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# Geotechnical Engineering Examination Home Board For

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Principles of Foundation Engineering  
Civil Engineering Reference Manual for the PE Exam  
Introductory Soil Mechanics and Foundations  
Eminent Civil Engineers  
Occupational Outlook Handbook  
101 Solved Civil Engineering Problems  
Principles of Geotechnical Engineering  
Limit Analysis in Soil Mechanics  
Geotechnical and Foundation Engineering  
A Manual of Geology for Civil Engineers  
U.S. Navy Civil Engineer Corps Bulletin  
A Guide to Soil Mechanics  
Bridge Design for the Civil and Structural Professional Engineering Exams  
Slope Analysis  
Fundamentals of Soil Behavior  
Applications of the Theory of Plasticity in Soil Mechanics  
Shallow Foundations  
Plasticity and Geotechnics  
Earthworks  
An Introduction to Frozen Ground Engineering  
Geotechnical Engineering Calculations and Rules of Thumb  
Construction and Geotechnical Engineering Using Synthetic Fabrics  
Annual Report  
Mechanics of Reinforced Soil  
Soil Mechanics  
Hydrogeology and Engineering Geology

Geologic Hazards  
Geotechnical Modelling  
Seismic Principles Practice Exams for the California Special Civil Engineer Examination  
Geological Aspects of Hazardous Waste Management  
Civil Engineering  
Pile Foundations in Engineering Practice  
Quick Reference for the Civil Engineering PE Exam  
Soil Survey for Engineering  
Foundation Vibration Analysis  
Soil Mechanics and Geotechnical Engineering  
An Introduction to Geotechnical Processes  
Designing with Geosynthetics  
Professional Engineer  
The Surface of the Earth

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## **COOLEY JOHN**

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### Principles of Foundation Engineering

Elsevier Science & Technology

Plasticity and Geotechnics is the first attempt to summarize and present in a single volume the major achievements in the field of plasticity theory for geotechnical materials and its applications to geotechnical analysis and design. The book emerges from the author's belief that

there is an urgent need for the geotechnical and solid mechanics community to have a unified presentation of plasticity theory and its application to geotechnical engineering. *Civil Engineering Reference Manual for the PE Exam* Elsevier Publishing Company This book discusses basic procedures for soil survey for engineering projects as an aid to engineers, planners, geologists, and other earth scientists. It will be of particular benefit to practitioners in developing countries.

### **Introductory Soil Mechanics and**

### **Foundations** Brooks/Cole

Frozen Ground Engineering first introduces the reader to the frozen environment and the behavior of frozen soil as an engineering material. In subsequent chapters this information is used in the analysis and design of ground support systems, foundations, and embankments. These and other topics make this book suitable for use by civil engineering students in a one-semester course on frozen ground engineering at the senior or first-year-graduate level. Students are assumed to have a working knowledge of

undergraduate mechanics (statics and mechanics of materials) and geotechnical engineering (usual two-course sequence). A knowledge of basic geology would be helpful but is not essential. This book will also be useful to advanced students in other disciplines and to engineers who desire an introduction to frozen ground engineering or references to selected technical publications in the field.

**BACKGROUND** Frozen ground engineering has developed rapidly in the past several decades under the pressure of necessity. As practical problems involving frozen soils broadened in scope, the inadequacy of earlier methods for coping became increasingly apparent. The application of ground freezing to geotechnical projects throughout the world continues to grow as significant advances have been made in ground freezing technology. Freezing is a useful and versatile technique for temporary earth support, groundwater control in difficult soil or rock strata, and the formation of subsurface containment barriers suitable for use in groundwater remediation projects.

Eminent Civil Engineers CRC Press

This text presents the mechanical aspects

of reinforced soil (RS) behaviour. Beginning with simple reinforced soil models, it discusses various aspects of this material, such as properties of its constituents, and stresses and strains in reinforced soil, up to the more complex analysis of RS structures. Its scope and level ensures it will be a valuable resource for students, academics and geotechnical engineering professionals alike.

**Occupational Outlook Handbook** John Wiley & Sons

Of all the PE exams, more people take the civil than any other discipline. The eight-hour, open-book, multiple-choice exam is given every April and October. The exam format is breadth-and-depth -- all examinees are tested on the breadth of civil engineering in the morning session; in the afternoon, they select one of five specialties to be tested on in-depth. Our civil PE books are current with the exam; they reflect the new format, and they reference all the same codes used on the exam. Quick Reference, which facilitates finding formulas during the exam; and subject-specific reviews on the complex areas of bridge and timber design. -- Organizes all important formulas for fast

access during the exam -- Corresponds to topics in the Civil Engineering Reference Manual, 8th ed.

101 Solved Civil Engineering Problems  
CRC Press

For courses on Geosynthetics.

Geosynthetic materials have entered the mainstream in the professional arena and are no longer considered new construction material. Koerner was the first college-level text published on the subject in its first edition; this revision emphasizes design by function; it overviews all types of geosynthetics, with stand-alone units on particular materials.

Principles of Geotechnical Engineering  
Professional Publications Incorporated  
Modelling forms an implicit part of all engineering design but many engineers engage in modelling without consciously considering the nature, validity and consequences of the supporting assumptions. Derived from courses given to postgraduate and final year undergraduate MEng students, this book presents some of the models that form a part of the typical undergraduate geotechnical curriculum and describes some of the aspects of soil behaviour

which contribute to the challenge of geotechnical modelling. Assuming a familiarity with basic soil mechanics and traditional methods of geotechnical design, this book is a valuable tool for students of geotechnical and structural and civil engineering as well as also being useful to practising engineers involved in the specification of numerical or physical geotechnical modelling.

Limit Analysis in Soil Mechanics Spon Press  
Of all the PE exams, more people take the civil than any other discipline. The eight-hour, open-book, multiple-choice exam is given every April and October. The exam format is breadth-and-depth -- all examinees are tested on the breadth of civil engineering in the morning session; in the afternoon, they select one of five specialties to be tested on in-depth. Our civil PE books are current with the exam; they reflect the new format, and they reference all the same codes used on the exam. 101 Solved Problems, for extra problem-solving practice. -- Practice problems in essay format cover a wide range of breadth-and-depth exam topics -- Includes full solutions

### **Geotechnical and Foundation**

**Engineering** John Wiley & Sons  
First definitive coverage of use of permeable synthetic fabrics in underground construction and geotechnical engineering. Applications areas grouped into categories of separation, reinforcement, drainage, erosion control, flexible forms and impermeable fabrics. All available guidelines for fabric use are presented. Appendixes provide information on manufacturers, dealers, contractors, and specialists in the fabric field. Will guide users of these materials for years to come.  
A Manual of Geology for Civil Engineers Professional Publications Incorporated  
Geotechnical Engineering Calculations Manual offers geotechnical, civil and structural engineers a concise, easy-to-understand approach the formulas and calculation methods used in of soil and geotechnical engineering. A one stop guide to the foundation design, pile foundation design, earth retaining structures, soil stabilization techniques and computer software, this book places calculations for almost all aspects of geotechnical engineering at your finger tips. In this book, theories is explained in a

nutshell and then the calculation is presented and solved in an illustrated, step-by-step fashion. All calculations are provided in both fps and SI units. The manual includes topics such as shallow foundations, deep foundations, earth retaining structures, rock mechanics and tunnelling. In this book, the author's done all the heavy number-crunching for you, so you get instant, ready-to-apply data on activities such as: hard ground tunnelling, soft ground tunnelling, reinforced earth retaining walls, geotechnical aspects of wetland mitigation and geotechnical aspects of landfill design. • Easy-to-understand approach the formulas and calculations • Covers calculations for foundation, earthworks and/or pavement subgrades • Provides common codes for working with computer software • All calculations are provided in both US and SI units

### **U.S. Navy Civil Engineer Corps Bulletin** Springer

Elements of bridge design appear in problems on the civil and structural PE exams. This book will help you solve these problems successfully. The authors summarize the basics of bridge design for

different types of loads, using five design examples. Two practice problems encourage you to test your design skills. Step-by-step solutions are included.

*A Guide to Soil Mechanics* CRC Press

There's nothing like a practice exam to help you get ready for the real thing, and this book gives you two. Each 2-hour exam is designed to prepare you for the seismic questions on the California Special Civil Engineer exam. Step-by-step solutions are provided for all 94 multiple-choice problems. Please note that the problems reference the 2001 CBC.

*Bridge Design for the Civil and Structural Professional Engineering Exams* CRC Press

The study of the solid part of the earth on which structures are built is an essential part of the training of a civil engineer. Geotechnical processes such as drilling, pumping and injection techniques enhance the viability of many construction processes by improving ground conditions. Highlighting the ground investigation necessary for the process, the likely improvement in strength of treated ground and testing methods *An Introduction to Geotechnical Processes* covers the elements of ground treatment and

improvement, from the control of groundwater, drilling and grouting to ground anchors and electro-chemical hardening.

*Slope Analysis* Professional Publications Incorporated

A coverage of the design process via real world case studies and design problems are detailed in this text. A new chapter "Spreadsheet Applications For Geotechnical Engineering" by Thomas F. Wolff, instructs the student how to make use of spreadsheets in the theories of foundation engineering.

*Fundamentals of Soil Behavior* John Wiley & Sons

This book describes an alternative approach, based on the 'strength-of-materials' approach that has proved so successful in structural analysis. It employs tapered bars and beams, termed cones. This straightforward approach allows the analysis of most sites, and provides results of engineering accuracy obtained with conceptual clarity and physical insight."

**Applications of the Theory of Plasticity in Soil Mechanics** Whittles  
Written by seven civil engineering

professors, this book is designed to be used as either a stand-alone volume or in conjunction with *Civil Engineering: License Review*. Engineers looking for exam problems, a sample exam, and detailed solutions to every problem should find this book useful.

**Shallow Foundations** CRC Press

Hardbound. During the last ten years, our understanding of the perfect plasticity and the associated flow rule assumption on which limit analysis is based has increased considerably. Many extensions and advances have been made in applications of limit analysis to the area of soil dynamics, in particular, to earthquake-induced slope failure and landslide problems and to earthquake-induced lateral earth pressures on rigid retaining structures. The purpose of the book therefore is in part to discuss the validity of the upper bound work (or energy) method of limit analysis in a form that can be appreciated by a practicing soil engineer, and in part to provide a compact and up-to-date summary of recent advances in the applications of limit analysis to earthquake-induced stability problems in soil mechanics.

**Plasticity and Geotechnics** Brooks/Cole  
Nothing can be built without some excavation and transfer of soil (or rock) from one part of a site to another and this makes earthworks the most common product of civil engineering operations. Although normally seen as major structures, such as earth fill dams or large highways or railway embankments, the majority of earthworks are connected with minor civil works and building

construction. Whatever the type of work, the principles are the same. **Earthworks**: a guide accumulates information on topics that are essential to earthworks engineering.

**Earthworks** Springer  
The author has included case studies and examples to illustrate each concept behind soil mechanics for civil engineering undergraduates. It is completely up to date and includes the latest thinking, especially on critical state soil mechanics.

**An Introduction to Frozen Ground Engineering** Oxford University Press, USA  
The Civil Engineering Reference Manual fully prepares applicants for the civil PE exam--by far the most popular of the PE disciplines. Every exam subject is thoroughly covered, with illustrations and practice problems. Extensively indexed and carefully researched, this book serves as a comprehensive manual for daily reference.