LS/LSIT VIDEO EXAM PREPARATION COURSE

WORKBOOK

EDITED BY

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This workbook is intended for Caltrans employees preparing for the California Land Surveyor (LS) or Land Surveyor in Training (LSIT) examinations. Materials presented in this workbook are typical of examination subjects and are not intended to be a comprehensive, complete, or exhaustive coverage of the entire scope of land surveying practice. Users of this workbook and accompanying videos assume all responsibility for its use. Caltrans, the Editor, and the various contributors to the workbook and accompanying videos do not accept or assume any responsibility for its use, including responsibilities for errors, omissions, and oversights in preparation of the materials included in the workbook and accompanying videos. Users of this workbook and accompanying videos should contact the California State Board of Registration for Professional Engineers and Land Surveyors regarding their current rules and schedules for LSIT and LS Examinations prior to sitting for either examination.

INTRODUCTION

This course is designed to help you prepare for the Land Surveyor in Training Examination (LSIT) and the California Land Surveyor Exam (LS). It should be used as a part of your preparation for the exams, not your only preparation. The course introduces typical topics covered on the two exams and can be used as a bench mark against which to measure your readiness for exam questions.

The course includes a set of video tapes and a workbook and is composed of 16 units: 15 on different surveying topics and one on general exam preparation. Each unit was authored by a practicing licensed land surveyor. The course is designed for both the LSIT and LS exams, so you will find some units more useful than others depending on which exam you are taking.

The units designed for the LSIT exam are Basic Survey Math, Basic Measurements, Traversing, Leveling, and Areas and Volumes. Units written with LS candidates in mind are The Global Positioning System, California Coordinate System, U. S. Public Land Survey System, Principles of Boundary Determination, Water Boundary Location, Legal Descriptions, Photogrammetry and California Law for Surveyors. The units on Exam Preparation, Route Surveying and Azimuth Determination by Celestial Observation are not as easily categorized.

This is not to say that an LS candidate need not review Basic Measurements or an LSIT candidate need not review Water Boundary Location. Those taking the LS exam should be thoroughly familiar with all of the material covered for the LSIT. LSIT candidates must be familiar with the LS topics, with the understanding that LSIT problems will not be as complex or require the same expertise as problems on the LS Exam.

The course can be used to best advantage by treating the table of contents like a menu. Units can be reviewed in any particular order you choose. Prioritize the units based on your personal needs. Work through each unit you select by reviewing the workbook, watching the video tape and solving the problems. Completing work on a unit will help you develop an accurate assessment of your exam readiness for the topic.

Each workbook unit begins with an introductory statement and a list of the types of problems you are most likely to encounter on an exam. Units also include a list of key terms, a video outline, a set of sample problems and their solutions and a reference section.

The “Introduction” and “Performance Expected on the Exams” sections of the workbook list types of questions posed on exams as well as the breadth of the subject matter in the unit. These sections are designed to give you a taste of what will appear on the video.

The “Key Terms” and “Sample Test Questions” sections of the workbook are designed to test your knowledge of the topics. You will have difficulty on the exam if you do not acquire the basic vocabulary of the profession. Sample test questions are designed by presenters to both test general knowledge of surveying and to give you practice with the type of questions you are most likely to encounter on the tests. Keep in mind that the LSIT is a closed book test with a multiple choice format.

Some of the sample test problems are from past LS exams. These problems are identified by stating the problem number and year the problem appeared on the exam as in the following example: Problem D-5, 1984 LS. You should work as many old exam problems as possible. LS exams from previous years can be purchased from the California State Board of Registration for Professional Engineers and Land Surveyors for $3.23 per test.

The “Answer Key” not only gives you solutions to the problems, but in most cases shows the solution methodology. Knowing the problem solving methodology is the key to success on the exams.

Finally, the “Reference” section at the end of each unit is provided as a guide to further study. References given are not meant to be all inclusive, but reflect the preference of each individual instructor.

Each workbook unit contains a “Video Presentation Outline,” which serves as a preview of the information presented in the video. More importantly it provides a framework for note taking while viewing the video. You can personalize the video outline, which includes formulas, sketches and problem solutions from the video, with your own comments and notes. The workbook Video Presentation Outlines, annotated with your own notes, can be used as a reference when you take the LS exam.

Video tapes for each unit vary in their format, length and method of presentation. In presenting the material, the instructors have used their experience and personal teaching styles to emphasize certain important facts. The tapes, being only one to two hours long, are not meant to be a comprehensive teaching lecture. They are designed to review topics likely to appear on the exams, offer exam-taking tips, and present useful information such as mathematical formulas and problem-solving methodologies.

This course can help organize your test preparation. After using the course to identify topics for further study, you should develop a plan to increase your knowledge in these areas. Your program of study might include seminars, college courses or simply studying one of the texts recommended in the reference sections in the workbook. Certainly you should find and solve as many surveying problems as possible. There are several books of problems available and referenced in the workbook chapters.

When all is said and done, the key to success on the exam is based on thorough knowledge of the subject matter and lots of practice solving problems. As Robert McComb says, the most important principle of exam preparation is “study, study, study.”

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