Study Guide for Apprentice Structural Mechanic Knowledge Test

Test Number: 2812

Human Resources
Southern California Edison Company
Introduction

The 2812 Apprentice Structural Mechanic Test is a job knowledge designed to cover the major knowledge areas necessary to perform the apprentice structural mechanic job. This guide contains strategies to use for taking tests and a study outline, which includes knowledge categories 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, pagers or other electronic equipment will NOT be allowed in the testing area.

All questions on this test are multiple-choice format and have four possible answers. All knowledge tests will be taken on the computer. Consult the following link and click on Computer Based Testing for more information: www.edison.com/studyguides.

The test has a 3-hour time limit.

No aids are allowed during testing (e.g., calculator).

You will have an opportunity to complete a test comment form during the testing session, should you have comments about test questions.

Study Guide Feedback

At the end of this guide, you have been provided with a study 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 test contains multiple-choice questions. The purpose of this section is 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.

<table>
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<th>Technique</th>
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<tr>
<td><strong>Be confident</strong></td>
<td>- If you feel confident about passing the test, you may lose some of your anxiety.</td>
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<td>- 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.</td>
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<td><strong>Be punctual</strong></td>
<td>- Arrive early enough to feel relaxed and comfortable before the test begins.</td>
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<td><strong>Concentrate</strong></td>
<td>- 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.</td>
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<td>- If possible, select a seat away from others who might be distracting.</td>
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<td>- If lighting in the room is poor, sit under a light fixture.</td>
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<td>- If the test room becomes noisy or there are other distractions or irregularities, mention them to the Test Administrator immediately.</td>
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<tr>
<td><strong>Budget your times</strong></td>
<td>- Pace yourself carefully to ensure that you will have enough time to complete all items and review your answers.</td>
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<td><strong>Read critically</strong></td>
<td>- Read all directions and questions carefully.</td>
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<td>- Even though the first or second answer choice looks good, be sure to read all the choices before selecting your answer.</td>
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<tr>
<td><strong>Make educated guesses</strong></td>
<td>- Make an educated guess if you do not know the answer or if you are unsure of it.</td>
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Changing answers - If you need to change an answer, 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.
- Make sure each multiple choice question has your correct answer selected.

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

Below are the major job knowledge areas (topics) covered on the 2812 Apprentice Structural Mechanic Test. 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 2812 Apprentice Structural Mechanic Test remains relevant to successful performance of the job.

There is a total of 80 items on the test and the passing score is 75%.

A. Tools and their Usage (24 items)

Knowledge of how to identify and operate various types of hand and power tools. Knowledge of how to operate concrete finishing tools.

B. Construction of Foundations (16 items)

Knowledge of how to prepare and place concrete (e.g., pads, foundations, footings). Knowledge of how to prepare concrete for finishing and how to cut lumber. Knowledge of how to install piping systems (e.g., PVC pipe) and electrical conduit. Knowledge of excavation techniques and how to backfill trenches.

C. Symbols and Terminology (4 items)

Basic understanding of prints. Knowledge of basic hand signals to assist operators of powered industrial equipment.

D. Materials (4 items)

Knowledge of different types of nails and other fasteners and their standard sizes. Knowledge of different types of construction materials (e.g., lumber, rebar, conduit) and their standard sizes.

E. Safety (32 items)

Knowledge of work safety, vehicle safety, fire safety, electrical safety, safety hazards, personal protective equipment, and first aid.
Study References

Below is a list of references you can use to study as you prepare for the test.

A. Tools and their Usage

- Missouri Department of Elementary and Secondary Education. *Common hand tools*. [https://dese.mo.gov/sites/default/files/aged-AgMechI-Student-Ref..pdf](https://dese.mo.gov/sites/default/files/aged-AgMechI-Student-Ref..pdf)

B. Construction of Foundations

- Missouri Department of Elementary and Secondary Education. *Common hand tools*. [https://dese.mo.gov/sites/default/files/aged-AgMechI-Student-Ref..pdf](https://dese.mo.gov/sites/default/files/aged-AgMechI-Student-Ref..pdf)

C. Symbols and Terminology


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1 This is available as a free book online on Google Books
D. Materials


E. Safety

## 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 – Testing  
G.O. 5, 1st Floor  
1515 Walnut Ave.  
Rosemead, CA 91770

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