



MECHANICS OF SOLIDS

[ENTIRELY IN SI UNITS]

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By  
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## ABOUT THE BOOK

Many Universities have adopted this subject for general stream for all first year engineering students. Therefore, in this textbook titled Mechanics of Solids, approach is to study systematically the fundamentals of Mechanics of Solids and their application to engineering problems which comprises of Statics from Applied Mechanics and a few topics from Strength of Materials.

*The conspectus of the book is:*

Chapter 01 and 02 gives Introduction of Mechanics; fundamental concepts and principles; Scalars, Vectors and Tensors; SI units, Vectors etc.

Chapter 03 to 07 Mechanics of Rigid Bodies: Fundamentals of Statics etc.

Chapter 08 gives Types of Loads, Beams, Supports and Support Reactions etc.

Chapter 09 Trusses; Chapter 10 Graphics statics

Chapter 11 and 12 Properties of Lines and Areas, Distributed forces, Centre of Gravity and Moment of Inertia.

Chapter 13 and 14 Friction; Chapter 15 Simple Machines

Chapter 16 to 28 Mechanics of deformable bodies or Strength of Materials

Chapter 16 to 19 consist Simple stresses and strains

Chapter 20, 21 and 22 Principal stresses and strains

Chapter 23 and 28 Physical, Mechanical Properties and Testing of Structural Materials.

Chapter 24 and 25 Shear forces and Bending Moments

Chapter 26 and 27 Stresses in Beams.

*The book within its 768 + 20 pages, It comprise the following:*

- \* 975 Neatly drawn sketches
- \* 40 Useful tables
- \* 489 Fully illustrated worked examples
- \* 558 Unsolved examples with answers and
- \* 26 Questions at the ends of chapters

*The salient features of the book are:*

- \* Simple, lucid and easy language;
- \* Step-by-step treatment of the subject;
- \* Comprehensive presentation;
- \* Entirely in SI units.

The text-matter has been arranged systematically to satisfy the need of the First Year Engineering Students (Common to all branches) and also Architecture Students 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 practising Civil Engineers.

## CONTENT

- 1: INTRODUCTION
  - 2: VECTORS
  - 3: COPLANAR CONCURRENT FORCES
  - 4: MOMENTS
  - 5: PARALLEL FORCES AND COUPLES
  - 6: RESULTANT OF COPLANAR FORCE SYSTEMS
  - 7: EQUILIBRIUM OF COPLANAR FORCE SYSTEMS
  - 8: REACTIONS
  - 9: TRUSSES
  - 10 : GRAPHIC STATICS
  - 11: PROPERTIES OF LINES, AREAS AND SOLIDS
  - 12 : AREA MOMENTS OF INERTIA
  - 13 : FRICTION
  - 14 : BELT AND ROPE DRIVES
  - 15 : LIFTING MACHINES
  - 16 : SIMPLE STRESS
  - 17 : SIMPLE STRAIN
  - 18 : STATICALLY INDETERMINATE MEMBERS
  - 19 : THERMAL STRESSES AND STRAINS
  - 20 : STRESSES ON INCLINED PLANES
  - 21 : COMBINED STRESSES: PRINCIPAL STRESSES
  - 22 : MOHR'S CIRCLE METHOD
  - 23 : TESTING OF MATERIALS – I
  - 24 : SHEAR FORCES AND BENDING MOMENTS – I
  - 25 : SHEAR FORCES AND BENDING MOMENTS – II
  - 26 : BENDING STRESSES IN BEAMS
  - 27 : SHEAR STRESSES IN BEAMS
  - 28 : TESTING OF MATERIALS–II
- INDEX

Catalogue Checklist

**MECHANICS OF SOLIDS**  
**DETAILED CONTENTS**

**Chapter 1 INTRODUCTION**

- 1-1. Mechanics
- 1-2. Fundamental concepts
- 1-3. Scalars, vectors and tensors
- 1-4. Fundamental principles
- 1-5. System of units: SI units  
BASIC SI UNITS
- 1-6. Using SI units  
Questions I

**Chapter 2 VECTORS**

- 2-1. Vectors
- 2-2. Basic operations with vectors
- 2-3. Components, unit vectors and position vector
- 2-4. Vector algebra: Dot product
- 2-5. Vector algebra: Cross product
- 2-6. Triple product of vectors  
Examples II

**Chapter 3 COPLANAR CONCURRENT FORCES**

- 3-1. Forces and force systems
- 3-2. Principle of transmissibility
- 3-3. Resultant of a force system
- 3-4. Resultant of two coplanar concurrent forces
- 3-5. Resultant of several coplanar forces acting at a point: Law of polygon of forces
- 3-6. Resolution of a force
- 3-7. Resultant of a coplanar concurrent force system: Resolution method  
Examples III

**Chapter 4 MOMENTS**

- 4-1. Moment of a force
- 4-2. Principle of moments: Varignon's theorem
- 4-3. Coplanar applications
- 4-4. Levers
- 4-5. A simple pulley  
Examples IV

**Chapter 5 PARALLEL FORCES AND COUPLES**

- 5-1. Parallel force system
- 5-2. Couples
- 5-3. Equivalent couples
- 5-4. Addition of couples
- 5-5. Operations with couples
- 5-6. Equivalent systems of forces
- 5-7. Equipollent systems of vectors  
Examples V

**Chapter 6 RESULTANT OF COPLANAR FORCE SYSTEMS**

- 6-1. Introduction
- 6-2. Resultant of parallel force system
- 6-3. Centre of parallel forces
- 6-4. Resultant of a general coplanar force system
- 6-5. Concentrated and distributed loads  
Examples VI

**Chapter 7 EQUILIBRIUM OF COPLANAR FORCE SYSTEMS**

- 7-1. Equilibrium  
EQUILIBRIUM OF A PARTICLE
- 7-2. Equilibrium of a particle
- 7-3. Resultant and equilibrant
- 7-4. Principle of action and reaction
- 7-5. Free body and free body diagram
- 7-6. Tensions of strings
- 7-7. Equilibrium of three forces acting on a particle: Lami's theorem
- 7-8. Equilibrium of a particle under three forces acting on it
- 7-9. External and internal forces

- 7-10. Tension and compression
- 7-11. Connected bodies  
EQUILIBRIUM OF A RIGID BODY
- 7-12. Equilibrium of a rigid body
- 7-13. Conditions of equilibrium for a system of coplanar forces acting on a body
- 7-14. Types of supports
- 7-15. Solution of problems  
Examples VII

**Chapter 8 REACTIONS**

- 8-1. Axial and transverse forces
- 8-2. Structural members
- 8-3. Types of beams
- 8-4. Reactions by proportions
- 8-5. Reactions by equations of statics: Principle of super-position
- 8-6. Determinate and indeterminate beams/structures  
Examples VIII

**Chapter 9 TRUSSES**

- 9-1. Engineering applications of connected bodies  
TRUSSES
- 9-2. Introductory
- 9-3. Assumptions made in the analysis of a truss
- 9-4. Truss notations
- 9-5. Common types of trusses
- 9-6. Analysis of a truss
- 9-7. Method of joints
- 9-8. Method of sections
- 9-9. Determinateness of a truss
- 9-10. Truss with two hinges  
Examples IX

**Chapter 10 GRAPHIC STATICS**

- 10-1. Introductory
- 10-2. Basic concepts
- 10-3. Conditions of equilibrium of a point
- 10-4. Three force equilibrium of coplanar, non-concurrent, non-parallel forces
- 10-5. Resultant of non-concurrent, non-parallel forces: Funicular polygon
- 10-6. Resultant of parallel forces
- 10-7. Parallel forces: Centroid problems
- 10-8. Graphical conditions of equilibrium
- 10-9. Reactions of beams and trusses
- 10-10. Graphical methods applied to trusses
- 10-11. Force diagrams for individual joints of a truss
- 10-12. The Maxwell diagram
- 10-13. Method of substitution
- 10-14. Truss with two hinges with inclined loads  
Examples X

**Chapter 11 PROPERTIES OF LINES, AREAS AND SOLIDS**

- 11-1. Introductory
- 11-2. Centre of gravity
- 11-3. Centre of mass
- 11-4. First moment of an element of line and area
- 11-5. First moment of a line segment and a finite area
- 11-6. Centroids of lines and areas
- 11-7. Centroids of symmetrical lines and areas
- 11-8. Centroids by integration
- 11-9. Summary of centroids of common figures
- 11-10. Centroids of composite areas
- 11-11. Theorems of Pappus—Guldinus
- 11-12. Centroid of volumes  
Examples XI

**MECHANICS OF SOLIDS**  
**DETAILED CONTENTS**

**Chapter 12 AREA MOMENTS OF INERTIA**

- 12-1. Introduction
- 12-2. Definitions
- 12-3. Radius of gyration
- 12-4. Parallel axis theorem
- 12-5. Moment of inertia by integration
- 12-6. Moment of inertia of composite areas
- 12-7. Product of inertia
- Examples XII

**Chapter 13 FRICTION**

- 13-1. Introduction
- 13-2. Types of friction
- 13-3. Characteristics of dry friction
- 13-4. Angle of friction: Cone of friction
- 13-5. Angle of repose
- 13-6. Types of problems
- 13-7. Equilibrium on a rough inclined plane
- APPLICATIONS OF FRICTION
- 13-8. The wedge
- 13-9. The screw
- 13-10. Screw-jack
- 13-11. Journal bearings, axle friction
- 13-12. Thrust bearings: Disc friction
- 13-13. Thrust bearing: Uniform wear
- 13-14. Friction plate clutches
- 13-15. Rolling resistance
- Examples XIII

**Chapter 14 BELT AND ROPE DRIVES**

- 14-1. Belt drive
- 14-2. Velocity ratio
- 14-3. Compound belt drive
- 14-4. Length of belt: Open drive
- 14-5. Length of belt: Crossed drive
- 14-6. Transmission of power
- 14-7. Centrifugal tension
- 14-8. Optimum speed for maximum power
- 14-9. Rope drive
- Examples XIV

**Chapter 15 LIFTING MACHINES**

- 15-1. Definitions
- 15-2. Basic machines
- 15-3. Differential wheel and axle
- 15-4. Differential pulley-block
- 15-5. Differential screw
- 15-6. Pulley-blocks
- 15-7. Lifting machines with toothed gearing
- 15-8. Worm gearing
- 15-9. Worm geared screw jack
- 15-10. Worm geared pulley block
- 15-11. Linear law
- 15-12. Reversibility of a machine
- 15-13. Compound efficiency
- Examples XV

**Chapter 16 SIMPLE STRESS**

- 16-1. Introduction to Mechanics of deformable bodies
- 16-2. Loading a bar
- 16-3. Principle of superposition
- 16-4. Classification of loaded bar
- 16-5. Gradual, sudden, impact and shock loading
- 16-6. Tension and compression
- 16-7. Resistance of an axially loaded bar
- 16-8. Concept of a stress

- 16-9. Normal stresses
- 16-10. Simple stress
- 16-11. Design of an axially loaded member
- 16-12. Non-prismatic bars
- 16-13. Axial force diagram
- 16-14. Rotating rings
- 16-15. Shear
- 16-16. Shear stress
- 16-17. Pure shear
- 16-18. Bearing stress
- Examples XVI

**Chapter 17 SIMPLE STRAIN**

- 17-1. Introduction
- 17-2. Linear strain
- 17-3. Shear strain
- 17-4. Elasticity
- 17-5. Hooke's law
- 17-6. Axial and shear deformations
- 17-7. Bars of varying section
- 17-8. Bars of uniformly varying cross-section
- 17-9. A bar subjected to self-weight
- 17-10. Bar of uniform strength
- 17-11. Bars subjected to uniformly varying loads
- 17-12. Pin-jointed determinate frames
- 17-13. Lateral strain: Poisson's ratio
- 17-14. Biaxial and triaxial deformations
- Examples XVII

**Chapter 18 STATICALLY INDETERMINATE MEMBERS**

- 18-1. Introduction
- 18-2. Composite bars
- 18-3. Equivalent modulus of a composite bar
- 18-4. Pin-jointed bars
- 18-5. Stresses due to lack of fit
- Examples XVIII

**Chapter 19 THERMAL STRESSES AND STRAINS**

- 19-1. Introduction
- 19-2. General
- 19-3. Coefficient of linear expansion
- 19-4. Stresses due to changes of temperature
- 19-5. Compound bar
- 19-6. Composite bar
- 19-7. Bars of uniformly varying cross-section
- 19-8. Shrinking-on
- Examples XIX

**Chapter 20 STRESSES ON INCLINED PLANES**

- 20-1. Introduction
- 20-2. Stresses on inclined plane of a bar under tension or compression
- 20-3. State of pure shear: Stresses on inclined planes
- 20-4. Linear strain of the diagonal BD
- 20-5. Relation between the Moduli of Elasticity and Rigidity for a given material
- 20-6. Bulk Modulus
- 20-7. Relation between three elastic constants
- Examples XX

**Chapter 21 COMBINED STRESSES: PRINCIPAL STRESSES**

- 21-1. Introduction
- 21-2. Stress components
- 21-3. Element subjected to general plane stress system
- 21-4. Principal planes and principal stresses
- 21-5. Planes carrying maximum shear stress
- 21-6. Element subjected to principal stresses
- Examples XXI

**MECHANICS OF SOLIDS**  
**DETAILED CONTENTS**

**Chapter 22 MOHR'S CIRCLE METHOD**

- 22-1. Mohr's circle method
- Examples XXII

**Chapter 23 TESTING OF MATERIALS – I**

- 23-1. Introduction
- 23-2. Metals and alloys
- 23-3. Testing machines
- Tension Tests
- 23-4. The complete tensile test
- 23-5. Stress–strain diagram
- 23-6. Mechanical properties of materials
- 23-7. Modulus of elasticity
- 23-8. Yield point by the offset method: Proof stress
- 23-9. Secant modulus
- 23-10. Specific modulus of elasticity
- 23-11. Resilience
- 23-12. Toughness
- Compression Tests
- 23-13. The compression test
- 23-14. Compression tests on wood and concrete
- 23-15. Permissible stress: Factor of safety
- Stress Concentration
- 23-16. Stress concentration
- 23-17. Stress concentration factor
- 23-18. Importance of stress concentration under different loads
- 23-19. Elastoplastic materials: Limit design
- Examples XXIII

**Chapter 24 SHEAR FORCES AND BENDING MOMENTS – I**

- 24-1. Introductory
- 24-2. Types of beams
- 24-3. Actions on the cross-section of a beam
- 24-4. Sign conventions
- 24-5. Shear Force (S.F.) and Bending Moment (B.M.) diagrams
- 24-6. Cantilevers
- 24-7. Simply supported beams
- 24-8. Relation between the S.F. and the B.M. at a cross-section of a beam
- 24-9. Overhanging beams
- Examples XXIV

**Chapter 25 SHEAR FORCES AND BENDING MOMENTS – II**

- 25-1. Introduction
- 25-2. S.F. and B.M. diagrams for beams with variable loading
- 25-3. Beams with end couples
- 25-4. Beams with an intermediate couple
- 25-5. Supports offering pressures
- 25-6. Cantilever structures
- 25-7. Principle of superposition
- 25-8. Moment and loading diagrams drawn from shear diagrams
- 25-9. Beams subjected to inclined loads

- 25-10. Inclined beams
- 25-11. Graphical methods
- Examples XV

**Chapter 26 BENDING STRESSES IN BEAMS**

- 26-1. Simple bending
- 26-2. Theory of simple bending
- 26-3. Modulus of section or section modulus
- 26-4. Application of bending equation
- 26-5. Modulus of rupture
- 26-6. Beams of rectangular section
- 26-7. Strength of sections
- 26-8. Economic sections
- 26-9. Unsymmetrical and built-up sections
- 26-10. Modulus figure
- 26-11. Beam of uniform strength
- 26-12. Strain energy in flexure
- 26-13. Laminated springs
- Examples XVI

**Chapter 27 SHEAR STRESSES IN BEAMS**

- 27-1. Resistance to shear force: shear stresses
- 27-2. Shear flow
- 27-3. Shear stresses in beams of rectangular and circular sections
- 27-4. Shear stresses in beams of I-section
- 27-5. Assumptions and limitations of the shear stresses formula
- 27-6. Shear stresses in built-up sections
- 27-7. Beam of square section with one diagonal horizontal
- 27-8. Design for flexure and shear
- 27-9. Principal stresses and Principal planes at a point in a beam section
- 27-10. Curves of principal stresses
- 27-11. Principal stresses in an I-section
- 27-12. Strain-energy due to shear in a beam
- Examples XVII

**Chapter 28 TESTING OF MATERIALS–II**

- 28-1. Flexure tests
- 28-2. Important flexure tests
- 28-3. Shear tests
- 28-4. Hardness
- 28-5. Brinell hardness test
- 28-6. Rockwell hardness test
- 28-7. Impact tests
- 28-8. Fatigue
- 28-9. Stress spectrum
- 28-10. Fatigue tests
- 28-11. S-N curve
- 28-12. Endurance limit or fatigue limit
- 28-13. Fatigue failure
- Examples XXVIII
- Questions

**Index**