SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead®

STUDY GUIDE
METER TECHNICIAN
2 & 2A TEST

TEST #2625

INTRODUCTION

The **2625 Meter Technician 2, 2A** Test is a job knowledge test designed to cover the major knowledge areas necessary to perform the job. This Guide contains strategies to use for taking tests and a study outline, which includes knowledge categories, major job activities, and study references.

TEST SESSION

It is important that you follow the directions of the Test Administrator exactly. If you have any questions about the testing session, be sure to ask the Test Administrator before the testing begins. During testing, you may NOT leave the room, talk, smoke, eat, or drink. Since some tests take several hours, you should consider these factors before the test begins.

All cellular/mobile phones or other electronic equipment will NOT be allowed in the testing area.

All questions on this test are multiple-choice or hot spot questions. Multiple choice questions have four possible answers. Hot spot questions have a picture, and you must click the correct spot on the picture to answer the question. All knowledge tests will be taken on the computer. For more information on this, please see the next section of this study guide on *Computer Based Testing*.

The test has a three hour time limit. A scientific calculator will be provided for you to use during the test. The calculator provided during the test session will be one of these models:

Casio fx-250HC, Texas Instruments TI-30XA, Texas Instruments TI-36X

You will NOT be able to bring or use your own calculator during testing.

You will receive a Test Comment form so that you can make comments about test questions. Write any comments you have and turn it in with your test when you are done.

INFORMATION GUIDE FEEDBACK

At the end of this Guide you have been provided with an Information Guide Feedback page. If a procedure or policy has changed, making any part of this Guide incorrect, your feedback would be appreciated so that corrections can be made.

TEST TAKING STRATEGIES

INTRODUCTION

The **2625 Meter Technician 2 & 2A Test** multiple-choice questions and may also contain hot spot questions. The purpose of this section is to help you to identify some special features of a multiple-choice test and to suggest techniques for you to use when taking one.

Your emotional and physical state during the test may determine whether you are prepared to do your best. The following list provides common sense techniques you can use before the test begins.

CONFIDENCE

If you feel confident about passing the test, you may lose some of your anxiety. Think of the test as a way of demonstrating how much you know, the skills you can apply, the problems you can solve, and your good judgment capabilities.

PUNCTUALITY

Arrive early enough to feel relaxed and comfortable before the test begins.

CONCENTRATION

Try to block out all distractions and concentrate only on the test. You will not only finish faster but you will reduce your chances of making careless mistakes. If possible, select a seat away from others who might be distracting. If lighting in the room is poor, sit under a light fixture. If the test room becomes noisy or there are other distractions or irregularities, mention them to the Test Administrator immediately.

BUDGET YOUR TIMES

Pace yourself carefully to ensure that you will have enough time to complete all items and review your answers.

READ CRITICALLY

Read all directions and questions carefully. Even though the first or second answer choice looks good, be sure to read all the choices before selecting your answer.

MAKE EDUCATED GUESSES

Make an educated guess if you do not know the answer or if you are unsure of it.

CHANGING ANSWERS

If you need to change an answer when testing on a computer, be sure that the new answer is selected instead of the old one.

RETURN TO DIFFICULT QUESTIONS

If particular questions seem difficult to understand, make a note of them, continue with the test and return to them later.

DOUBLE CHECK MATH CALCULATIONS

Use scratch paper to double check your mathematical calculations.

REVIEW

If time permits, review your answers. Do the questions you skipped previously. When testing on a computer, make sure each multiple choice question has a dot next to the correct answer.

Remember the techniques described in this section are only suggestions. You should follow the test taking methods that work best for you.

JOB KNOWLEDGE CATEGORIES AND STUDY REFERENCES

Below are the major job knowledge areas (topics) covered on the **2625 Meter Technician 2, 2A Test** and the associated study references. Listed next to each knowledge category is the number of items on the exam that will measure that topic. You can use this information to guide your studying. Some exams also contain additional pretest items. Pretest items will appear just like all of the other items on your exam, but they will not affect your score. They are an essential part of ensuring the **2625 Meter Technician 2 & 2A Test** remains relevant to successful performance of the job.

There are a total of 130 items on the **2625 Meter Technician 2 & 2A Test** and the passing score is 70%. This score was determined during the test validation process.

METERING THEORY (44 ITEMS)

Knowledge of Single-phase and Poly-phase metering principles including: meter wiring; meter calibration; meter construction; meter characteristics; meter phases; testing standards; meter containment; testing procedures; trigonometry concepts as they relate to Single-phase and Poly-phase theory; register multipliers; Ohm's Law; Blondell's theory of metering; electromechanical theory; energy and demand registers; heat dissipation in conductors; magnetic theory; AC and DC theory; capacitive reactance; converting energy; current transformer ratios; current and voltage in phase relationships; electromotive force; frequency; fuses; impedance and inductive reactance; phase angles; polarity; power consumption; power factor; and primary and secondary current.

References for Metering Theory:

Alexander, Richard. Pocket Guide to Watthour Meters. 2nd Ed. California: Alexander Publications, 1996.

EEI Meter and Service Committee, Handbook for Electricity Metering. 10th Ed. Washington, D.C.: Edison Electric Institute, 1981.

Hart, George. Ugly's Electrical References. Burleson Distributing Corporation, 2005.

Mileaf, Harry, ed. Electricity One-Seven. 2nd ed. New Jersey: Prentice Hall, 1996.

EMS Meter Shop Meter Technician Training: Singlephase and Polyphase course materials and references.

METER COMPONENTS AND SHOP PROCEDURES (30 ITEMS)

Knowledge of Meter Shop procedures including: computer equipment and programs/software used for programming and testing meters; tools and equipment used for programming and testing including scanners, probes, and meter boards; paper and electronic forms used in the Meter Shop; Meter Shop work stations and associated functions; meter switches; sampling procedures; procedures and related standards for verifying the accuracy and functionality of meters and metering equipment; Meter Shop standards; procedures for inspecting meters and metering equipment; methods for reading metering information. Knowledge of Single-phase and Poly-phase meter characteristics including: solid-state and electro-mechanical meter forms and construction; meter wiring and phases; meter parts/components (for example, disks, switches, face/name plates, etc…)

References for Meter Shop Procedures & Meter Characteristics

On the job training.

EMS Meter Shop Meter Technician Training: Singlephase and Polyphase course materials and references.

EEI Meter and Service Committee, Handbook for Electricity Metering. 10th Ed. Washington, D.C.: Edison Electric Institute, 1981.

Resources on the Meter Shop shared drive (for example, job aids and procedures, meter codes, technical manuals for serviced meters, etc…).

SAFETY (41 ITEMS)

Knowledge of safety procedures and standards associated with the duties of a Meter Technician 2 including knowledge of: SCE's Accident Prevention Manual as it relates to all work being performed; general first aid (for example, electrical shock, procedures for reporting emergencies, etc…); hearing standards and protection; how to handle electrical equipment and power tools (for example, grounding techniques, de-energizing equipment, voltage requirements, etc…); lifting techniques; general safety behaviors (for example, maintaining a safe work space, ladder use, etc…).

References for Safety

Related sections in The SCE Accident Prevention Manual*: Policy Section, General Rules, First Aid Rules, Definitions

MSO Standards of Performance Manual and Addendum*

*Can be found on the SCE portal

MATH (15 ITEMS)

Knowledge of mathematic principles necessary for testing meter and performing other metering calculations (for example, calculating register ratios, etc…) including: algebra, fractions, decimals, units of measurement. Knowledge of trigonometric functions and related laws (for example, Kirchhoff's law, Ohms law, etc…) as they apply to metering.

References for Math

Any basic math book that covers the concepts listed above.

Alexander, Richard. Pocket Guide to Watthour Meters. 2nd Ed. California: Alexander Publications, 1996.

EEI Meter and Service Committee, Handbook for Electricity Metering. 10th Ed. Washington, D.C.: Edison Electric Institute, 1981.

Hart, George. Ugly's Electrical References. Burleson Distributing Corporation, 2005.

Mileaf, Harry, ed. Electricity One-Seven. 2nd ed. New Jersey: Prentice Hall, 1996.

EMS Meter Shop Meter Technician Training: Singlephase and Polyphase course materials and references.

STUDY GUIDE FEEDBACK

Please use this page to notify us of any changes in policies, procedures, or materials affecting this guide. Once completed, return to:

Southern California Edison Human Resources - Performance Assessment Services G.O. 4, Ground Floor 8631 Rush St. Rosemead, CA 91770

Test Name: 2625 Meter Technician 2, 2A Test

If you have encountered any discrepancies in the test, please provide an explanation and the page number below.

COMMENTS