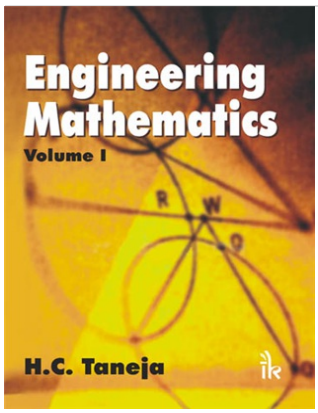
Book Information Sheet



Engineering Mathematics, 1/e

H C Taneja

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About the Book

Engineering Mathematics (Volume I) has been primarily written for the first and second semester students of B.E./B.Tech level of various engineering colleges.

The book contains thirteen chapters covering topics on differential calculus, matrices, multiple integrals, vector calculus, ordinary differential equations, series solutions and special functions, Laplace transforms, Fourier series, Partial differential equations and applications. The self-contained text is applications oriented and contains a wide variety of examples, objective type questions and exercises.

Salient Features

Salient Features:

- Each topic is explained with the help of solved problems (432 various graded problems), and contains exercises for practice (detailed numerical solution and objective type questions).
- Proofs of all theorems have been given in a detailed manner.
- Provides basic data and formulae, Bessel functions of first kind of order zero and order one, and Laplace equation in polar coordinates in the appendices.

Table of Contents

- Differentiation and its Applications
- Partial Differentiation and its Applications
- Matrics and Eigenvalue Problems
- Multiple Integrals and Their Applications
- Vector Differential Calculus
- Vector Integral Calculus
- First Order Ordinary Differential Equations
- Second and Higher Order Linear Differential equations
- Series Solutions of Differential Equations and Special Functions
- Laplace Transform
- Fourier Series
- Partial Differential Equations
- Applications of partial Differential Equations
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About the Author

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