

1979

Appl. No. _____

Room No. _____

Seat No. _____

CITY OF NEW YORK - DEPARTMENT OF PERSONNEL

CARPENTER - EXAM. NO. 4125

WEIGHT 100, 70% REQUIRED

Date: March 1, 1975

Time Allowed: 4 1/2 Hours

READ THIS PAGE

BELLS

- First Bell: Test given out. READ THIS PAGE ONLY.
- Second Bell: Turn the page and begin work.
- Third Bell: End of test. Stop all work. This bell rings 4 1/2 hours after the second bell. If you finish before raise your hand to call the monitor.

TEST BOOK

- This test booklet has the whole test and there should be 17 pages. There are 100 questions. Check your test booklet after the second bell to be sure it has all the pages.

In you own interest, you should record your answers in this test booklet and take it with you.

WARNING

- You are not allowed to copy answers from anyone or to use books or notes.

It is against the law to take the test for somebody else or to let somebody else take the test for you.

After the test starts, nobody can leave until 10:30 a.m. Nobody can come in after 10:30 a.m. If you want to drop out of the test and not have your answers marked, write "I withdraw" on your answer sheet and sign your name.

DO NOT TURN THE PAGE UNTIL THE SECOND BELL RINGS.

PAGE 1

Exam. No. 4125

DIRECTIONS FOR ANSWERING QUESTIONS

Answer all the questions on the Answer Sheet before the third bell rings.
ONLY YOUR ANSWER SHEET WILL BE MARKED.

Use a soft pencil (No. 2) to mark your answers. If you want to change an answer, erase it and then mark your new answer.

For each question, pick the best answer. Then, on your answer sheet, in the row with the same number as the question, blacken the space with the same letter as your answer.

Here is a sample of how to mark your answers.

SAMPLE: When we add 5 and 3, we get

(A) 11 (B) 9 (C) 8 (D) 2.

Since the answer is 8, your answer sheet is marked like this:

A B C D

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(go on to next page)

1. In a ratchet bit brace the part that holds the bit is called the
 - (A) vise
 - (B) chuck
 - (C) pawl
 - (D) cam ring.
2. The best tool to use as a guide when scribing a line perpendicular to the side of a 2" x 4" stud is a
 - (A) T-square
 - (B) Try square
 - (C) Batter board
 - (D) Parallel bar.
3. Of the following planes the one that does not have a double plane iron is the
 - (A) block plane
 - (B) jack plane
 - (C) fore plane
 - (D) smooth plane.
4. Of the following files the best one to use to sharpen a rip-saw is a
 - (A) taper
 - (B) flat bastard
 - (C) mill
 - (D) half round.
5. The size of auger bit to select in order to bore a 5/8" hole is
 - (A) #5
 - (B) #8
 - (C) #10
 - (D) #12.
6. The type of circular saw used for cutting grooves that are wider than the cut that can be made by ordinary saws is known as a
 - (A) dado set
 - (B) rabbet set
 - (C) scarf set
 - (D) dove tail set.
7. Of the following saws, the one that should be used for cutting circular disks out of 5/8" plywood is a
 - (A) circular saw
 - (B) buck saw
 - (C) back saw
 - (D) band saw.
8. The saw used in a miter box is a
 - (A) compass saw
 - (B) coping saw
 - (C) back saw
 - (D) hacksaw.
9. Of the following, the best wood to use for the handle of a claw hammer is
 - (A) pine
 - (B) hickory
 - (C) cypress
 - (D) elm.
10. A 3" belt sander requires a 3 x 21 belt. The "21" refers to the belt's
 - (A) grit number
 - (B) diameter
 - (C) contact area
 - (D) length.
11. In sharpening a paring chisel, a Carpenter should grind the bevel at an angle of approximately
 - (A) 5°
 - (B) 15°
 - (C) 25°
 - (D) 35°.
12. "Dressing" a saw has to do with
 - (A) lowering the height of the teeth
 - (B) removing burrs from the side of the teeth
 - (C) lowering of the tooth gullets
 - (D) tilting the file upward at the end of the stroke.
13. To cut a 1/4-inch chamfer in a piece of wood two feet long a Carpenter should use a
 - (A) chisel
 - (B) plane
 - (C) saw
 - (D) hone.

(Continued on page 4)

14. To tighten a lag screw a Carpenter should use a
- (A) mallet (C) wrench
(B) Phillips head screw-driver (D) hammer.
15. When boring a hole through a thin piece of wood, the bit that will least splinter the backside of the wood is
- (A) a center bit (C) a Foerstner bit
(B) an expansive bit (D) a countersink bit.
16. Shown below is a sketch of a hinge.



The hinge is

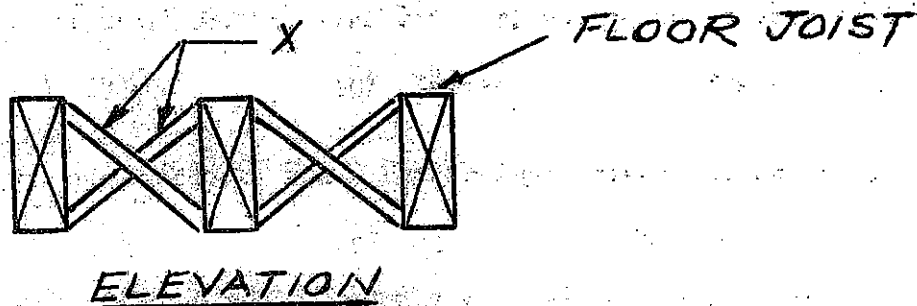
- (A) a T-hinge (C) a piano hinge
(B) a strap hinge (D) an offset hinge.
17. A hinged strap with a slotted flap that passes over a staple and is secured by a padlock is known as a
- (A) hasp (C) harbinger
(B) hamper (D) hawk.
18. To bend saw teeth to the proper angle a Carpenter should use a
- (A) saw screed (C) saw bit
(B) saw tap (D) saw set.
19. A tool used to make a pilot hole for starting a screw in wood is
- (A) a grommet (C) an awl
(B) a cotter pin (D) a counter point.
20. The tool to use to finish driving a nail into corners and moldings is a
- (A) nail set (C) nail pin
(B) nail punch (D) nail all.
21. Of the following fasteners the one that is least often used in structural wood work is a
- (A) lag screw (C) nail
(B) wood screw (D) spike.
22. When wood loses moisture, it
- (A) shrinks in thickness and width and expands in length
(B) shrinks in thickness and expands in width and length
(C) shrinks in width and length and expands in thickness
(D) shrinks in thickness, width and length.
23. Of the following types of commercial nails, the one that has the greatest withdrawal resistance is a
- (A) cement-coated nail (C) chemically etched nail
(B) galvanized nail (D) spirally grooved nail.

(Continued on page 5)

24. The grit number for a $1/0$ sand paper is
(A) 200 (B) 100 (C) 80 (D) 60.
25. The length of a 6d nail is
(A) $1\ 3/4$ " (B) 2" (C) $2\ 1/4$ " (D) $2\ 3/4$ ".
26. The number of board feet in 15 pieces of lumber 2 " x 10 " by 12 feet long is
(A) 30 (B) 300 (C) 600 (D) 900.
27. When unpainted wood is left outdoors for a considerable time, the color of the wood usually changes to
(A) brown (B) gray (C) yellow (D) amber.
28. When wood is to be in permanent contact with earth it should be treated with
(A) creosote (B) tri-sodium phosphate (C) sodium chloride (D) sal ammoniac.
29. A panic bolt is most frequently installed on a
(A) window (B) door (C) roof scuttle (D) skylight.
30. Of the following the best reason for oiling plywood concrete forms is to
(A) lubricate the concrete during vibration
(B) allow forms to be removed easily
(C) decrease porosity of the plywood
(D) prevent seepage of rain water into the concrete in case it rains while the concrete is setting.
31. Of the following species of wood the one that is classified as a soft wood is
(A) chestnut (B) white ash (C) birch (D) cypress.
32. S.S. glass means
(A) Smooth Surface glass (B) Silicone Surface glass (C) Single Strength glass (D) Square Sides glass.
33. Of the following types of wood, the one that is not coarse-grained is
(A) oak (B) pine (C) walnut (D) chestnut.
34. The one of the following materials that does not contain wood is
(A) hardboard (B) compressed board (C) particle board (D) masonite.
35. Plywood sub flooring is used instead of 1 " x 6 " sub flooring mainly because it
(A) is more sound proof (B) is easier to install (C) is more fire resistant (D) makes the floor more rigid.
36. Wainscoting paneling would be installed on a
(A) wall (B) floor (C) ceiling (D) roof.

(Continued on page 6)

37. According to the N.Y.C. Building Code, galvanized wire staple fasteners in plywood
- (A) may not be used anywhere in buildings
 - (B) may be used on roofs only
 - (C) may be used on wall sheathing only
 - (D) may be used on roofs and wall sheathing.
38. Galvanized nails are nails that are coated with
- (A) brass
 - (B) cadmium
 - (C) copper
 - (D) zinc.
39. The tip of a Phillips screwdriver is
- (A) elliptical
 - (B) pointed
 - (C) flat
 - (D) concave.
40. Putlogs are used primarily on
- (A) ladders
 - (B) scaffolds
 - (C) horses
 - (D) hatchways.
41. The tapered end of a file that fits into a wood handle is called the
- (A) tip
 - (B) heel
 - (C) edge
 - (D) tang.
42. Of the following bolts the type which has a round head is the
- (A) machine bolt
 - (B) stud bolt
 - (C) carriage bolt
 - (D) coupling bolt.
43. A metal T-anchor would be used on a
- (A) door
 - (B) window
 - (C) joist
 - (D) stud.
44. A lock that is surface mounted on the side of a door is known as a
- (A) rim lock
 - (B) tenon lock
 - (C) mortise lock
 - (D) flange lock.
45. Clapboards are generally used for
- (A) stair treads
 - (B) wood siding
 - (C) window sills
 - (D) roof copings.
46. Shown below is a sketch of the floor joists in a building.



The pieces of wood marked X are known as

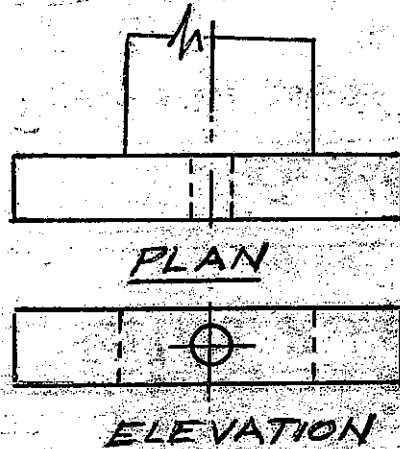
- (A) bridging
- (B) bracketing
- (C) corbeling
- (D) casing.

(Continued on page 7)

47. A specification for a belt sander states that it is UL approved. The UL in the specification is an abbreviation of

- (A) Universal Listing (C) Unlimited Liability
(B) Underwriters Laboratories (D) Use Limited.

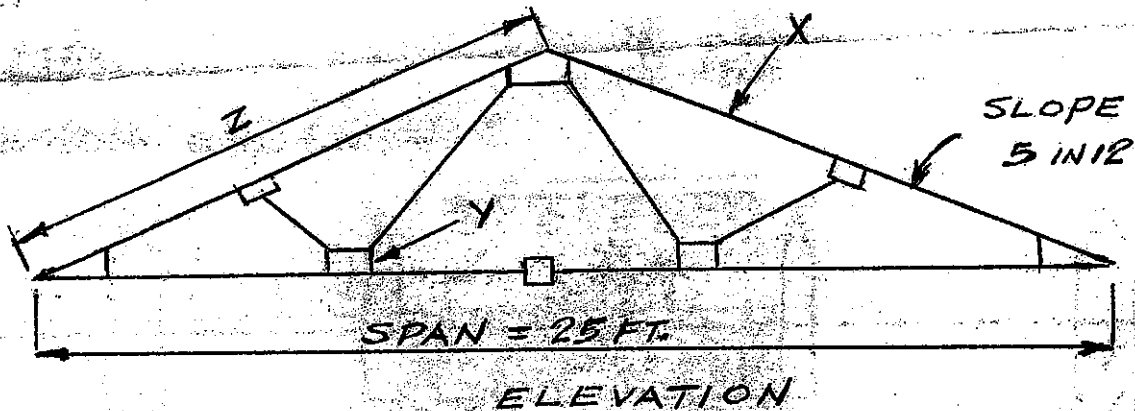
48. Shown below is a sketch of a wood joint.



The wood joint is a

- (A) peg tenon (C) dovetail half lap
(B) plain dovetail butt (D) blind housed tenon.

Questions 49 through 51 refer to the wood truss shown in the sketch below.



49. The inclined member X is known as a

- (A) ridge (B) rafter (C) brace (D) bridge.

50. The plate marked Y is known as

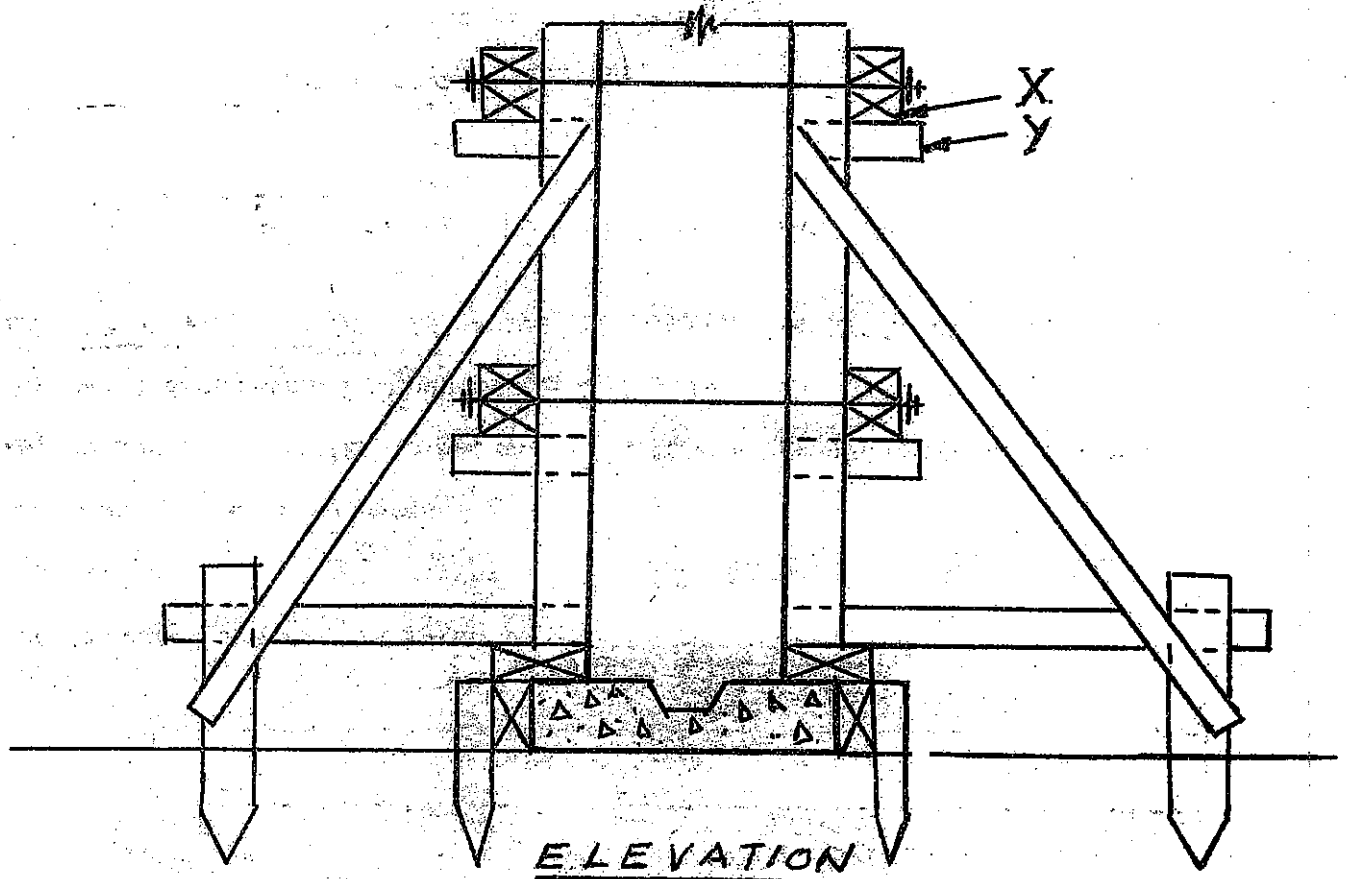
- (A) a gusset (B) a batten (C) a spacer (D) an anchor.

51. The total distance Z is most nearly

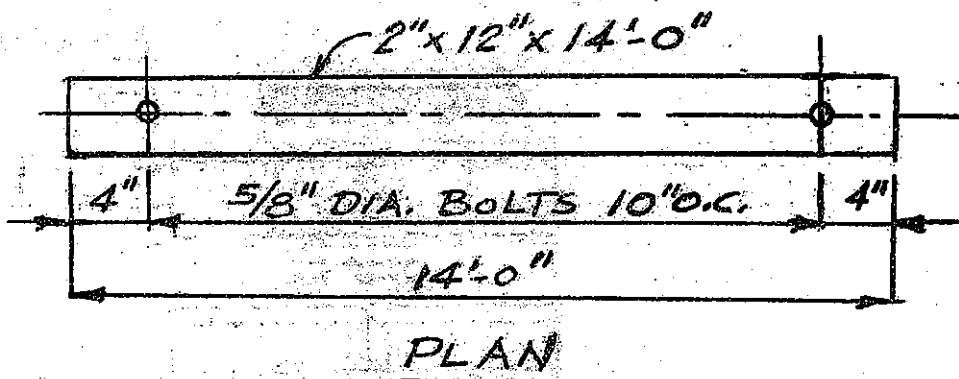
- (A) 13'-2 1/2" (B) 13'-4 1/2" (C) 13'-6 1/2" (D) 13'-8 1/2".

(Continued on page 8)

Questions 52 and 53 refers to the wood form work for concrete shown in the sketch below.



52. The horizontal member X is known as a
- (A) girt (B) soldier (C) pivot (D) waler.
53. The horizontal member Y is known as a
- (A) scab (B) ledger (C) kerf (D) putlog.
54. Shown in the sketch below is a bolted timber.



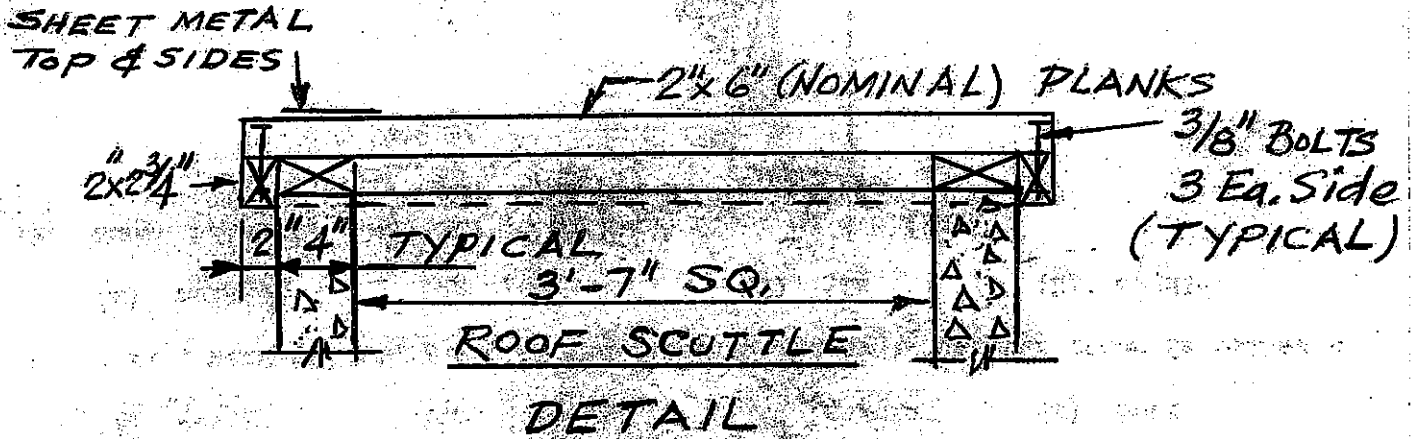
The number of 5/8" diameter bolts required is

- (A) 15 (B) 16 (C) 17 (D) 18.
55. Plywood subflooring 5/8" thick has a Panel Identification Index of 42/20. The "20" indicates the
- (A) maximum allowable load in pounds on a square foot of panel
 (B) maximum permitted center to center distance in inches between floor joists
 (C) weight of a cubic foot of panel
 (D) minimum number of 8d nails required per panel.

(Continued on page 9)

56. An identifying symbol HDO G-1 - DFPA - 19 - PS1 - 66 is stamped on the edge of a plywood panel. The HDO part of this code stands for
- (A) Heavy Duty Outside (C) High Density Overlaid
(B) High Density Oak (D) Housing Development Organization.
57. Floor plans showing the modification of partitions are drawn to a scale of $1/4''$ to a foot. If the length of a partition shown on the drawing scales $6 \frac{3}{8}''$, then the actual length of the partition would be most nearly
- (A) 24'-6" (B) 25'-2" (C) 24'-4" (D) 25'-6".

Questions 58 and 59 refer to the DETAIL shown below.



58. The number of $3/8''$ bolts in the roof scuttle is
- (A) 6 (B) 8 (C) 10 (D) 12.
59. In the DETAIL shown above, the number of $2'' \times 6''$ planks required is
- (A) 7 (B) 8 (C) 9 (D) 10.
60. On an alteration drawing the location of new partitions would be shown on
- (A) a floor plan (C) a frame cross-section
(B) a front elevation (D) an end view.
61. A drawing specifies "3-1x6-Fas - Wh. Oak S4S". Fas is an abbreviation for
- (A) face all sides (C) fabricate as specified
(B) finish all sides (D) firsts and seconds.
- 62.



In the trade mark shown above, the abbreviation DFPA means

- (A) Designers Fabricated Partition Authority
(B) Douglas Fir Plywood Association
(C) Developed Fabricated Plyscord Association
(D) Durable Federal Product Authority.
63. A specification calls for $3/8'' \times 2''$ steel lag screw. In the above specification the $3/8''$ refers to the
- (A) height of the head
(B) root diameter of the thread
(C) diameter of the body under the head
(D) length of body under the head.

(Continued on page 10)

64. The following statement is taken from a Specification Scope of Work:

Except as otherwise specified, furnish, deliver and install all Carpentry and Millwork, related work and equipment as required by the drawings and specified herein, including, but not necessarily limited to the following:

All rough carpentry work where shown on the drawings, implied as necessary, specified, or otherwise required including permanent and temporary grounds, blocking, rough framing and bucks, nailing strips, furring, plates, under floor sleepers, and the like.

In the above passage bucks would refer to

- (A) doors (C) scuppers
(B) windows (D) hatchways.

65. A specification states the following:

Blind nail T and G flooring.

In the above specification the word blind means to

- (A) bend (B) hide (C) extrude (D) offset.

66. Narrow strips of wood nailed upon walls and ceilings as a support for the wall or ceiling finish is known as

- (A) darbying (C) heading
(B) battling (D) furring.

67. A purlin is most similar in function to a

- (A) stud (B) jamb (C) joist (D) batten.

68. If the riser for a stairway is $7\frac{1}{2}$ " high, then the number of risers required for a flight of stairs 8'9" high is

- (A) 11 (B) 12 (C) 13 (D) 14.

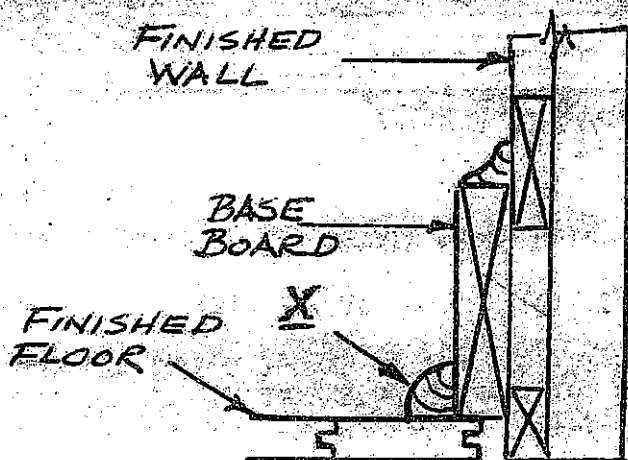
69. The one of the following that is not a common type of wood joint is the

- (A) scarf (B) dovetail (C) chamfer (D) butt.

70. A flat hardwood board set on the floor in a doorway between rooms is called a

- (A) mullion (B) jamb (C) jib (D) saddle.

71. Shown below is a section of wall and floor of a building.

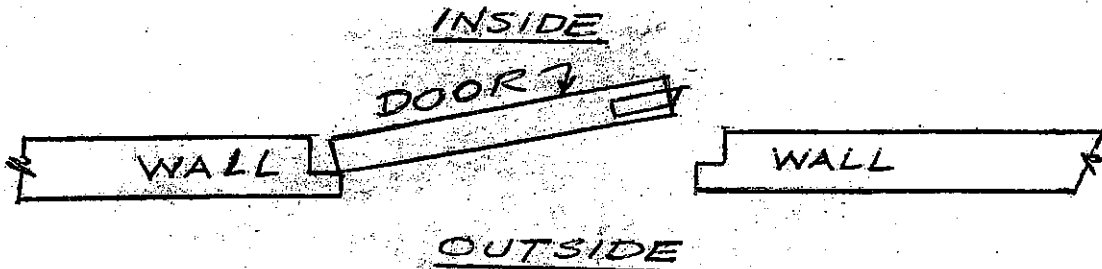


In the drawing shown above, the molding X represents a

- (A) base mold (C) bed mold
(B) shoe mold (D) lip mold.

(Continued on page 11)

72. Shown below is a section through a door.



The hand of the door is

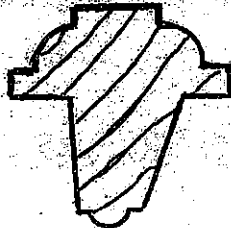
- (A) left hand regular (C) right hand regular
 (B) left hand reverse (D) right hand reverse.
73. A 3/4" thick flooring is to be laid directly on joists. Of the following the best practice is to nail the flooring to
- (A) every joist
 (B) every third joist
 (C) end joists only
 (D) end joists and middle joist only.
74. The margin which should be left all around between the edges of an 8" x 10" pane of glass and the sides of the rabbet in a wood sash is
- (A) none (B) 1/16" (C) 3/16" (D) 5/16".
75. The horizontal wood member which supports the load over a window or door is known as a
- (A) putlog (C) collar
 (B) ledger (D) lintel.

76. Shown below is a section of a wood joint.



The joint shown is a

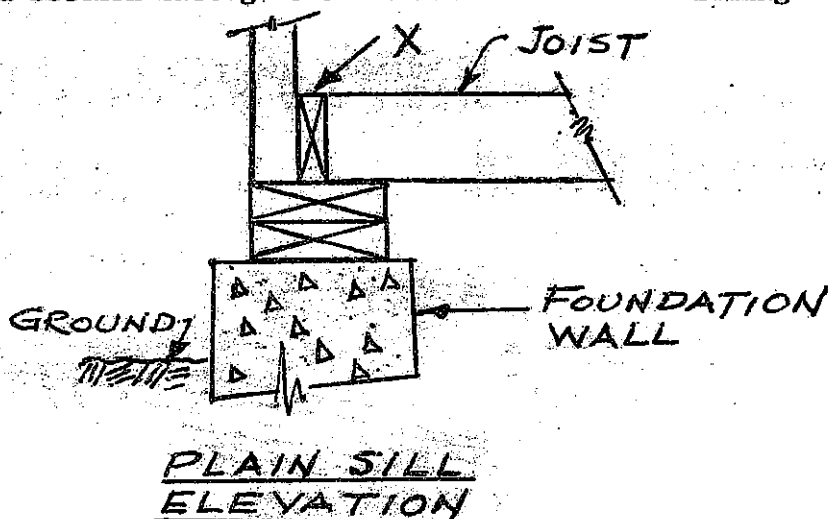
- (A) dove tail joint (C) shiplap joint
 (B) double butt joint (D) serrated joint.
77. In the construction of a wood frame building a metal shield is sometimes placed between the top of concrete piers and the wood girder resting on it. Of the following the best reason for the metal shield is to
- (A) spread the load over the pier
 (B) protect the wood against termites
 (C) insulate the building
 (D) allow for expansion and contraction of the wood.
78. Shown below is a section of wood molding.



The molding is

- (A) a reed (C) a round
 (B) a center bead (D) an astragal.

79. Wood is most frequently fastened to a concrete wall by
- (A) a clevis (C) a brad
(B) an expansion shield (D) a spike.
80. A bolt with a spring loaded part used for securing wood to a hollow wall is
- (A) an anchor bolt (C) a toggle bolt
(B) a stud bolt (D) a toe bolt.
81. The number of plane surfaces in a gambrel roof is
- (A) two (B) three (C) four (D) five.
82. The vertical members of a wooden door are known as
- (A) rails (B) stiles (C) struts (D) sleepers.
83. Driving nails at an angle to the surface of a vertical member in order to get adequate penetration into a horizontal member is known as
- (A) clinch nailing (C) French nailing
(B) toe nailing (D) dog nailing.
84. Collar beams are most often used on
- (A) trusses (C) girders
(B) windows (D) doors.
85. On a double-hung wood window the stool rests on the sill and
- (A) a mullion (C) an apron
(B) a rail (D) a stud.
86. In a two story wood frame building a fascia would be found on the
- (A) roof (B) stair (C) wall (D) floor.
87. A baluster is a part of a
- (A) roof (B) wall (C) floor (D) stair.
88. Stairtreads rest on strips of wood nailed to the inside of stair stringers. These strips of wood are called
- (A) shims (B) wedges (C) stubs (D) cleats.
89. Shown below is a section through the exterior wall of a building.



The member X represents a

- (A) wall plate (C) fire stop
(B) ledger (D) girder.

(Continued on page 13)

90. The molded projection which finishes the top of the wall of a building is a
- | | |
|-------------|-------------|
| (A) coronet | (C) cornice |
| (B) corolla | (D) cupola. |
91. The best reason for not painting a wood ladder is that
- (A) the paint may conceal cracks
 (B) it saves money not to paint the ladder
 (C) painted ladder rungs get very slippery when wet
 (D) the wood used is difficult to paint and paint spalls readily.
92. In case of a fire in the floor below in a building in which a carpenter is making alterations, the best action for the carpenter to take is to
- (A) walk quickly to the nearest stairway
 (B) walk quickly to the nearest elevator
 (C) collect all his tools and run to the nearest stairway
 (D) open all the windows and run to the nearest stairway.
93. Of the following the one that should not be used as an improvised tourniquet is a
- | | |
|-------------------------|--------------|
| (A) leather belt | (C) stocking |
| (B) venetian blind cord | (D) scarf. |
94. Of the following character traits, the best trait for a supervisor to have is
- | | |
|--------------|-------------------|
| (A) optimism | (C) punctuality |
| (B) rudeness | (D) decisiveness. |
95. Assume that you are acting in charge of a group of carpenters in the field installing partitions. You receive a telephone call from the office that they need a carpenter in the shop to do a rush job. Of the following the best action to take is to
- (A) send the senior carpenter
 (B) send the most capable carpenter
 (C) ask for volunteers
 (D) send the least capable carpenter.
96. In assigning additional work to Carpenters, a supervisor should first consider the Carpenter's
- | | |
|---------------------|------------------------|
| (A) seniority | (C) current work load |
| (B) previous output | (D) attendance record. |
97. In checking the daily work of several Carpenters at different locations a good supervisor should visit the men
- (A) according to each mans seniority
 (B) at random hours each day
 (C) according to location of nearest man first and farthest man last
 (D) according to priority of when jobs have to be completed.
98. Of the following jobs the one that usually requires written orders instead of oral orders is a job where
- (A) progress can be easily checked
 (B) emergency exists
 (C) a mistake will be of little consequence
 (D) many details are involved.

(Continued on page 14)

99. To obtain cooperation from subordinates, a supervisor should

- (A) complain about it
- (B) practice it
- (C) demand it
- (D) suggest it.

100. The best way to temporarily store oily sawdust in a carpenter shop before discarding the sawdust is in a

- (A) metal can with a perforated metal cover
- (B) metal can without a cover
- (C) metal can with an air tight metal cover
- (D) perforated metal can with an air tight cover.

END OF WRITTEN TEST

(Continued on page 15)