

# City of Omaha

## Journeyman Plumber Exam Reference Materials

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| <b>Scope</b>  | Those who are qualified to install, repair, maintain or extend any plumbing system, including waste drains, vents, water supply and fixtures and also install, maintain or repair gas piping, appliances, lines, laterals, tanks and other appurtenances in connection therewith while employed or supervised by a master plumber.                                  |  |  |
| <b>Grading</b>  | You must have a minimum score of 75 percent on each part to pass the test. If you are testing for the first time and achieve a grade of at least 70% on every portion of the test and obtain an average test score of 75% or higher, you will be given a passing grade on the test.   |  |  |
| <b>Examination Contents</b>   | <b>Plans</b><br><b>7:45 am – 10:00 am</b><br>The plans portion has two sections.<br>1. A five-story plan that requires you to find 20 mistakes in the waste and venting system worth 5 points each.<br>2. A house plan that requires you to draw the waste and vent piping. Each mistake is a deduction of 25 points.   | <b>Written</b><br><b>10:00 am – 11:45 am</b><br>100 Questions Worth 1 Point Each <ul style="list-style-type: none"> <li>• Plumbing Code questions</li> <li>• ADA</li> <li>• MUD Rules questions</li> <li>• Theory questions</li> <li>• Questions on water conditioning</li> <li>• Questions on tools, fitting, fixtures and equipment</li> <li>• Math Questions</li> </ul> | <b>Practical</b><br><b>12:30 pm – 4:00 pm</b><br>The practical portion has three sections. Only three of the following will be given: <ol style="list-style-type: none"> <li>1. A drawing where you are to give the pipe measurements</li> <li>2. Calculations of pipe elevations</li> <li>3. A plan where you are to give the measurements for 25 fixtures rough-in from wall X and wall Z.</li> <li>4. You are required to give the rough-in measurements for waste and water from the finished floor for each fixture indicated on the work sheet.</li> <li>5. Water pipe sizing.</li> <li>6. To draw an isometric design of fixtures on the plans</li> </ol> |
| <b>Examination References</b><br>*The references on the list are used to prepare the questions for the examination.<br><u>*This does not mean that all answers to all questions may be found.</u> | <b>Chapter 49</b> , of the Omaha Municipal Code entitled “Plumbing” available on the Internet at <a href="http://www.cityofomaha.org/planning/boards/plumbing-board/policiescodesformsapplications">http://www.cityofomaha.org/planning/boards/plumbing-board/policiescodesformsapplications</a> or <a href="http://www.municode.com/">http://www.municode.com/</a> | <b>Mathematics for Plumbers and Pipefitters</b> , 5th Edition by Lee Smith, J. Russell Guest, Bartholomew D’Arcangelo and Benedict D’Arcangelo. The formulas are not unique to this book and may be found in other such books.   |  |
|   | <b>Water Rules and Regulations</b> , from Metropolitan Utilities District, 1723 Harney Street, Omaha, Nebraska 68102-1960 (402) 554-7931 or on the Internet at <a href="http://www.mudomaha.com/pdfs/wtrrules.pdf">http://www.mudomaha.com/pdfs/wtrrules.pdf</a>  | <b>American National Standard A117.1 - 2010 Accessibility Guidelines</b> , from the International Code Council. Available online at: <a href="http://www.iccsafe.org/Store/Pages/Product.aspx?id=9033X03">http://www.iccsafe.org/Store/Pages/Product.aspx?id=9033X03</a>   |  |
|   | Manual of Cross-Connection Control, published by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California, Ninth or Tenth Edition  | On the job skills and knowledge should also be taken into consideration when studying. Remember what you have learned from your Journeyman and Master Plumbers.  |  |

**The Journeyman Plumber Examination is intended to assess the knowledge, application, and skill of a plumber. The contents of the exam are not limited to the items on this document.**

Visit the Planning Department’s Site on the Internet at <http://www.cityofomaha.org/planning/>

# City of Omaha Plumbing Board

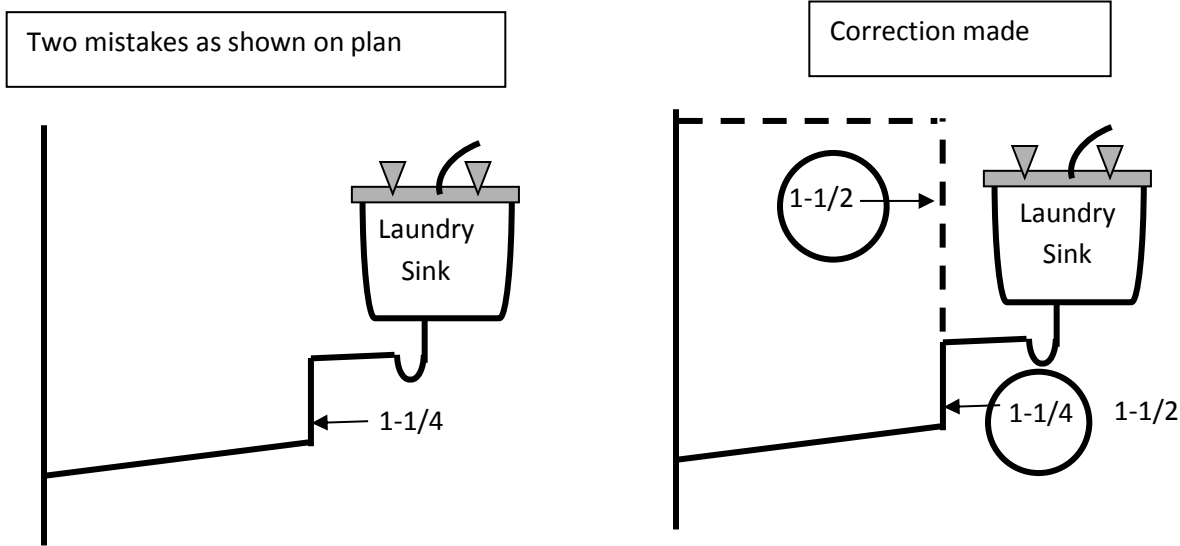
## For Journeymen's Plans Exam

The following guidelines and illustrations although not all inclusive gives some of the items that will be counted wrong on the house plan portion of the test.

1. Draw all waste and vent piping required to meet the minimum requirements of the Omaha Plumbing Code this shall be done in the most efficient way as possible.
2. A straight edge (ruler) shall be used to draw all lines except dishwasher discharge hose and P-traps.
3. All waste lines shall be drawn as solid lines and all vent lines shall be drawn as dashes.
4. Size all piping (The Plumbing Board recognizes that 1¼ and 2½ inch pipe is not used. The use of 1½ and 3 inch is acceptable).
5. Points will be deducted for the following:
  - (a) Over and under sizing piping
  - (b) For not using a straight edge (ruler)
  - (c) For not marking critical distances (i.e. waste arm on a lavatory)
  - (d) For making notes or comments which do not apply
  - (e) For not properly labeling pipe sizes. (Size should be shown at branches and at changes in size.)
  - (f) Individual vents: For showing vents run individually to the vent stack when a loop vent or a vent header could be shown.
  - (g) For over or under sizing of soil, waste and vent piping or showing multiple pipes when one pipe could be used.
  - (h) For not providing a vent stack.
6. For each error on the house plan 25 points will be deducted to a maximum of 100 points.

# For Journeyman Exam Twenty Mistakes

The waste and vent drawing has twenty (20) plumbing code errors. Circle each error individually and write or draw the changes needed to meet code (see example). Do not draw in fixtures only make corrections to the fixtures/piping shown.



The sink waste is not vented, draw in the vent and size it.

The waste for the sink is labeled 1-1/4, which is too small. Circle 1-1/4 and write the correct size next to it.

The Plumbing Board recognizes that 1-1/4 and 2-1/2 inch pipe is not used. The use of 1-1/2 and 3 inch is acceptable.

You will be given 45 minutes to complete this plan.

+5 Points for each correct answer/-5 points for each item over 20 circled.