



Electrician Steam Generation Test (ESG)

Preparation Guide

TEST (ESG)

About the Test

The test consists of 100 questions (100 points) with a 3.5 hour time limit. Seventy (70) points is required to qualify. You may use a calculator and drawing instruments; such as a ruler, stencil, or protractor; during the test. This is a closed book test.

Reference Materials

A general reference book is always invaluable as a supplement to other textbooks from classes or specific subjects, and as an instrument for general review in preparing for qualifying tests. Additional resources for improving understanding of the concepts listed below may be found at your local libraries and bookstores.

We hope you find this information helpful. Make sure that when you are scheduled to take the test you are physically and mentally alert and ready to do your best, or you should reschedule your appointment.

Pacific Gas and Electric Company wishes you the best of luck in qualifying on our test.

Material Covered in the Test

1. Ohm's Law

2. DC and AC circuits

- a. Series
- b. Parallel
- c. Combination

3. Static Electricity

4. Meters

- a. Volt
- b. Amp
- c. Ohm
- d. Watt
- e. VAR

5. Transformers

- a. Single phase
- b. Three phase
- c. Nameplate data
- d. Connections and vectors
- e. Full load calculations

6. Diode Circuits

- a. Full wave rectifiers
- b. Blocking diodes
- c. Zener diodes

7. Transistors

8. Motors

9. Relays

- a. Testing time overcurrent relays
- b. Wiring of time overcurrent relays

10. Wire Numbers

- a. Currents
- b. Potentials