Engineering Mathematics Of Atul Prakashan Publication

This more-of-physics, less-of-math, insightful and comprehensive book simplifies computational fluid dynamics for readers with little knowledge or experience in heat transfer, fluid dynamics or numerical methods. The novelty of this book lies in the simplification of the level of mathematics in CFD by presenting physical law (instead of the traditional differential equations) and discrete (independent of continuous) math-based algebraic formulations. Another distinguishing feature of this book is that it effectively links theory with computer program (code). This is done with pictorial as well as detailed explanations of implementation of the numerical methodology. It also includes pedagogical aspects such as end-of-chapter problems and carefully designed examples to augment learning in CFD code-development, application and analysis. This book is a valuable resource for students in the fields of mechanical, chemical or aeronautical engineering.

During the 19th century, the engineering of ports and harbours became a large and specialised branch of the profession. This development began in ports in physically difficult locations and may be particularly identified with the growth of the Port of Liverpool. Stimulated by the arrival of ever-larger steamships and the heavy investment in port facilities that they demanded, it spread around much of the world. The opening papers give examples of what could be achieved in antiquity; the following ones set out the advances in design and technology from 1700 to the start of this century - and note some of the failures and recurrent problems. They also illustrate the critical importance of political and economic factors in determining what the engineers achieved.

NATIONAL BESTSELLER 2nd REVISED & UPDATED EDITION With Trigonometry Vedic mathematics is gaining widespread popularity among the student community as well as maths lovers. The absence of a book, explaining the techniques in a simple language, has been felt acutely for a long time. This book has been written using a step-by-step approach, and attempts to fill the existing void. It includes several solved problems in addition to 1000 practice problems with answers. It also includes a special chapter which shows the application of the techniques to problems set in competitive exams like CAT, CET etc. People from all walks of life including school and college students, teachers, parents and also those from non-mathematical areas of study will discover the joys of solving mathematical problems using the wonderful set of techniques called Vedic Maths.

SURVEYING: PRINCIPLES & APPLICATIONS, 9/e is the clearest, easiest to understand, and most useful introduction to surveying as it is practiced today. It brings together expert coverage of surveying principles, remote sensing and other new advances in technological instrumentation, and modern applications for everything from mapping to engineering. Designed for maximum simplicity, it also covers sophisticated topics typically discussed in advanced surveying courses. This edition has been reorganized and streamlined to align tightly with current surveying practice, and to teach more rapidly and efficiently. It adds broader and more valuable coverage of aerial, space and ground imaging, GIS, land surveying, and other key topics. An extensive set of appendices makes it a useful reference for students entering the workplace.

This book provides a review of problems during design and construction on problematic soils. Design methods, site investigation,

construction and analysis of the various improvement methods available are explained and discussed. Various regions may have different soils with geotechnical problems that differ from those faced in other regions. For example, in Southeast Asia, the common geotechnical problems are those associated with construction on soft clays and organic soils, while in the arid region of the Middle East, problems are generally associated with the desert soils. In the US, the problems are associated with organic soils, expansive and collapsing soils, and shale. Laterite and lateritic soils are especially problematic in Mexico. Similarly, in Europe, for example, the geotechnical problems are associated with loess (France), and organic soil (Germany). A detailed description of various methods of ground improvement has been provided in 11 chapters. Each chapter deals not only with a description of the method but also focuses on region-specific ground problems and suitable ground improvement techniques. Case studies have also been included. One general chapter is dedicated to site investigation, instrumentation, assessment and control. This book will be of value to students and professionals in the fields of civil and geotechnical engineering, as well as to soil scientists and engineering geologists.

Often physics professionals are not comfortable using the mathematical tools that they learn in school, and this book discusses the mathematics that physics professionals need to master. This book provides the necesssary tools and shows how to use those tools specifically in physics problems. (Midwest).

This book, in its Second Edition, provides the basic concepts and applications of discrete mathematics and graph theory. The book is aimed at undergraduate students of computer science and engineering, and information technology. It is also suitable for undergraduate and postgraduate students of computer science, mathematics and computer applications. The book exposes the students to fundamental knowledge in: - Mathematical logic, tautology and normal forms - Elementary set theory, functions and their relations - Algebraic structure, binary operation, group theory and homomorphism - Theory of permutations and combinations, binomial and multinomial theorems - Recurrence relations and methods of solving them - Graph theory, spanning tree, Eulerian and Hamiltonian circuits and isomorphism Key Features Includes a large number of worked-out problems for sound understanding of the concepts. Offers chapter-end exercises to test students' comprehension of theory. Gives a quiz section at the end of each chapter to help students prepare for the competitive examinations. Incorporates short questions asked in universities' examinations.

"Tips to crack various entrance exams study material for in-depth learning mind Maps for concept clarity real time videos for hybrid learning Appendix for enhancement of knowledge " " tips to crack various entrance exams study material for in-depth learning mind Maps for concept clarity real time videos for hybrid learning Appendix for enhancement of knowledge " " tips to crack various entrance exams study material for in-depth learning mind Maps for concept clarity real time videos for hybrid learning Appendix for enhancement of knowledge " " tips to crack various entrance exams study material for in-depth learning mind Maps for concept clarity real time videos for hybrid learning Appendix for enhancement of knowledge ".

Note: This is the 3rd edition. If you need the 2nd edition for a course you are taking, it can be found as a "other format" on

amazon, or by searching its isbn: 1534970746 This gentle introduction to discrete mathematics is written for first and second year math majors, especially those who intend to teach. The text began as a set of lecture notes for the discrete mathematics course at the University of Northern Colorado. This course serves both as an introduction to topics in discrete math and as the "introduction to proof" course for math majors. The course is usually taught with a large amount of student inquiry, and this text is written to help facilitate this. Four main topics are covered: counting, sequences, logic, and graph theory. Along the way proofs are introduced, including proofs by contradiction, proofs by induction, and combinatorial proofs. The book contains over 470 exercises, including 275 with solutions and over 100 with hints. There are also Investigate! activities throughout the text to support active, inquiry based learning. While there are many fine discrete math textbooks available, this text has the following advantages: It is written to be used in an inquiry rich course. It is written to be used in a course for future math teachers. It is open source, with low cost print editions and free electronic editions. This third edition brings improved exposition, a new section on trees, and a bunch of new and improved exercises. For a complete list of changes, and to view the free electronic version of the text, visit the book's website at discrete.openmathbooks.org

"The subject matter of the book has been organized in two parts covering the syllabi of both first and second semester."--Pref. Engineering Mathematics (Conventional and Objective Type) completely covers the subject of Engineering Mathematics for engineering students (as per AICTE) as well as engineering entrance exams such as GATE, IES, IAS and Engineering Services Exams. Though a first edition, the book is enriched by 50 years of Academics and professional experience of the Author(s) and the experience of more than 85 published books.

Updated Edition Includes a New Chapter and Enhanced Study Material The second edition of Environmental Microbiology for Engineers explores the role that microorganisms play in the engineered protection and enhancement of an environment. Offering a perfect balance of microbiological knowledge and environmental biotechnology principles, it provides a practical understanding of microorganisms and their functions in the environment and in the environmental engineering systems. The book also presents a quantitative description of applied microbiological processes and their engineering design. This updated edition adds a new chapter on construction biotechnology, and offers new end-of-chapter exam questions with solutions to aid readers with performing the design calculations needed and to enhance understanding of the material. The book covers essential topics that include: Diversity and functions of microorganisms in environmental engineering systems Environmental bioengineering processes Applied microbial genetics and molecular biology Microbiology of water and wastewater treatment Biotreatment of solid waste and soil bioremediation Microbial monitoring of environmental engineering systems Biocorrosion and biodeterioration of materials Biocementation and bioclogging of soil Biopollution of indoor environment Biofouling of facilities, and more Environmental Microbiology for Engineers provides a practical understanding of microorganisms in the civil engineering process and their functions in the environmental engineering systems, and is designed for practicing environmental engineers working in the areas of wastewater, solid waste treatment, soil remediation and ground improvement.

Probability and Statistics (GTU)McGraw-Hill Education

Foreign policy of India is as deeply informed by its civilizational heritage as it is by modern ideas about national interest. The two concepts that come and go most frequently in Indian engagement with the world - from Chanakya in the third century bce to Prime Minister Narendra Modi in 2017 - are autonomy and independence in decision making. Aparna Pande's From Chanakya to Modi explores the deeper civilizational roots of Indian foreign policy in a manner reminiscent of Walter Russel Mead's seminal Special Providence (2001). It identifies the neural roots of India's engagement with the world outside.

Now in its seventh edition, Basic Engineering Mathematics is an established textbook that has helped thousands of students to succeed in their exams. Mathematical theories are explained in a straightforward manner, being supported by practical engineering examples and applications in order to ensure that readers can relate theory to practice. The extensive and thorough topic coverage makes this an ideal text for introductory level engineering courses. This title is supported by a companion website with resources for both students and lecturers, including lists of essential formulae, multiple choice tests, and full solutions for all 1,600 further questions.

S. Chand's Physics, designed to serve as a textbook for students pursuing their engineering degree course, B.E. in Gujarat Technical University. The book is written with the singular objective of providing the students of GTU with a distinct source material as per the syllabus. The philosophy of presentation of the material in the book is based upon decades of classroom interaction of the authors. In each chapter, the fundamental concepts pertinent to the topic are highlighted and the in-between continuity is emphasized. Throughout the book attention is given to the proper presentation of concepts and practical applications are cited to highlight the engineering aspects. A number of problems are solved. New problems are included in order to expedite the learning process of students of all hues and to improve their academic performance. The fundamental concepts are emphasized in each chapter and the details are developed in an easy-to-follow style. Each chapter is divided into smaller parts and sub-headings are provided to make the reading a pleasant journey from one interesting topic to another important topic.

The high-stakes game of the underworld has new faces, working for and against Dawood Ibrahim - the shadowy, manipulative figure that pulls the strings. Dawood's own deputy turned arch-rival Chhota Rajan, thug-turned-politician Arun Gawli, Amar (Raavan) Naik and his engineer brother Ashwin Naik, and a host of other characters, big and small, walk the pages of this compelling history of the Maharashtrian mobsters who were once dubbed 'amchi muley', 'our boys', by Shiv Sena chief Bal Thackeray. Equally fascinating are the stories of the famous - and infamous - policemen and 'encounter specialists' who took the gangs on with great success and not too many scruples. Violence and deceit one expects to read of, but the strength of this book is also its ability to capture the mundane - almost naive - beginnings of what very quickly became the organized crime and brutal vendettas that held Mumbai to ransom through the last decades of the twentieth century. Meticulously researched and thrillingly told by the acknowledged expert on the underworld, this is faster-paced than Dongri to Dubai, and even more chilling in its implications for India and the subcontinent.

Nancy travels to Canada to stop a blackmailer. All sorts of successful people are being blackmailed from the same social circles. As Nancy gets deeper in to the case she senses a master criminal—someone as smart as she is—but on the wrong side of the law.

Designed as a supplement to all current standard textbooks or as a textbook for a formal course in the mathematical methods of engineering and science.

The revised and updated edition includes the latest developments in the field of ERP, information technology and new technologies that are changing the ERP landscape. Divided into eight sections, the book covers ERP Basics, ERP and Technology, ERP Implementation, Operation and Maintenance of the ERP system, Business Modules of ERP, ERP Market, Present and Future of ERP, ERP Resources, Case studies, Career guidance, Manufacturing perspective, etc.

For Engineering students & also useful for competitive Examination.

The orientation towards vehicle maintenance led to the significant advancements in its engineering applications in the past few decades. With the advent of automation and electronics in automobiles, the study gained more momentum, which led vehicle maintenance and garage practice to emerge as a new discipline of automobile engineering. The present book is an attempt to reveal underlying principles and best practices in diagnostic procedures, services, repairs and overhauling of the vehicles. The key techniques and methods described with the help of diagrams and images make the book user-friendly and informative, enabling students to understand the concept easily. The text not only provides theoretical information, but also imparts practical knowledge on vehicle maintenance and repairing, emphasising the role and function of service stations. The book deals with both conventional and non-conventional methods of repairing and overhauling. Primarily designed for the undergraduate and postgraduate students of automobile and mechanical engineering, the lucid and simple presentation of the book makes it useful for the students pursuing diploma in automobile engineering as well. It can be used as an automobile repair guide by vehicle owners for its step-by-step explanation of repair procedures, which help them to carry out repair and maintenance conveniently.

This textbook differs from others in the field in that it has been prepared very much with students and their needs in mind, having been classroom tested over many years. It is a true "learner's book" made for students who require a deeper understanding of probability and statistics. It presents the fundamentals of the subject along with concepts of probabilistic modelling, and the process of model selection, verification and analysis. Furthermore, the inclusion of more than 100 examples and 200 exercises (carefully selected from a wide range of topics), along with a solutions manual for instructors, means that this text is of real value to students and lecturers across a range of engineering disciplines. Key features: Presents the fundamentals in probability and statistics along with relevant applications. Explains the concept of probabilistic modelling and the process of model selection, verification and analysis. Definitions and theorems are carefully stated and topics rigorously treated. Includes a chapter on regression analysis. Covers design of experiments. Demonstrates practical problem solving throughout the book with numerous examples and exercises purposely selected from a variety of engineering fields. Includes an accompanying online Solutions Manual for instructors containing complete step-by-step solutions to all problems.

Designed as a textbook for undergraduate students in various engineering disciplines—Mechanical, Civil, Industrial Engineering, Electronics Engineer-ing and Computer Science—and for postgraduate students in Industrial Engineering and Water Resource Management, this comprehensive and well-organized book, now in its Second Edition, shows how complex economic decisions can be made from a number of given alternatives. It provides the managers not only a sound basis but also a clear-cut approach

to making decisions. These decisions will ultimately result in minimizing costs and/or maximizing benefits. What is more, the book adequately illustrates the concepts with numerical problems and Indian cases. While retaining all the chapters of the previous edition, the book adds a number of topics to make it more comprehensive and more student friendly. What's New to This Edition • Discusses different types of costs such as average cost, recurring cost, and life cycle cost. • Deals with different types of cost estimating models, index numbers and capital allowance. • Covers the basics of nondeterministic decision making. • Describes the meaning of cash flows with probability distributions and decision making, and selection of alternatives using simulation. • Discusses the basic concepts of Accounting. This book, which is profusely illustrated with worked-out examples and a number of diagrams and tables, should prove extremely useful not only as a text but also as a reference for those offering courses in such areas as Project Management, Production Management, and Financial Management.

Now in its eighth edition, Higher Engineering Mathematics has helped thousands of students succeed in their exams. Theory is kept to a minimum, with the emphasis firmly placed on problem-solving skills, making this a thoroughly practical introduction to the advanced engineering mathematics that students need to master. The extensive and thorough topic coverage makes this an ideal text for upper-level vocational courses and for undergraduate degree courses. It is also supported by a fully updated companion website with resources for both students and lecturers. It has full solutions to all 2,000 further questions contained in the 277 practice exercises.

This book highlights the latest advances in engineering mathematics with a main focus on the mathematical models, structures, concepts, problems and computational methods and algorithms most relevant for applications in modern technologies and engineering. In particular, it features mathematical methods and models of applied analysis, probability theory, differential equations, tensor analysis and computational modelling used in applications to important problems concerning electromagnetics, antenna technologies, fluid dynamics, material and continuum physics and financial engineering. The individual chapters cover both theory and applications, and include a wealth of figures, schemes, algorithms, tables and results of data analysis and simulation. Presenting new methods and results, reviews of cutting-edge research, and open problems for future research, they equip readers to develop new mathematical methods and concepts of their own, and to further compare and analyse the methods and results discussed.The book consists of contributed chapters covering research developed as a result of a focused international seminar series on mathematics and applied mathematics and a series of three focused international research workshops on engineering mathematics organised by the Research Environment in Mathematics and Applied Mathematics at Mälardalen University from autumn 2014 to autumn 2015: the International Workshop on Engineering Mathematics for Electromagnetics and Health Technology; the International Workshop on Engineering Mathematics, Algebra, Analysis and Electromagnetics; and the 1st Swedish-Estonian International Workshop on Engineering Mathematics, Algebra, Analysis and Applications.It serves as a source of inspiration for a broad spectrum of researchers and research students in applied mathematics, as well as in the areas of applications of mathematics considered in the book.

This book is designed for the 3rd semester gtu engineering students pursuing the probability and statistics (code 3130006). The crisp but complete explanation of topics will help the students easily understand the basic concepts. The tutorial approach (I.E. Teach by example) followed in the text will enable students develop a logical perspective to solving problems.