

Np Bali Engineering Mathematics 1

The second edition of Industrial Relations, Trade Unions, and Labour Legislation is an up-to-date interactive text, primarily related to issues in India. The book does, however, incorporate developments and practices in other countries, particularly UK and USA. Primarily designed for the students of management, economics, labour and social welfare, social work, commerce and similar disciplines this book will also be of interest to professionals in the field of labour relations and management.

The book comprises ten chapters, Each chapter contains several solved problems clarifying the introduced concepts. Some of the examples are taken from the recent literature and serve to illustrate the applications in various fields of engineering and science. At the end of each chapter, there are assignment problems with two levels of difficulty. A list of references is provided at the end of the book. This book is the product of a close collaboration between two mathematicians and an engineer. The engineer has been helpful in pinpointing the problems which engineering students encounter in books written by mathematicians. Contents: Review of Calculus and Ordinary Differential Equations; Series Solutions and Special Functions; Complex Variables; Vector and Tensor Analysis; Partial Differential Equations I; Partial Differential Equations II; Numerical Methods; Numerical Solution of Partial Differential Equations; Calculus of Variations; Special Topics. Readership: Upper level undergraduates, graduate students and researchers in mathematical modeling, mathematical physics and numerical & computational mathematics.

For Engineering students & also useful for competitive Examination.

For B.E./B.Tech. / B.Arch. Students for First Semester of all Engineering Colleges of Maha Maya Technical University, Noida and Gautam Buddha Technical University, Lucknow

Unlike Many Engineering Mathematics Books, The New Edition Of This Comprehensive Applications-Oriented Book Uses Computer Programs In Almost Every Chapter To Demonstrate The Mathematical Concepts Under Discussion. Designed For Engineering Students As Well As Practicing Engineers And Scientists, The Book Has Hundreds Of Examples With In-Text Solutions. In Terms Of Content, It Covers The Entire Sequence Of Mathematical Topics Needed By The Majority Of University Programs, Including ODE, PDE, Complex Variables, Probability/Statistics, And Numerical Methods. The Authors Demonstrate How The Mathematical Concepts Will Be Used In Practical Applications Such As Fractals, Robotics, Circuits, Membrane Simulation, Collision Detection, Ray Tracing, Signal Processing, And More. A CD-ROM With The Source Code For The In-Text Computer Programs (Written In C) Includes Calculation Routines And Simulations.

Accompanying CD-ROM contains ... "a chapter on engineering statistics and probability / by N. Bali, M. Goyal, and C. Watkins."--CD-ROM label.

This well-received book, which is a new edition of Textbook of Engineering Mathematics: Special Functions and Complex Variables by the same author, continues to discuss two important topics—special functions and complex variables. It analyzes special functions such as gamma and beta functions, Legendre's equation and function, and Bessel's function. Besides, the text explains the notions of limit, continuity and differentiability by giving a thorough grounding on analytic functions and their relations with harmonic functions. In addition, the book introduces the exponential function of a complex variable and, with the help of this function, defines the trigonometric and hyperbolic functions and explains their properties. While discussing

different mathematical concepts, the book analyzes a number of theorems such as Cauchy's integral theorem for the integration of a complex variable, Taylor's theorem for the analysis of complex power series, the residue theorem for evaluation of residues, besides the argument principle and Rouché's theorem for the determination of the number of zeros of complex polynomials. Finally, the book gives a thorough exposition of conformal mappings and develops the theory of bilinear transformation. Intended as a text for engineering students, this book will also be useful for undergraduate and postgraduate students of Mathematics and students appearing in competitive examinations. What is New to This Edition : Chapters have been reorganized keeping in mind changes in the syllabi. A new chapter is exclusively devoted to Graph Theory.

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