This Volume I elucidates the basic principles involved in the analysis and design of Elementary Reinforced Concrete Structures. The book begins with an introduction to concrete technology and continues with chapters on design of beams, slabs, columns, foundations, retaining walls, etc. These chapters are based on the Limit State Method following latest revision of IS : 456-2000. A few computer programmes to design a section for flexure are introduced. It also includes chapters on formwork and detailing of reinforcements.

The salient features of the book are:

* Simple, lucid and easy language
* Step-by-step treatment
* Exposition to practical problems

This book in its 24 chapters now contains:

* 500 Self explanatory and neat diagrams with excellent detailing
* 228 Fully-solved examples
* 257 Unsolved examples with answers and questions at the end of chapters
* 150 Useful tables
* 9 Computer programmes
* 235 Short questions with answers is given in APPENDIX A.

It is hoped that the book should be extremely useful to the Civil Engineering and Architecture students preparing for 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. and other similar competitive and professional Examinations.
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Appendix A SHORT QUESTIONS WITH ANSWERS
Appendix B USEFUL TABLES
Reinforced concrete (RC) is a versatile composite and one of the most widely used materials in modern construction. Concrete is a relatively brittle material that is strong under compression but less so in tension. Plain, unreinforced concrete is unsuitable for many structures as it is relatively poor at withstanding stresses induced by vibrations, wind loading, and so on. To increase its overall strength, steel rods, wires, mesh or cables can be embedded in concrete before it sets.