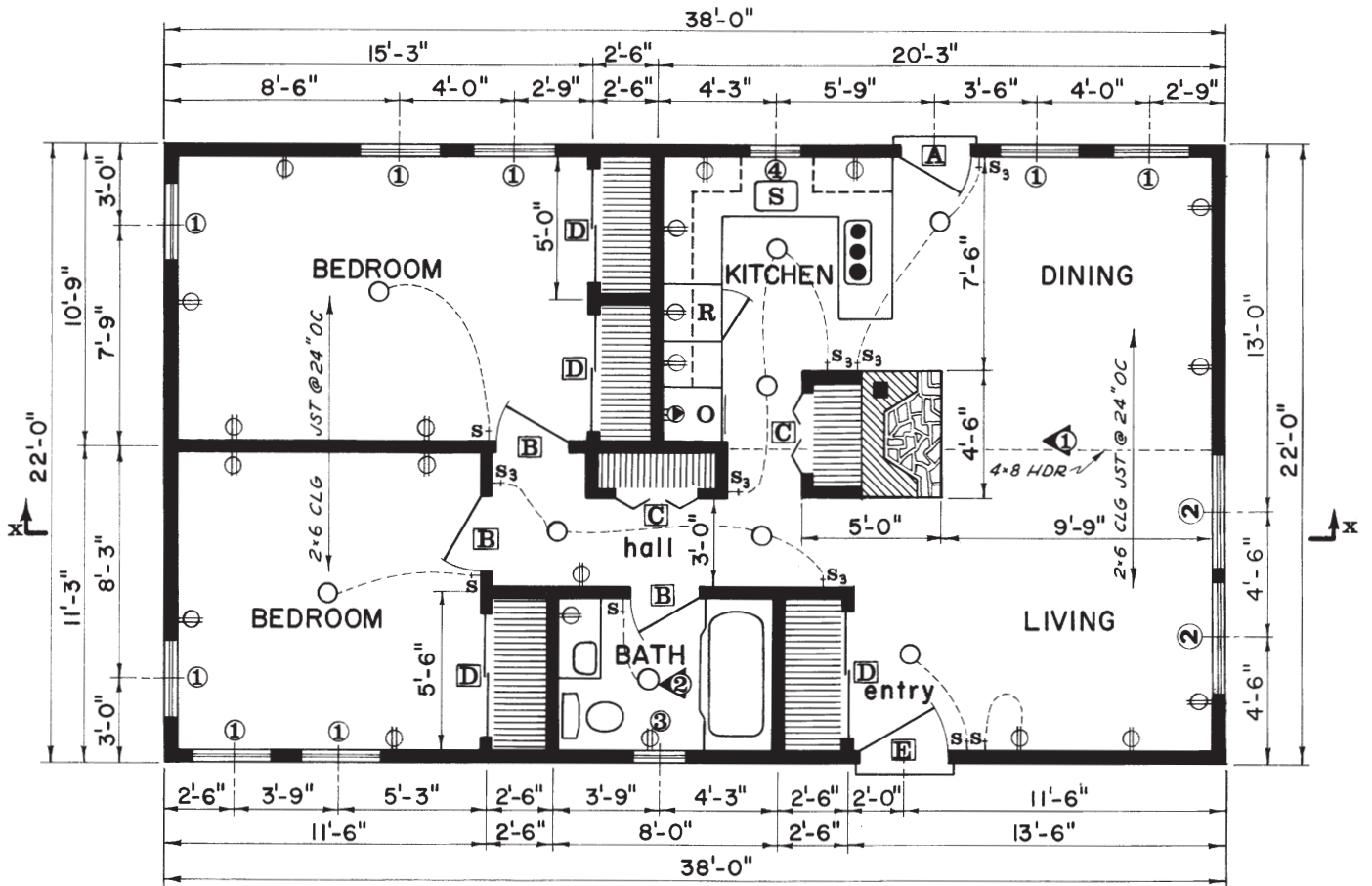


# Questions for Blueprint-Reading Exams



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Published by Hearlihy  
 P.O. Box 1747  
 Pittsburg, KS 66762  
 866-622-1003  
 www.hearlihy.com



81861 V7198

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# Questions

## *Plan Sets and Blueprint Reading Exam*

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## Introduction to *Plan Sets and Blueprint Reading Exam*

It is important for an architectural drafting and design class to have references and drawing assignments to fit the needs of all the students in the areas of architectural drawing, creative design, and testing. This instructional aid has a series of architectural plan sets, blueprint-reading questions, and answers for the instructor – all designed to help achieve the goals of an architectural drafting and design class.

### **How the information is organized**

*Plan Sets and Blueprint Reading Exam* is published in three volumes. One volume includes the plan sets – nine in all – with from six to 22 individual drawings per set. For ease of use, questions about the drawings are provided in a separate volume designed to be used as a consumable workbook. An answer key booklet is also available. To make grading easier, the format of the answer key matches the format of the workbook.

### **Level of difficulty**

The blueprint reading questions range from very simple to complex. The plan sets begin with a very simple potting shed and end with a full set of working drawings with all the required construction details, schedules, and specifications. Two of the drawing sets are metric. Use of the metric system is now nearly universal. It is recommended that students become proficient with both English and metric systems of measure.

Many of the drawings in the plans have been reduced to fit an 8-1/2" x 11" format. These reduced-sized drawings are NTS (Not To Scale). Therefore, it is important that students read the dimensions on the drawings and not use a scale to determine measurements.

### **How the material can be used**

In addition to being an effective examination tool, *Plan Sets and Blueprint Reading Exam* can be used for homework assignments or reproduced as transparencies for an overhead projector. The plans may be copied by students using manual drafting techniques or CAD software. We request that you do not reproduce the material in any other way.

The instructor may use the answer columns in the workbook to correct the blueprint reading questions or have the students correct their own work and then review the incorrect answers. All students should eventually answer all the questions correctly, ensuring that they will be well grounded in the subject area of architectural blueprint reading and design.

Reorder numbers for *Plan Sets and Blueprint Reading Exam* are as follows:

**81861** Questions booklet

**81862** Plan Sets book

**81841** Answer Key

**PLAN SET 1 – POTTING SHED**

Six Drawings – 80 Questions

**Note:** Some of the detailed drawings have been reduced or enlarged to fit the paper. Do not use a scale to determine measurements. Read the dimensions on the plan.

**DRAWING 1 of 6**

1. What are the overall dimensions of the potting shed?
2. What are the dimensions of the window?
3. What are the dimensions of the door?
4. What is the symbol that is a small circle with two lines through it?
5. What is the symbol that is an S with a line through it?
6. What is the symbol that is a small circle with an adjacent arrowhead?
7. What is the symbol that is a plain circle in the center of the floor plan?
8. What do the straight dotted lines on the floor plan represent?
9. What type of drawing is the pictorial drawing of the potting shed?
10. How many vanishing points are used for the pictorial drawing of the potting shed?

**DRAWING 2 of 6**

11. What is the dimension of the front setback?
12. What are the circular wavy line symbols?
13. What are the setbacks for the potting shed?
14. What is the dimension of the south side of the property?
15. What is the original drawing scale of the plot plan?

**DRAWING 3 of 6**

16. What type of siding material is used for the exterior cover?
17. What is the roof slope?
18. What is the height of the door?
19. What is the height of the ceiling?
20. What type of wood covering is used for the roof?
21. What is the width of the slab's footing?
22. What is the clearance of the plate from the soil?
23. What is used for the final roof cover?
24. What is the original drawing scale of the elevations?
25. What is the height of the gravel fill?

**DRAWING 4 of 6**

- 26.** What is the size of the ceiling joists?
- 27.** What is the spacing of the ceiling joists?
- 28.** What is the size of the rafters?
- 29.** What is the spacing of the rafters?
- 30.** What is the lintel size for the door?
- 31.** What is the ridge board size?
- 32.** What makes up the top plate?
- 33.** What is the height of the working counters?
- 34.** What do the dotted lines on the interior elevation represent?
- 35.** What is the distance of the roof overhang?
- 36.** What is the ceiling height?

**DRAWING 5 of 6**

- 37.** What is the scale of the stud layout drawing?
- 38.** How many studs are used to frame a corner?
- 39.** What is the modular spacing of the studs?
- 40.** What is the difference in size of the door's rough frame opening and the actual door?
- 41.** What is the difference in size of the rough frame opening and the window?
- 42.** How many studs make up the framing for an intersection of an interior wall to an exterior wall?
- 43.** What is the framing depth of the closet?
- 44.** What is the rough frame opening of the window?
- 45.** What are the dimensions of a rough-cut stud?
- 46.** What are the dimensions of a finished stud?
- 47.** Will a 4' x 8' piece of sheetrock always have a nailing edge with 16" stud spacing?
- 48.** Do the studs in the wall-framing plan (page 7) align with the same studs in the Stud Layout Plan?
- 49.** What is a wood member with a single diagonal drawn through its end view?
- 50.** What type of stud has two diagonals drawn through its end view?

## DRAWING 6 of 6

51. What is the cross-sectional size of the ridge board?
52. What is the length of the ridge board? (*Hint: You'll also need to look at the floor plan to compute the length.*)
53. What are the external rafters (on gable ends) called?
54. What is the cross-sectional size of the wall's double top plate?
55. What is the thickness of the subfloor?
56. What is the cross-sectional size of the mud sill?
57. What does the symbol  $\emptyset$  represent?
58. What is the length of the anchor bolt?
59. What is the spacing for the anchor bolts?
60. What is the width of the T foundation's footing?
61. What does the heavy black arrow with the letter X represent?
62. What is the full height of crawl area? (Disregard the girder.)
63. What is the cross-sectional size of the girder?
64. What is the cross-sectional size of the floor joists?
65. When the girder ends are installed into the T foundation's girder pockets, what structural member must be level with the top surface of the girder?
66. What is the clearance of the mud sill from the outside grade line?
67. What is the area of the pier's base?
68. What is the width of the T foundation's wall?
69. How many piers are required in the T foundation's floor framing plan?
70. What is the material used for the exterior wall cover?
71. What is the material used for the wall's vapor barrier?
72. How far is the roof's overhang?
73. What is the material used for the wall's interior cover?
74. What structural material is placed directly on top of the wall studs?
75. What structural members are used to support the window's lintel?
76. What structural members are used between the rafters to seal the attic area?

(continued on next page)

**DRAWING 6 of 6 (continued)**

- 77.** What is the size of the attic's air-circulation vents?
- 78.** What is the distance between the attic's vents?
- 79.** Which drawing is drawn with the scale  $3/16" = 1' = 0"$ ?
- 80.** How many different drawing scales are used for the detail drawings on Drawing 6?