

Study Guide
for
Apprentice Maintenance Machinist

Test No. 2742

Performance Assessment Services
Southern California Edison Company

Introduction

The Apprentice Machinist Test is a job knowledge test designed to cover the major knowledge categories necessary to perform the job. This *Study Guide* contains strategies to use for taking tests and a study outline, which includes knowledge categories, lists of terms and operations and study references.

Test Scheduling

Employees will be scheduled for testing by their Supervisor through Human Resources. Applicants will be scheduled through the recruiter. If you do not pass the test on your first attempt, please refer to the testing guidelines on MyEdison.Net (employees only) or call 626-302-9830.

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 questions on this test are multiple-choice with four possible answers. Your answers to the questions are indicated by filling in a circle on an answer sheet with a special mark-sense pencil. For your answers to be read accurately by the scanner, you must fill in the circles completely and erase completely any answer you wish to change.

The test has a three and a half hour time limit, and you have been allowed enough time to make calculations and you will be allowed to use a non-programmable calculator.

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.

Study Guide Feedback

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

Test Taking Strategies

Introduction

The Apprentice Machinist Test contains multiple-choice 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.

Technique

Remarks

Be confident

- o If you feel confident about passing the test, you may lose some of your anxiety.
- o 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.

Be punctual

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

Concentrate

- o 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.
- o If possible, select a seat away from others who might be distracting.
- o If lighting in the room is poor, sit under a light fixture.
- o If the test room becomes noisy or there are other distractions or irregularities, mention them to the Test Administrator *immediately*.

Budget your time

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

Read critically

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

Make educated guesses

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

Changing answers

- o If you need to change an answer, be sure to erase your previous answer completely.

Return to difficult questions

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

Doublecheck mathematical calculations

- o Use scratch paper to double check your mathematical calculations.

Review

- o If time permits, review your answers.
- o Do the questions you skipped previously.
- o Make sure each answer bubble is *completely* filled in. Erase any stray marks on your answer sheet.

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

Study Guide Outline

Job Knowledge Categories

Below are the major knowledge categories covered on the test.

A. Math Concepts and Operations

- Number Structures
- Fractions and decimals
- Addition, subtraction, multiplication, division
- Percentages
- Power and roots
- Combined operations
- Ratios

B. Geometry

- Perimeter
- Area
- Volume
- Radius
- Circumference
- Angles, triangles
- Pythagorean Theorem

C. Reading (tables and scales)

- Units and measurement
- Interpretation
- Interpolation
- Trends

D. Algebra

- Equations
- Solving for unknowns

List of Terms

You will need to be familiar with the meaning of the following words in order to successfully complete this test:

angle

area

average

base

circle

circumference

cube

cube (of a number)

cube root

degree

equation

equilateral triangle

exponent

isosceles triangle

perimeter

pi

power

radical

radius

ratio

rectangle

right triangle

root

square

square (of a number)

square root

surface

triangle

volume

Operations

You will need to be familiar with performing the following operations in order to successfully complete this test:

Numbers expressed in written form:

Fractions:

- Reducing
- Adding
- Subtracting
- Multiplying
- Dividing
- Comparing
- Decimal equivalents

Decimals:

- Expressed as fractions
- Expressed as whole numbers
- Rounding off

Exponents:

- Expressed in written form
- Multiplication
- Division
- Operations in parentheses

Degrees and Angles

Triangles:

- Area
- Perimeter

Circles:

- Circumference
- Area
- Radius
- Diameter

Rectangles and Squares:

- Perimeter
- Area

Volume

- Rectangular solid (formula)
- Cylinders

Equations

- Solving for the unknown

Study References

If necessary, you should consult the following sources to help you prepare for this test.

- Text books or reference books about Mathematics, Geometry and Algebra, such as
 - Mathematics Made Simple by Abraham Sperling and Monroe Stuart.
Published by Doubleday & Company

These books can be checked out of your library, borrowed from friends or students or purchased from neighborhood or college bookstores. Most bookstores carry a large variety of such books in paperbound editions.

- In addition to these books be sure to check the section carrying books to help you prepare for specific exams such as “How to Prepare for the PSAT and SAT Test”. These type of test books typically have several sections which review specific math operations as well as algebra and geometry. They can save you time since they are already done in a review format.

