

## Engineering Mathematics I Sbte Home Page

This book is designed to build up a strong foundation for the new students entering in Engineering field. It is strictly as per the revised syllabus prescribed by AICTE model curriculum. It has been written to fulfill all the requirements of B.E/B.Tech second semester students (All Branches of Engineering) of Chhattisgarh Swami Vivekanand Technical University, Bhilai. The essential feature of this book is that apart from theoretical background, it provides sufficient number of solved examples with detailed steps in easy and simple language along with problems for practice. Suitable figures have also been incorporated to ensure an easy understanding of the concepts. Short and very short answer type questions are also included. We hope that this book will be of great use for which it has been designed

For Engineering students & also useful for competitive Examination.

Featuring a strong emphasis on the fundamentals underlying contemporary logic design using hardware description languages, synthesis and verification, this text focuses on the ever-evolving applications of basic computer design concepts.

Fluid Mechanics and Machinery features exhaustive coverage of the essential concepts of the mechanics of fluids, both static and dynamic. It also provides an overview of the design and operation of various hydraulic machines such as pumps and turbines. The book also features numerous solved examples in order to help students grasp the fundamentals and apply them to real-life situations. Beginning with discussion of the properties of fluids, Fluid Mechanics and Machinery gives detailed information on topics such as fluid pressure and its measurement, principles of buoyancy and flotation, and fluid statics, kinematics, and dynamics. It then moves on to discuss dimensional analysis and flow of fluids through orifices, mouthpieces, and pipes, and over notches and weirs. More advanced topics such as vortex flow, impact of jets, and flow of compressible fluids are then dealt with in separate chapters. Finally, a thorough overview of the design and operation of various fluid machines such as pumps and turbines explains the practical applications of fluid forces to students.

Building Materials

ENGINEERING CHEMISTRY-II (BASIC CHEMISTRY)

NETWORK SECURITY

Advanced Manufacturing Processes

Industrial Fluid Power (Subject Code MEC 605)

1 Scope of mathematics 2 Content analysis of mathematics 3 Syllabus of mathematics and mathematics textbook teaching methods and techniques 4 Generalisation and contention of mathematics 5 Evaluation References

This book aims at providing a complete coverage of the needs of First Year students as per S.B.T.E.'s revised syllabus. The entire revised syllabus has been covered keeping in view the non-availability of the complete subject matter through a single source. The difficult articles have been explained in a simple language providing, wherever necessary, neat and well explained diagrams so that even an average student may be able to follow it independently. A sufficient number of solved examples and problems with answers and SBTE questions are given at the end of each topic. Formulae specifying symbol meaning are enlisted before solving the examples.

The importance of various electrical machines is well known in the various engineering fields. The book provides comprehensive coverage of the magnetic circuits, magnetic materials, single and three phase transformers and d.c. machines. The book is structured to cover the key aspects of the course Electrical Machines - I. The book starts with the explanation of basics of magnetic circuits, concepts of self and mutual inductances and important magnetic materials. Then it explains the fundamentals of single phase transformers including the construction, phasor diagram, equivalent circuit, losses, efficiency, methods of cooling, parallel operation and autotransformer. The chapter on three phase transformer provides the detailed discussion of construction, connections, phasor groups, parallel operation, tap changing transformer and three winding transformer. The various testing methods of transformers are also incorporated in the book. The book further explains the concept of electromechanical energy conversion including the discussion of singly and multiple excited systems. Then the book covers all the details of d.c. generators including construction, armature reaction, commutation, characteristics, parallel operation and applications. The book also includes the details of d.c. motors such as characteristics, types of starters, speed control methods, electric braking and permanent magnet d.c. motors. Finally, the book covers the various testing methods of d.c. machines including Swinburne's test, brake test, retardation test and Hopkinson's test. The book uses plain, lucid language to explain each topic. The book provides the logical method of explaining the various complicated topics and stepwise methods to make the understanding easy. Each chapter is well supported with necessary illustrations, self-explanatory diagrams and variety of solved problems. All the chapters are arranged in a proper sequence that permits each topic to build upon earlier studies. The book explains the philosophy of the subject which makes the understanding of the concepts very clear and makes the subject more interesting.

I am glad to present the book entitled "Mobile and Wireless Communication" for Third Year (Sixth Semester) Diploma in Electronics Engineering as per SBTE's New Revised syllabus. I have observed the students facing extreme difficulties in understanding the basic principles and fundamental concepts. To meet this basic requirement of students, sincere efforts have been made to present the subject matter with frequent use of figures.

COMMUNICATION SKILLS -- II

A Textbook Of Engineering Mathematics-I : (As Per The New Syllabus, B.Tech. I Year Of U.P. Technical University)

Earthquake Resistant Design and Risk Reduction

Power Electronics

GRAPH THEORY

1 Elementary Concepts 2 Magnetic Circuits 3 Electromagnetic Induction 4 Single Phase Transformers 5 Electrostatistics 6 A C fundamentals 7 Single Phase A C circuits 8 Three Phase A C Circuits 9 D C Circuits Appendix

1 Non- Traditional Machining 2 Introduction to CNC 3 Other Machining Methods 4 Milling And Gear Cutting 5 Surface Finishing 6 Maintenance of Machine Tools

Each topic is treated from the beginning, without assuming prior knowledge. Each chapter starts with an opening section covering an application. These help students to understand the relevance of the topic: they are motivational and they make the text more accessible to the majority of students. Concept Maps have been added, which together with Summaries throughout, aid understanding of main ideas and connections between topics. Margin points highlight key points, making the text more accessible for learning and revision. Checkpoints in each chapter test students' understanding and support their private study. A selection of questions are included at the end of each chapter, many form past examination papers. Suggested answers are provided in the Answers Key.

The Text Is Based On The Coir 625-B Monochrome (Black & White) And Pal-B And G Colour Television Standards As Adopted By India And Many Other Countries. The American And French Tv Systems Have Also Been Given Due Coverage While Presenting Various Aspects Of The Subject Starting From Television Camera To The Receiver Picture Tube.Keeping In View The Fact That Colour And Monochrome Telecasts Will Co-Exist In India For At Least A Decade, The Author Has Included Relevant Details And Modern Techniques Of Both The Systems.Conceptually The Book May Be Considered To Have Four Sections. The Initial Chapters (1 To 10) Are Devoted To The Essentials Of Transmission, Reception And Applications Of Television Without Involving Detailed Circuitry. The Next 14 Chapters (11 To 24) Explain Basic Design Considerations And Modern Circuitry Of Various Sections Of The Receiver. Topics Like Tv Games, Cable Television, Cctv, Remote Control, Automatic Frequency Tuning, Automatic Brightness Control, Electronic Touch Tuning Etc. Are Also Discussed.The Third Section (Chapters 25 And 26) Is Exclusively Devoted To The Colour Television Transmission And Reception. All The Three Colour Television Systems Have Been Described. Chapters 27 To 30 Are Devoted To Complete Receiver Circuits-Both Monochrome And Colour, Electronic Instruments Necessary For Receiver Manufacture And Servicing, Alignment Procedure, Fault Finding And Servicing Of Black & White And Colour Receivers.The Complete Text Is Presented In A Way That Students Having Basic Knowledge Of Electronics Will Find No Difficulty In Grasping The Complexities Of Television Transmission And Reception.

Design with Nonimaging Optics

A Practical Approach to Signals and Systems

MEASUREMENT AND AUTOMATION (Subject Code

Engineering Metrology and Measurements

BASIC ELECTRICAL ENGINEERING

First Edition of my book on 'Utilization of Electrical Energy' for Semester VI of Diploma Course in Electrical Engineering Group for the Board of SBTE, Jharkhand. I am thankful to students and teachers as they have highly appreciated and accepted my previous books, which cover cent percent syllabus and gives additio knowledge useful for oral examination also. In this edition, questions those have been occurred in the previous S.B.T.E. examination question papers have been added for reference and study of students accordingly.

Earthquake Resistant Design and Risk Reduction, 2nd edition is based upon global research and development work over the last 50 years or more, and follows the author's series of three books Earthquake Resistant Design, 1st and 2nd editions (1977 and 1987), and Earthquake Risk Reduction (2003). Many advances have been made since the 2003 edition of Earthquake Risk Reduction, and there is every sign that this rate of progress will continue apace in the years to come. Compiled from the author's wide design and research experience in earthquake engineering and engineering seismology, this key text provides an excellent treatment of the complex multidisciplinary process of earthquake resistant design and risk reduction. New topics include the creation of low-damage structures and the spatial distribution of ground shaking near large fault ruptures. Sections on guidance for developing countries, response of buildings to differential settlement in liquefaction, performance-based and displacement-based design and the architectural aspects of earthquake resistant design are heavily revised. This book: Outlines individual national weaknesses that contribute to earthquake risk to people and property Calculates the seismic response of soils and structures, using the structural continuum "Subsoil - Substructure - Superstructure - Non-structure" Evaluates the effectiveness of given design and construction procedures for reducing casualties and financial losses Provides guidance on the key issue of choice of structural form Presents earthquake resistant design methods for the main four structural materials - steel, concrete, reinforced masonry and timber - as well as for services equipment, plant and non-structural architectural components Contains a chapter devoted to problems involved in improving (retrofitting) the existing built environment This book is an invaluable reference and guiding tool to practising civil and structural engineers and architects, researchers and postgraduate students in earthquake engineering and engineering seismology, local governments and risk management officials.

1 Linear differential equations with constant coefficients 2 Simultaneous linear Differential Equations 3 Applications of Differential Equations 4 System of linear equations 5 Numerical solution of ordinary differential equations 6 Statistics correlation and regression 7 Probability and probability distributions 8 Vector algebra 9 Vector differentiation 10 Vector integration 11 Application of vectors to fluid mechanics 12 Application of partial differential equations

This book offers a timely yet comprehensive snapshot of innovative research and developments in the area of manufacturing. It covers a wide range of manufacturing processes, such as cutting, coatings, and grinding, highlighting the advantages provided by the use of new materials and composites, as well as new methods and technologies. It discusses topics in energy generation and pollution prevention. It shows how computational methods and mathematical models have been applied to solve a number of issues in both theoretical and applied research. Based on selected papers presented at the Grabchenko's International Conference on Advanced Manufacturing Processes (InterPartner-2019), held in Odessa, Ukraine on September 10-13, 2019, this book offers a timely overview and extensive information on trends and technologies in the area of manufacturing, mechanical and materials engineering. It is also intended to facilitate communication and collaboration between different groups working on similar topics, and to offer a bridge between academic and industrial researchers.

A-level Chemistry

A Textbook of Strength of Materials

Machine Drawing

Strictly as per revised AICTE syllabus

Contributed articles on environmental aspects of sustainable development and impact of environmental degradation caused by human society.

I have great pleasure in bringing out the first edition of this book as per the newly formulated syllabus effective from July, 2017. Great care has been taken to cover the whole syllabus concerning grammar and language parts prescribed in the new syllabus by the Board of Technical Examinions, Jharkhand.

This text on building materials includes discussion of structural clay products, rocks and stones, wood, materials for making concrete, ferrous and non-ferrous metals, and miscellaneous materials.

Communication skills are therefore essential for the successful future career of a student. In today's competitive world, communication skills in business are the most sought after quality of an educated person. Reading, writing and listening carefully are the three most important communication skills for students. It thus gives me immense pleasure in bringing out the first edition of this book as per the new syllabus effective from June 2017. Great care has been taken to cover the whole syllabus concerning different aspects of Communication Skills - II as prescribed in the new curricular syllabus for Jharkhand.

Monochrome and Colour Television

UTILIZATION OF ELECTRICAL ENERGY (Subject Code

Electrical Machines - I

MOBILE AND WIRELESS COMMUNICATION

Mathematics Learning And Pedagogy

The language C is often described as a middle-level language that permits programs to be written in much the same style as that of modern high-level languages such as FORTRAN, COBOL, BASIC and PASCAL. In The Spirit of C you will know the essentials of this modern language. The book does not expect any programming experience or mathematical expertise from the readers. It provides simple illustrated programs, followed by a list of questions and answers based on text to acquaint the readers with the structure of C language.

The 1st edition of book entitled "Design of Machine Elements" for IIIrd Year Diploma, Semester VI in Diploma in Mechanical Engineering Group as per the syllabus prescribed by SBTE. We have observed the students facing extreme difficulties in understanding the basic principles and fundamental concepts without adequate solved problems along with the text. To meet this basic requirement of students, sincere efforts have been made to present the subject matter with frequent use of figures and lots of numerical examples.

Engineering Metrology and Measurements is a textbook designed for students of mechanical, production and allied disciplines to facilitate learning of various shop-floor measurement techniques and also understand the basics of mechanical measurements.

This third edition of what has become a modern classic presents a lively overview of Materials Science which is ideal for students of Structural Engineering. It contains chapters on the structure of engineering materials, the determination of mechanical properties, metals and alloys, glasses and ceramics, organic polymeric materials and composite materials. It contains a section with thought-provoking questions as well as a series of useful appendices. Tabulated data in the body of the text, and the appendices, have been selected to increase the value of Materials for engineering as a permanent source of reference to readers throughout their professional lives. The second edition was awarded Choice's Outstanding Academic Title award in 2003. This third edition includes new information on emerging topics and updated reading lists.

Automobile Engineering Theory (2 Nd Edition)

DESIGN OF MACHINE ELEMENTS (Subject Code MEC 604)

Illumination Engineering

Advanced Manufacturing Process

Society, Sustainability, and Environment

This text, by a leading authority in the field, presents a fundamental and factual development of the science and engineering underlying the design of combustion engines and turbines. An extensive illustration program supports the concepts and theories discussed.

About the Book: Written by three distinguished authors with ample academic and teaching experience, this textbook, meant for diploma and degree students of Mechanical Engineering as well as those preparing for AMIE examination, incorporates the latest st

Concisely covers all the important concepts in an easy-to-understand way Gaining a strong sense of signals and systems fundamentals is key for general proficiency in any electronic engineering discipline, and critical for specialists in signal processing, communication, and control. At the same time, there is a pressing need to gain mastery of these concepts quickly, and in a manner that will be immediately applicable in the real world. Simultaneous study of both continuous and discrete-time signals and systems analysis. In A Practical Approach to Signals and Systems, Sundararajan details the discrete version first followed by the corresponding continuous version for each topic, as discrete signals and systems are more often used in practice and their concepts are relatively easier to understand. In addition to examples of typical applications of analysis methods, the author gives comprehensive coverage of transform methods, emphasizing the interpretations of concepts. Gives equal emphasis to theory and practice Presents methods that can be immediately applied Complete treatment of transform methods Expanded coverage of Fourier analysis Self-contained: starts from the basics and discusses applications Visual aids and examples makes the subject easier to understand End-of-chapter exercises, with a extensive solutions manual for instructors MATLAB software for readers to download and practice on their own slides with lecture notes A Practical Approach to Signals and Systems is an excellent resource for the electrical engineering student or professional to quickly gain an understanding of signal analysis concepts - concepts which all electrical engineers will eventually encounter no matter what their specialization. For aspiring engineers in signal processing, communication, and control, the topics presented will form a sound foundation to their future study, while allowing them to quickly gain a working understanding of signals. Compact and self contained, A Practical Approach to Signals and Systems be used for courses or self-study, or as a reference book.

Foundation of Engineering Mathematics-IIStrictly as per revised AICTE syllabusBooksclinic Publishing

Internal Combustion Engine Fundamentals

Materials for Engineering

Fluid Mechanics and Machinery

Foundation of Engineering Mathematics-II

Engineering Mathematics - III

This book brings together experts in the field who present material on a number of important and growing topics including lighting, displays, solar concentrators. The first chapter provides an overview of the field of nonimagin and illumination optics. Included in this chapter are terminology, units, definitions, and descriptions of the optical components used in illumination systems. The next two chapters provide material within the theoretical domain, including etendue, etendue squeezing, and the skew invariant. The remaining chapters focus on growing applications. This entire field of nonimaging optics is an evolving field, and the editor plans to update the technological progress every two to three years. The editor, John KosheI, is one of the most prominent leading experts in this field, and he is the right expert to perform the task.

This book is based on a course Graph theory. We write this book as per the revised syllabus of F.Y. B.Sc.(Computer Science) Mathematics, revised by Savitribai Phule Pune University, Pune, implemented from June 2019. Graph theory is the most useful subject in all branches of mathematics and it is used extensively in applied mathematics and engineering. Graphs theory is the study of graphs, which are mathematical structures used to model pairwise relations between objects. It is a bridge connecting mathematics with various branches of computer science. We study how problems in almost every conceivable discipline can be solved using graph models.

This book entitled as ""Network Security"" to the students of Sixth Semester Diploma in Computer Science & Engineering. The book is written according to the New Syllabus of State Board of Technical Education (SBTE), Jharkhand. The book covers theory of internet, TCP/IP protocols, network vulnerabilities, threats and attacks, cryptography, Bitcoins and Blockchains, firewalls, VPNs and so on.

The programming language C occupies an unusual position midway between conventional high-level and assembly languages, allowing the programmer to combine the best features of both. This book is an introduction to the language itself, and to the special style of thinking that goes with it. Anyone wishing to learn C is likely to have some experience in a high-level language such as BASIC or Pascal, and it seems sensible to make use of that experience. We therefore assume some facility with conventional notation for computer arith metic, and simple notions (such as looping and branching) common to most high-level languages. However, that cannot be the whole story. One cannot learn to speak colloquial French by thinking in English and performing a routine translation. No more can one learn to program in colloquial C by thinking in BASIC and performing a routine translation. However, when learning French it is normal to assume familiarity with English, building on that in the early stages, thereby creating the confidence necessary to provide that mot juste to which nothing corresponding exists in English. Our approach to C is similar. In particular we do not introduce at the very beginning some of the features of C which eventually lead to more efficient and elegant code-for example, the ability to do several things, apparently at once. Initially, such constructs can be confusing. Once the reader has acquired some facility with the language it then becomes possible to bring these features into play in a natural manner.

COMMUNICATION SKILLS - I

MEC606)

The Art of C Programming

S Chand Higher Engineering Mathematics

ELE 604)