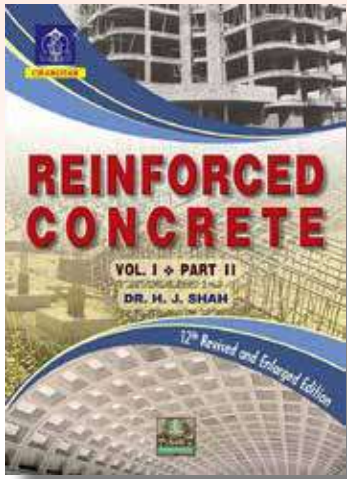


REINFORCED CONCRETE VOL. I ❖ PART-II



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ABOUT THE BOOK

This book presents the basic principles involved in Analysis and Design of Reinforced Concrete Structures. This 12th edition of Vol. I has been thoroughly revised and extensively enlarged in two parts. Almost all chapters are revised with adding a plenty of new matter, examples and figures. Mix design as per latest IS:10262 with excel programs is added. A number of excel programs have been added to clarify the subject matter and design the elements of structure. As per prevailing market conditions the default combination of materials is revised to M20 grade concrete and Fe 500 grade steel, however, the other combinations of materials have not been completely ignored.

The outline of the book “*Reinforced Concrete Vol. I – Part II*” is as mentioned below:

Chapter 17 contains design of columns used in framed structures. The design interaction diagrams are derived and excel program is prepared for rectangular columns.

Chapter 18 emphasis on Design of Foundations: Fundamentals. Moreover this chapter is extensively revised and soil design is sufficiently elaborated.

Chapter 19 on Isolated Footings for walls and columns subjected to various types of loads. Discusses topics on axially loaded pad and sloped footing; eccentrically loaded footings; isolated slab and beam type footing; footing for multi-storeyed building columns and also gives an excel program on design of an isolated footing.

Chapter 20 discusses Combined Footings for two axially loaded columns and also explains strap, strip and raft foundations. Also includes the guidelines to design a combined footing for general loading system.

Chapter 21 elucidates topics on Pile Foundations such as loads on pile groups; soil design of a pile; structural design of a pile; design of a pile cap.

Chapter 22 Circular raft foundations with annular and solid rafts used under circular peripheral columns or RCC shafts are discussed.

Chapter 23 on Retaining walls includes design of cantilever and counterfort retaining walls.

Chapter 24, 25 and 26 deals with variety of roof coverings, viz., Circular, Ribbed and Waffle slabs; Flat slabs and domes are discussed in these chapters.

Chapter 27 discusses the empirical designs of both, the deep beams and corbels

Chapter 28 Grid or Coffered Floors are designed by using classical analysis.

Chapter 29 Formworks: Basic formworks used on general sites for slabs, beams and columns are discussed in this chapter.

Chapter 30. Detailing of Reinforcement: This chapter explains basic style of practical RCC structural drawings.

Now this book “*Reinforced Concrete Vol. I – Part II*”, in its 14 Chapters and Appendix contains:

- 261 Neatly drawn sketches
- 037 Useful tables
- 086 Design problems
- 085 Questions at the end of the chapters
- 002 Excel programs
- 106 Short questions with answers.

The book in the present form will prove to be extremely useful to the students preparing for the Degree examinations in Civil Engineering and Architecture 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 be an immense use to practicing Civil Engineers.

CONTENT

- 17: COLUMNS
- 18: DESIGN OF FOUNDATIONS: FUNDAMENTALS
- 19: ISOLATED FOOTINGS
- 20: COMBINED FOOTINGS
- 21: PILE FOUNDATIONS
- 22: CIRCULAR RAFT FOUNDATIONS
- 23: RETAINING WALLS
- 24: CIRCULAR, RIBBED AND WAFFLE SLABS
- 25: FLAT SLABS
- 26: DOMES
- 27: DEEP BEAMS AND CORBELS
- 28: GRID OR COFFERED FLOORS
- 29: FORMWORK
- 30: DETAILING OF REINFORCEMENT
- APPENDIX C : SHORT QUESTIONS WITH ANSWERS
- INDEX

CHAPTER 17 COLUMNS

- 17-1. Introductory
- 17-2. Loads and displacements for building columns
 - (1) Vertical gravity loads (dead and live loads)
 - (2) Horizontal loads (wind and earthquake loads)
- 17-3. Classification of columns
- 17-3-1. Braced and unbraced columns
 - (1) Braced column
 - (2) Unbraced columns
- 17-3-2. No-sway and sway columns
- 17-3-3. Tied, spiral and composite columns
 - (1) Tied columns
 - (2) Spiral columns
 - (3) Composite columns
- 17-3-4. Short and long columns
 - (1) Short columns
 - (2) Long (slender) columns
- 17-4. Reinforcement requirements
 - (1) Longitudinal reinforcement
 - (2) Transverse reinforcements
- 17-5. Minimum eccentricity
- 17-6. Assumptions made for design
- Short columns
- 17-7. Axially loaded tied columns
- 17-8. Axially loaded spiral columns
- 17-9. Short eccentrically loaded columns — Uniaxial bending
- Uniaxial bending
 - (1) N.A. Lies outside the section
 - (2) N.A. Lies inside the section
- 17-10. Modes of failure in combined axial load and uniaxial bending
 - (2) Balanced failure
 - (3) Tensile failure
- 17-11. Types of problems
- 17-12. The interaction diagram
- 17-13. Stress block parameters when n.A. Lies outside the section
- 17-14. Construction of interaction diagrams
- 17-14-1. Pure axial load
- 17-14-2. Axial load with uniaxial moment
- 17-15. Neutral axis (n.A.) Lies outside the section
- 17-16. Neutral axis (n.A.) Lies inside the section
- 17-17. Charts for compression with bending
- 17-18. Tension with bending
- 17-19. Use of interaction diagram
- 17-20. Unsymmetrically reinforced columns with Uniaxial eccentricity
 - Define
 - (1) General method
 - (2) Approximate method
- 17-21. Using an excel program to draw an interaction diagram of A given rectangular column
- 17-22. Short eccentrically loaded columns: biaxial bending
- Slender columns
- 17-23. Slender columns
 - (1) Unsupported length
 - (2) Effective length
 - (3) Radius of gyration
 - (4) Slenderness ratio (S.R.)
 - (5) Short and long columns
 - (6) Slenderness limits for columns
- 17-24. Effective length calculations
 - Method 1
 - Method 2
- 17-25. Lengths of column
 - (1) Floor height (h)
 - (2) Length of column (l)
 - (3) Unsupported length of column (l)
 - (4) Effective length of column (l_{ef})
- 17-26. Design of slender columns
 - (1) Braced columns
 - (2) Unbraced columns

- 17-27. Design and detailing of a practical column
- Examples 17

CHAPTER 18 DESIGN OF FOUNDATIONS: FUNDAMENTALS

- 18-1. Introductory
- 18-2. Classification of foundations
 - (1) Flexible and rigid foundations
 - (2) Shallow and deep foundations
- 18-3. Types of footings
 - (1) Continuous wall footing
 - (2) Isolated footing
 - (3) Combined footing
 - (4) Strap footing
 - (5) Strip footing
 - (6) Raft foundation
 - (7) Pile foundation
- 18-4. R.C.C. Footings
 - (1) Column/wall — footing connection
We may state
 - (2) Aspects of footing design
- Soil design
- 18-5. Soil exploration
- 18-6. Depth of foundation
- 18-7. Cohesive and cohesionless soils
 - (1) Cohesive soil
 - (2) Cohesionless soil
 - (3) C-φ soil
- 18-8. Modes of soil failure
 - (1) Catastrophic collapse
 - (2) Excessive settlement
- 18-9. Types of shear failures of soil
 - (1) General shear failure
 - (2) Local shear failure
 - (3) Punching shear failure
 - (4) Intermediate (mixed mode) failure
- 18-10. Vertical stress distribution
- 18-11. Contact pressure distribution under rigid footings
- 18-12. Net safe bearing capacity (net sbc) of soil
 - (1) The ultimate bearing capacity
 - (2) Net ultimate bearing capacity
- 18-13. Settlement of soil
- 18-14. Safe bearing pressure (sbp) on soil
- 18-15. Allowable bearing capacity (abp) on soil
- 18-16. Calculation of net safe bearing capacity (net sbc) of Soil effective surcharge and effective surcharge/ Overburden pressure
 - Net sbc
- 18-17. Simplified method of soil design for axial, Inclined and eccentric loads
 - 18-17-1. Transfer of loads from column to soil
 - 18-17-2. Resultant loads at the base of footing
 - 18-17-3. Goal of design
 - 18-17-4. Selection of abp (allowable bearing pressure)
 - 18-17-5. Footings subjected to axial loads
 - 18-17-6. Footing subjected to axial loads and moments
 - (1) Uniaxial moment
 - (2) Biaxial moment
 - Loss of contact
 - 18-17-7. Footing subjected to horizontal loads
 - 18-17-8. Use of passive pressure for resisting sliding
 - (1) Cohesionless soil
 - (2) Cohesive soil
 - 18-17-9. Use of slab tie and beam ties for Resisting sliding
- Structural design

REINFORCED CONCRETE – VOL. I PART-II
DETAILED CONTENTS

18-18. Selection of plan dimensions	(1) Annular raft
18-19. Upward soil pressure	(2) Solid raft
18-20. General soil design considerations	Annular raft
(1) Uniform settlement	22-2. Formulae for annular raft soil design of
(2) Uniform pressure	An annular raft
(3) Non-uniform pressure	Define
18-21. Footing for eccentrically loaded columns	(1) Raft positioning
(1) Concentric footing	(2) Upward pressures
(2) Eccentric footing	22-3. Formulae for annular raft
Soil design	(1) Axial load
18-22. General structural design considerations	Constants
18-23. Concrete pedestal	Radial moments
18-24. Transfer of load at the base of column	Tangential moments
Dowels	(2) Applied moment m
(1) Bearing strength	Radial shears
(2) Bond strength	Tangential shears
Practical consideration	Constants
Examples 18	Radial moments
	Tangential moments
	R-T moments
CHAPTER 19 ISOLATED FOOTINGS	22-4. Design for flexure and shear
19-1. Introductory	(1) Flexure
19-2. Wall footings	(2) Shear
19-3. Axially loaded pad footing	(3) Locations for analysis and design
(1) Proportioning the size	Solid raft
(2) Bending moment	22-5. Solid raft
(3) Nominal reinforcement	(1) Axial load
(4) Development length	(2) Applied moment m
(5) Shear	Constants
(6) Deflection	Examples 22
(7) Cover	CHAPTER 23 RETAINING WALLS
(8) Reinforcement requirements	23-1. Introductory
(9) Transfer of load from column to footing	23-2. Types of retaining walls
(10) Weight of the footing	(1) Gravity wall
19-4. Axially loaded sloped footing	(2) Cantilever wall
19-5. Eccentrically loaded footings	(3) Counterfort wall
(1) Uniaxial moment	(4) Buttress wall
(2) Biaxial moment	(5) Bridge abutment
19-6. Fixing up footing dimensions	(6) Gabion walls
19-7. Isolated slab and beam type footing	(7) Box culvert
19-8. Footing for multi-storeyed building columns	23-3. Earth pressure on walls
19-9. Excel program for design of an isolated footing	23-4. Calculation of earth pressure
Examples 19	(1) Cohesionless soil
	(2) Cohesive soil
CHAPTER 20 COMBINED FOOTINGS	23-4-1. Earth pressure of submerged soil
20-1. Combined footings	23-4-2. Earth pressure due to surcharge
20-2. Combined footing for two axially loaded columns	23-5. Drainage of retaining walls
20-3. Strap footings	23-6. Stability requirements
20-4. Strip footings	(1) The restoring moment (stabilizing moment) should be
20-5. Combined footing for generalised load system	more than the overturning moment so as to
(1) General	Get a factor of safety not less than 1.55
(2) Collinear columns	(2) The vertical pressure on the soil under the base should
(3) Drawing co-ordinate axes	not exceed the permissible bearing pressure of soil
(4) Soil design	(3) The restoring force against sliding should be more than
20-6. Raft foundation	the sliding force so as to get a factor of safety not less
20-7. Closure	than 1.55
Examples 20	(4) Check for combined effect of vertical and horizontal loads
CHAPTER 21 PILE FOUNDATIONS	Cantilever retaining wall
21-1. Introductory	23-7. Preliminary proportioning of cantilever retaining wall
21-2. Loads on pile groups	(1) Height of wall
(1) Axial loads on a group of vertical piles	(2) Base width and position of stem on the base of footing
(2) Moment on a group of vertical piles	(3) Thickness of base slab
(3) Horizontal load	(4) Thickness of stem
(4) Design of a pile	23-8. Design of a cantilever retaining wall
21-3. Soil design of a pile	(1) Design of stem
21-4. Structural design of a pile	(2) Design of heel
21-5. Design of a pile cap	(3) Design of toe
General	(4) Base key
Examples 21	(5) Minimum reinforcement in walls with variable depth
	Counterfort retaining wall
CHAPTER 22 CIRCULAR RAFT FOUNDATIONS	23-9. Counterfort wall
22-1. Introduction	

REINFORCED CONCRETE – VOL. I PART-II
DETAILED CONTENTS

- 23-10. Stability and design procedure
(1) Stability
(2) Stem
(3) Base
(4) Counterforts

Examples 23

CHAPTER 24 CIRCULAR, RIBBED AND WAFFLE SLABS

Circular slabs

- 24-1. Introductory
24-2. Analysis
24-3. Introductory
24-4. Proportioning the dimensions
24-5. Analysis and design procedure
(1) Analysis
(2) Design

Waffle slabs

- 24-6. Two-way spanning ribbed slabs: waffle slabs
Examples 24

CHAPTER 25 FLAT SLABS

- 25-1. Introductory
(1) Flat slab with no drop and no column head
(2) Flat slab without drop and column with column head
(3) Flat slab with drop and column with column head
25-2. Column and middle strips
(1) Column strip
(2) Middle strip
(3) Panel
25-3. Proportioning of flat slab elements
(1) Thickness of flat slab
(2) Drops
(3) Column head
25-4. Design methods for flat slabs
(1) Direct design method (D.D.M.)
(2) Equivalent frame method (E.F.M.)
Direct design method (D.D.M.)
25-5. Total design moment
25-6. Distribution of moments in slabs
Interior negative design moment
Positive design moment
Exterior negative design moment
(1) Moments in column strip
(2) Moments in middle strip
25-7. Effect of pattern loading
(1) By increasing the flexural stiffness of columns
(2) By increasing the positive moment
25-8. Transfer of floor loads into columns
(1) Transfer of vertical load
(2) Transfer of moment
25-9. Design for shear
(1) Calculation of shear stress
(2) Permissible shear stress
25-10. Provision of reinforcement
25-11. Moments in columns
Examples 25

CHAPTER 26 DOMES

- 26-1. Introductory
26-2. Stresses in domes
26-3. Formulae for forces in spherical domes
(1) Uniform loads as on dome
(2) Concentrated loads w on crown
26-4. Design of a spherical dome
26-5. Section design for pure tension
26-6. Formulae for forces in conical domes
Examples 26

CHAPTER 27 DEEP BEAMS AND CORBELS

- 27-1. Introduction
Deep beams
27-2. Definitions

- (1) Deep beams
(2) Effective span
(3) Lever arm

27-3. Design and details of reinforcements

- (1) Design of reinforcements
(2) Details of reinforcements
Corbels

27-4. Corbels

27-5. Shear friction

27-6. Corbel dimensions

- (1) Width of the corbel
(2) Width of the base plate
(3) Span of the corbel
(4) Depth d at root of the corbel
(5) Depth d_1 at the outer edge of contact area

27-7. Design of a corbel

- (1) Primary tension reinforcement
(2) Shear reinforcements

Examples 27

CHAPTER 28 GRID OR COFFERED FLOORS

28-1. Introduction

28-2. Analysis of grid floors

28-3. Plate theory

- (1) The flexural rigidities can be obtained from:
(2) The torsional rigidity of rectangular section can be obtained from

Examples 28

CHAPTER 29 FORMWORK

29-1. Introductory

29-2. Requirements for good formwork

29-3. Materials for forms

- (1) Timber
(2) Steel

29-4. Choice of formwork

29-5. Loads on formwork

29-6. Permissible stresses for timber

29-7. Design of formwork

29-8. Shuttering for columns

29-9. Shuttering for beam and slab floor

29-10. Practical considerations

29-11. Erection of forms

29-12. Action prior to and during concreting

29-13. Striking of forms
Examples 29

CHAPTER 30 DETAILING OF REINFORCEMENT

30-1. Introduction

30-2. General informations for drawing

30-3. Drafting

30-4. Columns framing plan and foundation details

General notes

30-5. Columns details

Kicker

30-6. Slabs and beams details

30-7. Closure

APPENDIX C : SHORT QUESTIONS WITH ANSWERS

INDEX