Engineering Economics Problems And Solutions

This volume provides 164 problems with step-by-step solutions. Topics covered: Math; Force and Stress Analysis; Dynamics and Vibrations; Machine Design; Fluid Mechanics; Thermofluid Mechanics; Heat Transfer; Gas Dynamics and Combustion; Hydraulic Machines; Power Plants; Heating, Ventilation, and Air Conditioning; and Engineering Economics. 20% text; 80% problems and solutions

This guide is written for the afternoon FE/EIT Industrial Exam and reviews each topic with numerous example problems and complete step-by-step solutions. End-of-chapter problems with solutions and a complete sample exam with solutions are provided. Topics covered: Production Planning and Scheduling; Engineering Economics; Engineering Statistics; Statistical Quality Control; Manufacturing Processes; Mathematical Optimization and Modeling; Simulation; Facility Design and Location; Work Performance and Methods; Manufacturing Systems Design; Industrial Ergonomics; Industrial Cost Analysis; Material Handling System Design; Total Quality Management; Computer Computations and Modeling; Queuing Theory and Modeling; Design of Industrial Experiments; Industrial Management; Information System Design; Productivity Measurement and Management. 101 problems with complete solutions; SI Units.

This volume provides a basic understanding of the time value of money and the ways to most effectively estimate the relative changes in the current value of proposed activities. Formulae and factors are provided to calculate the future value of dollars spent today, the present value of expected future income, and various ways to estimate the costs of future income and expenses. There is very little economic theory here, but following the rules and guidance provided will yield excellent results when deciding between long-term options with variable income and expenses. In addition, risk and uncertainty are addressed and ways are provided to calculate the impact of risk and uncertainty on economic decisions. A brief look at income statements and balance sheets is provided as an adjunct to the evaluation of economic data. The end of the volume contains dozens of interest tables to make the calculation of economic decisions far easier than with the complex equations, which are also provided.

Engineering Economy, 15e, is ideal for undergraduate, introductory courses in Engineering Economics. It also is a useful reference for engineers interested in reviewing the basic principles of engineering economy. Used by engineering students worldwide, this best-selling text provides a sound understanding of the principles, basic concepts, and methodology of engineering economy. Built upon the rich and time-tested teaching materials of earlier editions, it is extensively revised and updated to reflect current trends and issues, with an emphasis on the economics of engineering design throughout. It provides one of the most complete and up-to-date studies of this vitally important field.

Essentials of Engineering Economic Analysis, Second Edition, includes the first twelve chapters of the best-selling textbook Engineering Economic Analysis, Eighth Edition, (0-19-515152-6) by Donald G. Newnan, Jerome P. Lavelle, and Ted G. Eschenbach. This compact version introduces the fundamental concepts of engineering economics and covers essential time value of money principles for engineering projects. It isolates the problems and decisions engineers commonly face and examines the necessary tools for analyzing and solving those problems. Revised in 2001, the second edition focuses on the use of spreadsheets, teaching students to use the enormous capabilities of modern software. The majority of the chapters conclude with sections designed to help students create spreadsheets based on the material covered in each chapter. (The book's organization allows omission of spreadsheet instruction without loss of continuity.) This emphasis on spreadsheet computations provides excellent preparation for real-life engineering economic analysis problems. New Features . Over sixty-five new homework problems added to the ends of chapters . Improved content and readability . Greater emphasis on the use of spreadsheets in real-life situations . Chapter 2, Engineering Costs and Cost Estimating--an entirely new chapter suggested by adopters--answers the question, "Where do the numbers come from?" . An increased focus on the MACRS depreciation method with a new section on recaptured depreciation and asset disposal . An updated section on after-tax replacement efforts in Chapter 12, Replacement Analysis Supplements . Solutions Manual for Engineering Economic Analysis. This 350-page manual has been revised and checked by the authors for accuracy; all end-of-chapter problems are fully solved by the authors. Available free to adopting professors. (ISBN 1-57645-052-X) . Compound Interest Tables. A separate 32-page pamphlet with the compound interest tables from the textbook. Classroom quantities are free to adopting professors. (ISBN 0-910554-08-0) . Exam Files. Fourteen quizzes prepared by the authors test student knowledge of chapter content. Available free in electronic format to adopting professors. Call 1-800-280-0280 or send an email to college@oup-usa.org. . Instructor Lecture Notes and Overhead Transparencies. Available free in electronic format to adopting professors. Call 1-800-280-0280 or send an email to college@oup-usa.org. . Student's Quick Study Guide: Engineering Economic Analysis. This 320-page book features a 32-page summary of engineering economy, followed by 386 problems, each with detailed solutions. Available for purchase only. (ISBN 1-57645-050-3) "

This book presents the outcomes of the annual "Engineering Economics Week – 2020," organized by the Russian Union of Industrialists and Entrepreneurs, the Institute of Management and the Institute of Market Problems of the Russian Academy of Sciences (RAS), the South-Russian State Polytechnic University and Samara State University of Economics, and held in online format in May 2020. Focusing on the following topics: - the globalized economy and Russian industrial enterprises: development specifics and international co-operation; - state support for the real sector of the economy; - decisions in production and project management in the context of the digital economy; - big data and big challenges in production networks and systems ; and - economic and social aspects of the innovation management: decision-making and control this book will appeal to scientists, teachers and students (bachelor's, master's and postgraduate) at higher education institutions, economists, specialists at research centers, managers of industrial enterprises, business professionals, and those at media centers, and development fund and consulting organizations.

Engineering economics, previously known as engineering economy, is a subset of economics concerned with the use and "...application of economic principles"[1] in the analysis of engineering decisions.[2] As a discipline, it is focused on the branch of economics known as microeconomics in that it studies the behavior of individuals and firms in making decisions regarding the allocation of limited resources. Thus, it focuses on the decision making process, its context and environment.[1] It is pragmatic by nature, integrating economic theory with engineering practice.[1] But, it is also a simplified application of microeconomic theory in that it avoids a number of microeconomic concepts such as price determination, competition and demand/supply.[1] As a discipline though, it is closely related to others such as statistics, mathematics and cost accounting.[1] It draws upon the logical framework of economics but adds to that the analytical power of mathematics and statistics.[1]Engineers seek solutions to problems, and the

economic viability of each potential solution is normally considered along with the technical aspects. Fundamentally, engineering economics involves formulating, estimating, and evaluating the economic outcomes when alternatives to accomplish a defined purpose are available.[3]In some U.S. undergraduate civil engineering curricula, engineering economics is a required course.[4] It is a topic on the Fundamentals of Engineering examination, and questions might also be asked on the Principles and Practice of Engineering examination; both are part of the Professional Engineering registration process.Considering the time value of money is central to most engineering economic analyses. Cash flows are discounted using an interest rate, except in the most basic economic studies.For each problem, there are usually many possible alternatives. One option that must be considered in each analysis, and is often the choice, is the do nothing alternative. The opportunity cost of making one choice over another must also be considered. There are also non-economic factors to be considered, like color, style, public image, etc.; such factors are termed attributes.[5]Costs as well as revenues are considered, for each alternative, for an analysis period that is either a fixed number of years or the estimated life of the project. The salvage value is often forgotten, but is important, and is either the net cost or revenue for decommissioning the project.Some other topics that may be addressed in engineering economics are inflation, uncertainty, replacements, depreciation, resource depletion, taxes, tax credits, accounting, cost estimations, or capital financing. All these topics are primary skills and knowledge areas in the field of cost engineering.Since engineering is an important part of the manufacturing sector of the economy, engineering industrial economics is an important part of industrial or business economics. Major topics in engineering industrial economics are: The economics of the management, operation, and growth and profitability of engineering firms;Macro-level engineering economic trends and issues;Engineering product markets and demand influences; andThe development, marketing, and financing of new engineering technologies and products.

This work offers a concise, but in-depth coverage of all fundamental topics of engineering economics.

Written by 6 professors, each with a Ph.D. in Civil Engineering; A detailed description of the examination and suggestions on how to prepare for it; 195 exam, essay, and multiple-choice problems with a total of 510 individual questions; A complete 24-problem sample exam; A detailed step-by-step solution for every problem in the book; This book may be used as a separate, stand-alone volume or in conjunction with Civil Engineering License Review, 14th Edition (0-79318-546-7). Its chapter topics match those of the License Review book. All of the problems have been reproduced for each chapter, followed by detailed step-by-step solutions. Similarly, the 24-problem sample exam (12 essay and 12 multiple-choice problems) is given, followed by step-by-step solutions to the exam. Engineers looking for a CE/PE review with problems and solutions will buy both books. Those who want only an elaborate set of exam problems, a sample exam, and detailed solutions to every problem will purchase this book. 100% problems and solutions.

Written for the Structural Engineering I and II Exams and the California Structural Engineering Exam. Includes more than 70 problems and step-by-step solutions from recent exams; Offers 18 HP-48G calculator programs, which include 6 concrete, 3 masonry, 3 timber, 4 steel, and 2 proper ties of sections design programs; Reflects current publications of SEAOC and FEMA; Conforms to the 1997 edition of the UBC; Provides comprehensive clarification of applicable; Building Codes and Standard Specifications; Uses provisions of the 1999 SEAOC bluebook, 1999 FEMA Advisory No. 2, 2000 FEMA 350 Design of Steel Moment Frame Buildings, and 1997 AISC Seismic Provisions Cites extensive reference publications that reflect current design procedures

This student-friendly text on the current economic issues particular to engineering covers the topics needed to analyze engineering alternatives. Students use both hand-worked and spreadsheet solutions of examples, problems and case studies. In this edition the options have been increased with an expanded spreadsheet analysis component, twice the number of case studies, and virtually all new end-of-chapter problems. The chapters on factor derivation and usage, cost estimation, replacement studies, and after-tax evaluation have been heavily revised. New material is included on public sector projects and cost estimation. A reordering of chapters puts the fundamental topics up front in the text. Many chapters include a special set of problems that prepare the students for the Fundamentals of Engineering (FE) exam.This text provides students and practicing professionals with a solid preparation in the financial understanding of engineering problems and projects, as well as the techniques needed for evaluating and making sound economic decisions. Distinguishing characteristics include learning objectives for each chapter, an easy-to-read writing style, many solved examples, integrated spreadsheets, and case studies throughout the text. Graphical cross-referencing between topics and quick-solve spreadsheet solutions are indicated in the margin throughout the text. While the chapters are progressive, over three-quarters can stand alone, allowing instructors flexibility for meeting course needs. A complete online learning center (OLC) offers supplemental practice problems, spreadsheet exercises, and review questions for the the Fundamentals of Engineering (FE) exam.

This is a review book for people planning to take the PE exam in Chemical Engineering. Prepared specifically for the exam used in all 50 states. It features 188 new PE problems with detailed step by step solutions. The book covers all topics on the exam, and includes easy to use tables, charts, and formulas. It is an ideal desk Companion to DAS's Chemical Engineer License Review. It includes sixteen chapters and a short PE sample exam as well as complete references and an index. Chapters include the following topical areas: material and energy balances; fluid dynamics; heat transfer; evaporation; distillation; absorption; leaching; liq-liq extraction; psychrometry and humidification, drying, filtration, thermodynamics, chemical kinetics, process control, mass transfer, and plant safety. The ideal study guide, this book brings all elements of professional problem solving together in one BIG BOOK. Ideal desk reference. Answers hundreds of the most frequently asked questions. The first truly practical, no-nonsense problems and solution book for the difficult PE exam. Full step-by-step solutions are included.

This textbook provides a fundamental overview of the application of engineering economic principles to transportation infrastructure investments. Basic theory is presented and illustrated with examples specific to the transportation field. It also reviews the history of transportation finance, as well as current methods for funding transportation investments in the U.S. Future problems and potential solutions are also discussed and illustrated.

Engineering, at its origins, was a profession of problem solving. The classic text, Dialogues Concerning Two New Sciences by Galileo Galilei is revisited in this ambitious and comprehensive book by Milton Shaw. In-depth discussions of passages from the Galileo text emphasize the ""mind set"" of engineering, specifically the roles played by experimentation and dialog in analysis and creativity. In the epilogue, the author points out that engineering students are usually exposed to two types of faculty. The first type is mathematically oriented and mostly interested in analytical solutions. The second type is interested in devising and experimenting with innovative solutions. However, since many talented graduates move directly into teaching instead of gaining

real world experience, an imbalance of analytical teaching has occurred. Shaw points out through an example by Dr. Dave Lineback that learning to solve practical engineering problems is a very important part of an engineer's education, but is often denied due to expense and time and effort required. This book fills in many of the gaps in engineering education by showing students, and professionals, the historical background of problem solving. Among those who will find this book particularly useful are engineers working in cross-disciplinary capacities, such as mechanical engineers working with electrical engineering concepts or polymeric materials, engineers preparing for professional engineering exams, mid-career engineers looking to broaden their problem-solving skills, and students looking for help growing their skills.

This book provides a straightforward approach to explaining engineering economics that is appropriate for members of all of the major engineering disciplines. It includes real world engineering economic analysis examples, and provides the basic knowledge required for engineers to be able to perform engineering economic analyses for different potential alternative equipment, products, services, and projects in both the public and private sectors. It focuses on mastering the basic engineering economics formulas and their use on different types of engineering and construction projects, and includes numerous example problems and real world case studies.

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.

Covering detailed discussion of fundamental concepts of economics, the textbook commences with comprehensive explanation of theory of consumer behavior, utility maximization and optimal choice, profit function, cost minimization and cost function. The textbook covers methods including present worth method, future worth method, annual worth method, internal rate of return method, explicit re-investment rate of return method and payout method useful for studying economic studies. A chapter on value engineering discusses important topics such as function analysis systems techniques, the value index, value measurement techniques, innovative phase and constraints analysis in depth. It facilitates the understanding of the concepts through illustrations and solved problems. This text is the ideal resource for Indian undergraduate engineering students in the fields of mechanical engineering, computer science and engineering and electronics engineering for a course on engineering economics/engineering economy.

Praised for its accessible tone and extensive problem sets, this trusted text familiarizes students with the universal principles of engineering economics. This essential introduction features a wealth of specific Canadian examples and has been fully updated with new coverage of inflation andenvironmental stewardship as well as a new chapter on project management.

This collection of solved electrical engineering problems should help you review for the Fundamentals of Engineering (FE) and Principles and Practice (PE) exams. With this guide, you'll hone your skills as well as your understanding of both fundamental and more difficult topics. 100% problems and step-by-step solutions.

This best-selling book provides a sound understanding of the principles, basic concepts, and methodology of engineering economy. This user-friendly book is extensively revised and updated to reflect current trends and issues, with an emphasis on the economics of engineering design throughout. A useful reference for engineers interested in reviewing the basic principles of engineering economy.

For courses in engineering and economics Comprehensively blends engineering concepts with economic theory Contemporary Engineering Economics teaches engineers how to make smart financial decisions in an effort to create economical products. As design and manufacturing become an integral part of engineers' work, they are required to make more and more decisions regarding money. The Sixth Edition helps students think like the 21st century engineer who is able to incorporate elements of science, engineering, design, and economics into his or her products. This text comprehensively integrates economic theory with principles of engineering, helping students build sound skills in financial project analysis. MyEngineeringLab™ not included. Students, if MyEngineeringLab is a recommended/mandatory component of the course, please ask your instructor for the correct ISBN and course ID. MyEngineeringLab should only be purchased when required by an instructor. Instructors, contact your Pearson representative for more information. MyEngineeringLab is an online homework, tutorial, and assessment program designed to work with this text to engage students and improve results. Within its structured environment, students practice what they learn, test their understanding, and pursue a personalized study plan that helps them better absorb course material and understand difficult concepts. Instructors can choose from a wide range of assignment options, including time limits, proctoring, and maximum number of attempts allowed. The bottom line: MyEngineeringLab means less time grading and more time teaching.

Engineering has changed dramatically in the last century. With modern computing systems, instantaneous communication, elimination of

low/mid management, increased complexity, and extremely efficient supply chains, all have dramatically affected the responsibilities of engineers at all levels. The future will require cost effective systems that are more secure, interconnected, software centric, and complex. Employees at all levels need to be able to develop accurate cost estimates based upon defensible cost analysis. It is under this backdrop that this book is being written. By presenting the methods, processes, and tools needed to conduct cost analysis, estimation, and management of complex systems, this textbook is the next step beyond basic engineering economics. Features Focuses on systems life cycle costing Includes materials beyond basic engineering economics, such as simulation-based costing Presents cost estimating, analysis, and management from a total ownership cost perspective Offers numerous real-life examples Provides excel based textbook/problems Offers PowerPoint slides, Solutions Manual, and author website with downloadable excel solutions, etc.

This text covers the basic techniques and applications of engineering economy for all disciplines in the engineering profession. The writing style emphasizes brief, crisp coverage of the principle or technique discussed in order to reduce the time taken to present and grasp the essentials. The objective of the text is to explain and demonstrate the principles and techniques of engineering economic analysis as applied in different fields of engineering. This brief text includes coverage of multiple attribute evaluation for instructors who want to include non-economic dimensions in alternative evaluation and the discussion of risk considerations in the appendix, compared to Blank's comprehensive text, where these topics are discussed in two unique chapters.

Advanced Engineering Economics, Second Edition, provides an integrated framework for understanding and applying project evaluation and selection concepts that are critical to making informed individual, corporate, and public investment decisions. Grounded in the foundational principles of economic analysis, this well-regarded reference describes a comprehensive range of central topics, from basic concepts such as accounting income and cash flow, to more advanced techniques including deterministic capital budgeting, risk simulation, and decision tree analysis. Fully updated throughout, the second edition retains the structure of its previous iteration, covering basic economic concepts and techniques, deterministic and stochastic analysis, and special topics in engineering economics analysis. New and expanded chapters examine the use of transform techniques in cash flow modeling, procedures for replacement analysis, the evaluation of public investments, corporate taxation, utility theory, and more. Now available as interactive eBook, this classic volume is essential reading for both students and practitioners in fields including engineering, business and economics, operations research, and systems analysis.

This book is derived from Civil Engineering: PE License Review and Civil Engineering: PE Problems & Solutions and includes 108 sample problems and solutions

For all engineers and practitioners, it is essential to have a fundamental understanding of cost structure, estimating cash flows, and evaluating alternative projects and designs on an economic basis. Engineering Economics for Aviation and Aerospace provides the tools and techniques necessary for engineers to economically evaluate their projects and choices. The focus of this book is on a comprehensive understanding of the theory and practical applications of engineering economics. It explains and demonstrates the principles and techniques of engineering economics and financial analysis as applied to the aviation and aerospace industries. Time value of money, interest factors, and spreadsheet functions are used to evaluate the cash flows associated with a single project or multiple projects. The alternative engineering economics tools and techniques are utilized in separate chapters to evaluate the attractiveness of a single project or to select the best of multiple alternatives. Most of the engineering economics and financial mathematics books available in the market take either a pure theoretical approach or offer limited applications. This book incorporates both approaches, providing students of aviation and industrial economics, as well as practitioners, with the necessary mathematical knowledge to evaluate alternatives on an economic basis.

Fundamentals of Engineering Economic Analysis offers a powerful, visually-rich approach to the subject—delivering streamlined yet rigorous coverage of the use of economic analysis techniques in engineering design. This award-winning textbook provides an impressive array of pedagogical tools to maximize student engagement and comprehension, including learning objectives, key term definitions, comprehensive case studies, classroom discussion questions, and challenging practice problems. Clear, topically—organized chapters guide students from fundamental concepts of borrowing, lending, investing, and time value of money, to more complex topics such as capitalized and future worth, external rate of return, deprecation, and after-tax economic analysis. This fully-updated second edition features substantial new and revised content that has been thoroughly re-designed to support different learning and teaching styles. Numerous real-world vignettes demonstrate how students will use economics as practicing engineers, while plentiful illustrations, such as cash flow diagrams, reinforce student understanding of underlying concepts. Extensive digital resources now provide an immersive interactive learning environment, enabling students to use integrated tools such as Excel. The addition of the WileyPLUS platform provides tutorials, videos, animations, a complete library of Excel video lessons, and much more.

The twelfth edition of the market-leading Engineering Economic Analysis offers comprehensive coverage of financial and economic decision making for engineers, with an emphasis on problem solving, life-cycle costs, and the time value of money. The authors' concise, accessible writing, practical emphasis, and contemporary examples linked to students' everyday lives make this text the most popular among students. In addition, with its extensive support package and logical progression of topics, this is the easiest book to teach from. New to the Twelfth Edition * 500 new or revised problems--answers to most even problems now in Appendix E * Six new and nine updated chapter-opening vignettes provide extended real-world examples * Twenty new Excel tutorial videos added to the updated set of thirty-six from the eleventh edition * New visual "five-button solutions" help simplify the use of spreadsheets and calculators * A new Appendix 12A aggregates coverage of personal income taxes, which now includes time value of money problems INSTRUCTOR SUPPORT PACKAGE * An Instructor's Manual including full solutions to all text problems in print format * An updated and expanded set of supplemental materials, including new test questions, as well as the solutions to the Cases in Engineering Economy, 2E, text available on Oxford's Ancillary Resource Center. Please contact your Oxford University Press sales representative for access. * Two PowerPoint-based lecture resources: Fully customizable PowerPoint-based lecture outlines, ready for immediate use or modification, and slides of every figure and table in the text * Learning Management System support: Most of the electronic ancillaries are available as pre-formatted cartridges for upload into a learning management system Instructor Support Package available to adopters of the twelfth edition (not included with book, available separately) STUDENT SUPPORT PACKAGE * Free casebook: In-text CD includes Cases in Engineering Economy, 2E, a collection of fifty-four case studies designed to help students apply the theories and concepts of engineering economy to real-world situations * Study Guide: Packaged with every copy of the student text; contains practice questions with detailed solutions for every chapter in the text * Companion Website (www.oup.com/us/newnan) featuring: * 100 additional sample FE exam problems * Interactive tutorial questions for many chapters * Video tutorials for Microsoft Excel, explaining how to use Excel to work specific financial calculations * Updated interactive spreadsheet models Student Support Package available to adopters of the twelfth edition (not included with book, available separately)

Annotation Companion book to Electrical Engineering License Review. Here the end-of-chapter problems have been repeated and detailed Step-by-Step solutions are provided. Also included is a sample exam (same as 35X below), with detailed step-by-step solutions. 100% Problems and Solutions.

An easy-to-follow contemporary engineering economics text that helps making sound economic decisions without advanced mathematics. This one-semester introduction to the fundamentals of engineering economics provides an overview of the basic theory and mathematics underlying operational business decisions that engineering technology, engineering, and industrial technology students will face in the workplace. A basic knowledge of economics empowers a manager to balance costs with

production. This new edition of Fundamentals of Economics for Engineering Technologists and Engineers is written in plain language. Concepts have been simplified and kept straightforward with an emphasis on "how to apply" economic principles. Practical examples as a tool for managing business data and giving detailed analysis of business operations. throughout the text make good use of Microsoft Excel templates, provided on the book's companion website, for students. Chapter-end exercises provide discussion and multiple-choice questions along with numerical problems, and a solutions manual and instructor resources is given for adopting instructors.

Reviews basic economic concepts, including compound interest, equivalence, present worth, rate of return, depreciation, and cost-benefit ratios

Key problems for the IEEE Computer Society Certified Software Development Professional (CSDP) Certification Program IEEE Computer Society Real-World Software Engineering Problems helps prepare software engineering professionals for the IEEE Computer Society Certified Software Development Professional (CSDP) Certification Program. The book offers workable, real-world sample problems with solutions to help readers solve common problems. In addition to its role as the definitive preparation guide for the IEEE Computer Society Certified Software Development Professional (CSDP) Certification Program, this resource also serves as an appropriate guide for graduate-level courses in software engineering or for professionals interested in sharpening or refreshing their skills. The book includes a comprehensive collection of sample problems, each of which includes the problem's statement, the solution, an explanation, and references. Topics covered include: * Engineering economics * Test * Ethics * Maintenance * Professional practice * Software configuration * Standards * Quality assurance * Requirements * Metrics * Software design * Tools and methods * Coding * SQA and V & V IEEE Computer Society Real-World Software Engineering Problems offers an invaluable guide to preparing for the IEEE Computer Society Certified Software Development Professional (CSDP) Certification Program for software professionals, as well as providing students with a practical resource for coursework or general study.