



BRIDGE ENGINEERING



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REVISED
& ENLARGED

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ABOUT THE BOOK

This book aims at presenting the topics of Bridge Engineering written in a simple manner. The subject-matter is characterized by comprehensive as well as methodical and easy-to-follow style.

Out line of *Sixteenth Revised and Enlarged edition* of this popular and highly acclaimed book of *Bridge Engineering* are as below:

Chapter 1 gives *Introduction* of the subject.

Chapters 2 and 3 of Bridge Foundations, expanded and divided in two separate chapters. **Foundation I: Spread and Pile Foundations and Foundation II: Caissons and Cofferdams.**

Chapter 4 explains *Sub-structures* such as Abutments, Piers, Wing Walls etc.

Chapter 5 gives variety of *Fixed-Span Super-structures* – Various Types of Bridges such as Simple, Cantilever, Arch, Bow-string Girder type, Rigid Frame, Suspension, Cable-stayed bridges.

Chapter 6 consists *Low cost Bridges: Movable-Span Super-structures.*

Chapter 7 consists *Low cost Bridges: Culverts and Causeways.*

Chapter 8 consists *Low cost Bridges: Timber or Temporary Bridges.*

Chapter 9 discusses *Flooring*. It includes Factors, Requirements of Floorings, Types of Floorings and various Flooring Materials etc.

Chapter 11 mention the Broad Outline of *Loading on Bridges.*

Chapter 12 This newly added chapter gives knowledge on *Construction and Erection Methods of Bridge Super-structure.*

Chapter 13 is newly added chapter on *Maintenance of the bridges.*

Chapter 14 give various *Miscellaneous Topics* such as Afflux; Approaches of Bridge; Bridge Architecture, Clearance and Freeboard, Combined Road and Railway Bridges; Double-decker Bridge; Economic Span of Bridge, Grip Length, Handrails, Joints of Bridge; M.F.D. or H.F.L.; River Training Works etc.

In Appendix, *Marvellous Bridges of the world*, which gives technical information, such as India's latest Bandra-Worli Sea Link, Mumbai, India; The Golden Gate Bridge, San Francisco, USA; Tower Bridge, London, UK, Sundial Bridge, California, USA and Zhangjiajie Grand Canyon Glass Bridge, China.

The text-matter has been arranged systematically into Fourteen Chapters assisted by:

- * 224 Self-explanatory and neatly drawn sketches;
- * 12 Illustrative problems;
- * 20 Important useful tables;
- * 251 Typical questions at the end of the chapters.

The book should prove to be extremely useful to the Civil Engineering students preparing for the Degree Examinations of all the Indian Universities, Diploma Examinations conducted by various Boards of Technical Education, Certificate Courses as well as for the A.M.I.E., U.P.S.C., G.A.T.E., I.E.S. and other similar competitive and professional examinations. It should also prove of interest to the practising professionals.

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