

Basic Civil Engineering Books Free

Primarily intended as a textbook for the undergraduate and postgraduate students of civil engineering, this book provides a comprehensive knowledge in open channel flow. The book starts with the concept of open channel flow, types of forces acting on the flow, types of channel flow, velocity distribution and coefficients, and basic continuity in 1D and 3D. Then it moves on to steady gradually varied flow, its differential equation, hydraulics of alluvial channel, design of channel and hydraulic jump. Finally, the text concludes with Saint-Venant equations and its solutions by few numerical methods in flood routing and dam-break situations. **KEY FEATURES :** Includes computer programs for steady gradually varied flow Provides various numerical methods of solving the equations Explains dam-break problem in detail Contains numerous solved examples

This book is a comprehensive presentation of the fundamental aspects of structural mechanics and analysis. It aims to help develop in the students the ability to analyze structures in a simple and logical manner. The major thrust in this book is on energy principles. The text, organized into sixteen chapters, covers the entire syllabus of structural analysis usually prescribed in the undergraduate level civil engineering programme and covered in two courses. The first eight chapters deal with the basic techniques for analysis, based on classical methods, of common determinate structural elements and simple structures. The following eight chapters cover the procedures for analysis of indeterminate structures, with emphasis on the use of modern matrix methods such as flexibility and stiffness methods, including the finite element techniques. Primarily designed as a textbook for undergraduate students of civil engineering, the book will also prove immensely useful for professionals engaged in structural design and engineering.

A well-written, hands-on, single-source guide to the professional practice of civil engineering There is a growing understanding that to be competitive at an international level, civil engineers not only must build on their traditional strengths in technology and science but also must acquire greater mastery of the business of civil engineering. Project management, teamwork, ethics, leadership, and communication have been defined as essential to the successful practice of civil engineering by the ASCE in the 2008 landmark publication, Civil Engineering Body of Knowledge for the 21st Century (BOK2). This single-source guide is the first to take the practical skills defined by the ASCE BOK2 and provide illuminating techniques, quotes, case examples, problems, and information to assist the reader in addressing the many challenges facing civil engineers in the real world. **Civil Engineer's Handbook of Professional Practice:** Focuses on the business and management aspects of a civil engineer's job, providing students and practitioners with sound business management principles Addresses contemporary issues such as permitting, globalization, sustainability, and

emerging technologies Offers proven methods for balancing speed, quality, and price with contracting and legal issues in a client-oriented profession Includes guidance on juggling career goals, life outside work, compensation, and growth From the challenge of sustainability to the rigors of problem recognition and solving, this book is an essential tool for those practicing civil engineering. This book is designed for course on Basic Civil and Mechanical Engineering. The book closely follows the undergraduate engineering syllabus. The text has been infused with several short answer questions, fill in the blanks and true or false statements which will provide competitive edge to students and prove instrumental in preparation of competitive and university examinations. This is the more practical approach to engineering mechanics that deals mainly with two-dimensional problems, since these comprise the great majority of engineering situations and are the necessary foundation for good design practice. The format developed for this textbook, moreover, has been devised to benefit from contemporary ideas of problem solving as an educational tool. In both areas dealing with statics and dynamics, theory is held apart from applications, so that practical engineering problems, which make use of basic theories in various combinations, can be used to reinforce theory and demonstrate the workings of static and dynamic engineering situations. In essence a traditional approach, this book makes use of two-dimensional engineering drawings rather than pictorial representations. Word problems are included in the latter chapters to encourage the student's ability to use verbal and graphic skills interchangeably. SI units are employed throughout the text. This concise and economical presentation of engineering mechanics has been classroom tested and should prove to be a lively and challenging basic textbook for two one semester courses for students in mechanical and civil engineering. Applied Engineering Mechanics: Statics and Dynamics is equally suitable for students in the second or third year of four-year engineering technology programs

This book includes self-test section at the end of each chapter. Test yourself, then check answers in the back of the book to see how you score. CD-ROM included.

Indispensable portable reference for all practicing civil engineers and students Now you can get a single compilation of all essential civil engineering formulas and equations in one easy-to-use portable reference. More than three-quarters of the material in Tyler Hicks Civil Engineering Formulas Pocket Guide is in the form of formulas, tables, and graphs, presented in SI and USCS formats. Each chapter, offering collections of problems and calculations, gives you quick reference to a well-defined topic: Conversion Factors for Civil Engineering Practice Beam Formulas Column Formulas Piles and Piling Formulas Concrete Formulas Timber Engineering Formulas Surveying Formulas Soil and Earthwork Formulas Building and Structures Formulas Bridge and Suspension-Cable Formulas Highway and Road Formulas Hydraulics and Waterworks Formulas Popular Mechanics inspires, instructs and influences readers to help them master

the modern world. Whether it's practical DIY home-improvement tips, gadgets and digital technology, information on the newest cars or the latest breakthroughs in science -- PM is the ultimate guide to our high-tech lifestyle.

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WAGmob brings you, Simple 'n Easy, on-the-go learning ebook for "Civil Engineering". The bite sized ebook helps you to understand the basics of "Civil Engineering". Only 101 introduction to "Civil Engineering" is provided via this ebook. The ebook provides snack sized, bite sized learning. "Civil Engineering" includes tutorials on: Introduction to Civil Engineering, Civil Engineering Materials I, Civil Engineering Materials II, Fundamental Definitions, Material Properties, Mechanics, Surveying I, Surveying II, Leveling, Mapping, Sensing and Architecture, Building Science, Transportation Engineering, Civil Engineering Structure, Structure Elements. About WAGmob ebooks: 1) A companion ebook for on-the-go, bite-sized learning. 2) Offers value for money (a lifetime of free updates). 3) Over One million paying customers from 175+ countries. Our Vision: A platform to create, amplify & distribute SIMPLE 'N EASY ebookS for a lifetime of on-the-go learning. Our Mission: A simple 'n easy WAGmob ebook in every hand. visit us: www.wagmob.com Please write to us at Team@WAGmob.com. We would love to improve this ebook.

Basic Civil Engineering is designed to enrich the preliminary conceptual knowledge about civil engineering to the students of non-civil branches of engineering. The coverage includes materials for construction, building construction, basic surveying and other major topics like environmental engineering, geo-technical engineering, transport traffic and urban engineering, irrigation & water supply engineering and CAD.

Civil Engineers use mathematics as part of their daily routine. In this introductory book Dr Yang provides methods for practical application as well as an introductory text for undergraduate students.

The main objective kept in mind in writing this book is to familiarize the readers with various types of construction materials their manufacture or production, classification, important physical and chemical properties, their uses advantages, disadvantages, testing etc. The book has been written in a very simple and lucid language, illustrated with neatly drawn diagrams and problems The book is designed keeping in mind syllabus of various universities, AIME, The book will prove equally useful to the practicing engineers.

5000 MCQ: Civil Engineering For UPSC GATE/PSUs Exams The first Edition of Civil Engineering Contains nearly 5000 MCQs which focuses in-depth understanding of subjects at basic and Advanced level which has been segregated topic wise to disseminate all kind of exposure to Students in terms of quick learning and deep preparation. The topic-wise segregation has been done to Align with contemporary competitive examination Pattern. Attempt has been made to bring out all kind of probable competitive questions for the aspirants preparing for GATE, PSUs and other exams. The content of this book ensures threshold Level of learning and wide range of

practice questions which is very much essential to boost the exam time confidence level and ultimately to succeed in all prestigious engineer's examinations. It has been ensured to have broad coverage of Subjects at chapter level. While preparing this book utmost care has been taken to cover all the chapters and variety of concepts which may be asked in the exams. The solutions and answers provided are upto the closest possible accuracy. The full efforts have been made by our team to provide error free solutions and explanations. Dear Civil Engineering students, we provide Basic Civil Engineering multiple choice questions and answers with explanation & civil objective type questions mcqs download here. These are very important & Helpful for campus placement test, semester exams, job interviews and competitive exams like GATE, IES, and PSU, NET/SET/JRF, UPSC and diploma. Especially we are prepare for the Civil Engineering freshers and experienced candidates, these model questions are asked in the online technical test, Quiz and interview of many companies. These are also very important for your lab viva in university exams like RTU, JNTU, Andhra, OU, Anna University, Pune, VTU, UPTU, CUSAT etc.5000 MCQ: Civil Engineering For UPSC GATE/PSUs Exams

SPON'S CIVIL ENGINEERING AND HIGHWAY WORKS PRICE BOOK 2011 provides a comprehensive work manual for the industry. It gives costs for both general and civil engineering works and highway works, and shows a full breakdown of labour, plant and material elements, with labour rates updated in line with the latest CIJC wage agreement. In this 24th edition

This publication establishes a basic understanding of materials used in civil engineering construction as taught in tertiary institutions across South Africa. It uses the objectives of the NQF in promoting independent learning and is the only book pertaining to Civil Engineering that covers all the necessary topics under one roof.

Designed as an introductory text for the undergraduate first-year students of all branches of engineering, the present book covers the basics of civil engineering which is required by the students in the beginning of their four-year engineering studies. This textbook covers four parts of civil engineering: Building materials, Building construction and architecture, Surveying, and Highway engineering. All the chapters are arranged in a logical sequence in order to maintain the continuity of the different parts as per the syllabus. Illustrated numerical examples are solved in the chapter wherever necessary. All the worked out examples have relevance to the theory and equations covered in the Chapters end exercises at the end of each chapter help students to absorb concepts, and thus reinforce the understanding of the subject. In a nutshell, this volume contains the complete contents of the course comprising four sub-branches of civil engineering in a single condensed form.

Spon's Civil Engineering And Highway Works Price Book 2012 is more than just a price book. It provides a comprehensive work manual for the UK's civil engineering, surveying and construction business. It gives costs for both general and civil engineering works and highway works, and shows a full breakdown of labour, plant and material elements, with

This book summarizes the technical advances in recent decades and the various theories on rock excavation raised by scholars from different countries, including China and Russia. It not only focuses on rock blasting but also illustrates a number of non-blasting methods, such as mechanical excavation in detail. The book consists of 3

parts: Basic Knowledge, Surface Excavation and Underground Excavation. It presents a variety of technical methods and data from diverse sources in the book, making it a valuable theoretical and practical reference resource for engineers, researchers and postgraduates alike.

\$\$\$ Get the Kindle version free along with the paperback version\$\$\$ This book cover the syllabus for the Engineering part of the Basic Civil and Mechanical Engineering course. It will helpful for the Engineering student to gain the basic knowledge in all aspects. This book is presented in a simple and comprehensive manner. Diagrams are also included in the chapters to explain the concepts. This textbook has been designed to provide students with a strong foundation in both subjects. This book has been written in a simple and comprehensive manner to enable students to derive maximum understanding. Throughout the text an attempt has been made to present the subject matter in a simple and precious manner. Also, the question bank has been included at the end of the book.

The Book Provides A Glimpse Of The Fascinating Field Of Mechanical Engineering To The Entrants To Engineering Colleges.It Gives An Insight Into The Major Areas Of Mechanical Engineering, Like Power Production, Energy Alternatives, Production Alternatives And The Latest Computer Controlled Machine Tools.The Book Is Made Interesting With Numerous Sketches And Schematics - A Definite Advantage In Understanding The Subject.

Foundation Engineering is of prime importance to undergraduate and postgraduate students of civil engineering as well as to practising engineers. For, there is no construction - be it buildings (government, commercial and residential), bridges, highways, or dams - that does not draw from the principles and application of this subject. Unlike many textbooks on Geotechnical Engineering that deal with both Soil Mechanics and Foundation Engineering, this text gives an exclusive treatment and an indepth analysis of Foundation Engineering. What distinguishes the text is that it not merely equips the students with the necessary knowledge for the course and examination, but provides a solid foundation for further practice in their profession later. In addition, as the book is based on the Codes prescribed by the Bureau of Indian Standards, students of Indian universities will find it particularly useful. The author is specialized in both Soil Mechanics and Structural Engineering; he studied Soil Mechanics under the guidance of Prof. Terzaghi and Prof. Casagrande of Harvard University - the pioneers of the subject. Similarly, he studied Structural Engineering under Prof. A.L.L. Baker of Imperial College, London, the pioneer of Limit State Design. These specializations coupled with over 50 years of teaching experience of the author make this text authoritative and exhaustive. Intended as a text for undergraduate (Civil Engineering) and postgraduate (Geotechnical Engineering and Structural Engineering) students, the book would also be found highly useful to practising engineers and young academics teaching the course. First published in 1995, the award-winning Civil Engineering Handbook soon became known as the field's definitive reference. To retain its standing as a

complete, authoritative resource, the editors have incorporated into this edition the many changes in techniques, tools, and materials that over the last seven years have found their way into civil engineering research and practice. The Civil Engineering Handbook, Second Edition is more comprehensive than ever. You'll find new, updated, and expanded coverage in every section. In fact, more than 1/3 of the handbook is new or substantially revised. In particular you'll find increased focus on computing reflecting the rapid advances in computer technology that has revolutionized many aspects of civil engineering. You'll use it as a survey of the field, you'll use it to explore a particular subject, but most of all you'll use The Civil Engineering Handbook to answer the problems, questions, and conundrums you encounter in practice.

This book will provide a foundation to understand the development of sustainability in civil engineering, and tools to address the three pillars of sustainability: economics, environment, and society. It will also include case studies in the four major areas of civil engineering: environmental, structural, geotechnical, and transportation, and utilize the concepts found on the Fundamentals of Engineering (FE) exam. It is intended for upper-level civil engineering sustainability courses. In addition, practical report writing and presentation giving will be proposed as evaluation metrics versus standard numerical questions and exam-based evaluations found in most civil engineering courses.

A new discipline is said to attain maturity when the subject matter takes the shape of a textbook. Several textbooks later, the discipline tends to acquire a firm place in the curriculum for teaching and learning. Computer Aided Engineering Design (CAED), barely three decades old, is interdisciplinary in nature whose boundaries are still expanding. However, it draws its core strength from several acknowledged and diverse areas such as computer graphics, differential geometry, Boolean algebra, computational geometry, topological spaces, numerical analysis, mechanics of solids, engineering design and a few others. CAED also needs to show its strong linkages with Computer Aided Manufacturing (CAM). As is true with any growing discipline, the literature is widespread in research journals, edited books, and conference proceedings. Various textbooks have appeared with different biases, like geometric modeling, computer graphics, and CAD/CAM over the last decade. This book goes into mathematical foundations and the core subjects of CAED without allowing itself to be overshadowed by computer graphics. It is written in a logical and thorough manner for use mainly by senior and graduate level students as well as users and developers of CAD software. The book covers (a) The fundamental concepts of geometric modeling so that a real understanding of designing synthetic surfaces and solid modeling can be achieved. (b) A wide spectrum of CAED topics such as CAD of linkages and machine elements, finite element analysis, optimization. (c) Application of these methods to real world problems. For students of civil engineering, the basic course on Strength of Materials is not

enough to start their engineering career. They need an advanced course like Mechanics of Structures to understand strength and stability of several components of civil engineering structures. Hence, Mechanics of Structure is taught to all polytechnic students of civil engineering. It is written in SI units. Notations used are as per Indian standard codes. Apart from West Bengal Polytechnic students of civil engineering branch, it is hoped that the students of other states with similar syllabus may also find this book useful. **KEY FEATURES** • 100 per cent coverage of new syllabus • Emphasis on practice of numericals for guaranteed success in exams • Lucidity and simplicity maintained throughout • Nationally acclaimed author of over 40 books

This book, in its third edition, continues to focus on the basics of civil engineering and engineering mechanics to provide students with a balanced and cohesive study of the two areas (as needed by them in the beginning of their engineering education). A basic undergraduate textbook for the first-year students of all branches of engineering, this book is specifically designed to conform to the syllabus of Visvesvaraya Technological University (VTU). Imparting the basic knowledge in various facets of civil engineering and the related engineering structures and infrastructure such as buildings, roads, highways, dams and bridges, the third edition covers the engineering mechanics portion in eleven chapters. Each chapter introduces the concepts to the reader, stepwise. Providing a wealth of practice examples, the book emphasizes the importance of building strong analytical skills. Practice problems, at the end of each chapter, give students an opportunity to absorb concepts and hone their problem-solving skills. The book comes with a companion CD containing the software developed using MS-Excel, to work out the problems on Forces, Centroid, Friction and Moment of Inertia. The use of this software will enable the students to understand the concepts in a relatively better way. **NEW TO THIS EDITION** • Introduces a chapter on Kinematics as per the revised Civil Engineering syllabus of VTU • Updates with the latest examination Question Papers, including the one held in the month of December 2013
Basic Civil Engineering Firewall Media Basic Civil and Mechanical Engineering McGraw-Hill Education

This book equips the students with basic knowledge of certain facets of Civil Engineering and Engineering Mechanics as needed by them in the beginning of their engineering education. The book is primarily tailored to conform to the first-year B.E. curriculum as per Choice Based Credit System (CBCS) scheme of Visvesvaraya Technological University (VTU), Belgaum, Karnataka. It is a basic undergraduate textbook useful for students of all branches of engineering not only under VTU but also for other universities. The text, now in its Second Edition, is thoroughly revised and updated. Divided into five modules, the book spreads over 13 chapters. The first module discusses about Elements of Civil Engineering and the related engineering structures, such as buildings, roads, bridges, and dams as well as basic concepts of Engineering Mechanics. The second and third modules deal with the application of basic concepts of Engineering Mechanics in analyzing the coplanar force systems. In module four, centroids and moment of inertia of plane figures are discussed. The kinematics of bodies is presented in module five. **KEY FEATURES** • Written in such a style that students as well as instructors should find this text immensely useful • Includes numerous exhaustive exercise problems and the practice problems, along with their solutions • Explains theoretical concepts with worked-out examples **NEW TO**

THIS EDITION • Rearrangement of chapters as per the latest curriculum • Includes 2 new chapters on 'Rectilinear Motion' and 'Curvilinear Motion' • Incorporates new sections in Chapter 2 and Chapter 9

Concrete can be a pretty unforgiving building material. Ask any of the builders who come into your store and they'll usually have a horror story to share about a concrete job gone awry and how much it cost them. Basic Concrete Engineering for Builders may be one of the only books available today that explains how to avoid common concrete problems with foundations, slabs, columns, and more. It gives step-by-step explanations on how to plan, mix, reinforce and pour concrete. It also shows how to design concrete for buildings -- the calculations, the tables, and the rules of thumb, with examples and insight into the working knowledge that every builder needs. Most builders don't end up specifying requirements for structural concrete work. That's the job of an engineer. But most builders working with concrete need a good general understanding of the concepts behind structural concrete engineering. They need to know about: surveying, foundation layout, formwork, form materials, forming problems, aggregates, admixtures, reinforcing, mixing and placing requirements, pumping, creating joints, curing, and testing the concrete's strength. They need to know basic design for walls, columns, slabs, slabs-on-grade, one- and two-way slabs, elevated slabs, equipment pads, pre-cast walls, retaining walls, basement walls, crib walls, reinforcing beams and girders, driveways, sidewalks, curbs, catch basins, manholes and other miscellaneous structures, as well as how to calculate the reinforcement needed for these structural components. You'll find all this information in this book and on the software included in the back. Includes Free Engineering Software: A CD-ROM is included with easy-to-use engineering software for designing simple concrete elements for beams, slabs and columns.

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