About the Book

The third edition of this well-accepted textbook continues in its tradition of presenting the applications of principles, with the addition of a new chapter “Double Integration Method” for a complete treatment on the “Analysis of Determinate Structures”. The inclusion of this chapter makes the reader to understand the development of deflection analysis. This book continues to cater to the needs of the student who enters the portals of Civil Engineering Department in the second year of UG programmes and will also be useful to understand the basic principles of structural analysis, energy principles, concepts of loads, arches, bridges, beams, analysis of statically determinate structures, and importance of influence line diagrams in analyzing problems on indeterminate beams. Moreover, the book can solve basic structural engineering problems in an easy-to-follow and simple manner, avoiding unnecessary mathematical gymnastics and, instead, emphasizing on the engineering applications.

The book takes an outcome-based learning approach, where the authors ensure that the students engage well with the contents of each chapter and the expected learning outcomes are achieved by them. Realizing the importance for a systematic approach to problem solving, Bloom's Taxonomy has been applied while designing the contents of the book, so that the students systematically learn to remember, understand, analyze, apply, evaluate and create learning. A large number of practical problems from various university and competitive examinations, presented in the book, will help students get a feel of the problems encountered in the real world. These will also help them during taking their own examinations.

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Salient Features

Third edition presents updated chapters and inclusion of a new "Double Integration Method" extends the scope of the book, making it suitable to postgraduate level courses as well. Every topic is illustrated with a large number of worked out numerical examples. Contains problems from university and competitive examinations. Provides exercises in every chapter in an orderly way for self-study.

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