

STUDY GUIDE FOR BUILDING MECHANIC

TEST NUMBER: 2454

INTRODUCTION

The 2454 Building Mechanic 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 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.

Mobile phones 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 three-hour time limit and we will provide you with a non-programmable basic calculator.

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.

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.

ASSESSMENT TAKING STRATEGIES

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

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

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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 TIME

Pace yourself carefully to ensure that you will have enough time to complete all tasks/functions.

READ CRITICALLY

Read all directions and questions carefully.

Remember that the techniques described in this section are only suggestions. You should follow the test taking methods that work best for you. If particular questions seem difficult to understand, make a note of them, continue with the test and return to them later.

MAKE EDUCATED GUESSES

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

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 AND STUDY REFERENCES

Below are the major job knowledge areas (topics) covered on the 2454 Building Mechanic 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 2454 Building Mechanic Test remains relevant to successful performance of the job.

There is a total of 90 items on Test 2454 Building Mechanic and the passing score is 70%.

Safety Procedures (14 items)

Understanding of Safety Procedures and safe work practices as applied to building, electrical, mechanical, and plumbing systems. Also, knowledge of safe tool use and appropriate PPE.

References:

Mechanical Trades. Pocket Manual, by Davis, T. B., & Nelson Sr., C. A. (4th Edition). Published (2004). Wiley Publishing Inc.

CAL OSHA

<https://www.dir.ca.gov/dosh/etools/08-001/regs.htm>

<https://www.dir.ca.gov/title8/8414.html>

Tools and Materials (19 items)

Knowledge of various types of tools and equipment (e.g., power tools, various hand tools, etc.) and their functions; knowledge of materials and basic terminology used in describing various types of fittings, connections, building drains, plumbing fixtures, etc.

References:

The Pipefitter's Handbook: Second Expanded Edition, by Lindsey. Published (2012). Published by Martino Fine Books. ISBN: 1614273294

Welding & Soldering (10 items)

Knowledge of safe work procedures related to Oxy / Acetylene work including proper respiratory protection. Knowledge of soldering, including proper materials to use.

References:

Modern Welding, by Althouse, Turnquist, Bowditch, Bowditch, & Bowditch. (12th Edition), published (2018). Published by Goodheart-Wilcox. ISBN: 1635636868.

Audel Pipefitters and Welders Pocket Manual, (2nd Edition), October 2003. ISBN-10 – 0764542052

The Pipefitter's Handbook: Second Expanded Edition, by Lindsey. Published (2012). Published by Martino Fine Books. ISBN: 1614273294

Mechanical Knowledge (19 items)

Knowledge of maintaining, repairing, and adjusting air conditioning, heating, and appliances.
Knowledge of basic principles of electricity, eg., voltage, amperage, A.C. vs. D.C etc.

References:

Mechanical Trades. Pocket Manual, by Davis, T. B., & Nelson Sr., C. A. (4th Edition). Published (2004). Wiley Publishing Inc.

Basic Electronics, by Grob. Published (2003). Published by McGraw-Hill. ISBN: 0078247160

Ugly's Electrical References, by Miller, Charles. (6th Edition). Published (2019). Jones & Bartlett Learning. ISBN: 1284194531

Electricity One-Seven, Mileaf, Harry, ed. (3rd Edition). Published (1998). Pearson College Div. ISBN: 0139178570

Plumbing Knowledge (15 items)

Understanding the basic principles of plumbing such as fluid movement and pressures, valving systems, pipefitting, etc.

References:

The Pipefitter's Handbook: Second Expanded Edition, by Lindsey. Published (2012). Published by Martino Fine Books. ISBN: 1614273294

Audel Pipefitters and Welders Pocket Manual, (2nd Edition), October 2003. ISBN-10 – 0764542052

Plumbing Design and Install, by L.V. Ripka. (4th Edition), published (2011). Published by ATP Publications, ISBN 0826906427.

Math Knowledge (13 items)

Understanding basic math knowledge, such as adding, subtracting, fractions, determining area and amount of materials needed, etc.

References:

Arithmetic The Easy Way, by Prindle and Prindle. (3rd Edition), published (2005). Published by Barron's Educational Series, Inc. ISBN: 0764129139



Math the Easy Way – Barron’s Easy Way – Barron’s Education Series (4th Edition), Feb 2003 ISBN-10-07641201

STUDY GUIDE FEEDBACK

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