raman Effect

C.L. Arora was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar.




## Refresher Course in Physics - Volume III (LPSPE)

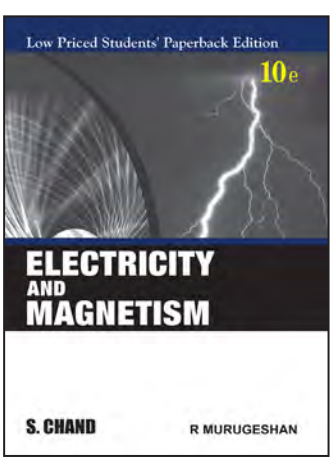
C L Arora

**ISBN: 9789355010865**
**Price: ₹ 525**
**Pages: 944**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

Section-I: Solid State Physics: 1. Crystal Structure, 2. Crystal Diffraction and Reciprocal Lattice, 3. Crystal Bonding, 4. Lattice Vibrations, 5. Free Electron Theory of Metals, 6. Band Theory of Solids, 7. Semiconductors, 8. Super Conductivity, 9. Magnetic and Dielectric Properties, Section-II: Electronics: 1. Semi-Conductor Diodes, 2. Rectifiers and Filters, 3. Bipolar Junction Transistors, 4. Field Effect Transistor, 5. Transistor Biasing, 6. Feedback Amplifiers, 7. Oscillators, 8. Modulation and Detection, 9. Radio Communication, 10. Cathode Ray Oscillograph and Television, 11. Valve Electronics, 12. Network Theorems, Section-III: Nuclear And Particle Physics: 1. Atomic Nucleus, Nuclear Models, 3. Radioactivity, 4. Nuclear Reactions and Fissions, 5. Interaction of Nuclear Radiation with Matter, 6. Particle Accelerators, 7. Radiation Detectors, 8. Cosmic Rays and Elementary Particles

C.L. Arora was formerly Principal at D.A.V. Post Graduate College, Jalandhar. Prior to this, he was Principal at D.A.V. College, Amritsar as well as D.A.V. College, Sholapur (Maharashtra). He was selected as Dean of College Development Council in Guru Nanak Dev University, Amritsar




## Electricity and Magnetism, 10e (LPSPE)

R Murugeshan

### About the Book

This tenth, extensively revised edition of *Electricity and Magnetism* continues to provide students a detailed presentation of the fundamental principles, synthesis and physical interpretation of electric & magnetic fields. It follows full vector treatment in discussing topics such as electrostatics, magnetostatics, DC circuits, AC circuits, electrodynamics and electromagnetic waves. While retaining its modern outlook to the subject, this new edition has been revised as per the latest syllabi of various universities. Students pursuing B.Sc. Physics course would find this textbook extremely useful.

### Key Features

- Increased coverage on Magnetism discussing topics such as Diamagnetism, Paramagnetism, Ferromagnetism, Weiss Modification and Domain theory of Ferromagnetism
- Significant revision of the chapter on Dielectrics, expanding coverage on topics such as Polarization and derivation of Clausius-Mossotti equation
- More than 500 figures to help students visualize and understand the different electromagnetic phenomena
- Close to 300 chapter-end questions to help students comprehend and assess their understanding of the concepts

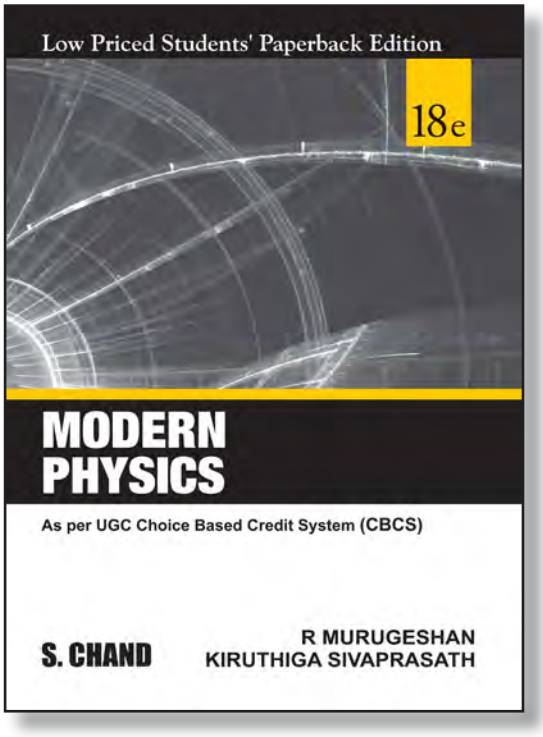
**ISBN: 9789352837342 | Price: ₹ 425 | Pages: 488 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Electric Charges and Fields, 2. Gauss's Law and its Applications, 3. Electric Potential, 4. Capacitors and Electrometers, 5. Dielectrics, 6. Steady Currents, 7. Motion of Charged Particles in Electric and Magnetic Fields, 8. Thermo-electricity, 9. Chemical Effect of Electric Current, 10. Magneto statics (Magnetic Effect of Electric Current), 11. Electromagnetic Induction, 12. Transient Currents (Varying Currents), 13. Alternating Current, 14. Magnetic Properties of Materials, 15. Maxwell's Equations and Electromagnetic Waves • *Index*

**R Murugeshan,** Formerly, Head of Department of Physics, Vivekananda College, Madurai.

LOW PRICED STUDENTS' PAPERBACK EDITION




# Modern Physics, 18e (LPSPE)

## R Murugeshan & Kiruthiga Sivaprasath

### About the Book

The eighteenth edition of this well-known textbook continues to provide a thorough understanding of the principles of modern physics. It offers a detailed presentation of important topics such as atomic physics, quantum mechanics, nuclear physics, solid state physics and electronics. The concepts are exhaustively presented with numerous examples and diagrams which would help the students in analysing and retaining the concepts in an effective manner. This textbook is a useful resource for undergraduate students and will also serve as a reference text for PG students.

### Key Features

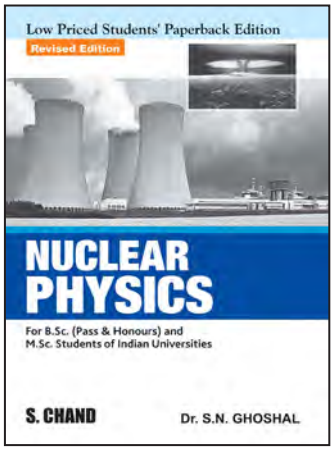
- Comprehensive and focused coverage on Quantum Mechanics with an enhanced discussion on Dirac Notation under the chapter on Operator Formalism
- Extensively revised, Semiconductor Devices comprehensively discusses topics such as Frequency Modulation and Operational Amplifiers as well as covers new topics such as FM Transmitter and FM Receiver
- Discussion on relevant topics such as Classical Mechanics and Mathematical Physics under Theoretical Physics
- Over 700 questions provided to test and strengthen students' understanding of the concepts

**ISBN: 9789352837236 | Price: ₹ 625 | Pages: 1,088 | Size: 6.5" X 9.25" (Paperback)**

### Contents



**R Murugeshan,** Formerly, Head of Department of Physics, Vivekananda College, Madurai.




## Nuclear Physics (LPSPE)

S N Ghoshal

### About the Book

This well-written text discusses the principles and concepts of Nuclear Physics in a simple and easy-to-understand language. It discusses the structure and properties of atomic nucleus, radioactivity, nuclear radiations, nuclear models, nuclear reactions and accelerators of charged particles. The book also discusses nuclear forces & two-body problem, elementary particles and cosmic rays. It would be extremely useful for undergraduate and postgraduate students of Physics.

### Key Features

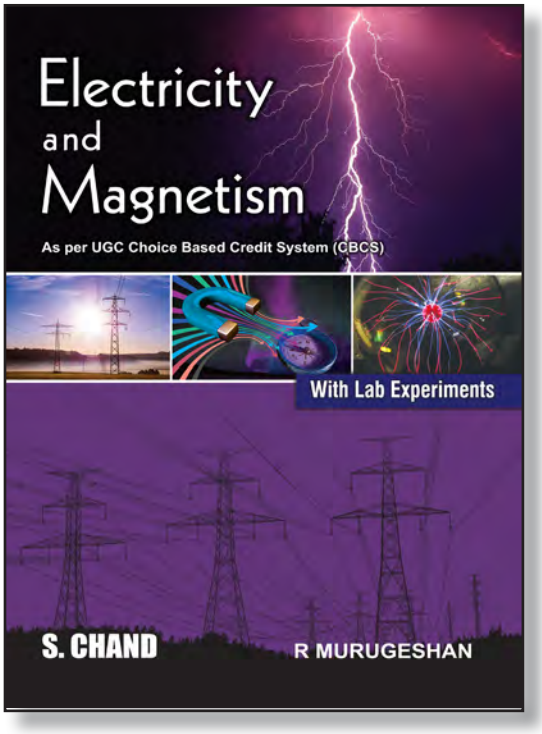
- Increased coverage on topics such as colour charge and the introductory ideals of quantum chromodynamics
- Updated chapter on Nuclear Models
- Inclusion of numerical problems at the end of each chapter for rigorous practice

**ISBN: 9789352837274 | Price: ₹ 595 | Pages: 864 | Size: 6.5" X 9.25" (Paperback)**

### Contents



**S N Ghoshal,** M.Sc., Ph.D., Formaly Principal, Presidency College, Kolkata




# Electricity and Magnetism (As per UGC & CBCS)

R Murugeshan

## About the Book

This textbook has been designed as per the UGC Choice Based Credit System (CBCS) curriculum to meet the requirements of undergraduate students of physics. It extensively covers the fundamental principles, synthesis and physical interpretation of electric and magnetic fields. Laboratory work has also been included to help students achieve solid conceptual understanding and learn experimental procedures.

## Key Features

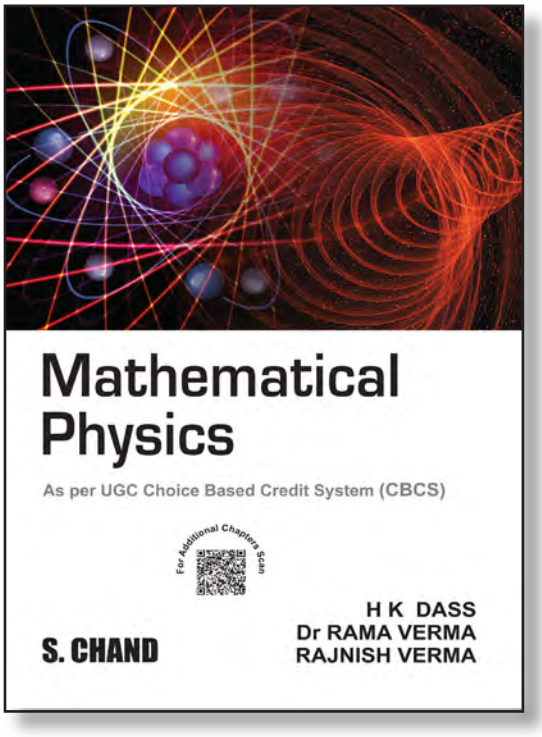
- Close to 400 figures to help visualize and understand the different electromagnetic phenomenon
- More than 170 chapter-end questions to enhance and strengthen learning of the students
- 22 lab experiments to help students make observations, develop hypotheses about phenomena and devise tests to investigate their hypotheses
- Additional Roadmap for the syllabuses of Odisha State, Calcutta, Gauhati, Dibrugarh and Burdwan universities

**ISBN: 9789355013293 | Price: ₹ 495 | Pages: 488 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**R Murugeshan** MPhil, was formerly head of Physics Department, Vivekananda College, Tiruvedakam. He obtained his MSc degree in applied physics from Calicut University and MPhil degree from Madurai Kamaraj University with specialisation in solar energy. He has 35 years of teaching experience at undergraduate level. A prolific author, Mr. Murugeshan has written several textbooks for under-graduate physics students, such as Modern Physics, Allied Physics, Properties of Matter and Acoustics for BSc, Thermal Physics, Physics-I, Optics and Spectroscopy, Properties of Matter — all published by S Chand And Company Ltd, New Delhi.




# Mathematical Physics (As per UGC CBCS)

H K Dass, Dr. Rama Verma & Er. Rajnish Verma

## About the Book

"Mathematical Physics (CBCS)" is as per the latest prescribed CBCS Syllabus. It focuses on Vector Spaces, Matrix Algebra, Differential & Integral Calculus, Integral Transforms, Infinite Series and Complex Variables. Chapter-end Exercises have been added keeping in mind the CBCS examination format and are divided into Multiple Choice Questions (MCQ), Very Short Answer Type (VSA), Short Answer Type (SA) and Long Answer Type Questions (LA). The book is designed in a very systematic and lucid way that makes this book an ideal choice for undergraduate students.

## Key Features

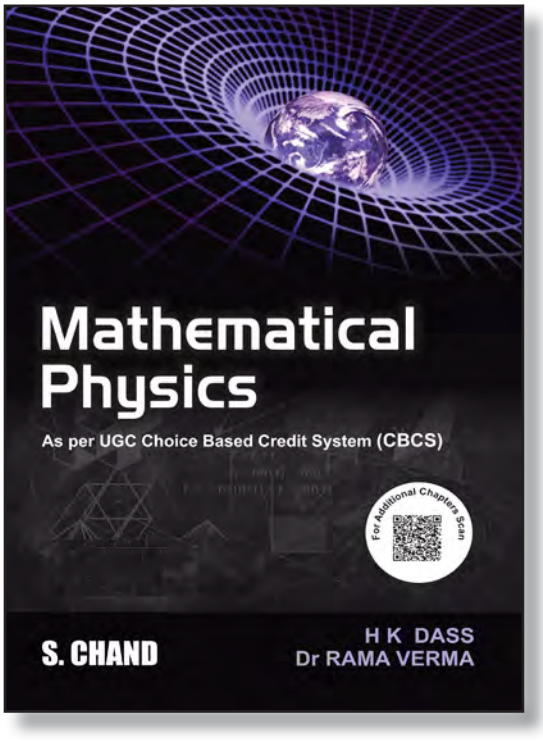
- Comprehensive explanation of all topics is provided with 31 chapters.
- 6 additional chapters on the website
  - Higher Order Partial Differential equations with Constant Coefficient
  - Eigen Values and Eigen Vectors
  - Multiple Integral
  - Probability and Distributions
  - Theory of Error
  - Tensors and Application
- Over 1500 exercise questions, 940 solved examples, and 1100 chapter-end exercises for practice.

**ISBN: 9789355012821 | Price: ₹ 750 | Pages: 1,096 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**H K Dass**: M.Sc., Diploma in Specialist Studies (Maths), University of Hull England.
**Dr. Rama Verma:** M.Sc. (Gold Medallist), Ph.D., Associate Professor, Mata Sundri College, University of Delhi.
**Er. Rajnish Verma:** Ph.D. (P), Follow IETE, MBA, B.E. Electronics Engineering, DCE/DTU Consultant (Retd) - TCS Ltd., Ex. DGM-CMC Ltd.




# Mathematical Physics (As per UGC CBCS) East

H K Dass, Dr. Rama Verma & Rajnish Verma

## About the Book

Mathematical Physics is a branch of mathematical analysis that emphasizes on the tools and techniques of a particular use to physicists as well as engineers. It focuses on Vector Spaces, Matrix Algebra, Differential Equations, Integral Equations, Integral Transforms, Infinite Series and Complex Variables.

## Key Features

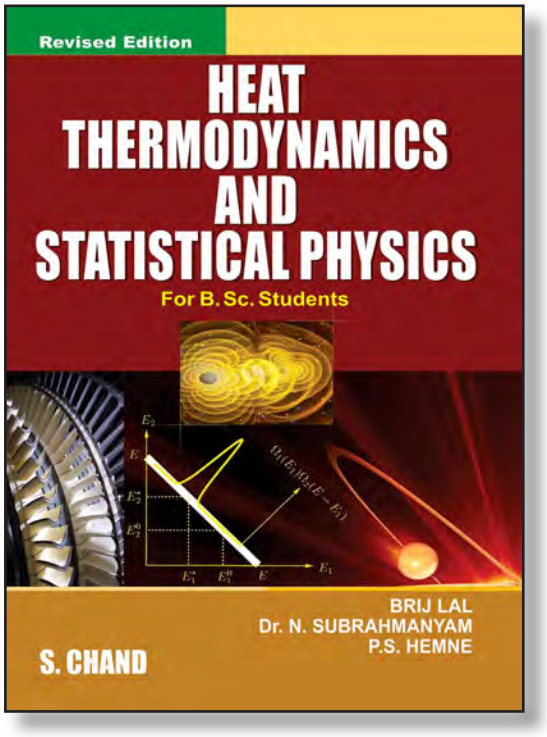
- 30 chapters provide an in-depth coverage of every important concept in the subject.
- "8 additional chapters on the website - Available in the Table of Contents".
- Matrices, • Eigen Values and Eigen Vectors • Multiple Integrals • Theory of Errors
- Probability and Distributions • Tensors Algebra & Applications • Special Theory of Relativity • Calculus of Variation
- Over 900 examples aid to the understanding of, and more than 2300 exercise and chapter-end questions aid to the practice of students.
- Additional Roadmap for the syllabuses of Odisha State, Calcutta, Gauhati, Dibrugarh and Burdwan universities.

**ISBN: 9789355012531 | Price: ₹ 695 | Pages: 1,072 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**H K Dass**: M.Sc., Diploma in Specialist Studies (Maths), University of Hull England.
**Dr. Rama Verma:** M.Sc. (Gold Medallist), Ph.D., Associate Professor, Mata Sundri College, University of Delhi.




# Heat Thermodynamics and Statistical Physics

Multicolour Edition

Brij Lal, N Subrahmanyam & P.S. Hemne

## About the Book

This textbook familiarizes the students with the general laws of thermodynamics, kinetic theory & statistical physics, and their applications to physics. Conceptually strong, it is flourished with numerous figures and examples to facilitate understanding of concepts. Written primarily for B.Sc. Physics students, this textbook would also be a useful reference for students of engineering.

## Key Features

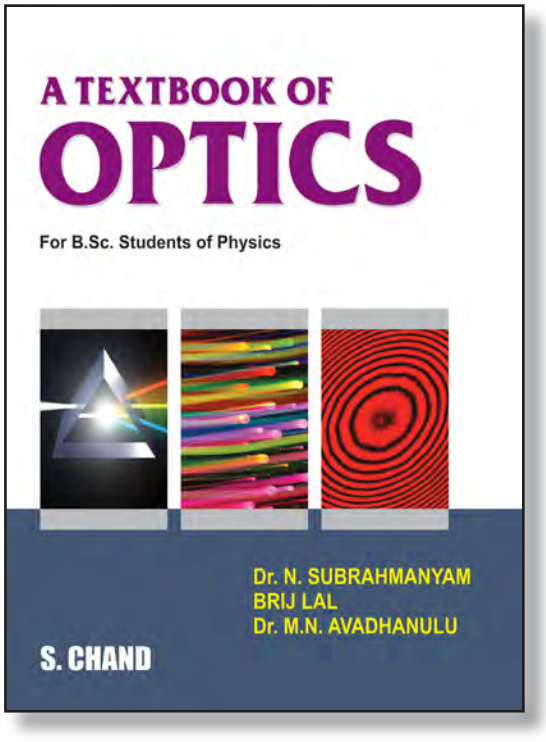
- Inclusion of a chapter on Global Warming
- Over 200+ figures and 250+ examples for effective understanding of the concepts
- More than 700 questions and 180+ objective type questions to help students evaluate their understanding of the concepts

**ISBN: 9788121928137 | Code: 1016B00334 | Price: ₹ 750 | Pages: 688 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Brij Lal,** Formerly Reader, Department of Physics, Hindu College, University of Delhi.
**N Subrahmanyam,** Formerly Reader, Department of Physics, Kirori Mal College, University of Delhi.
**P S Hemne,** Principal and Head - Post Graduate Department of Physics, Nevjabai Hitkarini College, Brahmapuri, Nagpur University.




# A Textbook of Optics

N Subrahmanyam, Brij Lal & M N Avadhanulu

Multicolour Edition

## About the Book

This textbook has been designed to provide necessary foundation in optics which would not only acquaint the student with the subject but would also prepare for an intensive study of advanced topics in optics at a later stage. With an emphasis on concepts, mathematical derivations have been kept at the minimum. This textbook has been primarily written for undergraduate students of B.Sc. Physics and would also be a useful resource for aspirants appearing for competitive examinations.

## Key Features

- Comprehensively revised chapters - Polarization (Chapter 20) and Holography (Chapter 23).
- Over 600+ figures and numerous images throughout the text for effective understanding of the concepts
- Close to 500 theoretical questions and 150+ practical problems to test understanding of the concepts

**ISBN: 9788121926119 | Code: 1016D00306 | Price: ₹ 825 | Pages: 752 | Size: 6.5" X 9.25" (Paperback)**

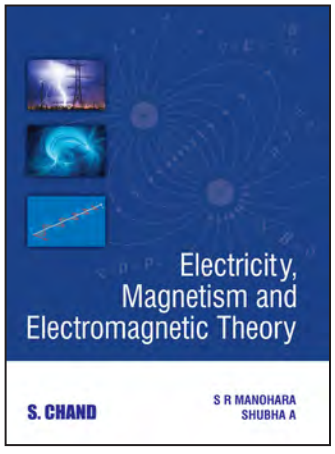
## Contents



**N Subrahmanyam,** Formerly Professor, Department of Physics, Kirori Mal College, University of Delhi, New Delhi.

**Brij Lal,** Reader in Physics, Hindu College, University of Delhi, New Delhi.

**M N Avadhanulu,** Formerly Principal, OM College of Engineering, Wardha, Maharashtra.




## Electricity, Magnetism and Electromagnetic Theory (UGC CBCS)

S R Manohara & Shubha A

### About the Book

*Electricity, Magnetism and Electromagnetic Theory* has been designed to meet the needs of BSc (Physics) students as per the UGC Choice Based Credit System. This textbook provides a thorough understanding of the fundamental concepts of electricity, magnetism and electromagnetic theory. Having a problem-solving approach, it covers the entire spectrum of the subject with discussion on topics such as electrostatics, magnetostatics, electromagnetic induction, Maxwell's equations and electromagnetic wave propagation. The concepts are exhaustively presented with numerous examples and figures/diagrams which would help the students in analysing and retaining the concepts in an effective manner.

### Key Features

- Based on SI units with vector treatment throughout the text
- Coverage on important topics such as energy per unit volume in electrostatic field, energy density in electromagnetic field, transverse nature of EM waves and polarisation of EM waves
- In-depth discussion on topics such as electric field due to spherical shell using Gauss' law, potential due to uniformly charged spherical shell & solid sphere, boundary conditions in electrostatics & magnetostatics and EM wave propagation through vacuum & isotropic dielectric medium
- Over 200+ illustrative figures/diagrams and close to 175 step-by-step solved examples for a strong conceptual understanding of the concepts
- More than 300 multiple choice questions, about 300 short & long answer questions and close to 140 numerical problems to test and strengthen students' understanding of the concepts.

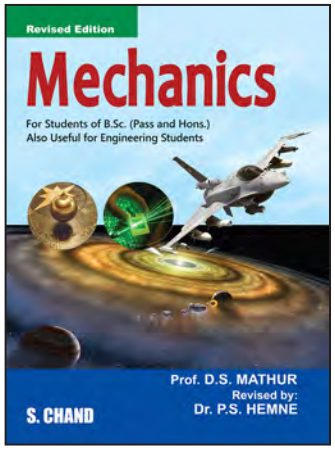
**ISBN: 9789352834402 | Price: ₹ 450 | Pages: 456 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Vector Analysis, 2. Electrostatic Field, 3. Electric Potential, 4. Conductors and Dielectrics, 5. Steady Magnetic Field, 6. Magnetic Fields and Forces, 7. Magnetic Properties of Materials, 8. Electromagnetic Induction, 9. Maxwell's Equations, 10. Electromagnetic Wave Propagation • Appendix-A: Useful Identities, Standard Derivatives, and Integrals • Appendix-B: Names and SI Units of Electric and Magnetic Quantities • Appendix-C: Physical Constants • Appendix-D: Material Constants • Appendix-E: Multiples and Submultiples, and Greek Alphabet • Appendix-F: Maxwell's Equations • Appendix-G: Integral Theorems (Gauss-divergence Theorem and Stokes' Theorem) • Bibliography • Index

**S R Manohara,** PhD, is Associate Professor in the Department of Physics, Siddaganga Institute of Technology, Tumakuru, Karnataka.
**Shubha A** is a Research Scholar, pursuing PhD at Department of Physics, Siddaganga Institute of Technology, Tumakuru.

---




## Mechanics

D.S. Mathur & P.S. Hemne

### About the Book

The book presents a comprehensive study of important topics in Mechanics of pure and applied sciences. It provides knowledge of scalar and vector in optimum depth to make the students understand the concepts of Mechanics in simple, coherent and lucid manner and grasp its principles & theory. It caters to the requirements of students of B.Sc. Pass and Honours courses. Students of engineering disciplines and the ones aspiring for competitive exams such as AIME and others, will also find it useful for their preparations.

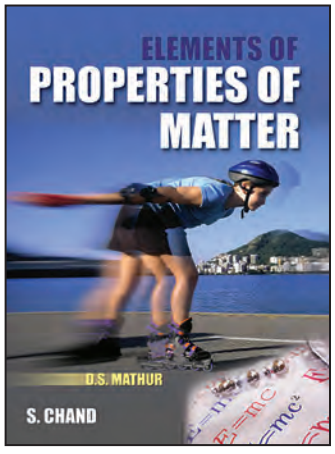
### Key Features

- Large number of article-wise solved examples based on SI units at chapter end to enable students understand each article well
- Solved and unsolved problems for better comprehension and grasp of concepts

**ISBN: 9788121905992 | Code: 1016C00063 | Price: ₹ 825 | Pages: 848 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Mathematical Background: Scalars and Vectors, 2. Newton's Laws of Motion – Reference Frames, 3. Relativity, 4. Non-Relativistic Particle Dynamics, 5. Conservation Laws (Part I: Law of Conservation of Energy), 6. Conservation Laws (Part II: Linear and Angular Momentum), 7. Simple Harmonic Motion, 8. Damped and Driven Harmonic Oscillators, 9. Coupled Oscillators, 10. Wave Motion, 11. Dynamics of Rigid Bodies, 12. Gravitation: Field and Potentials, 13. Elasticity, 14. Bending of Beams – Columns, 15. Fluid Mechanics – Viscosity, 16. Production and Measurement of low pressure (Pumps and Gauges)




## Elements of Properties of Matter

D S Mathur

### About the Book

The book is a comprehensive work on Properties of Matter which introduces the students to the fundamentals of the subject. It adopts a unique 'ab initio' approach to the presentation of matter- solids, liquids and gasses- with extensive usage of Calculus throughout the book. For each topic, the focus is on optimum blend of theory as well as practical application. Examples and extensive exercises solved with the logarithms reinforce the concepts and stimulate the desire among users to test how far they have grasped and imbibed the basic principles. It primarily caters to the undergraduate courses offered in Indian universities.

### Key Features

- A new chapter on "The Special Theory of Relativity"
- Nearly 200 "Worked out examples" and exercises at the end of each chapter comprising questions from various university examinations
- More than 400 numericals at the end of each chapter to test understanding of the concepts
- Eight Appendices as ready reckoner for basic information on properties of matter and Logarithmic and Antilogarithmic table at book end for the ease of the beginners

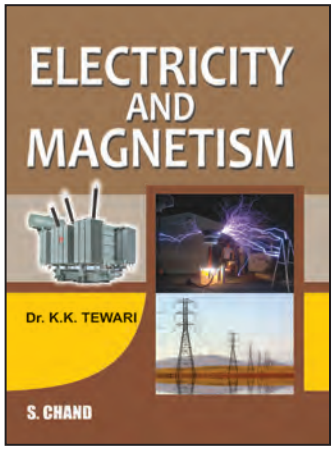
**ISBN: 9788121908153 | Code: 1016B00062 | Price: ₹ 595 | Pages: 592 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Unit and Dimensions, 2. Motion along a Curve – The Projectile, 3. Moment of Inertia – Gyroscopic Motion, 4. Simple Harmonic Motion, 5. Measurement of Mass – The Balance, 6. Acceleration due to Gravity, 7. Gravitation, 8. Elasticity, 9. Hydrostatics, 10. Jet Planes, Rockets and Satellites, 11. Friction and Lubrication – Principle of Virtual work and Its Simple Applications, 12. Flow of Liquids – Viscosity, 13. Diffusion and Osmosis, 14. Surface Tension – Capillarity, 15. Gases – Kinetic Theory, 16. Special Theory of Relativity • *Appendices: Tables of Constants • Logarithmic and Antilogarithmic Tables*

**D.S. Mathur,** Formerly Head of Department - Physics, Hindu College, University of Delhi.

---




## Electricity and Magnetism

K.K. Tewari

### About the Book

*Electricity & Magnetism* has been written with an emphasis on basic physics with some instructive, stimulating and useful application. Written purely in SI units, with a complete vector treatment, this book would be extremely useful for the students of B.Sc. Physics and Engineering.

### Key Features

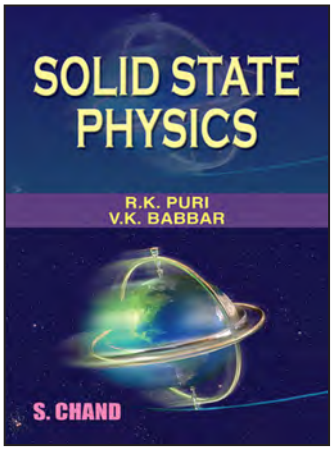
- Physical approach in treatment of polarization and magnetisation
- More than 350 figures for better understanding of the concepts
- Over 200 review questions, 100+ problems and 200+ MCQs to test understanding of the concepts

**ISBN: 9788121906678 | Code: 1016C00175 | Price: ₹ 595 | Pages: 656 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Units and Dimensions, 2. Vector Analysis (Algebra), 3. Vector Differentiation and Integration, 4. Electrostatics: Electric Field,5. Electrostatics— Electric Potential, 6. Capacitors and Dielectrics, 7. Electrometers and Electrostatics Machines, 8. Steady Current, 9. Magnetostatics, 10. The Magnetic Field Due to Steady Currents, 11. Electromagnetic Induction, 12. Practical Applications of Electromagnetic Induction, 13. Dynamics of Charged Particles, 14. Magnetic Properties of Matter, 15. Maxwell's Equations and Electromagnetic Theory, 16. Alternating Currents, 17. Transformers and A.C. Bridges, 18. Circuit Analysis • *Appendices: 1. Some Fundamental and Derived Constants, 2. Symbols, Dimensions and Units of Electrical and Magnetic Quantities • Source Books • Index*

**K K Tewari,** Formerly Principal, VSSD College, Kanpur and Ex-Reader, Department of Physics, DAV College, Kanpur.




## Solid State Physics

R K Puri & V K Babbar

### About the Book

This book presents a comprehensive introduction to *Solid State Physics* for undergraduate students of pure and applied sciences and engineering disciplines. It acquaints the students with the fundamental properties of solids starting from their properties. The coverage of basic topics is developed in terms of simple physical phenomenon supplemented with theoretical derivations and relevant models which provides strong grasp of the fundamental principles of physics in solids in a concise and self-explanatory manner.

### Key Features

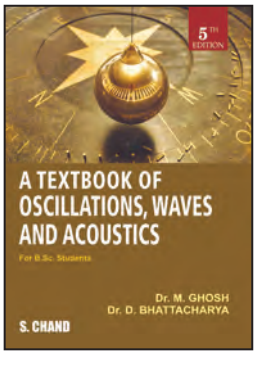
- Discusses interaction of electrons, phonons and atoms in solids based both on classical laws and elements of quantum mechanics
- Rich pedagogy comprising review questions, solved and unsolved problems, chapter summary for quick review
- SI system throughout the book with their conversions to other practical units for easy comprehension of concepts

**ISBN: 9788121914765 | Code: 1010B00181 | Price: ₹ 375 | Pages: 328 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Crystal Structure, 2. X-Ray Diffraction and Reciprocal Lattice, 3. Bonding in Solids, 4. Lattice Vibrations, 5. Free Electron Theory of Metals, 6. Band Theory of Solids, 7. Semiconductors, 8. Magnetism in Solids, 9. Dielectric Properties of Solids, 10. Superconductivity • *Appendix-I: Table of Physical Constants and Conversion Factors Index • References • Index*

**R K Puri,** Formerly Professor, Department of Physics, Indian Institute of Technology, New Delhi.
**V K Babbar,** Formerly Lecturer, Department of Physics, Guru Nanak Dev University, Amritsar.



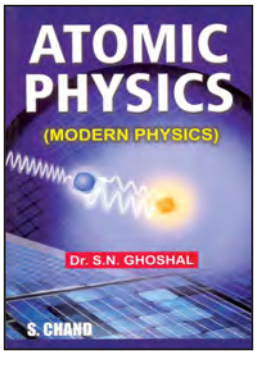

## A Textbook of Oscillations, Waves and Acoustics, 5e

M Ghosh & D Bhattacharya

**ISBN: 9789385676154**
**Code: 1016C00322**
**Price: ₹ 275 | Pages: 272**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Sound and its Character, 2. Simple Harmonic Motion, 3. Free, Damped and Forced Vibration, 4. Coupled Vibration, 5. Fourier Analysis, 6. Anharmonic (Asymmetric) Vibration and Combinational Tones, 7. Wave Motion, 8. Reflection, Refraction, Interference, Diffraction, Stationary Wave, Beats, Phase Velocity and Group Velocity, Doppler Effect, 9. Velocity of Acoustic Waves (Longitudinal and Transverse Wave), 10. Transverse Vibration of Stretched String and Stringed Musical Instruments, 11. Vibration of a Bar, 12. Vibration of Membranes and Plates, 13. Vibration of Air Column, 14. Heat Maintained Sound, 15. Velocity of Sound and its Measurements, 16. Frequency and its Measurement, 17. Intensity and its Measurement, 18. Speech and Hearing, 19. Musical Sound, 20. Microphones and Loud Speakers, 21. Recording of Sound and Reproduction, 22. Shock Waves – Explosive Sound, 23. Ultrasonics, 24. Architectural Acoustics, 25. Electrical Analogy of Acoustic Vibration, 26. Introduction • *Index • Useful Physical Constants with Unit Prefixes, and Energy Conservation*



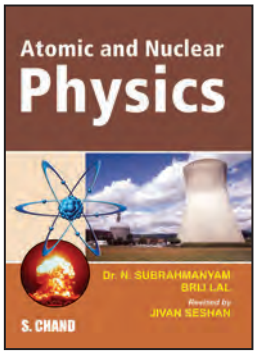

## Atomic Physics

S N Ghoshal

**ISBN: 9788121910958**
**Code: 1016A00173**
**Price: ₹ 725 | Pages: 752**
**Size: 5.5" X 8.5" (Paperback)**

### Contents

1. Atomic Structure of Matter, 2. Cathode Rays and Positive Rays, 3. Origin of Quantum Theory: Planck's Theory of Black Body Radiation, 4. Structure of the Hydrogen – like Atoms: Bohr- Sommerfeld Theory, 5. Emission of Electronic from Metal Surface: Photoelectric and the Thermionic Effects, 6. Alkali Spectra, Space Quantization, Electron Spin: Periodic Classification of Elements, 7. Laser, 8. X-Rays, 9. Wave Particle Duality: Heisenberg's Uncertainty Principle, 10. Introduction to Wave Mechanics, 11. Solutions of Schrodinger Equation in some Simple Cases, 12. Approximate Methods in Quantum Mechanics, 13. Quantum Mechanical Theory of Atomic Structure, 14. Atoms in Radiation Field, 15. Special Theory of Relativity, 16. Molecular Spectra, 17. Structure and Properties of Solids, 18. Metals and Semi-Conductors, 19. Magnetic Properties of Solids, 20. Statistical Mechanics • *Appendices: I. Hermite Polynomials, II. Legendre Polynomials and Associated Legendre, III. Spherical Harmonics, IV. Laguerre Polynomials and Associated Laguerre Functions, V. List of Hydrogenic Total Wave Functions, VI. Table of Important Physical Constants, VII. Periodic Table of Elements, VIII. Evaluation of the Integrals in the Calculation of the Ground State Energy of Helium, IX. Hamiltonian of a Charged Particle in an Electromagnetic Field, X. Pauli's Theory of Spin, XI. Dirac's Theory of the Relativistic Electron • Index*



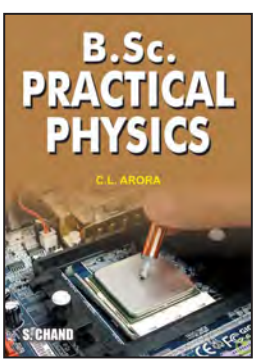

## Atomic and Nuclear Physics

N Subrahmaniyam, Brij Lal & Jivan Seshan

**ISBN: 9788121904148**
**Code: 1016A00132**
**Price: ₹ 399 | Pages: 288**
**Size: 6.5" X 9.25" (Paperback)**

### Contents





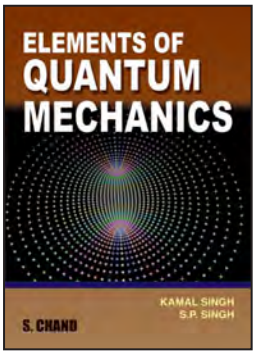

## B.Sc. Practical Physics

CL Arora

**ISBN: 9788121909099**
**Code: 1016C00099**
**Price: ₹ 650 | Pages: 720**
**Size: 6.5" X 9.25" (Paperback)**

### Contents





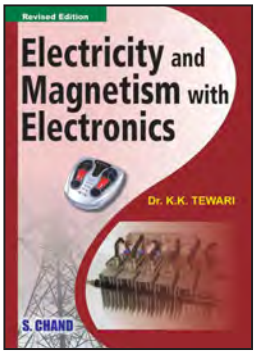

## Elements of Quantum Mechanics

Kamal Singh & S.P. Singh

**ISBN: 9788121925396**
**Code: 1016A00301**
**Price: ₹ 195 | Pages: 160**
**Size: 6.5" X 9.25" (Paperback)**

### Contents



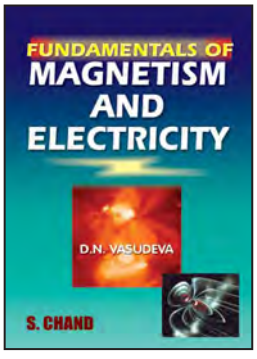



## Electricity and Magnetism with Electronics

K.K. Tewari

**ISBN: 9788121908559**
**Code: 1016B00150**
**Price: ₹ 725 | Pages: 768**
**Size: 6.5" X 9.25" (Paperback)**

### Contents



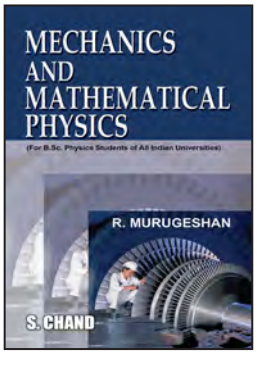

## Fundamentals of Magnetism and Electricity

D N Vasudeva

**ISBN: 9788121909556**
**Code: 1016A00058**
**Price: ₹ 825 | Pages: 960**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

Part-I: 1. Vector Analysis and its Applications, Part-II: Electrostatics: 2. Law of Inverse Squares, 3. Electrostatic Potential, 4. Capacitance Condensers, 5. Electrometers, 6. Theory of Dielectric, Part-III: Magnetism: 7. Magnetic Field, 8. Magnetometers, 9. Magnetic Inductions, 10. Terrestrial Magnetism, Part-IV: Current Electricity: 11. Steady Current (Cells), 12. Electro Magnetism, 13. Ohm's Law, 14. Electrical Measuring Instruments, 15. Heating Effect of Current and its Applications, 16. Electrical Measurements, 17. Thermoelectricity, Part-V: Electromagnetism: 18. Electromagnetic Induction, 19. Magnetic Properties of Materials, 20. Practical Electromagnetism and Electromagnetic Induction, Part-VI: Alternating Currents: 21. AC Generators, 22. AC Circuits, 23. Electromagnetic Waves, Part-VII: Electronics and Radio Communication: 24. Electronics and Radio Communication, Part-VIII Atomic Physics: 25. Conduction of Electricity through Gases, 26. X-Rays, 27. Photoelectricity, 28. Radioactivity, 29. Atomic Structure, 30. The Nucleus, *Appendices: 1. The Maser and the Laser, 2. Colour Code of Radio Resistors and Condensers, 3. Particulars of Nickel-Chromium Wire for Heater Elements, 4. Some Useful Constants, 5. Formulae on MKS System of Units, 6. Periodic Table of Elements • Index*



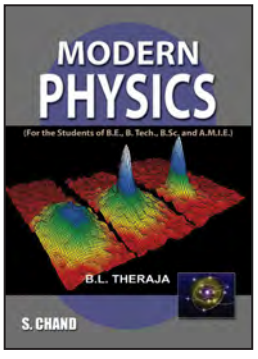

## Mechanics and Mathematical Physics

R Murugeshan

**ISBN: 9788121929134**
**Code: 1016B00341**
**Price: ₹ 350 | Pages: 320**
**Size: 5.5" X 8.5" (Paperback)**

### Contents

1. Impact of Elastic Bodies, 2. Projectile on Inclined Plane, Motion of Two Interacting Bodies and Bifilar Pendulum, 3. Centre of Gravity, 4. Hydrostatics, 5. Hydrodynamics, 6. Classical Mechanics, 7. Vector Analysis, 8. Matrices, 9. The Beta, Gamma Functions and Differential Equations, 10. Classical Mechanics–II, 11. Simple Harmonic Motion, 12. Matrices–II, 13. Centre of Mass, 14. Friction, 15. Laplace Transforms, 16. Electromagnetic Theory, 17. Statistics • *Appendices: I. Kater's Reversible Pendulum, II. General Equation of Continuity in Three Dimensions, III. Problems Selected from University Examination Question Papers*



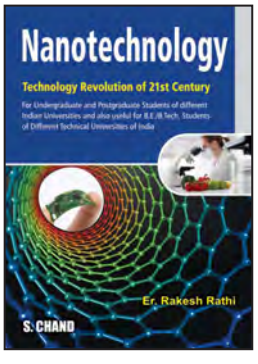

## Modern Physics

B L Theraja

**ISBN: 9788121901635**
**Code: 1010C00036**
**Price: ₹ 360 | Pages: 336**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Electric and Magnetic Fields, 2. The Electron, 3. The Atomic Structure, 4. Crystallography, 5. Quantum Theory, 6. Bonds in Solids, 7. Classification of Solids, 8. X-rays, 9. Waves and Particles, 10. The Atomic Nucleus, 11. Natural Radioactivity, 12. Artificial Radioactivity, 13. Nuclear Reactions, 14. Nuclear Fission and Fusion, 15. Nuclear Energy Sources, 16. Particle Accelerators, 17. Ultrasonics • *Appendices: A. Diffraction Grating, B. Values of Physical Constants, C. Table of Elements • Index*



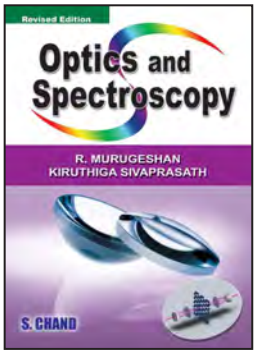

## Nanotechnology: Technology Revolution of 21st Century

Rakesh Rathi

**ISBN: 9788121930826**
**Code: 1010A00378**
**Price: ₹ 405 | Pages: 304**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Introduction, 2. Nanotechnology Timeline, 3. Core Concept of Nanotechnology, 4. Tools to Measure and make Nanostructures, 5. Applications of Nanotechnology, 6. Nanomedicine, 7. Nanoelectronics, 8. Nanosensing, 9. Nanomagnetics, 10. Recent Development, 11. Impact of Nanotechnology, 12. Global Scenario, 13. Future and Grand Challenges • *Appendices: A. Frequently Asked Questions with Answers • B. Nano Quiz (Multiple Choice Questions) • C. Glossary*



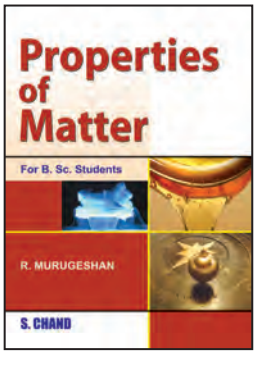

## Optics and Spectroscopy

R Murugeshan &
Kiruthiga Sivaprasath

**ISBN: 9788121914413**
**Code: 1016D00206**
**Price: ₹ 450 | Pages: 512**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Geometrical Optics, 2. Interference, 3. Diffraction, 4. Polarisation of Light, 5. Spectroscopy, 6. Matrix Method in Paraxial Optics, 7. Coherence, 8. Fibre Optics, 9. Holography, 10. Electromagnetic Waves, 11. Dispersion and Scattering, 12. Laser, 13. Interference-II, 14. Magnification of a Lens System, 15. Stimulated Raman Scattering, 16. Polarisation-II (Matrix Method), 17. Fermat's Principle, 18. Huygens' Principle and its Applications, 19. Classical and Modern Geometrical Optics, 20. Interference and Diffraction of Light, 21. Doppler Effect in Light and its Applications, 22. Cornu's Spiral, 23. Lasers-II, 24. Rainbow, 25. Magneto-Optics and Electro-Optics, 26. Nonlinear Optics, 27. Fibre Optics–II, 28. Holography–II, 29. Interference–III, 30. Diffraction of Light (IV), 31. Polarisation of Light-III, 32. Twyman and Green Interferometer, 33. Crystal Optics, 34. Chauchy's Dispersion Formula, 35. Optical Activity, 36. Geometrical Optics-II, 37. Interference of Light-IV, 38. The Echelon Grating and its Resolving Power, 39. Laser in Industry, 40. Photonics, 41. Fibre Optic Sensors, 42. Fibre Characteristics and Classification, 43. Optical Fibre as a Cylindrical Waveguide, 44. Fibre Losses, 45. Dispersion in Optical Fibres, 46. Optical Fibre Communication System, 47. Optical Fibre Fabrication, 48. Electromagnetic Waves-II, 49. Spectroscopy • *Appendix*



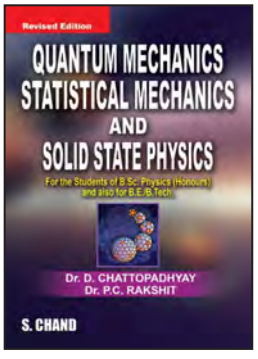

## Properties of Matter

R Murugeshan

**ISBN: 9788121906050**
**Code: 1016C00189**
**Price: ₹ 315 | Pages: 232**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Elasticity, 2. Viscosity, 3. Surface Tension, 4. Hydrodynamics, 5. Osmosis, 6. Gravitation, 7. Moment of Inertia, 8. Impact of Elastic Bodies, 9. Projectile on Inclined Plane, Motion of Two Interacting Bodies and Bifilar Pendulum, 10. Mechanics of a Rigid Body, 11. Waves and Oscillations, 12. Composition of Simple Harmonic Motions, 13. Beats, 14. Intensity of Sound, 15. Progressive Waves, 16. Stationary Waves, 17. Determination of Frequency, 18. Motion in a Vertical Circle, 19. Systems of Particles, 20. Centre of Gravity, 21. Centre of Pressure, 22. Friction, 23. Classical Mechanics



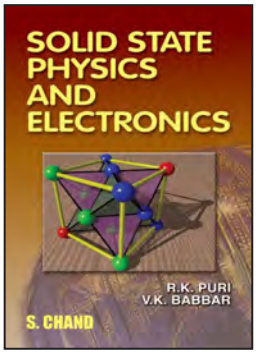

## Quantum Mechanics, Statistical Mechanics and Solid State Physics

D Chattopadhyay &
P C Rakshit

**ISBN: 9788121909310**
**Code: 1016B00155**
**Price: ₹ 360 | Pages: 352**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

Quantum Mechanics: 1. Introductory Ideas, 2. The Schrodinger Wave Equation, 3. Free Particles and Wave Packets, 4. Application of Quantum Mechanics to Some Potential Problems, 5. The Harmonic Oscillator, 6. Spherically Symmetric Potential and the Hydrogen Atom, Statistical Mechanics: 1. Basic Concepts, 2. Fermi – Dirac and Bose-Einstein Statistics, 3. Third Law of Thermodynamics, Solid State Physics: 1. Crystals and their Properties, 2. X-Ray Crystal Analysis, 3. Band Theory of Solids, 4. Transport Phenomena in Metals and Semiconductors, 5. Specific Heat of Solids and Lattice Vibrations, 6. Dielectric Properties of Solids, 7. Magnetic Properties of Solids, 8. Superconductivity • *Miscellaneous Problems* • *Objective Type Questions* • *Index*



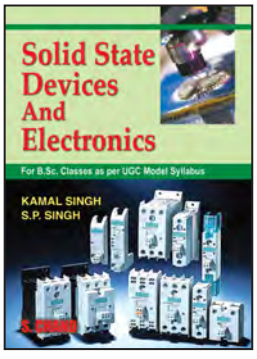

## Solid State Physics and Electronics

R K Puri & V K Babbar

**ISBN: 9788121914758**
**Code: 1010A00176**
**Price: ₹ 550 | Pages: 616**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Crystal Structure, 2. X-Ray Diffraction and Reciprocal Lattice, 3. Bonding in Solids, 4. Lattice Vibrations, 5. Free Electron Theory of Metals, 6. Band Theory of Solids, 7. Semiconductors, 8. Magnetism in Solids, 9. Dielectric Properties of Solids, 10. Superconductivity, 11. Junction Diodes, 12. Rectifiers, 13. Transistors and Amplifiers, 14. Oscillators, 15. Modulation and Demodulation, 16. Cathode Ray Oscilloscope, 17. Radio Communication and Television, 18. Logic Gates • *Appendix-I: Voltage and Current Sources* • *Appendix-II: Thevenin's and Norton's Theorems* • *Appendix-III: Table of Physical Constants and Conversion Factors Index* • *References* • *Index*



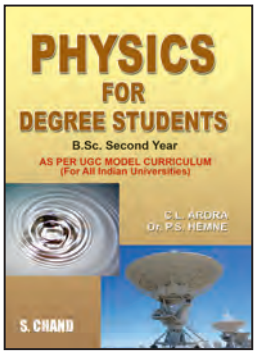

## Solid State Devices and Electronics

Kamal Singh & S P Singh

**ISBN: 9788121928021**
**Code: 1010A00333**
**Price: ₹ 295 | Pages: 256**
**Size: 6.5" X 9.25" (Paperback)**

### Contents





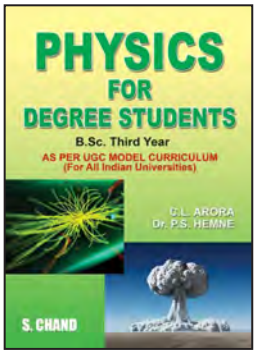

## Physics for Degree Students (For B.Sc. Second Year)

C L Arora & P S Hemne

**ISBN: 9788121940597**
**Code: 1016C00392**
**Price: ₹ 795 | Pages: 1,048**
**Size: 6.5" X 9.25" (Paperback)**

### Contents





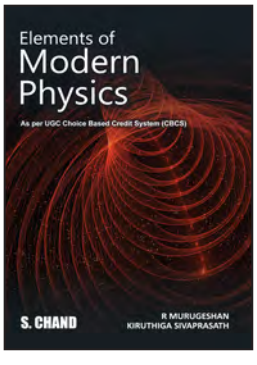

## Physics for Degree Students (For B.Sc. Third Year)

C L Arora & P S Hemne

**ISBN: 9788121942874**
**Code: 1016A00425**
**Price: ₹ 795 | Pages: 968**
**Size: 6.5" X 9.25" (Paperback)**

### Contents






## Elements of Modern Physics: (As per UGC-CBCS Curriculum)

R Murugeshan & Kiruthiga Sivaprasath

**ISBN: 9789355010964**
**Price: ₹ 450 | Pages: 432**
**Size: 6.5" X 9.25" (Paperback)**

### About the Book

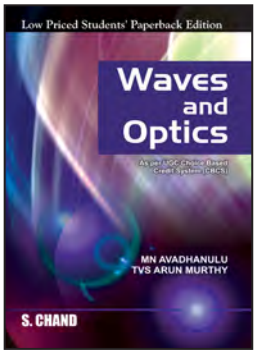
This textbook has been designed as per the UGC Choice Based Credit System (CBCS) curriculum to meet the requirements of undergraduate students of physics. It extensively covers the fundamental principles, synthesis and physical interpretation of atomic physics, quantum mechanics, nuclear physics and lasers. Laboratory work has also been included to help students achieve solid conceptual understanding and learn experimental procedures.

### Key Features

- 14 lab experiments to help students make observations, develop hypotheses about phenomena and devise tests to investigate their hypotheses
- More than 275 well-labelled diagrams for easy understanding of the concepts
- Over 175 chapter-end questions to enhance and strengthen learning of the students
- Additional Roadmap for the syllabuses of Odisha State, Calcutta, Gauhati, Dibrugarh and Burdwan universities

### Contents






## Waves and Optics: As per CBCS

M N Avadhanulu &
TVS Arun Murthy

**ISBN: 9789355013316**
**Price: ₹ 275 | Pages: 416**
**Size: 6.5" X 9.25" (Paperback)**

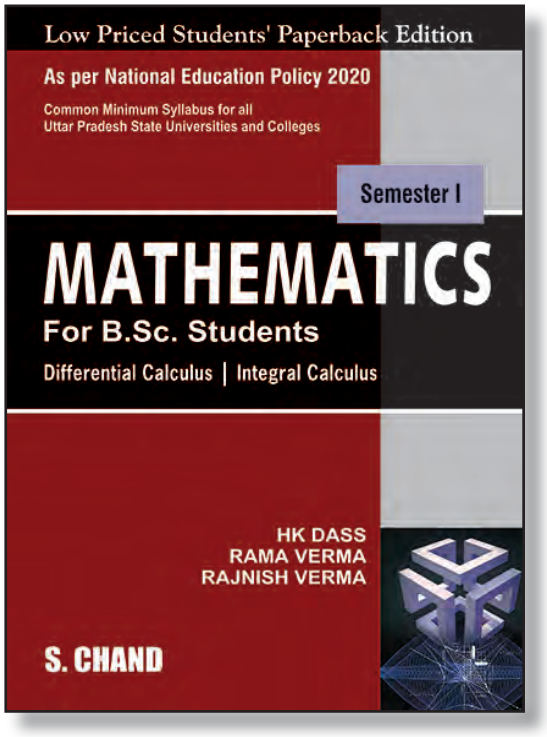
### About the Book

This textbook has been designed to meet the requirements of undergraduate students of Physics and aptly covers the subject by including but not limiting it to Harmonic motion, Waves (Motion, Velocity, Optics), Interference, Diffraction and its different types. Every chapter contains a mix of Multiple-Choice Questions, Fill-in the Blanks and Short- and Long-answer questions to enhance and strengthen learning quotient. Lab experiments have been provided at the end of the book for the practical aspect of the subject and range from Melde's Experiment to Schuster's Focusing. Written in a lucid and concise manner, the textbook has an adept balance between theory with practice.

### Key Features

- Fourteen Chapters are divided in smaller parts and sub-headings to make to reading easy from one topic to another
- Fundamental concepts are emphasized in each chapter and details are developed in an easy-to follow style
- Fill-in the Blanks and Multiple-Choice Questions at the end of each chapter for better understanding of the concepts.

### Contents




# Mathematics for B.Sc. Students Semester I (NEP 2020 - Uttar Pradesh)

HK Dass, Rajnish Verma & Dr. Rama Verma

## About the Book

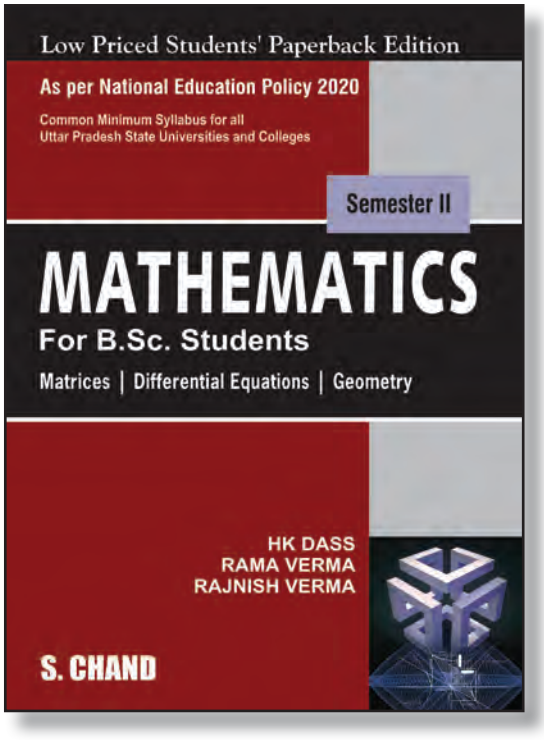
This textbook has been designed to meet the needs of B.Sc. First Semester students of Mathematics as per Common Minimum Syllabus prescribed for all Uttar Pradesh State Universities and Colleges under the recommended National Education Policy 2020. A methodical text, which mirrors the flow of the units of the syllabus, has been created with a focus on developing mathematical skills in both Differential and Integral Calculus and enables the reader to possess an in-depth knowledge of the subjects. Apart from this, topics such as Convergence and Divergence of Series, Successive Differentiation, Partial Differentiation, Riemann Integral: Fundamental Theorems of Integral Calculus, Vector Differentiation and Integration have been well-explained.

## Key Features

- Divided in Eight Units which are sub-divided in 27 chapters for a 100% coverage of the recommended syllabus.
- Over 500 examples in the text illustrate all major topics thereby providing ample support to the theory explained
- More than 75 practice sets which carry close to 1200 questions provide rich practice.

**ISBN: 9789355012784 | Price: ₹ 450 | Pages: 584 | Size: 6.5" X 9.25" (Paperback)**

## Contents




# Mathematics for B.Sc. Students Semester II (NEP 2020 - Uttar Pradesh)

HK Dass, Rajnish Verma & Dr. Rama Verma

## About the Book

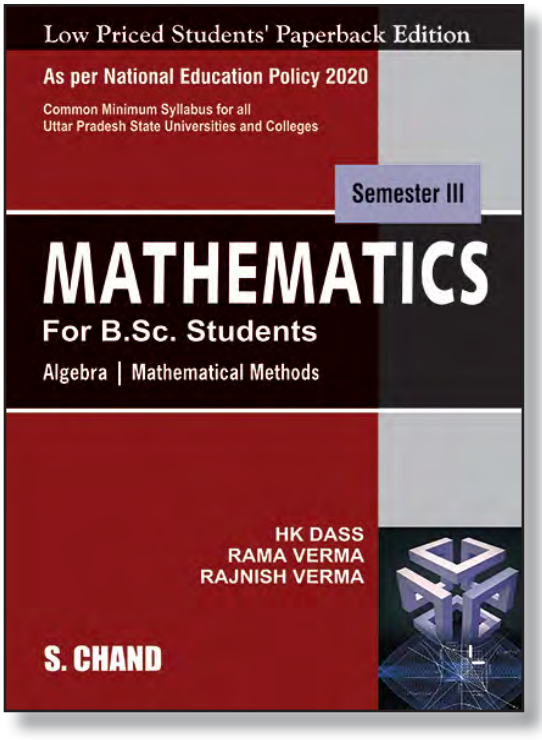
A methodical text, which mirrors the flow of the units of the syllabus, has been created with a focus on developing mathematical skills in algebra, calculus and analysis and enables the reader to possess an in-depth knowledge of the subjects. Apart from this, topics such as rank, eigen values of matrices, linear homogeneous and non-homogeneous equations and differential equations have been well-explained.

## Key Features

- Divided in Eight Units which are sub-divided in 31 chapters for a 100% coverage of the recommended syllabus.
- Over 700 examples in the text illustrate all major topics thereby providing ample support to the theory explained.
- More than 100 practice sets which carry close to 1500 questions provide rich practice.
- Roadmap as per the National Education Policy 2020 (NEP 2020) has been provided in the text.

**ISBN: 9789355014153 | Price: ₹ 495 | Pages: 768 | Size: 6.5" X 9.25" (Paperback)**

## Contents




# Mathematics for B.Sc. Students Semester III (NEP 2020 - Uttar Pradesh)

HK Dass, Rajnish Verma & Dr. Rama Verma

## About the Book

"This textbook has been designed to meet the needs of B.Sc. Third Semester students of Mathematics as per Common Minimum Syllabus prescribed for all Uttar Pradesh State Universities and Colleges under the recommended National Education Policy 2020 (NEP 2020). A methodical text, which mirrors the flow of the units of the syllabus, has been created with a focus on developing mathematical skills in algebra and mathematical methods and it enables the reader to possess an in-depth knowledge of the subjects. To achieve this, topics such as Ring and Field, Lagrange Multiplier Method, Jacobians, Laplace Transform and Properties, Fourier Series and Integral Transform are well explained.

## Key Features

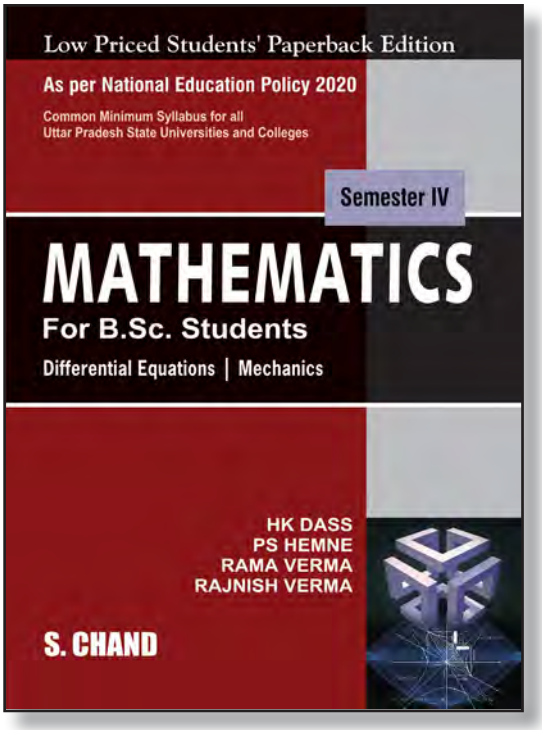
- Divided in Eight Units which are sub-divided in 20 chapters for a 100% coverage of the recommended syllabus
- Over 300 examples in the text illustrate all major topics thereby providing ample support to the theory explained
- More than 50 Exercises which carry close to 500 questions provide rich practice

**ISBN: 9789355012791 | Price: ₹ 395 | Pages: 408 | Size: 6.5" X 9.25" (Paperback)**

## Contents



(NEP 2020, CMS, Uttar Pradesh State Universities)




# Mathematics for B.Sc. Students Semester-IV ( NEP-2020-Uttar Pradesh)

Dr. P.S. Hemne & C.L. Arora

## About the Book

"This textbook has been designed to meet the needs of B.Sc. Fourth Semester students of Mathematics as per Common Minimum Syllabus prescribed for all Uttar Pradesh State Universities and Colleges under the recommended National Education Policy 2020. To possess an in-depth knowledge of the subjects, topics such as Second Order Linear Differential Equations with Variable Coefficients, Method of Undetermined Coefficients, Variation of Parameters, Series Solutions of Differential Equations, Bessel, Legendre and

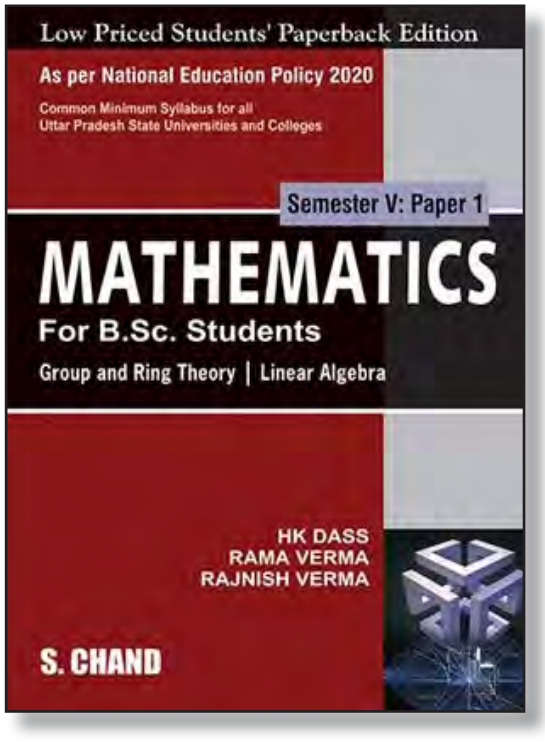
Hypergeometric Functions and their Properties, Partial Differential Equations of First Order and First Degree and Degree Greater than One, and Solution of Second Order Partial Differential Equations with Variable Coefficients are well explained in Differential Equations. Mechanics part describes the topics such as Mechanics of a Rigid Body, Equilibrium of a System of Forces, Curvilinear Motion and S.H.M., and Motion Under a Central Force in lucid manner.

## Key Features

- Differential Equations is Divided in Four Units which are further sub-divided in 13 chapters for a 100% coverage of the recommended syllabus
- Close to 250 examples in the text illustrate all major topics thereby providing ample support to the theory explained
- Close to 500 questions (short- and long-answer) strengthen the well explained theoretical concepts.

**ISBN: 9789355016966 | Price: ₹ 399 | Pages: 424 | Size: 6.5" X 9.25" (Paperback)**

## Contents




# Mathematics For B.Sc. Students: Semester V: Paper 1 | Group and Ring Theory | Linear Algebra - NEP 2020 For the Universities of Uttar Pradesh

H K Dass, Rajnish Verma & Dr. Rama Verma

## About the Book

This textbook has been specifically developed as per latest curriculum on the directives of NEP 2020 - For the Universities of Uttar Pradesh for B.Sc. Students of Mathematics for the Fifth Semester. To possess an in-depth knowledge of the subjects, topics such as Automorphism, Conjugacy Classes and p-groups, The Sylow Theorems and Applications, Finite Simple Groups, Rings of Polynomials, Divisibility in Integral Domains, Vector Spaces and Subspaces, Linear Transformations, Rank and Nullity, Cayley Hamilton Theorem, Inner Product Spaces and Norms, Bilinear and Quadratic Forms etc. are well explained are explained thoroughly and followed by numerous examples and practice exercises. Questions from Universities Latest Examination papers are included at the end for smart revision and practice.

## Key Features

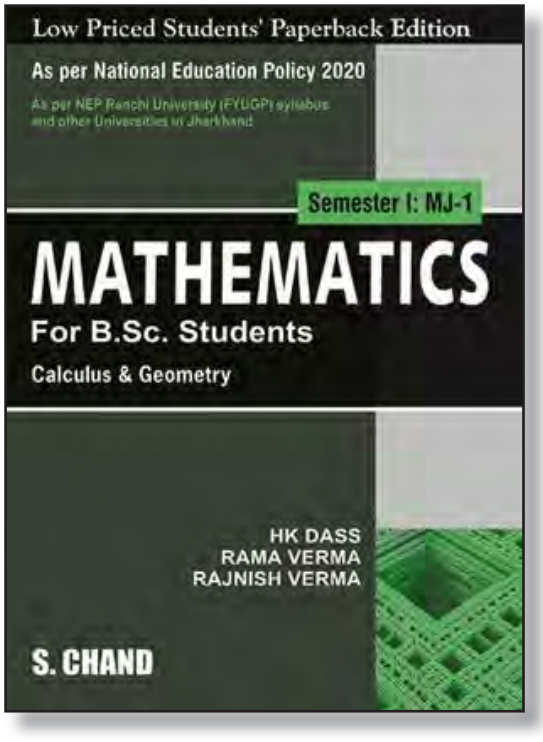
- Very lucid and logical presentation of concepts, for easy and quick understanding.
- Close to 300 solved examples for better understanding of almost every Article or topic is included.
- Close to 300 practice exercise questions from various University examination papers are also compiled

**ISBN: 9789355018588 | Price: ₹ 325 | Pages: 312 | Size: 6.5" X 9.25" (Paperback)**

## Contents



(NEP 2020, CMS, Uttar Pradesh State Universities)




# Mathematics For B.Sc. Students: Semester I, MJ-1 (Calculus & Geometry): For Ranchi University and other Universities in Jharkhand, FYUGP, Common Course under NEP 2020

H K Dass, Rajnish Verma & Dr. Rama Verma

## About the Book

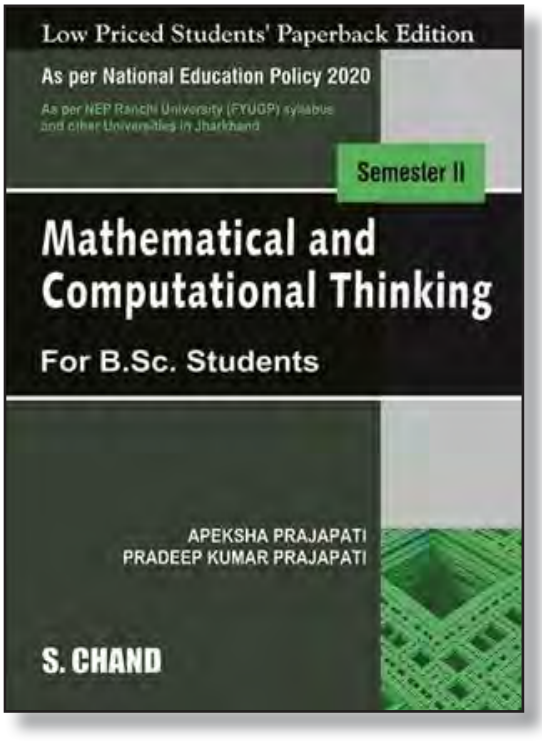
This textbook has been designed to meet the needs of B.Sc. First Semester students of Mathematics as per Common Minimum Syllabus prescribed for Ranchi University and other Universities and Colleges under the recommended National Education Policy 2020 in Jharkhand. To possess an in-depth knowledge of the subjects, topics such as Differentiability of a Function, Chain Rule of Differentiation, Mean Value Theorems, Darboux Theorem, Successive Differentiation: Leibniz's Theorem, Maclaurin and Taylor's Theorems, Curvature, Asymptotes and Curve Tracing, Integration of Rational and Irrational Functions, Definite and Special Integrals, Reduction Formulae, Length and Area Bounded by Plane Curves, Volume and Surface Area of Solid of Revolution, Planes, Straight Lines and Spheres etc. are well explained.

## Key Features

- Very lucid and logical presentation of concepts, for easy and quick understanding.
- Close to 450 solved examples for better understanding of almost every Article or topic is included.
- Close to 800 practice exercise questions from various University examination papers are also compiled.
- A comprehensive Index is also provided to search and locate a required topic.

**ISBN: 9789355018366 | Price: ₹ 450 | Pages: 432 | Size: 6.5" X 9.25" (Paperback)**

## Contents




# Mathematical and Computational Thinking, For Ranchi and other Universities in Jharkhand, FYUGP, Semester II, Common Course under NEP 2020

Apeksha Prajapati & Pradeep Kumar Prajapati

## About the Book

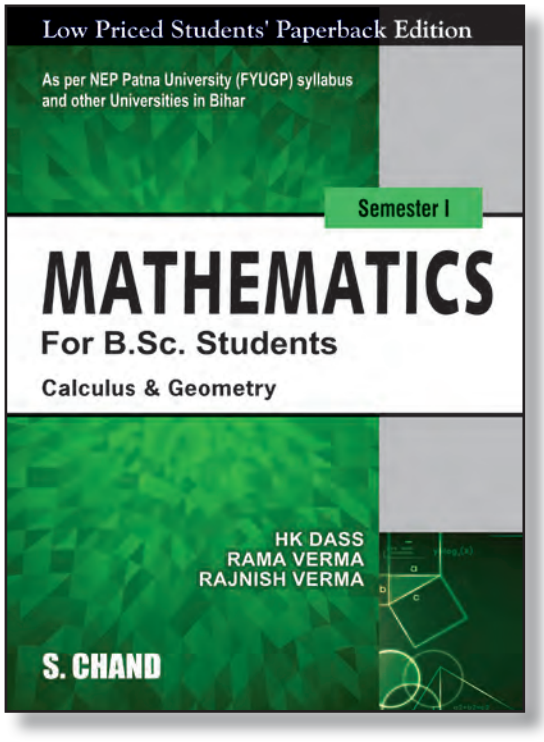
This textbook has been specifically developed on the directives of National Education Policy (NEP 2020) and is as per latest curriculum of B. Sc. Students (Second Semester) for Ranchi University and other Universities in Jharkhand. The book provides a comprehensive introduction in the field of Mathematics and Computation. The book covers important topics such as Statistics, Probability, Linear Programming Problem, Components of Computational Analysis, The Elements of Computational Thinking, Greedy Method, Divide-and-Conquer, Pseudocode, Introduction to Data and Excel, Organize Data in Excel, Data Formatting, Data Analysis, Charts in Excel etc. are well explained.

## Key Features

- Very lucid and logical presentation of concepts, for easy and quick understanding.
- Close to 125 solved examples for better understanding of almost every topic is included.
- Close to 150 practice exercise questions are included to help readers develop their skills and apply what they have learned.

**ISBN: 9789355018298 | Price: ₹ 175 | Pages: 168 | Size: 6.5" X 9.25" (Paperback)**

## Contents




# Mathematics for B. Sc. Students, Semester- I, Calculus and Geometry, (NEP 2020 Patna)

H K Dass, Rama Verma and Rajnish Verma

## About the Book

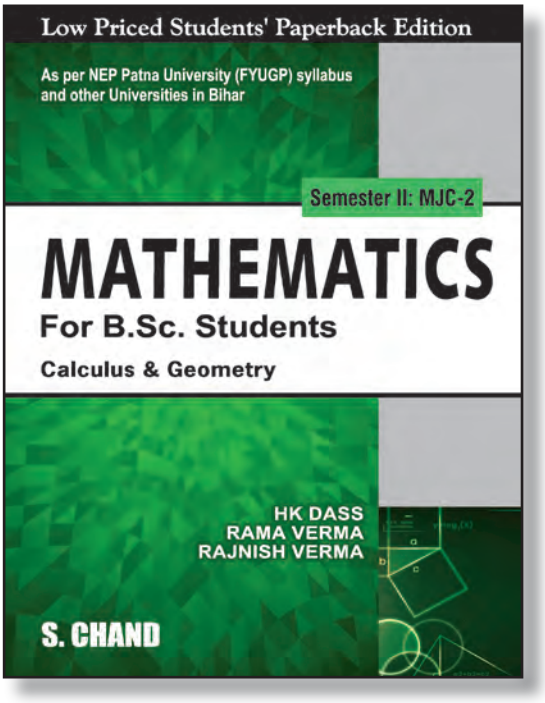
This textbook has been designed to meet the needs of B.Sc. First Semester students of Mathematics as per Common Minimum Syllabus prescribed for Patna University and other Universities and Colleges under the recommended National Education Policy 2020 in Bihar. To possess an in-depth knowledge of the subjects, topics such as Differentiability of a Function, Chain Rule of Differentiation, Mean Value Theorems, Darboux Theorem, Successive Differentiation: Leibniz's Theorem, Maclaurin and Taylor's Theorems, Curvature, Asymptotes and Curve Tracing, Integration of Rational and Irrational Functions, Definite and Special Integrals, Reduction Formulae, Length and Area Bounded by Plane Curves, Volume and Surface Area of Solid of Revolution, Planes, Straight Lines and Spheres etc. are well explained.

## Key Features

- Very lucid and logical presentation of concepts, for easy and quick understanding.
- Close to 450 solved examples for better understanding of almost every Article or topic is included.
- Close to 800 practice exercise questions from various University examination papers are also compiled.
- A comprehensive Index is also provided to search and locate a required topic.

**ISBN: 9789358707120 | Price: ₹ 450 | Pages: 432 | Size: 6.5" X 9.25" (Paperback)**

## Contents




# Mathematics for B.Sc. Students: Calculus & Geometry, Semester II, MJ-2 (NEP 2020 Patna)

H K Dass, Rama Verma and Rajnish Verma

## About the Book

This textbook has been designed to meet the needs of B.Sc. Second Semester students of Mathematics as per Common Minimum Syllabus prescribed for Patna University and other Universities and Colleges under the recommended National Education Policy 2020 in Bihar. The book comprehensively covers important topics such as Successive Differentiation and Leibnitz Theorem, Maclaurin and Taylor Series, Euler's Theorem, L'Hôpital's Rule, Curvature, Asymptotes, Integration of Rational and Irrational Functions, Length and Area Bounded by Plane Curves, Beta and Gamma Functions, General Equation of Conics and Reduction to Normal Form, Tangent and Normal of Conics, SphWere, Cone, Cylinder, Conicoid, Paraboloids, Scalar and Vector Triple Product, Differentiation and Integration of Vector Functions, Gradient of Scalar, Divergence and Curl etc. are explained thoroughly and followed by numerous examples and practice exercises. Questions from Universities Latest Examination papers are included at the end for smart revision and practice.

## Key Features

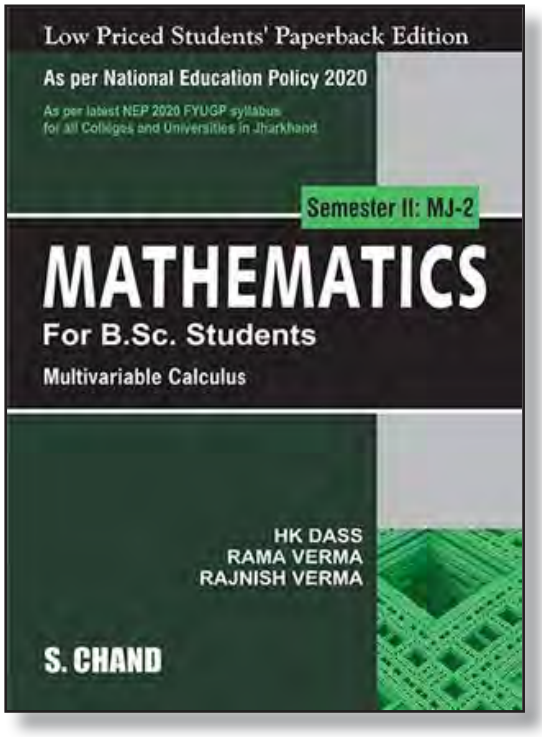
- Very lucid and logical presentation of concepts, for easy and quick understanding.
- More than 350 solved examples for better understanding of almost every topic are included.
- More than 1200 practice exercise questions from various University examination papers are also compiled.

**ISBN: 9789358708714 | Price: ₹ 450 | Pages: 400 | Size: 6.5" X 9.25" (Paperback)**

## Contents



(NEP 2020 for the University of Patna)




# Mathematics For B.Sc. Students Semester II: MJ-2 | Multivariable Calculus - NEP 2020 Jharkhand

H K Dass, Rajnish Verma & Dr. Rama Verma

## About the Book

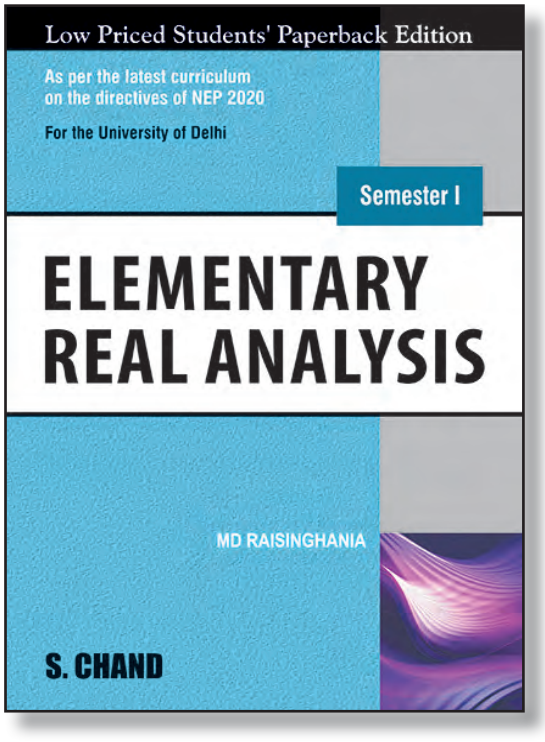
This textbook has been designed to meet the needs of B.Sc. Second Semester students of Mathematics as per Common Minimum Syllabus prescribed for Ranchi University and other Universities and Colleges under the recommended National Education Policy 2020 in Jharkhand. The book comprehensively covers important topics such as Functions of Several Variables, Partial Differentiation and Chain Rule, Higher Order Partial Derivatives, Total Differential and Differentiability, Jacobians, Change of Variables, Euler's Theorem for Homogeneous Functions Lagrange Multipliers, Double Integrals in Polar Coordinates, Triple Integration in Cylindrical and Spherical Coordinates, Change of Variables in Double and Triple Integrals, Vector, Scalar Point Functions and Gradient, Divergence, Vector Identities and Curl, Green's, Stoke's and Gauss Divergence Theorems, etc. are explained thoroughly and followed by numerous examples and practice exercises. Questions from Universities Latest Examination papers are included at the end for smart revision and practice.

## Key Features

- Very lucid and logical presentation of concepts, for easy and quick understanding.
- Close to 400 solved examples for better understanding of almost every topic is included.
- Close to 550 practice exercise questions from various University examination papers are also compiled.

**ISBN: 9789355018359 | Price: ₹ 450 | Pages: 400 | Size: 6.5" X 9.25" (Paperback)**

## Contents




# Elementary Real Analysis, Semester I: NEP-2022 for the University of Delhi

Dr. M.D. Raisinghania

## About the Book

Elementary Real Analysis is systematically written and it acquaints the students with the basic concepts and techniques. It covers thoroughly important topics such as Sets and Functions, The Real Numbers, Sequences, Infinite Series with Positive Terms, Infinite Series with Positive and Negative Terms. This textbook explains the subject in the most student-friendly manner and provides a foundation of the subject so that based on these, students can extrapolate, predict and solve challenging problems.

## Key Features

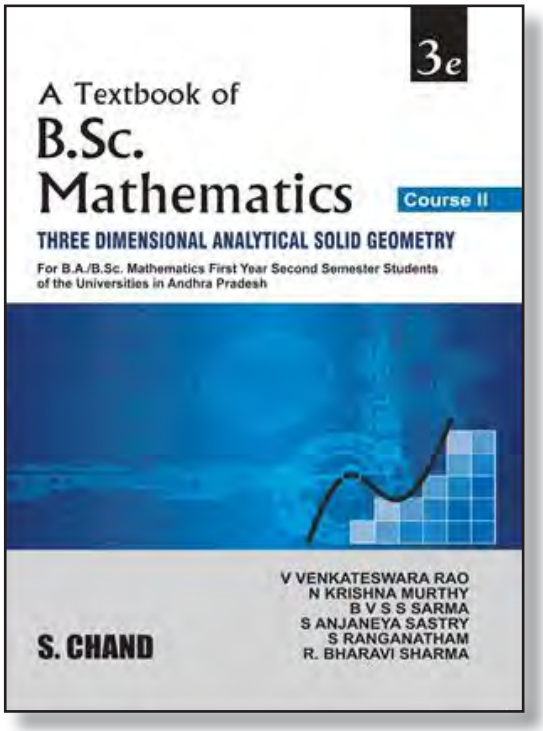
- Provides a detailed step-by-step approach to problem solving
- Over 200 examples for thorough understanding of the concepts
- Close to 200 exercise questions strengthen the well-explained theoretical concepts

**ISBN: 9789355016225 | Price: ₹ 295 | Pages: 240 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**Dr. M.D. Raisinghania** Former Reader and Head of the Mathematics Department, S.D. College, Muzaffarnagar. He obtained his Ph.D. in Mathematics on the thesis entitled "An Analytical Study of Some Non-Newtonian Fluid Flow Problems". He has 38 years of teaching experience. Dr. Raisinghania has published several research papers in the area of Fluid Mechanics in reputed journals.




# A Textbook of B.Sc. Mathematics Course II | Three Dimensional Analytical Solid Geometry: For Andhra Pradesh Universities

V. Venkateswara Rao, R Bharavi Sharma, B.V.S.S. Sarma, N. Krishnamurthy, S. Anjaneya Sastry & S. Ranganatham

## About the Book

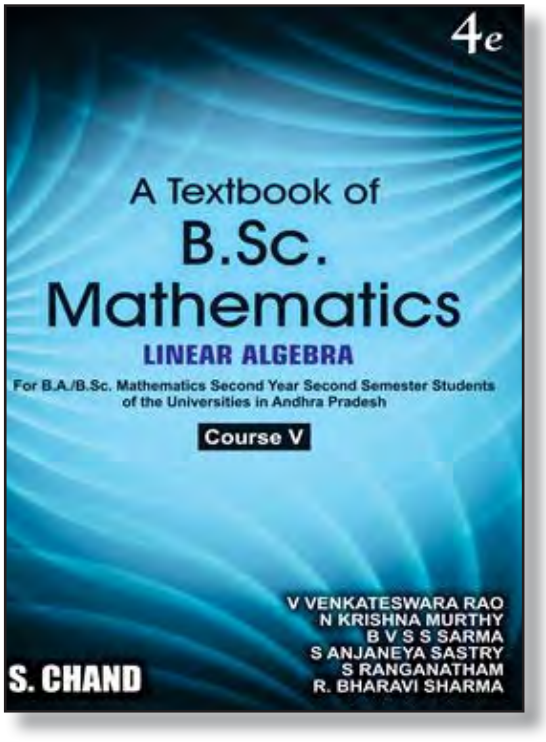
This book has been written strictly according to new curriculum for First Year: Second Semester students at all Universities of Andhra Pradesh. It covers Equation of Plane in Terms of Its Intercepts on the Axis, Combined equation of Two Planes, Orthogonal Projection on a Plane, Equation of a line, Angle between a Line and a Plane, The condition that Two Given Lines are Coplanar, Length of the Perpendicular from a Given Point to a Given Line, Definition and Equation of the Sphere, Equation of a Circle, Power of a point, Plane of Contact, Polar Plane, Pole of a Plane, Angle of Intersection of Two Spheres, Coaxial system of spheres, Definitions of a Cone, Vertex, Guiding Curve, Generators, Enveloping Cone of a Sphere, Tangent Lines and Tangent Plane at a Point, Intersection of Two Cones with a Common Vertex etc. The book will guide the students in a proper way and inspire them to sure and brilliant success.

## Key Features

- The book has been written in simple and lucid language.
- Detailed solutions for all problems in the various exercises of different chapters are given at the end.
- Quiz, Problems for Problem Solving Session and Three-dimensional Analytical Solid Geometry and its Applications are also included to make the book more comprehensive.

**ISBN: 9789355017277 | Price: ₹ 305 | Pages: 352 | Size: 6.5" X 9.25" (Paperback)**

## Contents




## A Textbook of B.Sc. Mathematics: Semester IV (Linear Algebra) : For Universities in Andhra Pradesh

V. Venkateswara Rao, R Bharavi Sharma, B.V.S.S. Sarma, N. Krishnamurthy, S. Anjaneya Sastry & S. Ranganatham

### About the Book

This book has been written strictly according to new curriculum for Second Year: Second Semester students at all Universities of Andhra Pradesh. It covers important topics such as Vector Spaces, Basis and Dimension, Linear Transformation, Fundamentals of Matrices, Characteristic Values and Characteristic Vectors, Cayley-Hamilton Theorem, Inner Product Spaces, and Orthogonality. The book will guide the students in a proper way and inspire them to sure and brilliant success. The authors are very happy that the earlier editions have been very well used by the students.

### Key Features

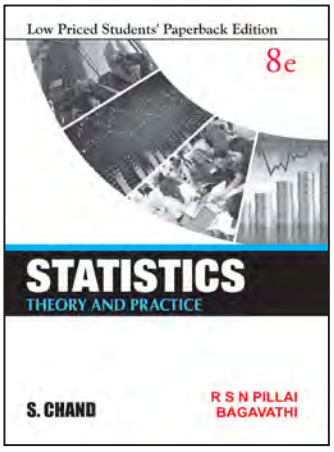
- The book has been written in simple and lucid language.
- Quiz, Questions for Problem Solving Session, Applications of Linear Algebra" are included to make the book more comprehensive.
- Detailed solutions for all problems in the various exercises of different chapters are given at the end.
- Key to "A Textbook of B.Sc. Mathematics - Vol. II (Course 5- Linear Algebra)" of 60 pages are also included at the end of the book.

**ISBN: 9789355017253 | Price: ₹ 275 | Pages: 312 | Size: 6.5" X 9.25" (Paperback)**

### Contents



(NEP 2020 Andhra Pradesh Universities)




## Statistics, 8e (LPSPE)

R S N Pillai & Bagavathi

### About the Book

A comprehensive and easy to understand text, this book discusses fundamental theoretical concepts with emphasis on practical applicability. The book begins with the explanation of statistical fundamentals and progresses to discussion of representation and presentation techniques, measures of central tendency, dispersion, skewness, correlation, regression, and index numbers. It further initiates the study of index numbers and analysis of time series, interpolation and extrapolation, association of attributes, probability, theoretical distribution, sampling theory and chi square and concludes with logarithm and its uses. The book has ample illustrations with solutions to help students understand the topics discussed and gain a solid foundation in statistics. The book is an ideal choice for undergraduate and postgraduate students of statistics, and also caters to the needs of students of varied disciplines.

### Key Features

- A perfect balance of theory and practice with abundant diagrams and tables to reinforce understanding
- Over 550 solved illustrations interspersed throughout the text
- More than 400 objective type questions with answers; 300 theoretical questions and 1000+ practical problems with detailed answers

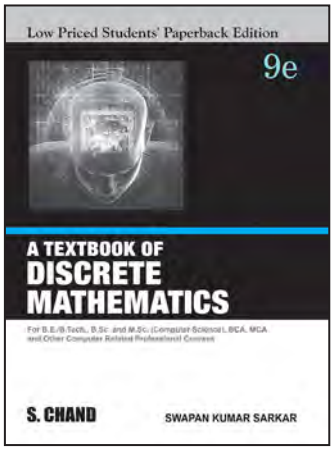
**ISBN: 9789352837267 | Price: ₹ 595 | Pages: 888 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Introduction, 2. Importance, Functions and Limitations, 3. Statistical Survey, 4. Collection of Data, 5. Sampling Design, 6. Classification and Tabulation, 7. Diagrammatic Representation, 8. Graphic Presentation, 9. Measures of Central Tendency (Averages), 10. Dispersion, 11. Skewness, Kurtosis, Moments, 12. Correlation, 13. Regression, 14. Index Numbers, 15. Analysis of Time Series, 16. Interpolation and Extrapolation, 17. Association of Attributes, 18. Probability, 19. Theoretical Distribution, 20. Sampling Theory and Test of Significance, 21. CHI Square Test, 22. Logarithm and their Uses

**R S N Pillai,** Formerly Professor & Head of the Department (Commerce), Anna College, Aramboly (Kanyakumari).

---




## A Textbook of Discrete Mathematics, 9e (LPSPE)

Swapan Kumar Sarkar

### About the Book

*A Textbook of Discrete Mathematics* provides an introduction to fundamental concepts in Discrete Mathematics, the study of mathematical structures which are fundamentally discrete, rather than continuous. It explains how concepts of discrete mathematics are important and useful in branches of computer science, such as, computer algorithms, programming languages, automated theorem proving and software development, to name a few. Written in a simple and lucid style, it has a balanced mix of theory and application to illustrate the implication of theory. It is designed for the students of graduate and postgraduate courses in computer science and computer engineering. The students pursuing IT related professional courses may also be benefitted.

### Key Features

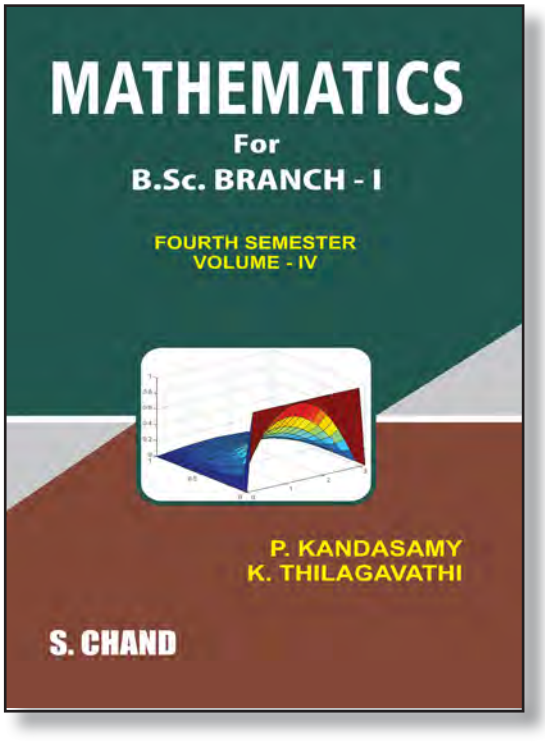
- Nearly 1000 solved examples throughout the book to facilitate understanding of concepts
- More than 250 figures and 60 tables help explain the concepts lucidly and illustrate the implications of theory
- More than 1000 practice set questions with answers presenting a mixture of straight forward application to ideas of chapter to challenging problems and nearly 500 multiple choice questions with answers at the end of each chapter to test the reader's understanding and grasp over the topic

**ISBN: 9789352837359 | Price: ₹ 550 | Pages: 1,024 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. A Brief Survey of Discrete Mathematics, 2. Mathematical Logic, 3. Boolean Algebra and Logic Circuits, 4. Set Theory, 5. Matrices, 6. Number Theory, 7. Relation, 8. Function, 9. Posets and Lattices, 10. Combinatorics, 11. Recurrence Relation and Generating Function, 12. Group Theory, 13. Rings and Fields, 14. Graph Theory – I, 15. Graph Theory – II, 16. Trees, 17. Language, Grammar and Automata, 18. Time Complexity of Algorithm, 19. Vector Spaces, 20. Elements of Coding Theory • *References* • *Index*

**Swapan Kumar Sarkar,** Professor and Head of Department - MCA, Meghnad Saha Institute of Technology, Kolkata.




# Mathematics for B. Sc. Branch – I: Fourth Semester Volume-IV

P. Kandasamy & Dr. K. Thilagavathi

## About the Book

" Mathematics for B. Sc. Branch - I Vol IV " is written to meet the requirements of undergraduate students of mathematics and cover Differentiation of Vectors, Gradient, Divergence and Curl, Integration of Vectors, Fourier Series and its Applications, Fourier Series and Fourier Transforms. Undergraduate students will find this book to be an ideal choice as it is written in a systematic and lucid manner.

## Key Features

- Close to 200 examples aid in ease of understanding of the concepts.
- More than 300 questions (as in-text and book-end exercises) to enhance and strengthen the learning quotient.

**ISBN: 9788121924733 | Price: ₹ 250 | Pages: 268 | Size: 6.5" X 9.25" (Paperback)**

## Contents

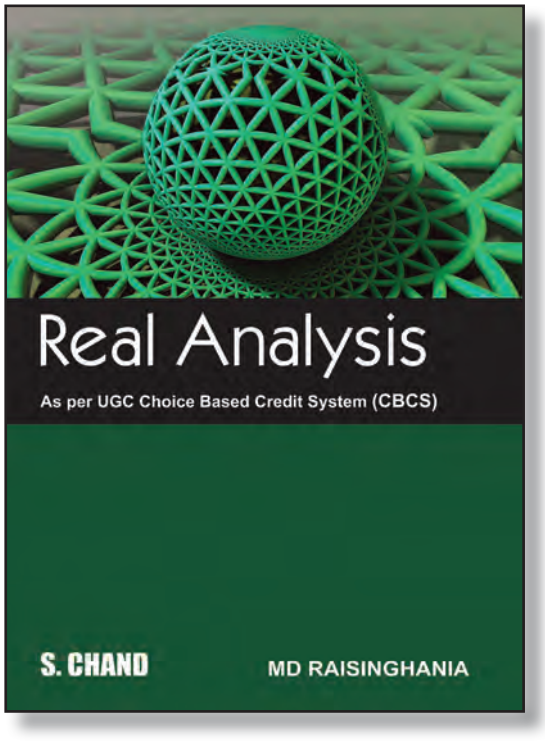


**P. Kandasamy:** M.A., Ph.D., Former Professor of Mathematics, P.S.G. College of Technology Coimbatore & Visiting Professor, Amrita Institute of Technology Deemed University, Coimbatore

**K. Thilagavathi: M.Sc., M.Phil, Ph.D., Reader in Mathematics, Kongunadu Arts and Science College, Coimbatore**

LOW PRICED STUDENTS' PAPERBACK EDITION

LOW PRICED STUDENTS' PAPERBACK EDITION




# Real Analysis (As per UGC & CBCS)

Dr. M.D. Raisinghania

## About the Book

This textbook has been designed as per the UGC Choice Based Credit System (CBCS) curriculum to meet the requirements of undergraduate students of mathematics. Systematically written, it acquaints the students with the basic concepts and techniques of real analysis. Important topics such as sets & functions, sequences, infinite series, fundamental properties of limits of functions, uniqueness of limit, continuous functions, basic theory of derivatives & its applications have been thoroughly explained.

## Key Features

- Provides a detailed step-by-step approach to problem solving
- Over 200+ examples for thorough understanding of the concepts
- More than 400 unsolved problems for effective practice
- Additional Roadmap for the syllabuses of Odisha State, Calcutta, Gauhati, Dibrugarh and Burdwan universities

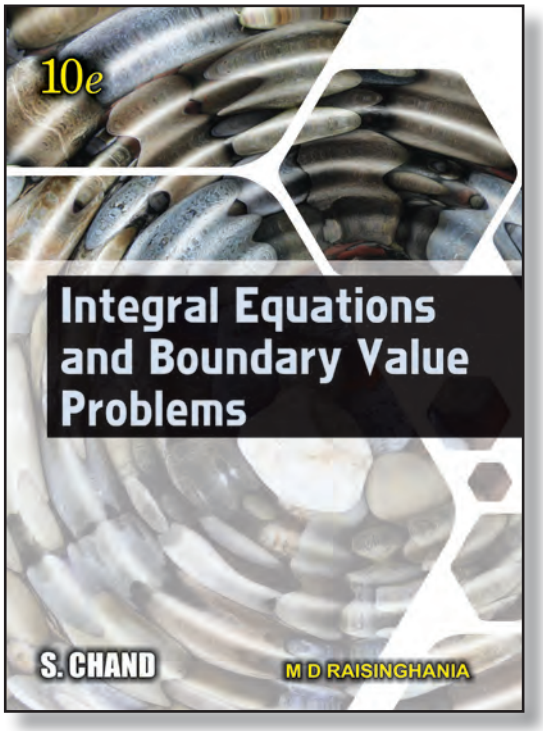
**ISBN: 9789355014108 | Price: ₹ 350 | Pages: 320 | Size: 6.5" X 9.25" (Paperback)**

## Contents



Dr. M.D. Raisinghania

Former Reader and Head of the Mathematics Department, S.D. College, Muzaffarnagar. He obtained his Ph.D. in Mathematics on the thesis entitled "An Analytical Study of Some Non-Newtonian Fluid Flow Problems". He has 38 years of teaching experience. Dr. Raisinghania has published several research papers in the area of Fluid Mechanics in reputed journals.




# Integral Equations and Boundary Value Problems, 10e

M D Raisinghania

## About the Book

The tenth edition of Integral Equations and Boundary Value Problems continues to offer an in-depth presentation of integral equations for the solution of boundary value problems. The book provides a plethora of examples and step-by-step presentation of definitions, proofs of the standard results and theorems which enhance students' problem-solving skills. Solved examples and numerous problems with hints and answers have been carefully chosen, classified in various types and methods, and presented to illustrate the concepts discussed. With the author's vast experience of teaching mathematics, his approach of providing a one-stop solution to the students' problems is engaging which goes a long way for the reader to retain the knowledge gained. This book has been specifically designed for postgraduate students of Mathematics and Physics. It would also be equally useful for undergraduate students of applied mathematics as well as for the aspirants of GATE, CSIR-UGC (NET/JRF), SLET and other competitive examinations.

## Key Features

- Thorough revision of chapters on Integral Transform Methods, Applications of Integral Equations and Green's Function to Ordinary Differential Equations and Applications of Integral Equations to Partial Differential Equations as per the latest curriculum requirements
- Latest questions from various universities, GATE (2006-2020) and CSIR-UGC NET (2011-2019)
- Enhanced pedagogy comprising:
  * a set of "Additional results and problems" at the end of each chapter
  * a list of useful results of integration for direct applications along with contents and notations
- Inclusion of two new appendices:
  * Appendix C: Beta and Gamma functions * Appendix D: Cramer's rule for solving a system of Two Linear Algebraic Equations in Two Variables

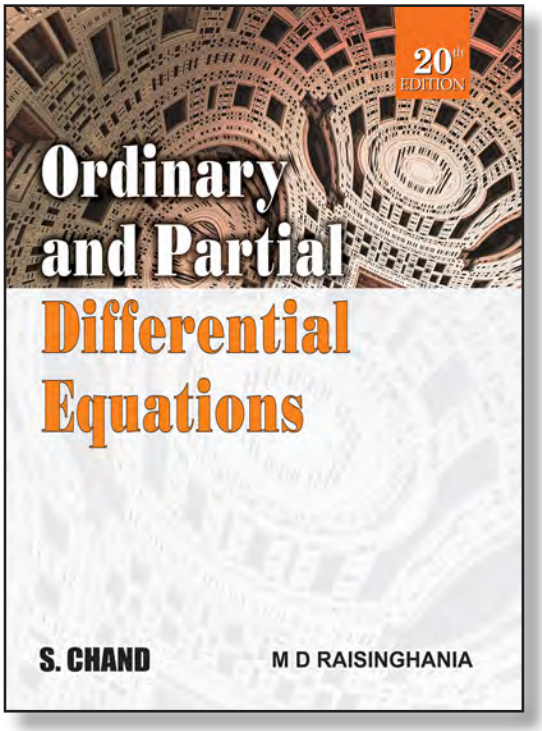
**ISBN: 9789352838950 | Price: ₹ 495 | Pages: 600 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**M D Raisinghania,** M.Sc.; Ph.D., is formerly Reader and Head of the Mathematics Department at S.D. (Postgraduate) College, Muzaffarnagar. He obtained his Ph.D. in Mathematics on the thesis entitled "An Analytical Study of Some Non-Newtonian Fluid Flow Problems". He has a rich experience of 38 years in teaching Mathematics to both undergraduate and postgraduate students.

A prolific author, Dr. Raisinghania has to his credit several books—Fluid Dynamics, Elements of Real Analysis, Dynamics, Ordinary and Partial Differential Equations, Advanced Differential Equations and Elements of Real Analysis in addition to this book. He has also published a number of research papers on Fluid Mechanics in reputed journals and his main research interest includes Fluid Mechanics.




# Ordinary and Partial Differential Equations, 20e

M D Raisinghania

## About the Book

This well-acclaimed book, now in its twentieth edition, continues to offer an in-depth presentation of the fundamental concepts and their applications of ordinary and partial differential equations providing systematic solution techniques. The book provides step-by-step proofs of theorems to enhance students' problem-solving skill and includes plenty of carefully chosen solved examples to illustrate the concepts discussed.

Designed as a textbook for undergraduate and postgraduate students of Mathematics and Physics as well as undergraduate students of all branches of Engineering and AMIE, this book would also be useful for the aspirants of GATE, CSIR-UGC (NET) and other competitive examinations.

## Key Features

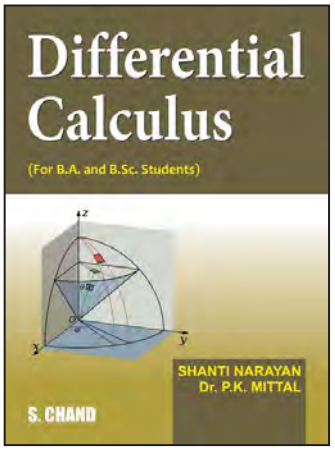
- A new chapter on "Miscellaneous Methods and Existence and Uniqueness Theorem for Solutions of First Order Initial Value Problems"
- Clear exposition of Picard's theorem and Picard's iterative method of successive approximations l Detailed discussion on Lipschitz condition, Lipschitz constant, Lipschitz continuous function, Gronwall inequality and existence and uniqueness of solutions to first order initial value problems
- For practice a number of exercises including questions asked in different university examinations, GATE, CSIR-UGC (NET) and other competitive examinations

**ISBN: 9789352836109 | Price: ₹ 895 | Pages: 912 | Size: 6.5" X 9.25" (Paperback)**

## Contents



**M D Raisinghania,** M.Sc.; Ph.D., is formerly Reader and Head of the Mathematics Department at S.D. (Postgraduate) College, Muzaffarnagar. He obtained his Ph.D. in Mathematics on the thesis entitled "An Analytical Study of Some Non-Newtonian Fluid Flow Problems". He has a rich experience of 38 years in teaching Mathematics to both undergraduate and postgraduate students.




## Differential Calculus

Shanti Narayan & P K Mittal

### About the Book

This textbook commences with a brief outline of development of real numbers, their expression as infinite decimals and their representation by points along a line. While the first part of the textbook is analytical, the latter part deals with the geometrical applications of the subject. Numerous examples and exercises have been provided to support student's understanding. This textbook has been designed to meet the requirements of undergraduate students of BA and BSc courses.

### Key Features

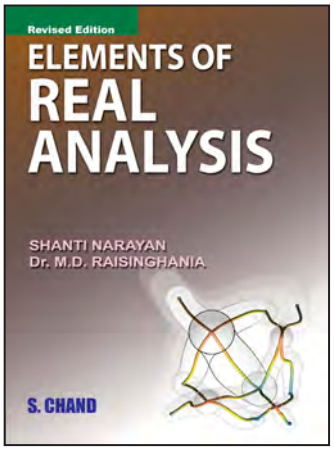
- Analytical geometrical interpretation of results has been provided
- Principles and methods profusely illustrated with the help of numerous solved examples
- A chapter on Some Important Curves which acquaints the students with different kinds of curves helping them understand their properties

**ISBN: 9788121904711 | Code: 1014B00049 | Price: ₹ 625 | Pages: 584 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Real Numbers, 2. Functions and Graphs–Elementary Functions, 3. Continuity and Limit, 4. Differentiation, 5. Successive Differentiation, 6. Expansion of Functions, 7. Tangents and Normals, 8. Mean Value Theorems, 9. Maxima and Minima, 10. Indeterminate Forms, 11. Partial Differentiation, 12. Jacobians,13. Concavity and Points of Inflexion, 14. Curvature and Evolutes, 15. Asymptotes, 16. Singular Points, 17. Curve Tracing, 18. Envelopes, 19. Change of Independent Variables

**Shanti Narayan,** Formerly Dean of Colleges, Principal, Hans Raj College, University of Delhi.




## Elements of Real Analysis

Shanti Narayan & M D Raisinghania

### About the Book

This classic book is a part of bestseller series in mathematics by eminent mathematician, Shanti Narayan. This thoroughly revised edition facilitates students to understand Elements of Real Analysis and provides stimulus for the commencement of the study of Analysis. This book caters to B.A., B.Sc.- Pass and Honours (Mathematics and Physics), M.A. and M.Sc. (Mathematics) students of various universities. It is also useful for GATE, CSIR-UGC(NET) and other competitive examinations.

### Key Features

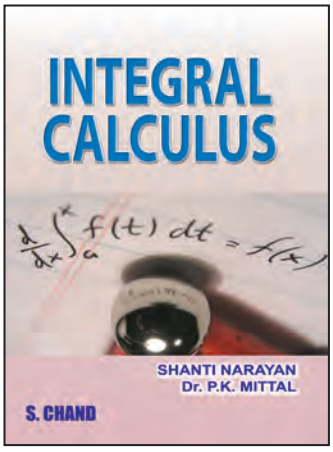
- Chapter on Fourier Series rewritten in the revised edition with new useful results
- New chapters on Countability of Sets, The riemann-Stieltjes Integrals, Uniform Convergence of Sequences and Series of Functions, Improper Integrals and Metric Spaces
- Illustrative solved examples and exercises to get a firm grip on the subject and enhance understanding

**ISBN: 9788121903066 | Code: 1014G00052 | Price: ₹ 625 | Pages: 888 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Sets and Functions, 2. The Real Numbers, 3. Neighbourhoods and Limit Points of a Set: Open and Closed Sets, 4. Countability of Sets, 5. Sequences, 6. Infinite Series with Positive Terms, 7. Infinite Series with Positive and Negative Terms, 8. Real Functions: Limit and Continuity, 9. Real Functions: The Derivative, 10. Mean Value Theorems, 11. Maxima and Minima, 12. Indeterminate Forms, 13. Riemann Integrability, 14. The Riemann Stieltjes Integral, 15. Uniform Convergence of Sequences and Series of Functions, 16. Improper Integrals, 17. Power Series, 18. Double Sequences and Series, 19. Metric Spaces, 20. Beta and Gamma Functions, 21. Differentiation under the Integral Sign, 22. Fourier Series • *Appendix: A.1: Some useful Theorems, A.2: Uniform Convergence and Continuity, A.3: Dini's Theorems on Uniform Convergence, A.4: Uniform Convergence and Integration, A.5: Uniform Convergence and Integration (particular cases of Theorems 1 and 2 discussed in Art. A.4), A.6: Uniform Convergence and Differentiation, A.7: Miscellaneous Problems on Chapter 15 • Miscellaneous Results and Problems based on the Entire Book • Index*

**Shanti Narayan,** Formerly Dean of Colleges, Principal, Hans Raj College, University of Delhi.
**M D Raisinghania,** Formerly Reader and Head of Department - Mathematics, S D College, Muzaffarnagar.




## Integral Calculus

Shanti Narayan & P K Mittal

### About the Book

This classic book is a part of bestseller series in mathematics by eminent mathematician, Shanti Narayan. It is an exhaustive foundation text on Integral Calculus and primarily caters to the undergraduate courses of BSc. and BA.

### Key Features

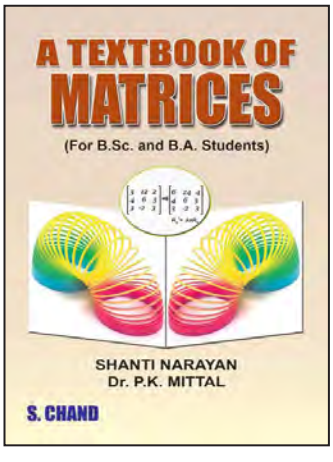
- New chapters on Beta and Gamma Functions, Convergence of Improper Integrals, Differentiation under Integral Sign and Multiple Integrals.
- Numerous solved examples to facilitate easy reminiscence.

**ISBN: 9788121906814 | Code: 1014B00050 | Price: ₹ 550 | Pages: 608 | Size: 6.5" X 9.25" (Paperback)**

### Contents



**Shanti Narayan,** Formerly Dean of Colleges, Principal, Hans Raj College, University of Delhi.
**P K Mittal,** Formerly Head of Department - Mathematics, Government Post Graduate College, Rishikesh.




## A Textbook of Matrices

Shanti Narayan & P K Mittal

### About the Book

The revised edition of the book fills in the urgent need of a treatise on the fundamental laws of operation with numbers so that the readers can understand points of similarity and difference between the Algebra of Matrices and of numbers. The subject is equally important to mathematical disciplines such as Geometry and Modern Algebra and to sciences. The book provides a well rounded and complete account of important concepts of Group, Ring, Field Isomorphism, Equivalence, Congruence and reduction of real quadratic and Hermitian forms to canonical form. Elementary treatment of Vector spaces and linear independence and dependence of vector systems helps in discussing Ranks of matrices and in formulation of results of a system of equations and characteristic vector of a matrix. Illustration of every idea and theorem with abundant solved examples and lucid language are the unique features of this legendary textbook. It is a must read for Mathematics and Science students of undergraduate programmes. Aspirants trying for competitive examinations will also find the book equally useful.

### Key Features

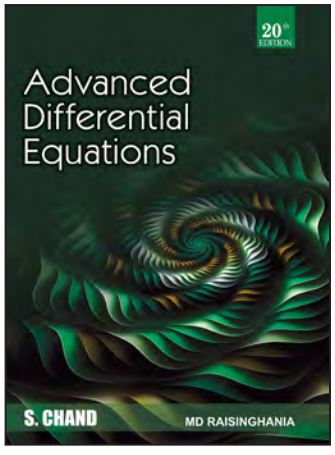
- Strong pedagogy comprising beneficial chapter end features to enhance learning of the students - summary, Nearly 100 Exercises, more than 300 objective type questions at chapter end
- Nearly 200 solved examples and more than 350 exercises within the chapters to illustrate concepts and test the topical understanding of students, respectively

**ISBN: 9788121925969 | Code: 1014A00509 | Price: ₹ 350 | Pages: 320 | Size: 6.5" X 9.25" (Paperback)**

### Contents



**Shanti Narayan,** Formerly Dean of Colleges, Principal, Hans Raj College, Delhi.
**P K Mittal,** Formerly Head of Department - Mathematics, Government Post Graduate College, Rishikesh.




# Advanced Differential Equations, 19e

M D Raisinghania

## About the Book

This book is especially written for the students of B.A. (Mathematics), B.Sc., (Mathematics & Physics), M.A. (Mathematics), M.Sc. (Mathematics & Physics) and B.E./B.Tech. Besides, it will also be of immense value to the aspirants of AMIE,GATE, CSIR- UGC (NET) and other competitive examinations. A set of objective problems (including questions asked in the examinations of various universities, GATE, NET, etc.) has been provided at the end of each chapter. Also, several new solved examples have been added so that the reader may gain confidence in the techniques of solving problems.

## Key Features

- Total 43 chapters are divided in 5 parts to make to reading easy from one topic to another
- More than 1100 examples aid in ease of understanding of the concepts
- More than 500 questions (as in-text and book-end exercises) to enhance and strengthen learning quotient
- It will also be found useful by the students preparing for various competitive examinations

**ISBN: 9789355014672 | Price: ₹ 895 | Pages: 1,088 | Size: 6.5" X 9.25" (Paperback)**

## Contents

Part I: Advanced Ordinary Differential Equations and Special Functions, 1. Miscellaneous Methods and Existence and Uniqueness Theorem for Solutions of First Order Initial Value Problems, 2. Picard's Iterative Method, Picard's Theorem and Existence And Uniqueness Of Solutions To First Order Initial Value Problems, 3. Beta and Gamma Functions, 4. Integration in Series, 5. Legendre Polynomials 6. Bessel Functions, 7. Hermite Polynomials, 8. Laguerre Polynomials, 9. Hypergeometric Function 10. The Error Function, Heaviside Unit Function or Unit Step Function) And Dirac Delta Function (Or Unit Impulse Function), 11. Systems of Linear Ordinary Differential Equations, 12. Orthogonal Sets of Functions and Strum Liouville Problem, 13. Simultaneous Equations of The Form (Dx)/P = (Dy)/Q = (Dz)/R, 14. Total Differential Equations, 15. Green's Function and Its Applications to Boundary Value Problems

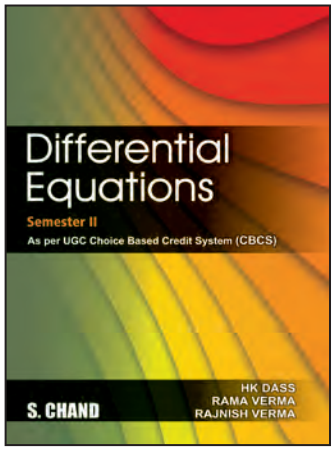
Part II: Partial Differential Equations 1. Origin of Partial Differential Equations, 2. Linear Partial Differential Equations of Order One , 3. Non-Linear Partial Differential Equations of Order One, 4. Homogeneous Linear Partial Differential Equations with Constant Coefficients, 5. Non-Homogeneous Linear Partial Differential Equations with Constant Coefficients, 6. Partial Differential Equations Reducible to Equations with Constant Coefficients, 7. Partial Differential Equations of Order Two with Variable Coefficients, 8. Classification of P.D.E. Reduction to Canonical Or Normal Forms Riemann Method, 9. Cauchy Initial Value Problem for Linear First Order Partial Differential Equations, Part IIIA: Fourier Series, 1. Fourier Series

Part IIIB: Boundary Value Problems and Their Solutions by Separation of Variables, 1. Heat, Wave, Laplace, and Poisson Equations. Method Of Separation of Variables, 2. Boundary Value Problems in Cartesian Co-Ordinates, Section I: Problems Based on One-Dimensional Heat (Or Diffusion) Equation, Section II: Problems Based on Two-Dimensional Heat (Or Diffusion) Equation,Section III: Problems Based on Three-Dimensional Heat (Or Diffusion) Equation, Section IV: Problems Based on One-Dimensional Wave Equation, Section V: Problems Based on Two-Dimensional Wave Equation, Section VI: Problems Based on Three-Dimensions Wave Equation, Section VII: Problems Based on Two-Dimensional Laplace's Equation, Section VIII: Problems Based on Three-Dimensional Laplace' Equation, Section IX: Solution of Dirichlet Problem Involving the Poisson Equation, 3. Boundary Value Problems in Polar Coordinates, 4. Boundary Value Problems in Cylindrical Coordinates, 5. Boundary Value Problems in Spherical Coordinates, Part IVA: Laplace Transforms with Applications, 1. The Laplace Transform, 2. The Inverse Laplace Transform, 3. Applications to Ordinary Differential Equations 4. Applications to Integral Equations, 5. Applications to Boundary Value Problems, Part IVB: Fourier Transforms and their Applications, 1. Fourier Integrals and Fourier Transforms, 2. Finite Fourier Transforms

Part IVC: The Hankel Transforms and their Applications, 1. The Hankel Transform and Its Applications, 2. The Finite Hankel Transform and Its Applications

Part V: Calculus of Variations with Applications, 1. Variational Problems with Fixed Boundaries, 2. Variational Problems with Moving (or Free) Boundaries. One Sided Variation , 3. Sufficient Conditions for An Extremum, 4. Direct Methods in Variational Problems

**M.D. Raisinghania,** M.Sc.; Ph.D., is formerly Reader and Head of the Mathematics Department at S.D. (Postgraduate) College, Muzaffarnagar. He obtained his Ph.D. in Mathematics on the thesis entitled “An Analytical Study of Some Non-Newtonian Fluid Flow Problems”. He has a rich experience of 38 years in teaching Mathematics to both undergraduate and postgraduate students.




## Differential Equations: CBCS Semester II – Eastern India Universities

H K Dass, Rajnish Verma & Dr. Rama Verma

### About the Book

"Differential Equations (CBCS)" is designed as per the UGC Choice Based Credit System (CBCS) curriculum to meet the requirements of undergraduate students of mathematics and aptly covers Differential Equations and Mathematical Models. Major topics such as Cauchy-Euler, Total and Linear Partial Differential Equations of First Order (Lagrange-Charpit Method) have been dealt with deftly to provide a further insight in the subject. Written in a lucid and concise manner, the textbook has an adept balance between theory with practice.

### Key Features

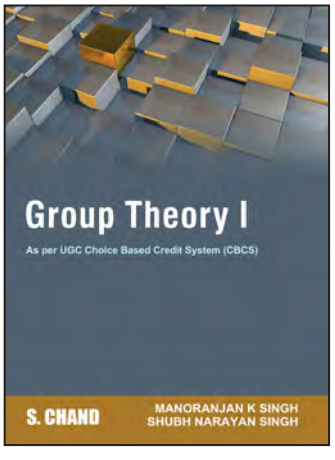
- On the Website: Lipschitz condition and Picard's Theorem and the Existence and Uniqueness Theorem
- Close to 400 examples aid in ease of understanding of the concepts
- More than 900 questions (as in-text and book-end exercises) to enhance and strengthen learning quotient
- Additional Roadmap for the syllabuses of Odisha State, Burdwan, Calcutta, Dibrugarh and Gauhati universities

**ISBN: 9789355013767 | Price: ₹ 360 | Pages: 448 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Differential Equations and Mathematical Models, 2. Separable Equations and Reducible Form, 3. First Order Homogeneous, Non-Homogeneous Differential Equations, 4. First Order Linear Differential Equations, 5. Exact Differential Equation and Integrating Factors, 6. First Order Higher Degree Equations, 7. Application of First Order Differential Equations, 8. Compartmental Models, 9. Linear Differential Equations with Constant Coefficients, 10. Differential Equations with Variable Coefficients, 11. Cauchy - Euler Differential Equation, 12. Method of Variation of Parameters, 13. Method of Undetermined Coefficients, 14. Simultaneous Differential Equations, 15. Total Differential Equations, 16. Applications of Second Order Differential Equation, 17. Phase-plane Analysis of Compartmental Models, 18. Linear Partial Differential Equations of First Order: Lagrange-Charpit Method, 19. Linear and Nonlinear Partial Differential Equations, 20. Classification of Partial Differential Equations, 21. Partial Differential Equations: Method of Separation of Variables, 22. Power Series Solutions, 23. Bessel's Functions

• Latest Examination Questions • Index




## Group Theory I ( UGC-CBCS)

Dr. Manoranjan Kumar Singh & Dr. Shubh Narayan Singh

### About the Book

"Group Theory I" is designed as per the UGC Choice Based Credit System (CBCS) curriculum to meet the requirement of undergraduate students of mathematics and aptly covers the fundamental principles, Homomorphisms and Isomorphisms, Subgroups, Symmetric, Abelian and Cyclic Groups among other topics. Written in a lucid and concise manner, the textbook is an adept balance between theory with practice.

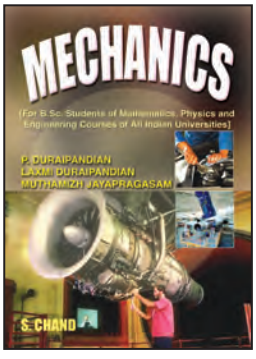
### Key Features

- Special write-up on Applications of Group Theory in Human Life
- More than 150 tables, figures, examples and solved problems for easy understanding of the concepts
- Close to 1600 chapter-end and book-end questions in four different formats to enhance and strengthen learning quotient
- Additional Roadmap for the syllabuses of Odisha State, Burdwan, Calcutta, Dibrugarh and Gauhati universities

**ISBN: 9789355011619 | Price: ₹ 235 | Pages: 256 | Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Introduction and Definitions, 2. Further Examples of Groups, 3. Elementary Properties of Groups, 4. Homomorphisms and Isomorphisms, 5. Subgroups 6. Symmetric Groups, 7. Abelian Groups, 8. Cyclic Groups, 9. Cosets and Lagrange's Theorem, 10. Normal Subgroups and Quotient Groups, 11. Isomorphism Theorems, 12. Group of Isometries and Dihedral Group, Objective Type Questions for Practice



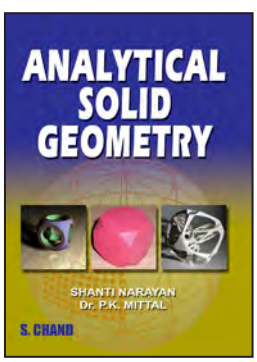

## Mechanics

P Duraipandian, Laxmi Duraipandian & Muthamizh Jayapragasam

**ISBN: 9788121902724**
**Code: 1014A00199**
**Price: ₹ 445 | Pages: 400**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

Introduction, 1. Kinematics, 2. Force, 3. Equilibrium of a Particle, 4. Forces on a Rigid Body, 5. A Specific Reduction of Forces, 6. Centre of Mass, 7. Stability of Equilibrium, 8. Virtual Work, 9. Hanging Strings, 10. Rectilinear Motion Under Constant Forces, 11. Work, Energy and Power, 12. Rectilinear Motion Under Varying Force, 13. Projectiles, 14. Impact, 15. Circular Motion, 16. Central Orbits, 17. Moment of Inertia, 18. Two Dimensional Motion of a Rigid Body, 19. Theory of Dimensions



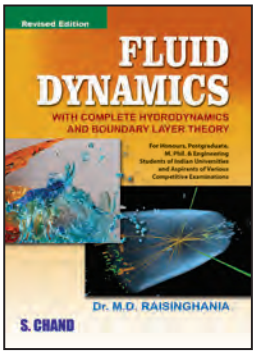

## Analytical Solid Geometry

Shanti Narayan & P K Mittal

**ISBN: 9788121926614**
**Code: 1014B00516**
**Price: ₹ 395 | Pages: 432**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Co-ordinates, 2. The Plane, 3. Right Line, 4. Interpretation of Equations – Loci, 5. Transformation of Co-ordinates, 6. The Sphere, 7. Cones and Cylinders, 8. The Conicoid, 9. Plane Sections of Conicoids, 10. Generating Lines of Conicoids, 11. General Equation of the Second Degree, 12. Confocal Conicoids • Appendix:Spherical Polar and Cylindrical Co-ordinates



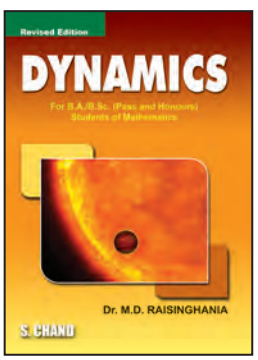

## Fluid Dynamics

M D Raisinghania

**ISBN: 9788121908696**
**Code: 1014E00349**
**Price: ₹ 725 | Pages: 992**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Introduction, 2. Kinematics of Fluids in Motion, 3. Equations of Motion of Inviscid Fluids, 4. One-Dimensional Inviscid Incompressible Flow (Bernoulli's Equation and its Applications), 5. Motion in Two-Dimension Sources and Sinks, 6. General Theory of Irrotational Motion, 7. Motion of Cylinders, 8. The Use of Conformal Representation. Aerofoils, 9. Discontinuous Motion, 10. Irrotational Motion in Three-Dimensions. Motion of a Sphere. Stokes's Stream Function, 11. Vortex Motion. Rectilinear Vortices, 12. Waves, 13. General Theory of Stress and Rate of Strain, 14. The Navier-Stokes Equations and the Energy Equation, 15. Dynamical Similarity, Inspection Analysis and Dimensional Analysis, 16. Laminar Flow of Viscous Incompressible Fluids, 17. Theory of Very Slow Motion, 18. Boundary Layer Theory, 19. Thermal Boundary Layer, 20. Flow of Inviscid Compressible Fluids. Gas Dynamics, 21. Flow of a Compressible Viscous Fluid • *Miscellaneous Topics and Problems on the Entire Book* • *Index*



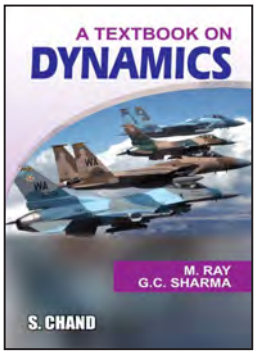

## Dynamics

M D Raisinghania

**ISBN: 9788121926492**
**Code: 1014B00492**
**Price: ₹ 450 | Pages: 504**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Basic Concepts of Dynamics, 2. Work, Power, Energy and Impulse. System of Particles and Conservation Principles, 3. Rectilinear Motion with Variable Acceleration, 4. Simple Harmonic Motion (S.H.M.), 5. Plane Kinematics, 6. Projectiles, 7. Direct and Oblique Impacts (Collision of Elastic Bodies), 8. Constrained Motion in Vertical and Horizontal Circles, 9. Central Orbits, 10. The Inverse Square Law (Planetary Motion), 11. Constrained Motion in a Plane, 12. Motion in a Resisting Medium. Motion on Rough Curves Motion when the Mass Moving Varies, 13. Motion in Three Dimensions, 14. Moments and Products of Inertia, 15. D'alembert's Principle. The General Equations of Motion, 16. Motion About a Fixed Axis, 17. Some Aspects of Rigid Body Dynamics • *Miscellaneous Problems and Results on the Entire Book* • *Index*




## A Textbook on Dynamics, 13e

M Ray & G C Sharma

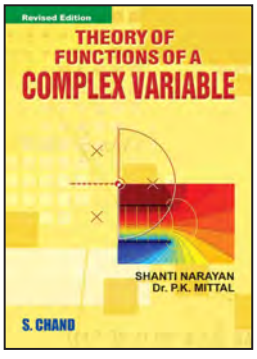
**ISBN: 9788121903424**
**Code: 1014A00048**
**Price: ₹ 295 | Pages: 336**
**Size: 5.5" X 8.5" (Paperback)**

### About the Book

B.A. and B.Sc. Student of all Indian Universities. A few examples have been added as per need of the topic. The chapters on Central Force, Moment of Intertia an D'Alembert's Principle, have been revised. Efforts have been made to eliminate printing errors.

### Contents

1. Kinematics and Kinetics, 2. Rectilinear Motion, 3. Uniplanar Motion, 4. Work, Energy and Impulse, 5. Impact, 6. Circular and Harmonic Motions, 7. Hodograph, 8. Central Forces, 9. Resisting Medium, 10. Constrained Motion, 11. Moment of Inertia, 12. D'Alembert's Principle and the Equations of Motion



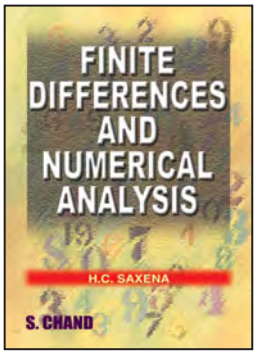

## Theory of Functions of a Complex Variable

Shanti Narayan & P K Mittal

**ISBN: 9788121906395**
**Code: 1014C00104**
**Price: ₹ 650 | Pages: 648**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Complex Numbers, 2. Geometrical Representation of Complex Numbers, 3. Bilinear Transformations, 4. Topological Considerations, 5. Analytic Functions, 6. Infinite Series, Power Series, 7. Conformal Mappings, 8. Complex Integration, 9. Cauchy Theory, 10. Singular Points, 11. Calculus of Residues, 12. Uniform Convergence Infinite Products, 13. Analytic Continuation, 14. Entire Functions • *Index*



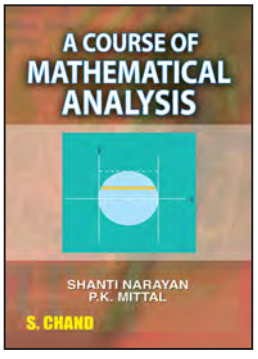

## Finite Differences and Numerical Analysis, 14e

H C Saxena

**ISBN: 9788121903394**
**Code: 1014B00056**
**Price: ₹ 450 | Pages: 464**
**Size: 5.5" X 8.5" (Paperback)**

### Contents

Part-I: Calculus of Finite Differences: 1. Finite Differences & Introduction with Equal Intervals, 2. Interpolation of Unequal Intervals of the Argument, 3. Central Difference Interpolation Formulae, 4. Inverse Interpolation, 5. Numerical Differentiation, 6. Numerical Quadrature or Numerical Integration, 7. Summation of Series, 8. Difference Equations, 9. Generating Functions, 10. Difference Equations by Matrix Method, 11. Bernoulli and Euler Polynomials, 12. Remainder Terms in (or errors associated with) Interpolation Formulas, Part-II: Numerical Analysis: 13. Eigen Value and Eigen Vectors of a Matrix, 14. Numerical Roots of Polynomials and Transcendental Equations in One Variable, 15. Simultaneous Linear Algebraic Equations, 16. Numerical Solution of Ordinary Differential Equations, 17. Errors, 18. Numerical Solution of Partial Differential Equations, 19. Fitting of Curves and Cubic Splines, 20. Miscellaneous Topics • *Miscellaneous Exercises • Answers • Index*



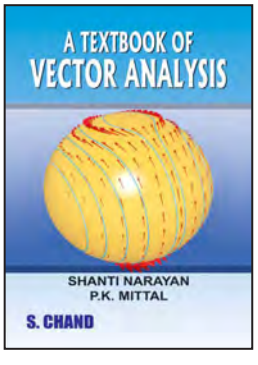

## A Course of Mathematical Analysis

Shanti Narayan & P K Mittal

**ISBN: 9788121904728**
**Code: 1014A00045**
**Price: ₹ 550 | Pages: 608**
**Size: 5.5" X 8.5" (Paperback)**

### Contents

1. Real Numbers, 2. Bounded Sets, Open and Closed Sets, 3. Real Sequences, 4. Real Valued Functions of a Single Real Variable. Limit and Continuity, 5. Real Valued Functions of a Single Real Variable Derivability, 6. Real Valued Functions of a Single Real Variable. Riemann Integrability, 7. Sequences of Functions: Point-wise and Uninform Convergence, 8. Elementary Functions, 9. Improper Integrals, 10. Fourier Series, 11. Euclidean Spaces, Open and Closed Sets. Compact Sets, 12. Real Valued Functions of Several Real Variables. Limit Continuity, 13. Partial Derivatives, 14. Invertible Functions Implicit Functions, 15. Integrals as Functions of a Parameter, 16. Integration in $R^2$ Line Integrals. Double Integrals, 17. Curve Length: Surface Area, 18. Integration in $R^3$ Gauss's and Stoke's Theorems • *Miscellaneous Exercises • Answers • Appendix: Everywhere Continuous Non-derivable Function*



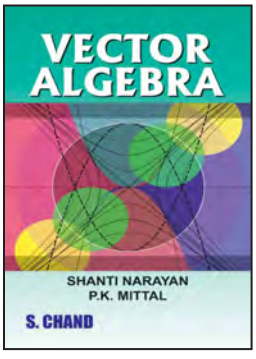

## A Textbook of Vector Analysis

Shanti Narayan & P K Mittal

**ISBN: 9788121922432**
**Code: 1014A00469**
**Price: ₹ 399 | Pages: 416**
**Size: 5.5" X 8.5" (Paperback)**

### Contents

1. Multiplication of Vectors by Scalars and Addition of Vectors, 2. Geometry with Vectors Affine Geometry, 3. Scalar Product, 4. Applications to Metric Geometry, 5. Vector Product and Scalar Triple Product, 6. Geometry with Cartesian Coordinates, 7. Some Miscellaneous Topics (Product of Vectors), 8. Statics with Vectors, 9. Vector Valued Functions of Scalar Variables, 10. Differential Operators, 11. Integral Transformations • *Reduction of Surface to Line Integrals • Answers*



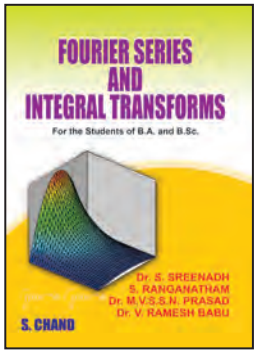

## Vector Algebra

Shanti Narayan &
P K Mittal

**ISBN: 9788121909525**
**Code: 1014B00064**
**Price: ₹ 295 | Pages: 264**
**Size: 5.5" X 8.5" (Paperback)**

### Contents

1. Multiplication of Vectors by Scalars and Addition of Vectors, 2. Geometry with Vector affine Geometry, 3. Scalar Product, 4. Applications to Metric Geometry, 5. Vector Product and Scalar Triple Product, 6. Geometry with Cartesian Coordinates, 7. Some Miscellaneous Topics (Product of Vectors), 8. Statics with Vectors • *Summary* • *Objective Questions* • *Answers*



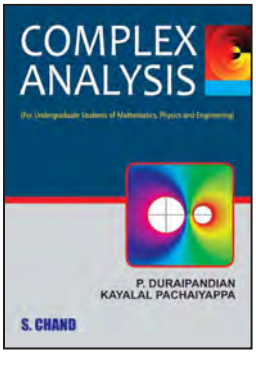

## Fourier Series and Integral Transforms

S Sreenadh, S Ranganatham,
M V S S N Prasad &
V Ramesh Babu

**ISBN: 9789384319090**
**Code: 1014000684**
**Price: ₹ 425 | Pages: 472**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Fourier Series, 2. Laplace Transforms, 3. Inverse Laplace Transforms, 4. Fourier Transforms, 5. Applications of Laplace and Fourier Transforms • *Previous Years Papers*



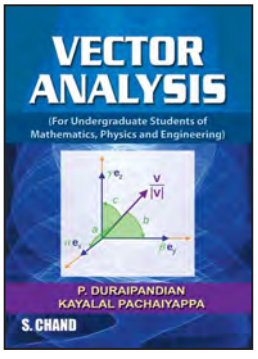

## Complex Analysis

P Duraipandian &
Kayalal Pachaiyappa

**ISBN: 9789383746460**
**Code: 1014000678**
**Price: ₹ 275 | Pages: 296**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Complex Number System, 2. Complex Plane, 3. Sets of Complex Points, 4. Analytic Functions, 5. Sequences and Series, 6. Power Series and Elementary Functions, 7. Elementary and Conformal Mapping, 8. Complex Integration, 9. Taylor's and Laurent's Series, 10. Residues, 11. Meromorphic Functions



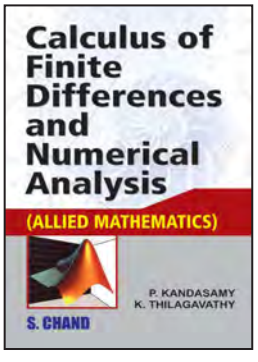

## Vector Analysis

P Duraipandian &
Kayalal Pachaiyappa

**ISBN: 9789384319694**
**Code: 1014000692**
**Price: ₹ 225 | Pages: 192**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Differentiation of Vector Functions Differentiation Applied to Geometry, 2. Gradient of a Scalar Point Function and Divergence and Curl of a Vector Point Function, 3. Multiple Integrals - Line, Surface, Volume Integrals Integration of Point Functions, 4. Integral Theorems



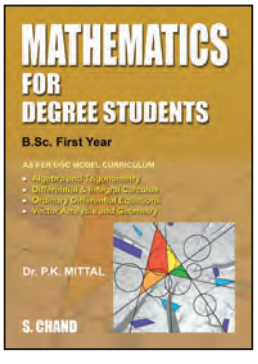

## Calculus of Finite Differences and Numerical Analysis

P Kandasamy &
K Thilagavathy

**ISBN: 9788121923217**
**Code: 1014A00478**
**Price: ₹ 295 | Pages: 328**
**Size: 5.5" X 8.5" (Paperback)**

### Contents

Part-I: Paper-I (First Semester): 1. The Solution of Numerical Algebraic and Transcendental Equations, 2. Solution of Simultaneous Linear Algebraic Equations, 3. Finite Differences, 4. Interpolation for Equal Intervals, 5. Central Difference Interpolation Formula for Equal Intervals, 6. Interpolation with Unequal Intervals, Part-II: Paper-I (Second Semester): 7. Numerical Differentiation & Integration, 8. Difference Equations, 9. Numerical Solution of Ordinary Differential Equations




## Mathematics for Degree Students (For B.Sc. First Year)

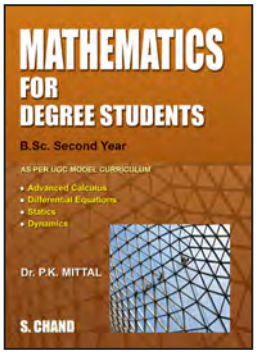
P K Mittal

**ISBN: 9788121932400**
**Code: 1014B00608**
**Price: ₹ 875 | Pages: 1,040**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

*BMH101 (A & B) ALGEBRA AND TRIGONOMETRY:* Algebra, 1. Functions and Relations, 2. Congruence of Integers, 3. Some Special Types of Matrices, 4. Elementary Operations and Inverse of a Matrix , 5. Linear Dependence of Vectors, 6. Rank of a Matrix, 7. Linear Equations, 8. Characteristic Roots and Vectors, 9. Theory of Equations, 10. Group,

11. Permutations, 12. Homomorphism and Isomorphism, 13. Normal Sub-Groups, 14. Rings and Subrings, 15. Integral Domain and Field, Trigonometry: 1. De Moivre's Theorem and Deductions, 2. Hyperbolic Functions, 3. Inverse Hyperbolic Functions, 4. Logarithms, of Complex Quantities, 5. Gregory's Series, 6. Trigonometrical Expansions, 7. Summation of Series, *BMH 102 (A & B) Calculus:* Differential Calculus: 1. Limits and Continuity, 2. Differentiability, 3. Successive Differentiation, 4. Expansion of Functions, 5. Asymptotes, 6. Curvature, 7. Concavity, Convexity and Singular Points, 8. Curve Tracing, Integral Calculus: 1. Integration of Irrational Algebraic Functions, 2. Integration of Transcendental Functions, 3. Reduction Formulae, 4. Definite Integrals, 5. Area of Curves (Quadrature), 6. Lengths of Curves (Rectification), 7. Volume and Surface of Solid and Revolution, Ordinary Differential Equations: 1. Differential Equations: An Introduction, 2. Differential Equations of First Order and First Degree, 3. Differential Equations of First Order but not of First Degree, 4. Geometrical Interpretation and Orthogonal Trajections, 5. Linear Differential Equations with Constant Coefficients, 6. Homogeneous Linear Differential Equations, 7. Linear Differential Equations of Second Order with Variable Coefficients, 8. Simultaneous Ordinary Differential Equations, *BMH 103 (A & B) VECTOR ANALYSIS AND GEOMETRY:* Vector Analysis: 1. Multiple Products, 2. Differential of Vectors, 3. Differential Operators, 4. Integration of 1Vectors, 5. Gauss's Green's and Stoke's Theorem, Geometry: *[(a) Two-Dimensional]:* 1. General Equation of Second Degree and Tracing of Conics, 2. System of Conics: Confocal Conics, 3. Polar Equations, *[(b) Three-Dimensional],* 1. Systems of Coordinates, 2. The Plane, 3. The Straight Line, 4. The Sphere, 5. Cones, Cylinders, 6. Coincide, 7. Plane Section of Conicoids, 8. Generating Lines of Conicoids, 9. General Equation of the Second Degree, 10. Confocal Conicoids



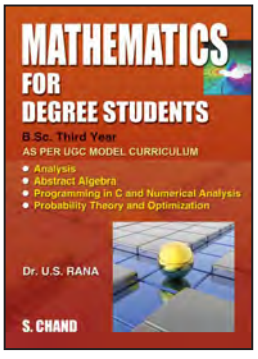

## Mathematics for Degree Students (For B.Sc. Second Year)

P K Mittal

**ISBN: 9788121935548**
**Code: 1014A00615**
**Price: ₹ 695 | Pages: 856**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

*BMH 201 (A & B) ADVANCED CALCULUS:* Advance Calculus: 1. Continuity of Single Variable, 2. Differentiability of One Variable, 3. Limits and Continuity of Functions of two Variables, 4. Partial Differentiation, 5. Change of Independent Variables, 6. Taylor's Theorem for Functions of two Variables, 7. Jacobians, 8. Envelopes and Evolutes, 9. Maxima and Minima, 10. Indeterminate Forms, 11. Beta and Gamma Functions, 12. Multiple Integrals, 13. Dritchlet's Theorem, 14. Sequences, 15. Convergence of Series, 16. Absolute Convergence, *BMH 202 (A & B) DIFFERENTIAL EQUATIONS:* Differential Equations: 1. Series Solutions of Linear Differential Equations, 2. Legendre's Polynomials and Functions, 3. Bessel Functions, 4. Hypergeometric Functions, 5. Orthogonality of Functions, 6. The Laplace Transforms, 7. The Inverse Laplace Transform, 8. Application of Laplace Transform to Solution of Differential and Integral Equations, 9. Partial Differential Equations of the First Order, 10. Partial Differential Equations of Second Order, 11. Linear Partial Differential Equation with Constant Coefficients, 12. Mong's Method, 13. Calculus of Variations, *BMH 203 (A & B) MECHANICS: Statics:* 1. Analytical Conditions of Equilibrium of Coplanar Forces, 2. Virtual Work, 3. Common Catenary, 4. Force in Three Dimensions, 5. Stable and Unstable Equilibrium, Dynamics: 1. Velocity and Acceleration along Radial and Transverse Directions, 2. Tangential and Normal Velocities and Accelerations, 3. Simple Harmonic Motion and Elastic Strings, 4. Motion on Smooth and Rough Plane, 5. Motion in a Resisting Medium, 6. Motion of Particle of Varying Mass, 7. Central Orbits, 8. Planetary Motion, 9. Motion in Three Dimensions



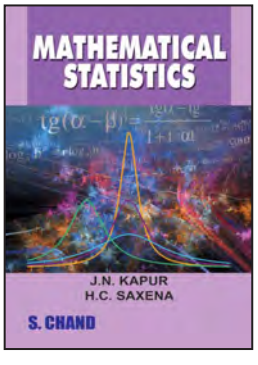

## Mathematics for Degree Students (For B.Sc. Third Year)

U S Rana

**ISBN: 9788121941013**
**Code: 1014A00654**
**Price: ₹ 895 | Pages: 1,272**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

*BMH 301 (A & B) ANALYSIS:* Real Analysis: 1. The Riemann Integrals, 2. Improper Integrals, 3. Convergence Series, 4. Function of Several Variables, 5. Fourier Series, Complex Analysis: 1. Complex Numbers, 2. Analytic Functions, 3. Elementary Functions and Transformations, 4. Conformal Transformation, Metric Spaces: 1. Metric Spaces, 2. Interior and Closure of a Metric Space, 3. Convergence of a Sequence in a Metric Space, 4. Sub-spaces, 5. Completeness and Countability, 6. Continuity, 7. Compactness, 8. Connectedness, *BMH 302 (A & B) ABSTRACT ALGEBRA:* Abstract Algebra: 1. Group Automorphisms, 2. Conjugate Elements and p-groups, 3. Direct Product of Groups, 4. Cauchy's and Sylow's Theorems, 5. Ring Theory, 6. Ring Homomorphisms, 7. Vector Space, 8. Basis and Dimension, 9. Linear Transformation, 10. Dual Space and Bilinear Form, 11. Diagonalization: Eigen Values and Eigen Vectors, 12. Inner Product Spaces, 13. Modules, *BMH 303 (A & B) PROGRAMMING IN C AND NUMERICAL ANALYSIS:* Programming in C: 1. Computer and its Organisation, 2. Algorithm and Flowcharts, 3. Computer Arithmetic, 4. Programming in C, Numerical Analysis: 1. Solution of Equations, 2. The Calculus of Finite Differences, 3. Interpolation, 4. Numerical Differentiation, 5. Numerical Quadrature, 6. The Algebraic Eigen Value Problems, 7. Linear Equations, 8. Numerical Solution of Ordinary Differential Equations, 9. Approximation, Monte Carlo Methods: 1. Monte Carlo Methods, *BMH 304 (A & B) PROBABILITY THEORY AND OPTIMIZATION:* Probability Theory: 1. Theory of Probability, 2. Random Variables, 3. Discrete Random Variable, 4. Continuous Random Variable, 5. Bivariate Random Variables and Function of Random Variables, 6. Information Theory, Optimization: 1. Optimization, 2. Duality Theory, 3. Transportation Problem and Assignment Problem




## Mathematical Statistics

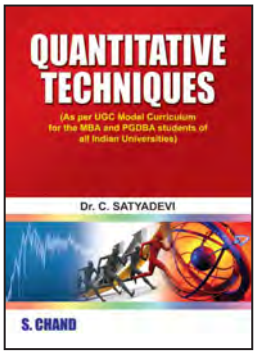
J N Kapur & H C Saxena

**ISBN: 9788121912464**
**Code: 1014B00046**
**Price: ₹ 695 | Pages: 816**
**Size: 5.5" X 8.5" (Paperback)**

### Contents

1. Introduction, 2. Frequency Distributions and Measures of Location, 3. Measures of Dispersions, Skewness & Kurtosis, Moments of Frequency Distributions, 4. Theory of Probability, 5. Discrete Probability Distributions, 6. Special Discrete Probability Distributions, 7. Univariate Continuous Probability Distributions, 8. Special Continuous Probability Distributions, 9. Principle of Least Squares, Fittings of Curves & Orthogonal Polynomials, 10. Correlation and Regression, 11. Multiple and Partial Correlation, 12. Theory of Sampling, 13. Exact Sampling Distributions, 14. Exact Sampling Distributions (*Contd.*), 15. Tests of Significance Based on *t, F* and *Z* Distributions,

16. Tests of Significance Based on the Chi-Square Distribution, 17. Statistical Theory of Point Estimation, 18. Testing of Hypotheses, Sequential Analysis Distribution-Free Methods, Statistical Decision Theory, 19. Elements of Stochastic Processes, 20. Order Statistics • *Appendices: I. Multivariate Normal Distribution, II. Theory of Errors, III. Borel-Cantelli Lemma • Index • Log Tables • Statistical Tables*



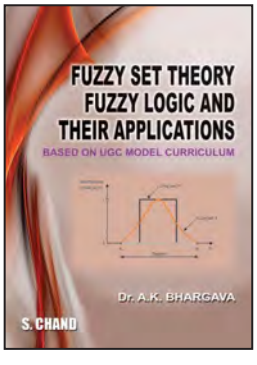

## Quantitative Techniques

C Satyadevi

**ISBN: 9788121926270**
**Code: 1010B00315**
**Price: ₹ 375 | Pages: 688**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

*Part-A:* Unit-I: 1. Introduction to Quantitative Techniques, Unit-II: 2. Introduction to Statistics, 3. Statistical Investigation, 4. Classification and Tabulation, 5. Diagrammatic and Graphic Presentation of Data, 6. Statistical System in India, Unit-III: 7. Measures of Averages, 8. Measures of Dispersion, 9. Measures of Skewness, Unit-IV: 10. Measures of Relation, 11. Regression Analysis, Unit-V: 12. Analysis of Time Series, Unit-VI: 13. Index Numbers, *Part-B:* Unit-VII: 14. Elements of Algebra, 15. Quadratic Equations, 16. Set Theory, 17. Theory of Indices, 18. Progressions, 19. Matrices, 20. Determinants, Unit-VIII: 21. Calculus, 22. Linear Programming, *Part-C:* Unit-IX: 23. Theory of Probability, 24. Theoretical Distribution, 25. Operation Research



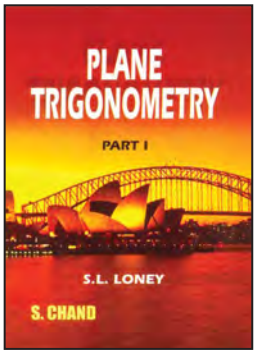

## Fuzzy Set Theory Fuzzy Logic and their Applications

A K Bhargava

**ISBN: 9788121941945**
**Code: 1014A00664**
**Price: ₹ 425 | Pages: 400**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Classical Sets, 2. Basic Concepts on Fuzzy Sets, 3. Fuzzy Sets Versus Crisp Sets, 4. Operations on Fuzzy Sets, 5. Interval Arithmetic, 6. Fuzzy Numbers and Fuzzy Arithmetic, 7. Fuzzy Relations, 8. Fuzzy Relation Equations, 9. Possibility Theory, 10. Fuzzy Logic, 11. Uncertainty – Based Information, 12. Approximate Reasoning, 13. Fuzzy Control and Fuzzy Expert Systems, 14. Fuzzy Decision Making • *Index*



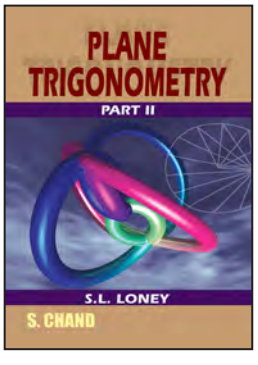

## Plane Trigonometry - Part-I

S L Loney

**ISBN: 9788121908016**
**Code: 1014000286**
**Price: ₹ 295 | Pages: 414**
**Size: 4.75" X 6.5" (Paperback)**

### Contents

1. Measurement of Angles; Sexagesimal, Centesimal and Circular Measure, 2. Trigonometrical Ratios for Angles less than a Right Angle, 3. Simple Problems in Heights and Distances, 4. Application of Algebraic Signs to Trigonometry, 5. Trigonometrical Functions of Angles of any Size and Sign, 6. General Expression for all Angles Having a Given Trigonometrical Ratio, 7. Trigonometrical Ratio of the Sum and Difference of Two Angles, 8. The Trigonometrical Ratio of Multiple and Submultiple Angles, 9. Identities and Trigonometrical Equations, 10. Logarithms, 11. Tables of Logarithms and Trigonometrical Ratios, Principle of Proportional Parts, 12. Relations Between the Sides and the Trigonometrical Ratios of the Angles of any Triangle, 13. Solution of Triangles, 14. Heights and Distances, 15. Properties of a Triangles, 16. On Quadrilaterals and Regular Polygons, 17. Trigonometrical Ratios of Small Angles, Area of a Circle, DIP of the Horizon, 18. Inverse Circular Functions, 19. On Some Simple Trigonometrical Series, 20. Elimination, 21. Projections • *Miscellaneous Examples • Answers • Table of Logarithms, Natural Sines, Cosines and Tangents, Logarithms Sines, Cosines Tangents and Radian Measure of Angles*



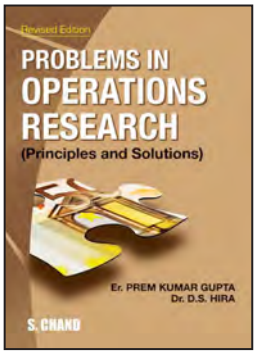

## Plane Trigonometry - Part-II

S L Loney

**ISBN: 9788121909181**
**Code: 1014000287**
**Price: ₹ 195 | Pages: 240**
**Size: 4.75" X 6.5" (Paperback)**

### Contents

1. Exponential and Logarithms Series, 2. Complex Quantities, DE Moivre's Theorem, 3. Expansions of sin nq and cos nq, Series for sinq and cosq in Powers of q, 4. Expansions of Sines and Cosines of Multiple Angles and of Powers of Sines and Cosines, 5. Exponential Series for Complex Quantities, Circular Functions for Complex Angles, Hyperbolic Functions, 6. Logarithm of Complex Quantities, 7. Gregory's Series Calculation of the Values of p, 8. Summation of Series, Expansions in Series, 9. Resolution into Factors, Infinite Products for Sinq and Cosq, 10. Principle of Proportional Parts, 11. Errors in Observation, 12. Miscellaneous Propositions • Miscellaneous Examples • Additional Miscellaneous Examples • Answers



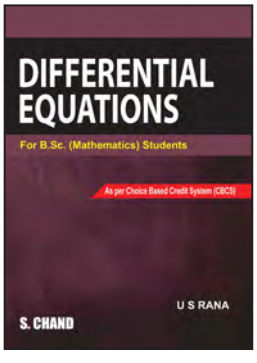

## Problems in Operations Research

Prem Kumar Gupta & D S Hira

**ISBN: 9788121909686**
**Code: 1010C00128**
**Price: ₹ 995 | Pages: 1,304**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Basics of Operations Research, 2. Linear Programming, 3. The Transportation Model, 4. The Assignment Model, 5. Sequencing Models & Related Problems, 6. Advanced Topics in Linear Programming, 7. Dynamic Programming, 8. Probability Theory, 9. Decision Theory, Games, Investment Analysis and Annuity, 10. Queuing Models, 11. Replacement Models, 12. Inventory Models, 13. Simulation, 14. Network Analysis in Project Planning (PERT and CPM), 15. Statistical Quality Control, 16. Non-Linear Programming




## Differential Equations

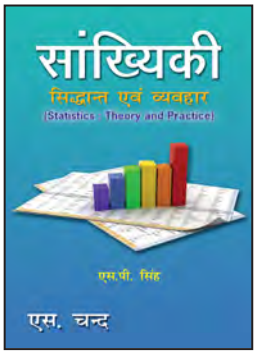
U S Rana

As Per CBCS

**ISBN: 9789352535439**
**Code: 10HE000025**
**Price: ₹ 395 | Pages: 448**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Differential Equations, 2. Differential Equations of First Order and First Degree, 3. Equations of First Order and Higher Degree, 4. Linear Differential Equations, 5. Linear Differential Equations with Constant, 6. Homogeneous Linear Differential Equations, 7. Linear Equations of Second Order, 8. Ordinary Simultaneous Differential Equations, 9. Total Differential Equations, 10. Partial Differential Equations, 11. Partial Differential Equations of Order One, 12. Classification of Partial Differential Equations of Second Order




## सांख्यिकी सिद्धान्त एवं व्यवहार

एस पी सिंह

**ISBN: 9788121900379**
**Code: 1007D00093**
**Price: ₹ 825 | Pages: 1,316**
**Size: 5.5" X 8.5" (Paperback)**

### पुस्तक के विषय में

इस संस्करण में पूर्णतया नए लिखे गए अध्याय-सांख्यिकी माध्य बहुगुणी सहसम्बन्ध तथा प्रतीपगमन शामिल किये गए हैं।

इस पुस्तक में सांख्यिकीय सूत्रों तथा विधियों के स्पष्टीकरण हेतु सरल तथा जटिल-दोनों प्रकार के उदाहरणों का समावेश किया गया है। अभ्यास हेतु वस्तुनिष्ठ-प्रश्न-बैंक नामक खण्ड में 620 प्रश्नों का समावेश किया गया है।

### प्रमुख विशेषताएँ

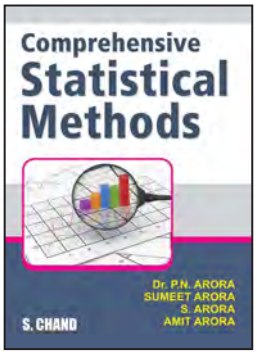
- लगभग 1180 हल किए गए उदाहरण
- अभ्यास-प्रश्न के रूप में 2550 प्रश्नों का विशाल संकलन
- प्रत्येक सूत्र तथा रीति का हल उदाहरण द्वारा स्पष्टीकरण

### Contents

#### विषय-सूची

खण्ड (अ): सांख्यिकी का सैद्धान्तिक विवेचन: 1. सांख्यिकी की परिभाषा, क्षेत्र एवं प्रकृति, 2. सांख्यिकी के कार्य, महत्व एवं सीमाएँ, 3. सांख्यिकीय अनुसन्धान का आयोजन, 4. समंको का संकलन, 5. संगणना तथा प्रतिदर्श अनुसंधान, 6. समकों का सम्पादन, 7. वर्गीकरण एवं सारणीयन, 8. समंकों का चित्रमय प्रदर्शन, 9. समंकों का बिन्दुरेखीय प्रदर्शन, 10. केन्द्रीय प्रवृति के माप–सांख्यिकीय माध्य, 11. अपकिरण तथा विषमता, 12. परिघात एवं पृथुशीर्षत्व, 13. सहसम्बन्ध, 14. सूचकांक, 15. काल-श्रेणी का विश्लेषण, 16. सरल प्रतीपगमन, 17. बहुगुणी सहसम्बन्ध तथा बहुगुणी प्रतीपगमन, 18. व्यावसायिक पूर्वानुमान, 19. आन्तरगणन एवं बाह्यगणन, 20. गुण-सम्बन्ध या गुण-साहचर्य, 21. आसंग एवं काई-वर्ग परीक्षण, 22. प्रायिकता अथवा सम्भावना, 23. सैद्धान्तिक आवृति बंटन, 24. प्रतिचयन सिद्धान्त एवं सार्थकता-परीक्षण, 25. सार्थकता-परीक्षण–बड़े प्रतिदर्श, 26. गुण-समंको में सार्थकता-परीक्षण, 27. सार्थकता-परीक्षण–छोटे प्रतिदर्श, 28. प्रसरण विश्लेषण, 29. सांख्यिकीय गुण-नियन्त्रण, खण्ड (ब): भारतीय सांख्यिकी या समंक: 1. भारत में सांख्यिकीय व्यवस्था, 2. उत्तर प्रदेश में सांख्यिकीय व्यवस्था, 3. मध्य प्रदेश में सांख्यिकीय व्यवस्था, 4. जनसंख्या समंक, 5. राष्ट्रीय आय समंक, 6. कृषि-समंक, 7. औद्योगिक समंक, 8. मूल्य समंक, 9. व्यापार समंक, 10. श्रम समंक, 11. भारतीय समंकों के सामान्य दोष • वस्तुनिष्ठ एवं बहुविकल्प प्रश्नमाला • सांख्यिकीय सारणियाँ

एस.पी. सिंह, भूतपूर्व विभागाध्यक्ष, अर्थशास्त्र विभाग, मेरठ कॉलेज, मेरठ



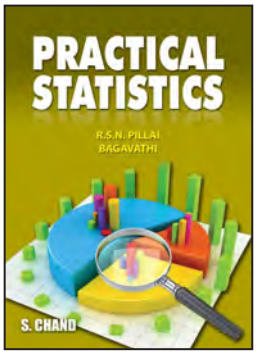

## Comprehensive Statistical Methods

P N Arora, Sumeet Arora, S Arora & Amit Arora

**ISBN: 9788121927765**
**Code: 1007A00426**
**Price: ₹ 1395 | Pages: 1,696**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Statistics - Definition, Scope and Distrust, 2. Classification and Tabulation of Data, 3. Diagrammatic and Graphic Presentation of Data, 4. Measures of Central Tendency or Averages, 5. Measures of Dispersion, 6. Skewness, Moments and Kurtosis, 7. Correlation Analysis, 8. Regression Analysis, 9. Time Series and Forecasting, 10. Index Numbers, 11. Probability and Bayes' Theorem, 12. Random Variable and Mathematical Expectation, 13. Theoretical Distributions, 14. Statistical Decision Theory, 15. Sampling, 16. Theory of Estimation, 17. Statistical Inference – Tests of Significance, 18. Chi-Square Test and Goodness of Fit, 19. F-Distribution and Analysis of Variance, 20. Association of Attributes, 21. Interpolation and Extrapolation, 22. Partial and Multiple Correlation and Regression, 23. Statistical Quality Control, 24. Non-Parametric Methods, 25. Special Theoretical Distributions, 26. Factorial Analysis, 27. Revision Techniques [Results and Formulae – Chapterwise] • Statistical Tables




## Practical Statistics

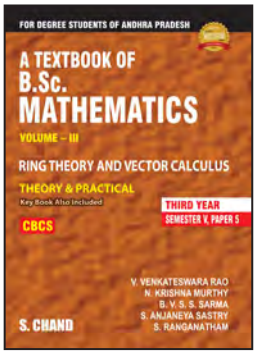
R S N Pillai & Bagavathi

**ISBN: 9788121900447**
**Code: 1007A00182**
**Price: ₹ 595 | Pages: 840**
**Size: 6.5" X 9.25" (Paperback)**

### Contents

1. Classification and Tabulation, 2. Graphic and Diagrammatic Representation, 3. Measures of Central Tendency, 4. Measures of Dispersion, 5. Measures of Skewness, Moments and Kurtosis, 6. Correlation, 7. Regression, 8. Index Number, 9. Analysis of Time Series, 10. Interpolation and Extrapolation, 11. Association of Attributes, 12. Probability, 13. Theoretical Distributions, 14. Sampling Theory and Tests of Significance, 15. Chi-Square Tests, 16. Partial and Multiple Correlation, 17. Miscellaneous, 18. Logarithm and their Uses • *Logarithmic Tables*

# Books for Andhra Pradesh




## A Textbook of B.Sc. Mathematics, Vol. III Ring Theory and Vector Calculus

V. Venkateswara Rao
N. Krishnamurthy
B.V.S.S. Sarma
S. Anjaneya Sastry
& S. Ranganatham

**ISBN: 9789352830336 | Code: 10HE000029 | Price: ₹ 225**
**Pages: 232 | Size: 6.5" X 9.25" (Paperback)**

### About the Book

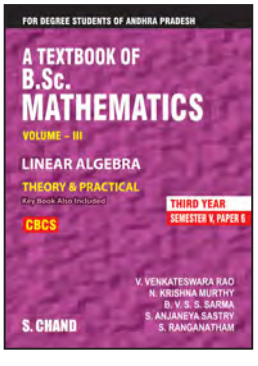
This Textbook of B.Sc. Mathematics is written for the students studying Third year as Andhra Pradesh. The revised syllabus is being adopted by all universities in Andhra Pradesh, following Common Core Model Curriculum from the academic year 2015-2016(revised in 2016). The book strictly covers the new Curriculum for Semester V (3rd Year, 5th Semester-Paper 5).

### Key Features

- The book is based as per pattern CBCS.
- Objective type questions covering multiple choice type and fill in the blanks type questions useful for M.Sc. entrance tests are given with answers at the end of each section.
- Detailed solution for all problems in the various exercises of different chapters are given at the end.

### Contents

1. Rings, Integral Domains & Fields, 2. Subrings, Ideals, Quotient Rings & Euclidean Rings, 3. Homomorphism's of Rings, Maximal and Prime Ideals, Problem for Practical's & Objective type questions, 4. Derivative of a Vector Function, 5. Differential Operators, 6. Integration of Vector,7. Integral Transformations, Problem for Practical's & Objective Questions, Key to "A Textbook of B.Sc. Mathematics – Vol. – III"




## A Textbook of B.Sc. Mathematics, Vol. III 3rd Year - Linear Algebra

V. Venkateswara Rao
N. Krishnamurthy
B.V.S.S. Sarma
S. Anjaneya Sastry
S. Ranganatham

**ISBN: 9789352830268 | Code: 10HE000053 | Price: ₹ 300**
**Pages: 280 | Size: 6.5" X 9.25" (Paperback)**

### About the Book

This Textbook of B.Sc. Mathematics is written for the students studying Third year Andhra Pradesh. The revised syllabus is being adopted by all universities in Andhra Pradesh, following Common Core Model Curriculum from the academic year 2015-2016(revised in 2016). The book strictly covers the new Curriculum for Semester V (3rd Year, 5th Semester-Paper 6).

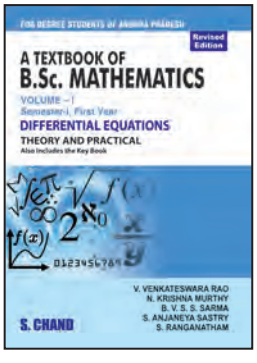
### Key Features

- The book is based as per pattern CBCS.
- Objective type questions covering multiple choice type and fill in the blanks type questions useful for M.Sc. entrance tests are given with answers at the end of each section.
- Detailed solution for all problems in the various exercises of different chapters are given at the end.

### Contents

1. Vector Spaces, 2. Basis and Dimension, 3. Linear Transformation, 4. Vector Space Isomorphism, 5. Problems for Practical's, 6. Fundamentals of Matrices, 7. Characteristics Values and Characteristics Vectors, 8. Cayley-Hamilton Theorem, 9. Inner Product Spaces, 10. Orthogonality, 11. Problem for Practical's & Objective Questions, Key to "A Textbook of B.Sc. Mathematics – Vol. – III"

---




## A Textbook of B.Sc. Mathematics, Vol. I, Differential Equations (Semester - I First Year)

V. Venkateswara Rao, B.V.S.S. Sarma, N. Krishnamurthy, S. Anjaneya Sastry & S. Ranganatham

**ISBN: 9789352839049**
**Price: ₹ 350 | Pages: 424**
**Size: 6.5" X 9.25" (Paperback)**

### About the Book

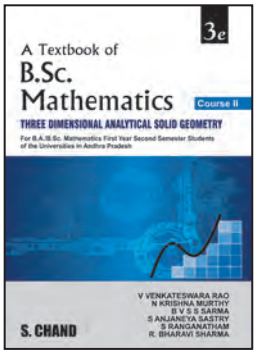
The revised syllabus for core courses in CBCS / Semester system is being followed by all the universities in Andhra Pradesh, from the academic year 2020 - 2021. This book strictly covers the new curriculum for Course I (Semester I - 1st year, 1st semester) under this syllabus

### Key Features

- Under Co-Curricular Activities "Quiz, Problems for "Problems Solving Session", Applications of Differential Equations in Real life Problems and Model Question Paper" are also included to make the book more comprehensive

### Contents

UNIT 1 1. Introduction, 2. Differential Equations of First order and First Degree, UNIT 2, 3. Orthogonal Trajectories, 4. 4. Differential Equations of First order but not of First Degree, UNIT 3 & 4, 5. Higher Order Linear Differential Equations I & II, UNIT 5, 6. Higher Order Linear Differential Equations - III (Non-Constant Coefficients) Co-Curricular Activities,, • Quiz, • Problems for "Problems Solving Session", • Applications of Differential Equations in Real life Problems, • Model Question Paper




## A Textbook of B.Sc. Mathematics Vol. II: (First Year Sec. Sem. Andhra Pradesh) 3e

V. Venkateswara Rao, Dr. R. Bharavi Sharma, B.V.S.S. Sarma, N. Krishnamurthy, S. Anjaneya Sastry & S. Ranganatham

**ISBN: 9789355017277**
**Price: ₹ 350 | Pages: 352**
**Size: 6.5" X 9.25" (Paperback)**

### About the Book

This book has been written strictly according to new curriculum for First Year: Second Semester students at all Universities of Andhra Pradesh. It covers Equation of Plane in Terms of Its Intercepts on the Axis, Combined equation of Two Planes, Orthogonal Projection on a Plane, Equation of a line, Angle between a Line and a Plane, The condition that Two Given Lines are Coplanar, Length of the Perpendicular from a Given Point to a Given Line, Definition and Equation of the Sphere, Equation of a Circle, Power of a point, Plane of Contact, Polar Plane, Pole of a Plane, Angle of Intersection of Two Spheres, Coaxial system of spheres, Definitions of a Cone, Vertex, Guiding Curve, Generators, Enveloping Cone of a Sphere, Tangent Lines and Tangent Plane at a Point, Intersection of Two Cones with a Common Vertex etc. The book will guide the students in a proper way and inspire them to sure and brilliant success.

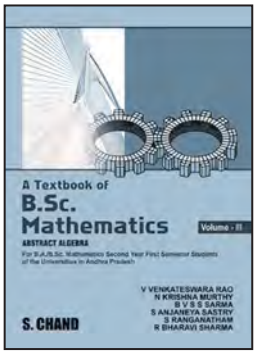
### Key Features

- New curriculum for Course II (Semester II - 1st year, 2nd semester) is strictly covered
- Quiz, problems for Problem Solving Sessions included
- Detailed solutions for all the problems

### Contents

UNIT I 1. Introduction, 2. Coordinates, 3. The Plane, UNIT - II, 4. Right Line, UNIT - III, , 5. The Sphere, UNIT - IV, 6. The Sphere (Contd.) , . The Cone, , UNIT - V: Bessel's Functions, 8. The Cone (Contd.)

---




## A Textbook of B.Sc. Mathematics (Real Analysis): Volume IV for Andhra Pradesh Universities

V. Venkateswara Rao et al.

**ISBN: 9789355010179**
**Price: ₹ 325 | Pages: 312**
**Size: 6.5" X 9.25" (Paperback)**

### About the Book

"A Textbook of B.Sc. Mathematics [Abstract Algebra] Volume III (Andhra Pradesh)" strictly covers the new curriculum for Semester III (2nd year, 1st semester). It covers types of Groups, Sub-Groups, Homomorphism, Permutations, Cyclic groups, and basic properties of Rings with reference to the revised syllabus with Highlighted topics and theorems included for making the book more comprehensive and co-curricular activities are provided at the end of the book to supplement the curriculum.

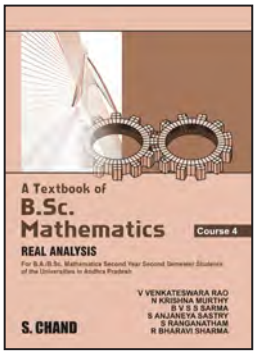
### Key Features

- Divided into 10 chapters, the book elucidates all theories in an apropos manner.
- Over 150 Theorems are provided to develop a deeper understanding of the underlying concepts.
- More than 400 solved examples and unsolved exercises strengthen the well-explained theoretical concepts.

### Contents

1. Binary Operations, 2. Groups, 3. Subgroups, 4. Cosets and Lagrange's Theorem, 5. Normal subgroups, 6. Homomorphisms, Isomorphisms of Groups, 7. Permutation Groups, 8. Cyclic Groups, 9. Rings, Integral Domains & Fields,10. Subrings, Ideals, Quotient Rings & Euclidean Rings

---




## A Textbook of B.Sc. Mathematics (Linear Algebra): Volume IV

V. Venkateswara Rao, N. Krishnamurthy, B.V.S.S. Sarma, S. Anjaneya Sastry, S. Ranganatham & Dr. R. Bharavi Sharma

**ISBN: 9789355014412**
**Price: ₹ 395 | Pages: 448**
**Size: 6.5" X 9.25" (Paperback)**

### About the Book

"A Textbook of B.Sc. Mathematics [Real Analysis]" strictly covers the new curriculum for Course 4 (2nd year, 2nd semester) of universities in Andhra Pradesh. It covers Real Numbers, Sequences and Infinite Series with p-test, Cauchy's nth root test or Root Test, D'-Alembert's Test or Ratio Test, Alternating Series - Leibnitz Test.

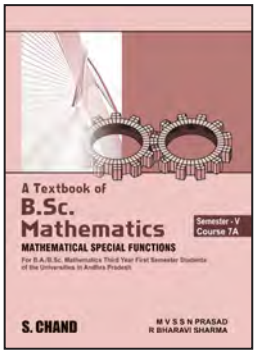
### Key Features

- Strictly covers the new curriculum for Course 4 (2nd year, 2nd semester) of universities in Andhra Pradesh.
- Over 300 solved problems for easy understanding of the concepts.
- 350 exercise questions strengthen the well-explained theoretical concepts.

### Contents

UNIT - 1 The Real Numbers, 2. Sequences, UNIT - 2, 3. Infinite Series, UNIT - 3, 4. Limits and Continuity, UNIT - 4, 5. Differentiation, UNIT - 5, 6. Riemann Integration, Co-Curricular Activities, • Quiz (Objective Type Questions), Assignments, • Questions for "Problems Solving Session", • Applications of Real Analysis, • Model Question Paper, • Key to "A Textbook B. Sc. Mathematics - Vol. II, • (Course 4- Real Analysis)"

---




## A Textbook of B.Sc. Mathematics Semester - V [Course 7A] Mathematical Special Functions :

Dr. M.V.S.S.N. Prasad
Dr. R. Bharavi Sharma

**ISBN: 9789355015518**
**Price: ₹ 225 | Pages: 216**
**Size: 6.5" X 9.25" (Paperback)**

### About the Book

This book has been written strictly according to the latest syllabus of All Universities of Andhra Pradesh state for B.Sc. Third Year (Vth Semester) students. It covers Beta and Gamma Functions, Chebyshev Polynomials, Power Series Solutions of Ordinary Differential Equations, Hermite Polynomials, Legendre Polynomials, Bessel Functions. The book will guide the students in a proper way and inspire them to sure and brilliant success.

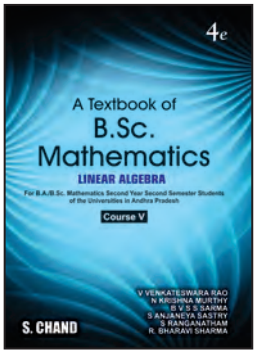
### Key Features

- The book has been written in simple and lucid language
- Close to 200 solved examples are given in each chapter to illustrate the various concepts and methods
- Close to 100 chapter-end questions to enhance the learning quotient.

### Contents

UNIT I : Beta and Gamma Functions, Chebyshev Polynomials, 1.Beta and Gamma Functions, 2.Chebyshev Polynomials, UNIT - II: Power Series Solutions of Ordinary Differential Equations, 3.Power Series Solutions of Ordinary Differential Equations, UNIT - III: Hermite Polynomials, 4.Hermite Polynomials, UNIT - IV: Legendre Polynomials, 5.Legendre Polynomials, UNIT - V : Bessel's Functions, 6.Bessel Functions

---




## A Textbook of B.Sc. Mathematics (Linear Algebra): Volume V

V. Venkateswara Rao, N. Krishnamurthy, B.V.S.S. Sarma, S. Anjaneya Sastry, S. Ranganatham & Dr. R. Bharavi Sharma

**ISBN: 9789355017253**
**Price: ₹ 325 | Pages: 312**
**Size: 6.5" X 9.25" (Paperback)**

### About the Book

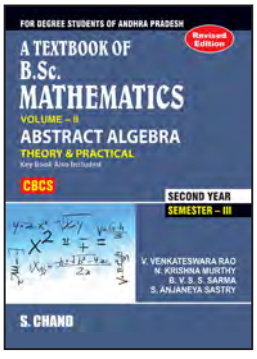
This book has been written strictly according to new curriculum for Second Year: Second Semester students at all Universities of Andhra Pradesh. It covers important topics such as Vector Spaces, Basis and Dimension, Linear Transformation, Fundamentals of Matrices, Characteristic Values and Characteristic Vectors, Cayley-Hamilton Theorem, Inner Product Spaces, and Orthogonality. The book will guide the students in a proper way and inspire them to sure and brilliant success. The authors are very happy that the earlier editions have been very well used by the students.

### Key Features

- The book has been written in simple and lucid language.
- Quiz, Questions for Problem Solving Session, Applications of Linear Algebra" are included to make the book more comprehensive.
- Detailed solutions for all problems in the various exercises of different chapters are given at the end.
- Key to "A Textbook of B.Sc. Mathematics - Vol. II (Course 5- Linear Algebra)" of 60 pages are also included at the end of the book.

### Contents

UNIT I, 1. Vector Spaces, UNIT - II, 2. Basis and Dimension, UNIT - III, 3. Linear Transformation, UNIT - IV, 4. Fundamentals of Matrices, 5. Characteristic Values and Characteristic Vectors, Cayley-Hamilton Theorem, UNIT - V, 6. Inner Product Spaces, 7. Orthogonality, Co-Curricular Activities , Quiz (Objective Type Questions) ,Questions for "Problems Solving Session" , Applications of Linear Algebra, Model Question Paper & Previous Question Papers, Key to "A Textbook of B.Sc. Mathematics - Vol. II (Course 5- Linear Algebra)"




## A Textbook of B.Sc. Mathematics Abstract Algebra

V. Venkateswara Rao
N. Krishnamurthy
B.V.S.S. Sharma
S. Anjaneya Sastry

**ISBN: 9789352834013 | Code: 1007000609 | Price: ₹ 325**
**Pages: 260 | Size: 6.5" X 9.25" (Paperback)**

### About the Book

This Textbook of B.Sc. Mathematics for the students studying Second year in all universities of Andhra Pradesh was first published in the year 1988 and has undergone several editions and many reprints. The revised syllabus is being adopted by all the universities in Andhra Pradesh, following Common Core model curriculum from the academic year 2015-2016 based on CBCS (Choice Based Credit System). This book strictly covers the new curriculum for Semester III (2nd Year, 3rd Semester)

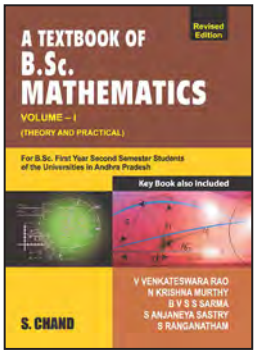
### Key Features

- Detailed solutions for all the problems in the various exercises of different chapters are given at the end.
- Objective type questions covering multiple choices type and fill in the blank type questions which are useful to M.Sc. entrance tests are given with answers at the end of each section.

### Contents

1. Number Theory, 2. Binary Operation, 3. Groups, 4. Sub groups, 5. Cosets and Language' Theorem, 6. Normal subgroups, 7. Homomorphisms, Isomorphisms of groups, 8. Permutation Groups, 9. Cyclic Groups, Problems for practicals, Objective Type Questions, Solved Question papers of different Universities in A.P. – 2017, • Key To "A Textbook B.Sc., Mathematics - Second Year"Semester III

V. Venkateshwararao: M.Sc., Former Vice Principal and Head of the Department of Mathematics, Hindu College, GUNTUR
N. Krishnamurthy: M.Sc., Former Head of Department of Mathematics, V.V. College, Hyderabad
B.V.S.S. Sharma: M.Sc., Former Senior Lecturer in Mathematics V.S.R. & N.V.R. College, Tenali
S. Anjaneya Sastry: M.A. Former Head of the Department of Mathematics, V.S.R. & N.V.R. College, Tenali




## A Textbook of B.Sc. Mathematics

V Venkateswara Rao
N Krishnamurthy
B V S S Sarma
S Anjaneya Sastry
S Ranganatham

**ISBN: 9789352836277 | Code: 9789352836277 | Price: ₹ 425**
**Pages: 384 | Size: 6.5" X 9.25" (Paperback)**

### About the Book

This Text book of B.Sc. Mathematics for the students studying First year in all universities of Andhra Pradesh was first published in the year 1988 and has under gone several editions and many reprints.

The revised syllabus is being adopted by all the universities in Telangana State, following Common Core model curriculum from the academic year 2016–2017 based on CBCS (Choice Based Credit System). This book strictly covers the new curriculum for Semester V (3rd year, 1st semester-Elective). Solutions are provided for the questions of Practical Question Bank. Key for the exercise problems appended at the end.

### Key Features

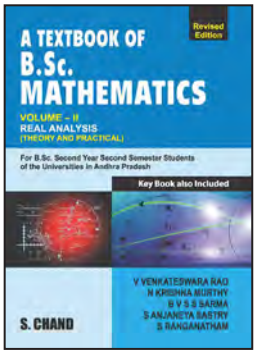
- The revised syllabus is being adopted by all the universities in Telangana State, following Common Core model curriculam from the academic year 2016 – 2017 based on CBCS (Choice Based Credit System).
- This book strictly covers the new curriculum for Semester V (3rd year, 1st semester-Elective).
- Solutions are provided for the questions of Practical Question Bank.
- Key for the exercise problems appended at the end.

### Contents

1. Introduction, 2. Coordinates, 3. The Plane, 4. Right Line, 5. Change of Axes, 6. The Sphere, 7. The Cone, 8. The Cylinder, 9. The Central Conicoid,• Objective Type of Questions • Problem for Practicals • Key to " A Textbook of B.Sc. Mathematics Vol I (II nd Sem)"• Question Papers

V. Venkateshwararao: M.Sc., Former Vice Principal and Head of the Department of Mathematics, Hindu College, GUNTUR
N. Krishnamurthy: M.Sc., Former Head of Department of Mathematics, V.V. College, Hyderabad
B.V.S.S. Sharma: M.Sc., Former Senior Lecturer in Mathematics V.S.R. & N.V.R. College, Tenali
S. Anjaneya Sastry: M.A. Former Head of the Department of Mathematics, V.S.R. & N.V.R. College, Tenali

S. Ranganatham M. Sc. M. Phil. Former Head of the Deptt. of MathematicsJawahar Bharathi Degree College, Kavali.




## A Textbook of B.Sc. Mathematics Real Analysis

V Venkateswara Rao
N Krishnamurthy
B V S S Sarma
S Anjaneya Sastry
S Ranganatham

**ISBN: 9789352836284 | Code: 9789352836284 | Price: ₹ 395**
**Pages: 456 | Size: 6.5" X 9.25" (Paperback)**

### About the Book

This Textbook of B.Sc. Mathematics for the students studying Second year in all universities of Andhra Pradesh was first published in the year 1988 and has under gone several editions and many reprints. The revised syllabus is being adopted by all the universities in Andhra Pradesh, following Common Core model curriculum from the academic year 2015–2016 based on CBCS (Choice Based Credit System). This book strictly covers the new curriculum for Semester IV (2nd year, 2nd semester). Solutions are provided for the questions of Practical Question Bank. Key for the exercise problems appended at the end.

### Key Features

- The revised syllabus is being adopted by all the universities in Andhra Pradesh, following Common Core model curriculum from the academic year 2015 – 2016 based on CBCS (Choice Based Credit System).
- This book strictly covers the new curriculum for Semester V (2nd year, 2nd semester).
- Objective type questions covering multiple choice type and fill in the blank type questions which are useful for M.Sc. entrance tests are given with answers at the end of each sections.
- Solutions are provided for the questions of Practical Question Bank.
- Key for the exercise problems appended at the end.

### Contents

1. The Real Numbers. 2. Sequences, 3. Infinite Series, 4. Limits and Continuity, 5. Differentiation, 6. Reimann Integration, Objective Type Questions, Practical Question Bank with solutions • Key to "A Textbook B. Sc. Mathematics-Sem IV • Question Papers 2016

## For Telangana


## A Textbook of B.Sc. Mathematics, Ring Theory and Vector Calculus (Telugu)

V. Venkateshwara Rao
N. Krishnamurthy
B.V.S.S. Sarma
S. Anjaneya Sastry
S. Ranganatham

**ISBN: 9789352830329 | Code: 10HE000052 | Price: ₹ 275**
**Pages: 256 | Size: 6.5" X 9.25" (Paperback)**

### About the Book

This Textbook of B.Sc. Mathematics (Telugu) is written for the students studying Third year in all universities of Andhra Pradesh was first published in the year 1988 and has undergone several editions and many reprints. The revised syllabus is being adopted by all universities in Andhra Pradesh, following Common Core Model Curriculum from the academic year 2015-2016(revised in 2016). The book strictly covers the new Curriculum for Semester V (3rd Year, 5th Semester-Paper 5)

### Key Features

- The book is based as per pattern CBCS.
- Objective type questions covering multiple choice type and fill in the blanks type questions useful for M.Sc. entrance tests are given with answers at the end of each section
- Detailed solution for all problems in the various exercises of different chapters are given at the end

### Contents

1. Rings, Integral Domains & Fields, 2. Subrings, Ideals, Quotient Rings & Euclidean Rings, 3. Homomorphism's of Rings, Maximal and Prime Ideals, Problem for Practical's & Objective type questions, 4. Derivative of a Vector Function, 5. Differential Operators, 6. Integration of Vector, 7. Integral Transformations, Problem for Practical's & Objective Questions, Key to "A Textbook of B.Sc. Mathematics – Vol. – III"

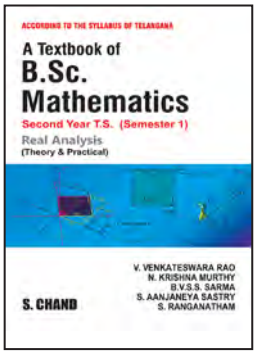
V. Venkateswara Rao, M. Sc., former Vice Principal and Head of Department of Mathematics, Hindu College, Guntur.

N. Krishnamurthy, M. Sc., former Head of department of Mathematics, V.V. College, Hyderabad.

B.V.S.S. Sarma, M. Sc., former Senior Lecturer in Mathematics, V.S.R. & N.V.R. College, Tenali.

S. Anjaneya Sastri, M. A., former Head of Department of Mathematics, V.S.R. & N.V.R. College, Tenali

S. Ranganatham, M. Sc., M. Phil. Former Head of Department of Mathematics, Jawahar Bharathi Degree College, Kavali




## A Textbook of B.Sc.Mathematics Real Analysis

V. Venkateswara Rao
N. Krishnamurthy
B.V.S.S. Sarma
S. Anjaneya Sastry
S. Ranganatham

**ISBN: 9789352830374 | Code: 10HE000057 | Price: ₹ 350**
**Pages: 386 | Size: 6.5" X 9.25" (Paperback)**

### About the Book

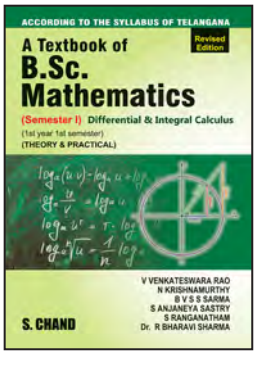
This Textbook of B.Sc. Mathematics is written for the students studying Second year First Semester in all universities of Telangana state was first published in the year 1988 and has undergone several editions and many reprints. The revised syllabus is being adopted by all universities in Andhra Pradesh, following Common Core Model Curriculum from the academic year 2015-2016(revised in 2016). The book strictly covers the new Curriculum for Semester III (2nd Year, 1st Semester).

### Key Features

- The book is based as per pattern CBCS.
- Objective type questions covering multiple choice type and fill in the blanks type questions useful for M.Sc. entrance tests are given with answers at the end of each section.
- Detailed solution for all problems in the various exercises of different chapters are given at the end.

### Contents

1. Introduction – Real number, 2. Sequences, 3. Sub Sequences & Series, 4. Limits and Continuity, 5. Sequence & Series of functions, Objective Types of questions, 6. Riemann Integration, Objective Types of questions • Key to "A Textbook of B.Sc. Mathematics – Sem. – III"




## A Textbook of B.Sc. Mathematics Semester I Differential & Integral Calculus

V Venkateswara Rao
N Krishnamurthy
B V S S Sarma
S Anjaneya Sastry
S Ranganatham
Dr. R Bharavi Sharma

**ISBN: 9789352837830 | Code: 9789352837830 | Price: ₹ 275**
**Pages: 248 | Size: 6.5" X 9.25" (Paperback)**

### About the Book

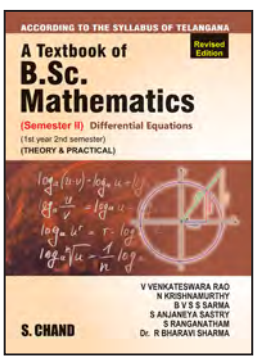
The book "A Textbook of B. Sc. Mathematics" is for the students studying in first year of Telangana State universities. The revised syllabus is being adopted by all the universities in Telangana State, following Common Core model curriculum from the academic year 2019–2020 based on CBCS (Choice Based Credit System). This book strictly covers the new curriculum for Semester I (First year, First semester). The detailed solutions for all the problems in the various exercises of different chapters are given at the end. Key for the exercise problems appended at the end.

### Key Features

- This book is strictly according to the syllabus prescribed for B. Sc. based on the guidelines by UGC for CBCS.
- Theory is explained in a lucid manner using examples at appropriate places.
- Previous years question papers with solutions are included at appropriate places
- Key book, solutions for exercise, is included.
- Objective type questions included, which are useful for PG entrance examination.

### Contents

1. Partial Differentiation, 2. Implicit functions, Taylor's Theorem, 3. Maxima and Minima, 4. Curvature and Evolutes, 5. Envelopes, 6. Lengths of Plane Curves, 7. Volumes and surfaces of Revolution • Key to "A Textbook of B. Sc. Mathematics - Vol. I"




## A Textbook of B.Sc. Mathematics Semester II Differential Equations

N Krishnamurthy
V VenkateswaraRao
B V S S Sharma
S A Sastry
S Ranganatham
Dr. R Bharavi Sharma

**ISBN: 9789352838233 | Code: 9789352838233 | Price: ₹ 365**
**Pages: 464 | Size: 6.5" X 9.25" (Paperback)**

### About the Book

In the study of many subjects such as Physics, Chemistry and Economics, the problems faced are represented by a mathematical model called a differential equation. A differential equation is formed involving the derivatives of the unknown function has been described fully and accurately with the physical process or a geometrical law. The solution of such a differential equation gives the unknown function involved in explaining the physical process or geometrical law. Since the time of Newton, Mathematicians are in the constant search for the solution of differential equations describing the nature of a physical or geometrical law. Thus an equation formed by the derivatives of an unknown function is called a differential equation, the solution of which gives the unknown function. With the examples of geometrical nature and physical process, in this book it has been illustrated, the purpose of differential equation whose solution involves a search for the unknown function.

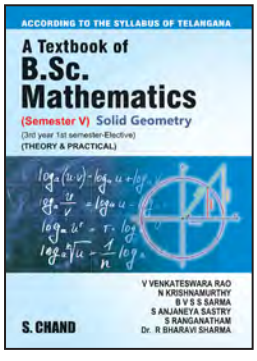
### Key Features

- A differential equation is formed involving the derivatives of the unknown function has been described fully and accurately with the physical process or a geometrical law.
- The solution of differential equation has been discussed when the unknown function involved in explaining the physical process or geometrical law.
- With the examples of geometrical nature and physical process, in this book it has been illustrated, the purpose of differential equation whose solution involves a search for the unknown function.
- Previous years question papers with solutions are included at appropriate places
- Key book, solutions for exercise, is included.

### Contents

1. Introduction, 2. Differential Equations of First order and First Degree, 3. Differential Equations of First order but not of First Degree, 4. Higher Order Linear Differential Equations (Constant coefficients), 5. Higher Order Linear Differential Equations (Non - Constant coefficients), 6. Partial Differential Equations, Objective Type Questions, • Key to "A Text Book B. Sc. Mathematics - Semester II"

---




## A Textbook of B.Sc. Mathematics Semester V Solid Geometry

V Venkateswara Rao
N Krishnamurthy
B V S S Sarma
S Anjaneya Sastry
S Ranganatham
Dr. R Bharavi Sharma

**ISBN: 9789352835300 | Code: 9789352835300 | Price: ₹ 200**
**Pages: 200 | Size: 6.5" X 9.25" (Paperback)**

### About the Book

This Textbook of B.Sc. Mathematics for the students studying Second year in all universities of Andhra Pradesh was first published in the year 1988 and has undergone several editions and many reprints.

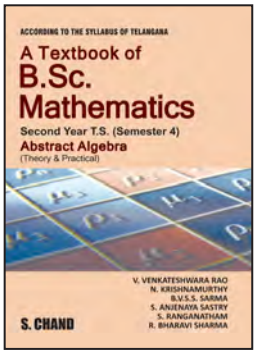
The revised syllabus is being adopted by all the universities in Telangana State, following Common Core model curriculum from the academic year 2016–2017 based on CBCS (Choice Based Credit System). This book strictly covers the new curriculum for Semester V (3rd year, 1st semester-Elective). Solutions are provided for the questions of Practical Question Bank. Key for the exercise problems appended at the end.

### Key Features

- The revised syllabus is being adopted by all the universities in Telangana State, following Common Core model curriculum from the academic year 2016–2017 based on CBCS (Choice Based Credit System).
- This book strictly covers the new curriculum for Semester V (3rd year, 1st semester-Elective).
- Solutions are provided for the questions of Practical Question Bank.
- Key for the exercise problems appended at the end.

### Contents

1. Sphere, 2. Cones, 3. Cylinder, 4. The Conicoid • Practical Question Bank with solutions Key to "A Textbook B.Sc. Mathematics-Vol. III • [5th Semester-(Solid Geometry (Elective)]




## A Textbook of B.Sc. Mathematics Abstract Algebra

V. Venkateswara Rao
N. Krishnamurthy
B.V.S.S. Sarma
S. Anjaneya Sastry
S. Ranganatham
R. Bharavi Sharma

ISBN: 9789352832507 | Code: 10HE000082 | Price: ₹ 299
Pages: 392 | Size: 6.5" X 9.25" (Paperback)

### About the Book

This Textbook of B.Sc. Mathematics is written for the students studying Second year Second Semester in all universities of Telangana state was first published in the year 1988 and has undergone several editions and many reprints. The revised syllabus is being adopted by all universities in Andhra Pradesh, following Common Core Model Curriculum from the academic year 2015-2016(revised in 2016). The book strictly covers the new Curriculum for Semester IV (2nd Year, 2nd Semester).

### Key Features

- Written as per new common core syllabus of 2016-17 based on CBCS
- For B.Sc. 2nd Year, 2nd Semester of the Universities in Telangana
- Solutions are provided for the questions of Practical question bank

### Contents

1. Groups, 2. Finite and Infinite Groups, 3. Subgroups, 4. Cyclic Groups, 5. Permutation Groups, 6. Isomorphisms of Groups, 7. Cosets and Lagrange's Theorem, 8. Normal Subgroups and Factor Groups, 9. Homomorphisms of Groups, 10. Rings and Sub Rings, 11. Integral Domains and Fields, 12. Ideals, Factor Rings and Types of Ideals, 13. Homomorphisms and Isomorphisms of Rings, 14. Rings of Polynomials, Practical Problems • Key to "A Textbook of B.Sc. Mathematics – Sem. – IV"

V. Venkateswara Rao, M. Sc., former Vice Principal and Head of Department of Mathematics, Hindu College, Guntur.
N. Krishnamurthy, M. Sc., former Head of department of Mathematics, V.V. College, Hyderabad.
B.V.S.S. Sarma, M. Sc., former Senior Lecturer in Mathematics, V.S.R. & N.V.R. College, Tenali.
S. Anjaneya Sastry, M. A., former Head of Department of Mathematics, V.S.R. & N.V.R. College, Tenali
S. Ranganatham, M. Sc., M. Phil. Former Head of Department of Mathematics, Jawahar Bharathi Degree College, Kavali.
R. Bharavi Sharma, M. Sc., Ph. D., Asst. Professor of Mathematics and Nodal Officer, Kakatiya University, Warangal

## PHYSICS

| ISBN | Code | Author | Title | INR |
|---|---|---|---|---|
| 9789355011541 | | CL Arora | Physics for B.Sc. Students Semester I (NEP-UP) | 425 |
| 9789355012814 | | CL Arora | Physics for B.Sc. Students Semester II (NEP-UP) | 425 |
| 9789355012142 | | PS Hemne & CL Arora | Physics for B.Sc. Students: Semester III (Theory \| Practical) (NEP-UP) | 475 |
| 9789355017017 | | PS Hemne & CL Arora | Physics for B.Sc. Students: Semester IV Perspectives of Modern Physics and Basic Electronics (NEP-UP) | 349 |
| 9789355013675 | 9789355013675 | PS Hemne & CL Arora | Physics for B.Sc. Students (Semester-I): Mechanics and Properties of Matter NEP-Karnataka | 299 |
| 9789355013927 | 9789355013927 | P S Hemne & CL Arora | Physics: for B.Sc. Students Semester II NEP-Karnataka | 325 |
| 9789355012074 | | PS Hemne & CL Arora | Physics for B.Sc. Students (Semester I) (NEP Jammu) | 350 |
| 9789355016737 | | PS Hemne & CL Arora | Physics for B.Sc. Students (Semester II) (NEP Jammu) | 325 |
| 9789355016720 | | PS Hemne & CL Arora | Physics for B.Sc. Students Semester II: (NEP Uttarakhand) | 375 |
| 9789355015419 | | PS Hemne & DS Mathur | Mechanics (Semester I): (NEP Delhi) | 350 |
| 9789355015181 | | HK Dass, Rajnish Verma & Dr. Rama Verma | Mathematical Physics-I for B.Sc. Students: Semester I (NEP Delhi) | 525 |
| 9789352837229 | 9789352837229 | H K Dass , Rama Verma & Rajnish Verma | Mathematical Physics (LPSPE) | 850 |
| 9789352837281 | 9789352837281 | CL Arora & PS Hemne | Physics for Degree Students - B.Sc. First Year (LPSPE) | 599 |
| 9789355010940 | 9789355010940 | Harnam Singh & P S Hemne | B.Sc. Practical Physics (LPSPE) | 695 |
| 9788121904650 | 1016D00072 | CL Arora | Refresher Course in Physics - Volume I (LPSPE) | 750 |
| 9789355010858 | 9789355010858 | CL Arora | Refresher Course in Physics - Volume II (LPSPE) | 695 |
| 9789355010865 | 9789355010865 | CL Arora | Refresher Course in Physics - Volume III (LPSPE) | 525 |
| 9789352837342 | 9789352837342 | R Murugeshan | Electricity and Magnetism (LPSPE) | 425 |
| 9789352837236 | 9789352837236 | R Murugeshan & Kiruthiga Sivaprasath | Modern Physics (LPSPE) | 625 |
| 9789352837274 | 9789352837274 | S N Ghoshal | Nuclear Physics (LPSPE) | 595 |
| 9789355013293 | 9789355013293 | R Murugeshan | Electricity and Magnetism (As per UGC & CBCS) | 495 |
| 9789355012821 | 9789355012821 | H K Dass, Dr. Rama Verma & Er. Rajnish Verma | Mathematical Physics (As per UGC CBCS) | 750 |
| 9789355012531 | 9789355012531 | H K Dass, Dr. Rama Verma & Er. Rajnish Verma | Mathematical Physics (As per UGC CBCS) East | 695 |
| 9788121928137 | 1016B00334 | Lal Brij, N Subrahmaniyam & PS Hemne | Heat Thermodynamics and Statistical Physics | 750 |
| 9788121926119 | 1016D00306 | Subrahmaniyam N. Lal Brij & Avadhanulu | A Textbook of Optics | 825 |
| 9789352834402 | 9789352834402 | S R Manohara & Shubha A | Electricity, Magnetism and Electromagnetic Theory (UGC CBCS) | 450 |
| 9788121905992 | 1016C00063 | Mathur D.S. & Hemne P.S. | Mechanics | 825 |
| 9788121908153 | 1016B00062 | Mathur D.S. | Elements of Properties of Matter | 595 |
| 9788121906678 | 1016C00175 | Tewari K.K. | Electricity and Magnetism | 595 |
| 9788121914765 | 1010B00181 | Puri R.K. & Babbar V.K. | Solid State Physics | 375 |
| 9789385676154 | 1016C00322 | Ghosh M. & Bhattacharya D. | A Textbook of Oscillations, Waves and Acoustics, 5th Edition | 275 |

| ISBN | Code | Author | Title | INR |
|---|---|---|---|---|
| 9788121910958 | 1016A00173 | Ghoshal S.N. | Atomic Physics (Modern Physics) | 725 |
| 9788121904148 | 1016A00132 | N Subrahmaniyam, Lal Brij & Seshan Jivan | Atomic and Nuclear Physics | 399 |
| 9788121909099 | 1016C00099 | CL Arora | B.Sc. Practical Physics | 650 |
| 9788121925396 | 1016A00301 | Singh Kamal & Singh S.P. | Elements of Quantum Mechanics | 195 |
| 9788121908559 | 1016B00150 | Tewari K.K. | Electricity and Magnetism with Electronics | 725 |
| 9788121909556 | 1016A00058 | Vasudeva D.N. | Fundamentals of Magnetism and Electricity | 825 |
| 9788121929134 | 1016B00341 | Murugeshan R. | Mechanics and Mathematical Physics | 350 |
| 9788121901635 | 1010C00036 | Theraja B.L. | Modern Physics | 360 |
| 9788121930826 | 1010A00378 | Rathi Rakesh | Nanotechnology (Technology Revolution of 21st Century) | 405 |
| 9788121914413 | 1016D00206 | Murugeshan R. & Sivaprasath Kiruthiga | Optics and Spectroscopy | 450 |
| 9788121906050 | 1016C00189 | Murugeshan R. | Properties of Matter | 315 |
| 9788121909310 | 1016B00155 | Chattopadhyay D. & Rakshit P.C. | Quantum Mechanics, Statistical Mechanics and Solid State Physics | 360 |
| 9788121914758 | 1010A00176 | Puri R.K. & Babbar V.K. | Solid State Physics and Electronics | 550 |
| 9788121928021 | 1010A00333 | Singh Kamal & Singh S.P. | Solid State Devices and Electronics | 295 |
| 9788121940597 | 1016C00392 | CL Arora & PS Hemne | Physics for Degree Students for B.Sc. 2nd Year | 795 |
| 9788121942874 | 1016A00425 | CL Arora & PS Hemne | Physics for Degree Students for B.Sc. 3rd Year | 795 |
| 9789355010964 | 9789355010964 | R Murugeshan & Kiruthiga Sivaprasath | Elements of Modern Physics: (As per UGC-CBCS Curriculum) | 450 |
| 9789355013316 | 9789355013316 | M N Avadhanulu & TVS Arun Murthy | Waves and Optics: As per CBCS | 275 |
| 9789355018281 | 9789355018281 | P S Hemne & C L Arora | Physics For B.Sc. Students Semester V: Paper 1 \| Classical and Statistical Mechanics \| NEP 2020 For the University of Uttar Pradesh | 299 |
| 9789355018199 | 9789355018199 | P S Hemne & C L Arora | Physics for B.Sc. Students Semester V : Paper 2 \| Quantum Mechanics and Spectroscopy \| NEP 2020 – For the University of Uttar Pradesh | 349 |
| 9789358707526 | 9789358707526 | P S Hemne & C L Arora | Physics For B.Sc. Students Semester VI: Paper 1 \| Solid State & Nuclear Physics - NEP 2020 Uttar Pradesh | 350 |
| 9789355018427 | 9789355018427 | P S Hemne & C. L. Arora | Physics For B.Sc. Students Semester I: MJ-1 \| Basic Mathematical Physics & Mechanics - NEP 2020 - For the University of Jharkhand | 450 |
| 9789355019059 | 9789355019059 | P S Hemne & C L Arora | Bhautik Vigyan Semester I : B.Sc. ke Vidyarthiyon ke liye \| NEP 2020 UP | 399 |
| 9789355019066 | 9789355019066 | P S Hemne & C L Arora | Physics For B.Sc. Students Semester III : Vidut Chumbakiya Sidhant aur Adhunik Prakashiki \| Bijali aur Chumbaktva ke Pradarshnatmak Pehlu - NEP 2020 UP | 399 |
| 9789358700220 | 9789358700220 | P S Hemne & D S Mathur | Mechanics & Oscillations Semester I : For the Universities of Rajasthan State \| LPSPE Edition | 350 |
| 9789355018410 | 9789355018410 | P S Hemne & C L Arora | Physics for B.Sc. Students Semester II : MJ-2 \| Electromagnetism - NEP 2020 Jharkhand Universities | 325 |
| 9789355018373 | 9789355018373 | Dr. P S Hemne & C L Arora | Physics For B.Sc. Students Semester I: Paper 1 \| Mechanics and Wave Motion \| NEP 2020 For the University of Lucknow | 325 |
| 9789355018434 | 9789355018434 | Dr. P S Hemne & C L Arora | Physics For B.Sc. Students Semester I : Paper 2 \| Optics \| NEP 2020 For the University of Lucknow | 225 |
| 9789358707755 | 9789358707755 | P S Hemne & C L Arora | Physics For B.Sc. Students Semester II: MJC-2 \| Oscillations and Waves - NEP 2020 Patna University Syllabus and other Bihar Universities | 200 |
| 9789358700701 | 9789358700701 | P S Hemne & C L Arora | Mathematical Physics And Mechanics : As per the latest curriculum on the directives of NEP 2020 Guwahati | 350 |
| 9789355018427 | 9789355018427 | P S Hemne & C L Arora | Physics For B.Sc. Students Semester I: MJ-1 \| Basic Mathematical Physics & Mechanics - NEP 2020 - For the University of Jharkhand | 450 |

## MATHEMATICS & STATISTICS

| ISBN | Code | Author | Title | INR |
|---|---|---|---|---|
| 9789355012784 | 9789355012784 | H K Dass , Rama Verma & Rajnish Verma | Mathematics for B.Sc. Students Semester I (NEP-UP) | 450 |
| 9789355014153 | 9789355014153 | H K Dass , Rama Verma & Rajnish Verma | Mathematics for B.Sc. Students Semester II (NEP-UP) | 495 |
| 9789355012791 | 9789355012791 | H K Dass , Rama Verma & Rajnish Verma | Mathematics for B.Sc. Students: Semester III (NEP-UP) | 395 |
| 9789355016966 | 9789355016966 | H K Dass , Rama Verma & Rajnish Verma | Mathematics for B.Sc. Students Semester-IV (NEP-UP) | 399 |
| 9789355014504 | 9789355014504 | Vanishree RK | Mathematics for B.Sc. Students Semester II Algebra-II & Calculus-II (NEP-Karnataka) | 195 |
| 9789355015051 | 9789355015051 | Vanishree RK | Mathematics for B.Sc. Students Semester II Algebra-II & Calculus-II (NEP-Karnataka) | 250 |
| 9789355013651 | 9789355013651 | Vanishree RK | Mathematics for B.Sc. Students: Semester I (NEP-Karnataka) | 225 |
| 9789355013668 | 9789355013668 | Vanishree RK | Mathematics for B.Sc. Students: Semester I (NEP- Karnataka) for Mangalore and Mysore University | 299 |
| 9789355015181 | 9789355015181 | HK Dass, Rajnish Verma & Dr. Rama Verma | Mathematical Physics-I for B.Sc. Students: Semester I (NEP Delhi) | 525 |
| 9789355016225 | 9789355016225 | M.D. Raisinghania | Elementary Real Analysis: Semester I (NEP Delhi) | 295 |
| 9789352837267 | 9789352837267 | R S N Pillai & Bagavathi | Statistics (LPSPE) | 595 |
| 9789352837359 | 9789352837359 | S K Sarkar | A Textbook of Discrete Mathematics (LPSPE) | 550 |
| 9788121924733 | | P. Kandasamy & Dr. K. Thilagavathi | Mathematics for B. Sc. Branch – I: Fourth Semester Volume-IV | 250 |
| 9789355014108 | 1010B00315 | Dr. M.D. Raisinghania | Real Analysis | 350 |
| 9789352838950 | 9789352838950 | Raisinghania M.D. | Integral Equations and Boundary Value Problems 10th Edition | 495 |
| 9789352836109 | 9789352836109 | Raisinghania M.D. | Ordinary and Partial Differential Equations, 20th Edition | 895 |
| 9788121904711 | 1014B00049 | Narayan Shanti & Mittal P.K. | Differential Calculus | 625 |
| 9788121903066 | 1014G00052 | Narayan Shanti & Raisinghania M.D. | Elements of Real Analysis | 625 |
| 9788121906814 | 1014B00050 | Narayan Shanti & Mittal P.K. | Integral Calculus | 550 |
| 9788121925969 | 1014A00509 | Narayan Shanti & Mittal P.K. | A Textbook of Matrices | 350 |
| 9789355014672 | 9789355014672 | Raisinghania M.D. | Advanced Differential Equations, 20e | 895 |
| 9789355013767 | 9789355013767 | H K Dass, Rajnish Verma & Dr. Rama Verma | Differential Equations: CBCS Semester II – Eastern India Universities | 360 |
| 9789355011619 | 9789355011619 | Dr. Manoranjan Kumar Singh & Dr. Shubh Narayan Singh | Group Theory I ( UGC-CBCS) | 235 |
| 9788121902724 | 1014A00199 | uraipandian P.Duraipandian Laxmi & Jayapragasam Muthamizh | Mechanics | 445 |
| 9788121926614 | 1014B00516 | Narayan Shanti & Mittal P.K. | Analytical Solid Geometry | 395 |
| 9788121908696 | 1014E00349 | Raisinghania M.D. | Fluid Dynamics With Complete Hydrodynamics and Boundary Layer Theory | 725 |

| ISBN | Code | Author | Title | INR |
|---|---|---|---|---|
| 9788121926492 | 1014B00492 | Raisinghania M.D. | Dynamics | 450 |
| 9788121903424 | 1014A00048 | M Ray & GC Sharma | A Textbook on Dynamics | 295 |
| 9788121906395 | 1014C00104 | Narayan Shanti & Mittal P.K. | Theory of Functions of a Complex Variable | 650 |
| 9788121903394 | 1014B00056 | Saxena H.C. | Finite Differences and Numerical Analysis | 450 |
| 9788121904728 | 1014A00045 | Narayan Shanti & Mittal P.K. | A Course of Mathematical Analysis | 550 |
| 9788121922432 | 1014A00469 | Narayan Shanti & Mittal P.K. | A Textbook of Vector Analysis | 399 |
| 9788121909525 | 1014B00064 | Narayan Shanti & Mittal P.K. | Vector Algebra | 295 |
| 9789384319090 | 1014000684 | Sreenadh S.& et al. | Fourier Series and Integral Transforms | 425 |
| 9789383746460 | 1014000678 | Duraipandian P. & Pachaiyappa Kayalal | Complex Analysis | 275 |
| 9789384319694 | 1014000692 | Duraipandian P. & Pachaiyappa | Vector Analysis | 225 |
| 9788121923217 | 1014A00478 | Kandasamy P. & Thilagavath Y.K. | Calculus of Finite Differences and Numerical Analysis (Allied Mathematics) | 295 |
| 9788121932400 | 1014B00608 | Mittal P.K. | Mathematics for Degree Students (For B.Sc. First Year) | 875 |
| 9788121935548 | 1014A00615 | Mittal P.K. | Mathematics for Degree Students (For B.Sc. Second Year) | 695 |
| 9788121941013 | 1014A00654 | Rana U.S. | Mathematics for Degree Students (For B.Sc. Third Year) | 895 |
| 9788121912464 | 1014B00046 | Kapur J.N. & Saxena H.C. | Mathematical Statistics | 695 |
| 9788121926270 | 1010B00315 | C Satyadevi | Quantitative Techniques | 375 |
| 9788121941945 | 1014A00664 | Bhargava A.K. | Fuzzy Set Theory Fuzzy Logic and their Applications | 425 |
| 9788121908016 | 1014000286 | Loney S.L. | Plane Trigonometry Part-I | 295 |
| 9788121909181 | 1014000287 | Loney S.L. | Plane Trigonometry Part-II | 195 |
| 9788121909686 | 1010C00128 | Gupta, Prem Kumar & Hira D.S. | Problems in Operations Research (Principles & Solutions) | 995 |
| 9789352535439 | 10HE000025 | Rana U.S. | Differential Equations (CBCS) | 395 |
| 9788121900379 | 1007D00093 | Singh S.P. | Sankhyiki Sidhant Avam Vyavhar (Statistics: Theory and Practice), Hindi Edition | 825 |
| 9788121927765 | 1007A00426 | PN Arora, Sumeet Arora , S Arora & Amit Arora | Comprehensive Statistical Methods | 1395 |
| 9788121900447 | 1007A00182 | Pillai R.S.N. & Bagavathi | Practical Statistics | 595 |
| 9789352830336 | 10HE000029 | V. Venkateswara Rao et al. | A Textbook of B.Sc. Mathematics Ring Theory and Vector Calculus | 225 |
| 9789352830268 | 10HE000053 | V. Venkateswara Rao et al. | A Textbook of B.Sc. Mathematics 3rd Year - Linear Algebra | 300 |
| 9789352839049 | 9789352839049 | V. Venkateswara Rao et al. | A Textbook of B.Sc. Mathematics, Vol. I, Differential Equations (Semester - I First Year) | 325 |
| 9789355017277 | 9789355017277 | V. Venkateswara Rao et al. | A Textbook of B.Sc. Mathematics Vol. II: (First Year Sec. Sem. Andhra Pradesh) | 305 |
| 9789355010179 | 9789355010179 | V. Venkateswara Rao et al. | A Textbook of B.Sc. Mathematics (Real Analysis): Volume IV for Andhra Pradesh Universities | 299 |
| 9789355014412 | 9789355014412 | V. Venkateswara Rao et al. | A Textbook of B.Sc. Mathematics (Linear Algebra): Volume IV | 350 |
| 9789355015518 | 9789355015518 | Dr. M.V.S.S.N. Prasad & Dr. R. Bharavi Sharma | A Textbook of B.Sc. Mathematics Semester - V [Course 7A] Mathematical Special Functions : For Universities of Andhra Pradesh | 225 |
| 9789355017253 | 9789355017253 | V. Venkateswara Rao et al. | A Textbook of B.Sc. Mathematics: Semester IV (Linear Algebra) : For Universities in Andhra Pradesh | 275 |
| 9789352834013 | 1007000609 | V. Venkateswara Rao et al. | A Textbook of B.Sc. Mathematics Abstract Algebra | 325 |

| ISBN | Code | Author | Title | INR |
|---|---|---|---|---|
| 9789352836277 | 9789352836277 | N Krishnamurthyal. al. | A Textbook of B.Sc. Mathematics | 425 |
| 9789352836284 | 9789352836284 | V. Venkateswara Rao et al. | A Textbook of B.Sc. Mathematics Real Analysis | 395 |
| 9789352830329 | 10HE000052 | B.V.S.S. Sarmaal. al. | A Textbook of B.Sc. Mathematics, Ring Theory and Vector Calculus (Telugu) | 275 |
| 9789352830374 | 10HE000057 | V. Venkateswara Rao et al. | A Textbook of B.Sc.Mathematics Real Analysis | 350 |
| 9789352837830 | 9789352837830 | V. Venkateswara Rao et al. | A Textbook of B.Sc. Mathematics Differential & Integral Calculus | 275 |
| 9789352838233 | 9789352838233 | B.V. S. S. Sharma, S.A. Sastry, S. Ranganatham & Dr. R. Bharavi Sharma | A Textbook of B.Sc. Mathematics Sem II Differential Equations | 365 |
| 9789352835300 | 9789352835300 | S Anjaneya Sastry, S Ranganatham & Dr. R Bharavi Sharma | A Textbook of B.Sc. Mathematics Solid Geometry | 200 |
| 9789352832507 | 10HE000082 | V. Venkateswara Rao et al. | A Textbook of B.Sc. Mathematics Abstract Algebra | 299 |
| 9789355018588 | 9789355018588 | H K Dass, Rajnish Verma & Dr. Rama Verma | Mathematics For B.Sc. Students: Semester V: Paper 1 \| Group and Ring Theory \| Linear Algebra - NEP 2020 For the Universities of Uttar Pradesh | 325 |
| 9789355018366 | 9789355018366 | H K Dass, Rajnish Verma & Dr. Rama Verma | Mathematics For B.Sc. Students: Semester I, MJ-1 (Calculus & Geometry): For Ranchi University and other Universities in Jharkhand, FYUGP, Common Course under NEP 2020 | 450 |
| 9789355018298 | 9789355018298 | Apeksha Prajapati & Pradeep Kumar Prajapati | Mathematical and Computational Thinking, For Ranchi and other Universities in Jharkhand, FYUGP, Semester II, Common Course under NEP 2020 | 175 |
| 9789355017277 | 9789355017277 | V. VENKATESWARA RAO, R BHARAVI SHARMA, B.V.S.S. SARMA, N. KRISHNAMURTHY, S. ANJANEYA SASTRY & S. Ranganatham | A Textbook of B.Sc. Mathematics Course II \| Three Dimensional Analytical Solid Geometry: For Andhra Pradesh Universities | 305 |
| 9789355017253 | 9789355017253 | V. VENKATESWARA RAO, R BHARAVI SHARMA, B.V.S.S. SARMA, N. KRISHNAMURTHY, S. ANJANEYA SASTRY & S. Ranganatham | A Textbook of B.Sc. Mathematics: Semester IV (Linear Algebra) : For Universities in Andhra Pradesh | 275 |
| 9789358707120 | 9789358707120 | H K Dass, Rama Verma and Rajnish Verma | Mathematics for B. Sc. Students, Semester- I, Calculus and Geometry, (For NEP Patna), BSF | 450 |
| 9789358708714 | 9789358708714 | H K Dass, Rama Verma and Rajnish Verma | Mathematics for B.Sc. Students: Calculus & Geometry, Semester II, MJ-2 (NEP 2020 Patna) | 450 |
| 9789355018359 | 9789355018359 | H K Dass, Rajnish Verma & Dr. Rama Verma | Mathematics For B.Sc. Students Semester II: MJ-2 \| Multivariable Calculus - NEP 2020 Jharkhand | 450 |

# S. CHAND PUBLISHING (SINCE 1939)

**Customer Care (toll free) No.: 1800-103-1926**

**WhatsApp: +91-7291975264**

**e-mail: info@schandpublishing.com**

## FOR FURTHER INFORMATION, PLEASE CONTACT OUR NEAREST BRANCH OFFICE

### NORTHERN REGION

#### DELHI NCR, WESTERN U.P.

**NOIDA**
Head Office: D-92, Sector-02, Noida 201301
Uttar Pradesh (India)
Ph: +91-120-4682700
e-mail: info@schandpublishing.com

**SAHIBABAD WAREHOUSE**
Plot No. 40/2A Site-IV, Sahibabad Industrial Area,
Ghaziabad- 201010, Uttar Pradesh
Ph: 0120-4176248 / 4261379

#### EASTERN U.P. & MADHYA PRADESH

**LUCKNOW**
Surajdeep Complex, A-Block, Second Floor
1, Jopling Road, Lucknow-226001, Uttar Pradesh
Ph: 0522-4003 633
e-mail: lucknow@schandpublishing.com

#### PUNJAB, HARYANA, HIMACHAL PRADESH, RAJASTHAN AND JAMMU & KASHMIR

**JALANDHAR**
112, 2nd Floor, Shree Kuber Complex, Ranjit Nagar
Opp. Bus Stand Jalandhar-144001, Punjab
Ph: 0181-4645 630
e-mail: jalandhar@schandpublishing.com

### SOUTHERN REGION

#### TELANGANA & ANDHRA PRADESH

**HYDERABAD**
301, 301/A 3rd Floor, Legend Blue Hope
Municipal No-4-1-875, 876, 877 and 877/1
Off. Abids, Tilak Road, Hyderabad-500001
Ph: 040-4018 6018
e-mail: hyderabad@schandpublishing.com

#### TAMIL NADU, KARNATAKA & KERALA

**CHENNAI**
No. 3, 2nd Floor, 13th Street, Jai Nagar, Arumbakkam
(Opp. to CMBT Bus Stand and Behind Park) Chennai-600106,
Tamil Nadu
Ph: 044-2363 2120
e-mail: chennai@schandpublishing.com

### WESTERN REGION

#### MAHARASHTRA, GOA & GUJARAT

**MUMBAI**
Office No. 609, 6th Floor, B Wing, Damji Shamji Corporate Square
Next to Canara Business Centre, Ghatkopar, Andheri Link Road,
Pant Nagar, Ghatkopar East, Mumbai-400075, Maharashtra
Ph: 022-2500 0297
e-mail: mumbai@schandpublishing.com

### EASTERN REGION

#### NORTH EAST, WEST BENGAL AND ORISHA

**KOLKATA**
Unit No. F01, CFB Building, 1st Floor, LB-1, Shilpangan, Sector-III,
Salt Lake, Near Jadavpur University
2nd Campus, West Bengal-700098, Kolkata
Ph: 033-2335 7458, 23353914
e-mail: kolkata@schandpublishing.com

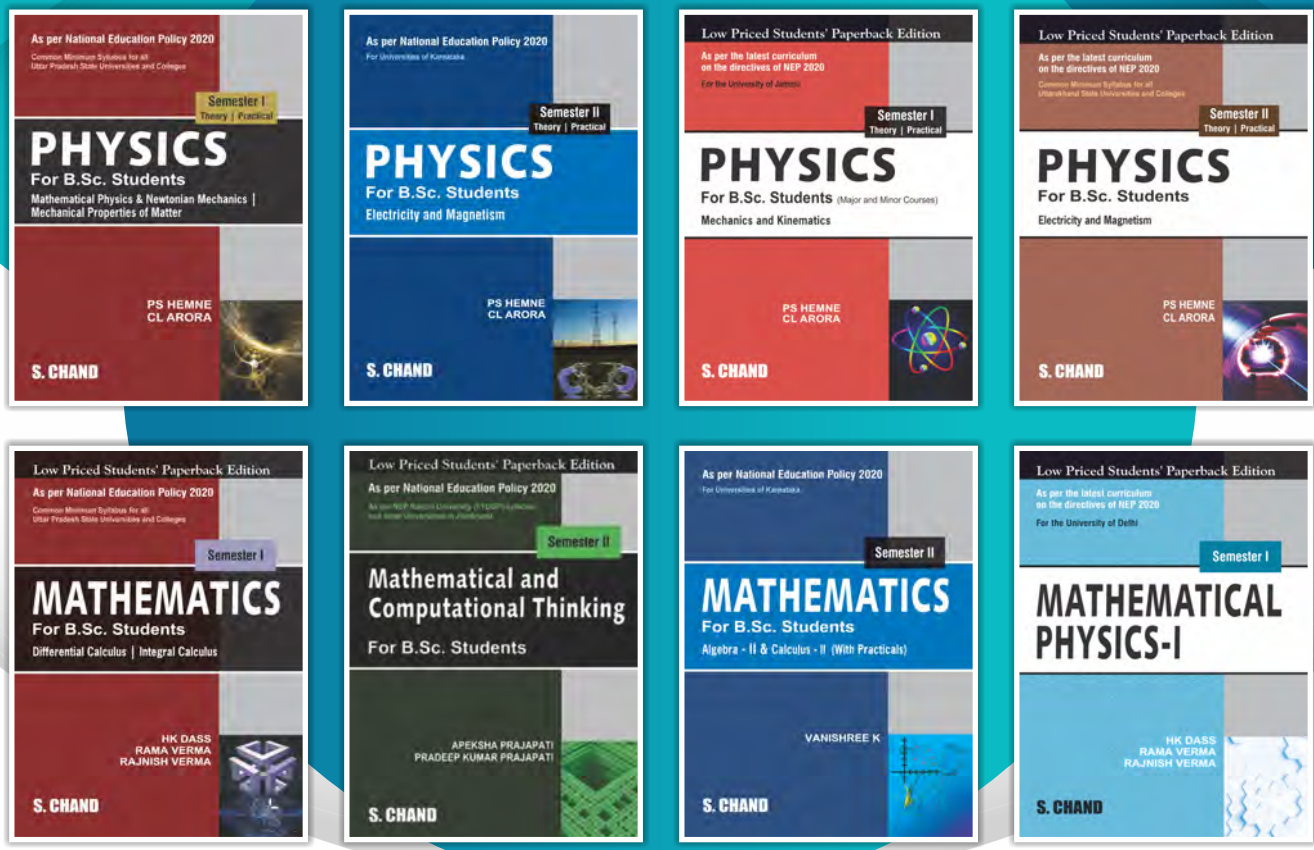
#### ASSAM, MEGHALAYA, NAGALAND, MIZORAM ARUNACHAL PRADESH, MANIPUR & TRIPURA

**GUWAHATI**
4, Nirmali, Kanaklata Path, Lachit Nagar, Bharalupar,
(Opp. EPFO Office) Guwahati, Assam–781007
Ph: 0361-4066 369
e-mail: guwahati@schandpublishing.com

#### BIHAR & JHARKHAND

**PATNA**
Satya Shree, Boring Patliputra Road, PS-Sri Krishnapuri Town
Opp. CISF Office, Patna-800013, Bihar
Ph: 061 2226 0011
e-mail: patna@schandpublishing.com

Note : Prices are subject to change without prior notice





S. CHAND
PUBLISHING

# S. CHAND PUBLISHING

(A Division of S Chand And Company Limited)
(ISO 9001 Certified Company)

Head Office : D-92, Sector-2, Noida 201301, U.P. (India)
Ph: +91-120- 4682700
Customer Care (Toll Free) No.: 1800 103 1926

1061000567

facebook.com/Schandpublishinghighereducation/
instagram.com/schandhighereducation/
+91-7291975264
linkedin.com/company/schand-higher/
twitter.com/SChandHigher/
info@schandpublishing.com

**Buy books online @ www.schandpublishing.com**