

DO NOT MAKE MARKS ON THE EXAM

Journeyperson - Level 1

USE A PENCIL TO COMPLETELY FILL IN THE CIRCLE ON THE BUBBLE SHEET DO NOT SELECT MORE THAN ONE ANSWER PER QUESTION DO NOT X OUT UNWANTED ANSWERS, **ERASE** THEM COMPLETELY

Version C

- 1. If work is being conducted within ____ of an overhead power line, the employer must contact the utility company and determine the voltage of the line.
 - a. 1 meter (3 feet)
 - b. 7 meters (23 feet)
 - c. 5 meters (16.5 feet)
 - d. 3 meters (10 feet)
- 2. Select the **best** description of a manufacturer's specification.
 - a. A legally enforceable code that applies to jobsites across Canada.
 - b. A guideline that describes the technical details of an item or product.
 - c. Methods that are accepted as the best way to accomplish a goal.
 - d. The criteria for the erection, use, and inspection of scaffolds.
- 3. Select the **best** answer. Which of the following is a key task in the planning phase of a scaffold job?
 - a. Routine inspection.
 - b. Project awareness.
 - c. Quality control.
 - d. Risk Assessment.
- 4. What is the diameter of the tube most commonly used for tube and coupler scaffold?
 - a. 25.5 mm (1 inch)
 - b. 48.8 mm (1.9 inches)
 - c. 63.3 mm (2.5 inches)
 - d. 38.8 mm (1.5 inches)
- 5. Select the **best** answer. Keeping your tasks on track is an example of:
 - a. Best practices.
 - b. Quality assurance.
 - c. Risk aversion.
 - d. Time management.



- 6. Select the **best** statement that describes bridging.
 - a. Scaffold bridging design must be approved by an engineer.
 - b. It can only be used for light duty applications.
 - c. Only system components can be used for bridging.
 - d. It must only be constructed using shoring components.
- 7. Select the **best** description of a manufactured scaffold deck.
 - a. They are modular and can be configured into irregular shapes.
 - b. They can be cut into specific sizes to fit the space required.
 - c. They come in set sizes with end hooks that fasten to scaffold bearers.
 - d. They are very large, with maximum widths up to one meter (3 feet).
- 8. Select the **best** answer. The distance between two given points or objects is called a measurement.
 - a. Tensile.
 - b. Projected.
 - c. Cubic.
 - d. Linear.
- 9. Select the **best** answer. Scaffolds are typically designed to support what type of load?
 - a. Horizontal loads.
 - b. Horizontal and vertical loads.
 - c. Vertical loads.
 - d. Point and eccentric loads.
- 10. Select the **best** answer. An important part of quality assurance is:
 - a. completing the field level hazard assessment at the start of the day.
 - b. inspecting components and confirming that scaffold tags are correct.
 - c. ensuring that the approved blueprints match the finished scaffold.
 - d. making sure your safety certifications and training are up to date.
- 11. What is the most important consideration in the design and erection of sidewalk hoarding?
 - a. There must not be any exposed components, such as wedges or ring styles.
 - b. Only shoring components are approved for public sidewalk hoarding.
 - c. The scaffold tags must be inspected and approved every seven days.
 - d. Each municipality has its own rules and regulations for the structure.



- 12. Once the scaffold erection is complete, what must occur before it is handed off to the end user?
 - a. It must be registered with the municipality for compliance.
 - b. It must be tagged with a red tag and secured from unauthorized use.
 - c. It must be tagged with a green tag for inspection by the end user.
 - d. It must be inspected for compliance with all local codes and regulations.
- 13. When should ties be used to stabilize a scaffold?
 - a. When the average wind speed exceeds 20 km/hour.
 - b. If the scaffold exceeds the height to base ratio.
 - c. If the supporting structure is made of stone or brick.
 - d. When the foundation consists of grass or soil.
- 14. Choose the correct description of a post (also known as a standard or upright).
 - a. A horizontal non-load-bearing member.
 - b. A vertical load-bearing member.
 - c. A vertical non-load-bearing member.
 - d. A horizontal load-bearing member.
- 15. Select the **best** answer. Why should you hold an object close to your body when you are lifting it?
 - a. To prevent slipping or falling.
 - b. To prevent a lower back injury.
 - c. So, you can keep your balance.
 - d. So, you can fit in tight spaces.
- 16. Who is responsible for the first assessment of hazards on a scaffold project?
 - a. A competent person.
 - b. You are.
 - c. Your employer.
 - d. The jobsite owner.
- 17. Select the **best** answer. For scaffolders, housekeeping duties include:
 - a. maintaining adequate personal hygiene and cleanliness.
 - b. delegating any cleaning tasks to the jobsite laborer's.
 - c. storing materials and equipment in the proper locations.
 - d. preparing the jobsite before the scaffold work begins.



- 18. Select the **best** answer. When are scaffold workers required to wear a harness and lanyard?
 - a. When working at heights greater than 1 meter (3 feet).
 - b. Any time during the erection or dismantling of the scaffold.
 - c. When working on an unfinished or red tagged scaffold.
 - d. When working at heights greater than 3 meters (10 feet).
- 19. At what point during erection should the access ladders be installed?
 - a. They should be installed every 4 meters (13 feet).
 - b. They should be installed at the end of the job.
 - c. They should be installed as the job progresses.
 - d. They should only be installed by the end user.
- 20. Which couplers are used for connecting diagonal braces to vertical or horizontal tubes in tube and coupler scaffolds?
 - a. Sleeve connectors.
 - b. Parallel couplers.
 - c. Inside tube connectors.
 - d. Swivel couplers.
- 21. Ladders must extend above the access platform.
 - a. 3 meters (10 feet)
 - b. 2 meters (6.5 feet)
 - c. 300 mm (12 inches)
 - d. 1 meter (39 inches)
- 22. What must be done with long tubes which have been kinked or badly damaged?
 - a. They are used to make special end fittings for other tubes.
 - b. The tubes can only be used as horizontal members.
 - c. They must be tagged as damaged and put aside for inspection.
 - d. The tubes can be straightened with special equipment.
- 23. What is the purpose of the diagonal members in a system scaffold structure?
 - a. They maintain an equal distance between inner and outer posts.
 - b. They increase the load bearing capacity of the scaffold structure.
 - c. They support ledgers and transoms.
 - d. They keep the scaffold plumb.



24.	a. distinct b. dead c. live d. Tensile		
25.	en do CSA Standards, such as the CSA Z797, apply to the work you are doing? a. CSA Standards apply on all jobsites across Canada. b. Only when the provincial OH&S code includes them. c. CSA Standards do not apply to jobsites in Canada. d. They apply only when there is no provincial OH&S code.		
26.	 elect the best description of heavy -duty scaffold platform. a. It can support evenly distributed loads of less than 367 kg/m2 (75 pounds/foot2). b. It can support evenly distributed loads of less than 122 kg/m2 (25 pounds/foot2). c. It can support evenly distributed loads of more than 367 kg/m2 (75 pounds/foot2). d. It can support evenly distributed loads of more than 122 kg/m2 (25 pounds/foot2). 		
27.	elect the best answer. During the dismantling process, where can you stand as you emove platform levels? a. On a temporary work platform. b. On any nearby component. c. On the access ladders. d. On the braces or runners.		
28.	f a knot is tied in a rope used for hoisting or rigging, the load calculation must allow for reduction in rope strength. a. 25% b. 25%		

c. 0%d. 50%



- 29. Select the correct description of the phrase 'due diligence'.
 - a. OH&S is obligated to take every precaution to prevent all accidents or injuries.
 - b. Your employer is required to take all reasonable precautions to prevent accidents.
 - c. Each scaffold crew must have at least one person with current First Aid certification.
 - d. Every member of the scaffold crew is required to have current First Aid certification.
- 30. Which unit of measurement are you required to understand to work as a scaffolder?
 - a. Both imperial and metric systems.
 - b. Just the imperial system.
 - c. Just the metric system.
 - d. Neither, you just need a calculator.
- 31. An end-user may use a scaffold:
 - a. with a current green or yellow tag.
 - b. with permission from a competent person.
 - c. with any green tag.
 - d. with a current green, yellow, or red tag.
- 32. During the active dismantling of a scaffold, sequencing is:
 - a. removing components in the correct order to maintain safety.
 - b. unloading and storing all materials in an organized fashion.
 - c. recording missing or damaged components on the material sheet.
 - d. ensuring there is enough room to load material for transport.
- 33. Select the **best** description of a light duty access platform.
 - a. It can support evenly distributed loads of less than 367 kg/m2 (75 pounds/foot2).
 - b. It can support evenly distributed loads of less than 122 kg/m2 (25 pounds/foot2).
 - c. It can support evenly distributed loads of more than 367 kg/m2 (75 pounds/foot2).
 - d. It can support evenly distributed loads of more than 122 kg/m2 (25 pounds/foot2).



- 34. Select the **best** answer. What is the defining feature of system scaffold?
 - a. System scaffold has connection points at fixed intervals.
 - b. The tube diameter is not the same size as tube and coupler.
 - c. It requires special tools during erection and dismantling.
 - d. System components can be easily combined with Frame scaffold.
- 35. Who is responsible for maintaining your personal protective equipment (PPE), such as boots or a hard hat?
 - a. Personal safety equipment is the responsibility of the jobsite owner.
 - b. Personal safety equipment is the responsibility of OH&S.
 - c. Personal safety equipment is your responsibility.
 - d. Personal safety equipment is your employer's responsibility.
- 36. A drawing that has been approved and signed off by a professional engineer must have the following label:
 - a. Construction Approval Granted.
 - b. Issued for Construction.
 - c. Designed for all Parameters.
 - d. There is no specific label required.
- 37. What is the point called where several couplers are connected at the same location?
 - a. The node point.
 - b. The load point.
 - c. The transfer point.
 - d. The attachment point.
- 38. Select the **best** description of scaffold that has a duty rating of more than 367 kg/m2 (75 pounds/foot2).
 - a. It must be approved and certified by a professional engineer.
 - b. It must not use planks with a span of more than 3 meters (10 feet).
 - c. It must be secured to the structure using ties regardless of height.
 - d. It must only be erected using tube and coupler components.



- 39. At the beginning of a job, you must load the components and equipment in the order it will need to be used. This is called:
 - a. quality control.
 - b. quality assurance.
 - c. control management.
 - d. material management.
- 40. Who is responsible for giving hand signals to a crane operator?
 - a. Anyone on the scaffold crew.
 - b. The designated signal person.
 - c. Only crane workers or operators.
 - d. Only a supervisor or foreperson.
- 41. The maximum height a worker can climb an access ladder between platforms is:
 - a. 3.1 meters (10 feet)
 - b. 9.1 meters (30 feet)
 - c. 6.2 meters (20 feet)
 - d. 4 meters (13 feet)
- 42. What is the role of a bearer in system scaffold?
 - a. Bearers are load bearing ledgers.
 - b. Bearers keep the scaffold square.
 - c. Bearers keep the scaffold plumb.
 - d. Bearers transfer vertical loads.
- 43. Select the **best** answer. What are the minimum pre-job certifications you need before you start work on a jobsite?
 - a. General safety training and specific training in hazard identification.
 - b. Advanced fall protection certification and confined space training.
 - c. No specific training or certifications are required in your first year.
 - d. A current First Aid certification course is required.
- 44. Select the **best** description of a swivel coupler.
 - a. They are able to support at least the same load as right angle couplers.
 - b. They are primarily used to attach non -load bearing vertical diagonal bracing.
 - c. They must only be used to connect horizontal members to vertical members.
 - d. They must not be used to join horizontal tubes together side-by-side.



- 45. What is the first step when dismantling a scaffold?
 - a. It must be inspected to ensure the scaffold has not been altered.
 - b. The planks must be inspected and removed.
 - c. The ties must be removed, starting at the top of the structure.
 - d. All guardrails, mid-rails, toe boards, and ladders must be removed.
- 46. At what locations on the scaffold must the scaffold tags be placed?
 - a. At any level where workers are present.
 - b. Tags are only required if there are ties.
 - c. On the narrow sides of the base lift.
 - d. At each point of access and egress.
- 47. Select the **best** answer. What material or materials are used to manufacture tube and coupler scaffold components?
 - a. Steel and aluminum.
 - b. Steel, aluminum, and fiberglass.
 - c. Aluminum.
 - d. Steel.
- 48. When must a Field Level Hazard Assessment be completed?
 - a. At the end of each shift or workday.
 - b. At the beginning of each shift or workday.
 - c. Any time work begins, or conditions change.
 - d. Any time a new scaffold project begins.
- 49. Select the **best** description of hand signals.
 - a. Each province has a recognized system of hand signals, approved by OH&S.
 - b. There is one approved system of hand signals that you must be aware of.
 - c. Each jobsite has its own signal system that you will learn at orientation.
 - d. There is no universal system of hand signals. They differ by trade or purpose.
- 50. Select the **best** description of a cantilever.
 - a. They can span and support scaffold structures over large work areas.
 - b. They require a special permit from the municipality before construction.
 - c. They extend the scaffold platform beyond the primary base or structure.
 - d. They are movable platforms suspended from buildings using wires.



- 51. Which of the following dimensions determine the cross brace size?
 - a. The locations of platforms and anchor ties.
 - b. The frame spacing and cross brace size.
 - c. The frame height and frame width.
 - d. The frame stud spacing and the frame spacing.
- 52. Which of the following items is NOT required on a scaffold tag,
 - a. An expiry date for the tag.
 - b. The duty rating of the scaffold.
 - c. The date of the last inspection.
 - d. All names of the scaffold erectors.
- 53. You are required to erect a frame scaffold on an uneven, but stable foundation. What do you do to ensure the scaffold will be level?
 - a. Install adjustable screw jacks.
 - b. Remove or compact the soil.
 - c. Use asphalt or concrete bricks.
 - d. Use mudsills of different sizes.
- 54. Which of the following statements **best** describes when scaffold components should be inspected?
 - a. When the erection of the scaffold is complete.
 - b. When the components are placed into storage.
 - c. Every time the components are handled.
 - d. Before the erection of the scaffold begins.
- 55. What is one of the load-bearing factors that must be considered when selecting scaffold frames?
 - a. The location of cross brace studs.
 - b. The thickness of the tube walls.
 - c. The number of vertical members.
 - d. The placement of access ladders.



- 56. What is the most important part of a tie?
 - a. The anchor.
 - b. The scaffold system.
 - c. The couplers.
 - d. The structure.
- 57. According to the CSA Standard, what is the correct safety factor for access scaffold?
 - a. The scaffold must support at least 5 times the load that may be imposed on it.
 - b. The scaffold must support at least 3 times the load that may be imposed on it.
 - c. The scaffold must support at least 2 times the load that may be imposed on it.
 - d. The scaffold must support at least 4 times the load that may be imposed on it.
- 58. Select the **best** description of OH&S Codes and Regulations.
 - a. They only apply when there is no CSA standard.
 - b. They do not apply to jobsites in Canada.
 - c. They apply in each province individually.
 - d. They apply to all Canadian jobsites equally.
- 59. In tube and coupler scaffold, what is the correct position of couplers for a base lift?
 - a. 300 mm (12 inches) above the sills.
 - b. Installed directly on the screw jack.
 - c. Installed directly on the base plate.
 - d. 50 mm (2 inches) above the sills.
- 60. Are outriggers permitted on rolling scaffolds?
 - a. Yes, but the casters must have locking brakes on them.
 - b. Yes, if it is attached with an adjustable screw jack.
 - c. It depends on the local jurisdictional requirements.
 - d. Yes, but the wheels must be 80 mm (30 inches) wide.
- 61. What keeps scaffold frames from separating and coming apart?
 - a. The weight of the structure.
 - b. Friction on coupling pins.
 - c. Cross and plan bracing.
 - d. Coupling and locking pins.



- 62. What should be done to a solid sawn wood scaffold plank if it has a small notch near the end?
 - a. The plank must be tagged and discarded immediately.
 - b. Nothing needs to be done; the plank can be used.
 - c. A competent person can cut the plank at the notch.
 - d. The plank can be used with others of the same size.
- 63. Before work begins on a new jobsite, who is responsible for conducting the initial hazard assessments?
 - a. All workers.
 - b. Scaffold workers.
 - c. Any competent person.
 - d. Your employer.
- 64. Select the **best** answer. If there is a hazard situation on the jobsite, how should you respond?
 - a. You should do whatever you can to control the hazard.
 - b. You should call 911 and immediately leave the jobsite.
 - c. You should inform a competent person of the situation.
 - d. You should wait for your supervisor to tell you what to do.
- 65. Select the **best** description of putlogs.
 - a. They are designed for use with shoring components.
 - b. They can only be used for light duty applications.
 - c. They are designed for heavy duty applications.
 - d. Putlogs are compatible with all scaffold systems.
- 66. In what situation would a scaffold require hoarding or netting?
 - a. To protect the area outside from the work being done on the scaffold.
 - b. To decrease the overall load on the ties and the supporting structure.
 - c. To protect the scaffold planks from conditions that will cause damage.
 - d. To allow the building owners to turn off the heat during construction.



- 67. Which coupler should be tightened first on the braces between standards?
 - a. Tighten the bolt couplers first.
 - b. Tighten the bottom swivel couplers first.
 - c. Tighten the right-angle couplers first.
 - d. Tighten the top swivel coupler first.
- 68. What is the purpose of a side bracket on a system scaffold?
 - a. To increase the width and/or length of the work platform.
 - b. To provide extra access to the work platform.
 - c. To provide a tie-off for fall arrest equipment.
 - d. To provide a connection for anchoring the access ladder.
- 69. Solve the following math problem: 100 x (4+100) x 4
 - a. 504
 - b. 41,600
 - c. 160,000
 - d. 800
- 70. In math, basic operations must be performed in a specific sequence. What is the first step of this sequence?
 - a. Brackets and exponents.
 - b. Division and multiplication.
 - c. Addition and subtraction.
 - d. Squared and cubic numbers.
- 71. When dismantling a scaffold, what should you do if you suspect the stability of the scaffold is in question?
 - a. Report on the issues during your next toolbox talk.
 - b. Take steps to repair the area and continue working.
 - c. Stop work immediately and notify your supervisor.
 - d. Get in touch with OH&S to report the safety issues.



72.	. The required height-to-base ratio for a scaffold in Canad		
	a.	5 to 1	

- b. 4 to 1
- D. 4 to 1
- c. 2 to 1
- d. 3 to 1
- 73. If guardrails are removed so work can be done in the area, how should the workers proceed?
 - a. Guardrails must not be removed for any reason.
 - b. The workers must replace the guardrail themselves.
 - c. Only one worker is allowed in the area at a time.
 - d. They must be attached to a fall protection system.
- 74. Select the **best** answer. Which of the following situations would need to be reported to OH&S?
 - a. A flood caused by heavy rains or snow melt.
 - b. A worker with a deep cut requiring stitches.
 - c. A minor accident between a truck and a forklift.
 - d. A complete scaffold collapse with no injuries.
- 75. Who must be informed of the maximum load that a scaffold is permitted to carry?
 - a. The scaffold erectors.
 - b. All workers.
 - c. A competent person.
 - d. The supervisor or foreperson.
- 76. Planks must extend a minimum of _____ and a maximum of ____ beyond the support.
 - a. 150 mm (6 inches) and 300 mm (12 inches).
 - b. 250 mm (10 inches) and 500 mm (20 inches).
 - c. 200 mm (8 inches) and 450 mm (18 inches).
 - d. 100 mm (4 inches) and 200 mm (8 inches).
- 77. What is the correct distance between the levels on a tube and coupler scaffold?
 - a. 2.44 meters (8 feet)
 - b. 2 meters (6 feet 6 inches)
 - c. 3 meters (10 feet)
 - d. 1.67 meters (5 feet 6 inches)



- 78. What is the primary purpose of vertical members?
 - a. They transfer loads to the ground.
 - b. They are node points for load-carrying members.
 - c. They support platform and decking materials.
 - d. They resist and reduce lateral forces.
- 79. A diagonal brace is to be placed against a scaffold. If the top intersection of the brace is 3 units high, and the distance across the base is 4 units how long will the brace have to be?
 - a. 6 units.
 - b. 7 units.
 - c. 8 units.
 - d. 5 units.
- 80. Select the **best** description of shoring.
 - a. The components are made using heavy duty steel.
 - b. The components are similar to scaffold components.
 - c. Shoring is a commonly used term for scaffold.
 - d. It can be intermixed with scaffold components.
- 81. Guardrails must be able to support a point load applied in any direction of:
 - a. 450 Newtons (101 pounds).
 - b. 1350 Newtons (303 pounds).
 - c. 900 Newtons (202 pounds).
 - d. 225 Newtons (50 pounds).
- 82. What is the purpose of a check clamp?
 - a. It prevents the load bearing coupler from slipping.
 - b. It allows two tubes to be connected end to end.
 - c. It allows tubes of different diameters to be connected.
 - d. It acts as a bridge between two tubes or supports.
- 83. What is the primary purpose of project management?
 - a. To provide direction for the successful completion of a job.
 - b. Completing a scaffold job under-time and under-budget.
 - c. Zero safety incidents at the jobsite for the duration of the job.
 - d. Finishing the scaffold job on time with the required resources.



- 84. When selecting casters for system scaffold, what is the most important consideration?
 - a. The wheel diameter and width.
 - b. The tread depth on the wheel.
 - c. The ground cover and location.
 - d. The load rating of the caster.
- 85. How do System scaffold posts keep from pulling apart?
 - a. The weight of the scaffold keeps them in place.
 - b. Coupling pins are attached to the bottom and top posts.
 - c. They are permanently welded and cannot come apart.
 - d. Coupling pins fit tightly into the ends of each post.
- 86. What is the first step when erecting a scaffold on an existing floor, roof, or suspended slab?
 - a. Cover the entire surface in plywood.
 - b. Install padding on the top of the mudsill.
 - c. Obtain the load rating for the surface.
 - d. Install special base plates and mudsills.
- 87. What does 'maximum allowable load' mean?
 - a. The load at which complete or partial failure occurs.
 - b. The ultimate load divided by the factor of safety.
 - c. The sum of all of the live and dead loads.
 - d. The ratio of ultimate load to load refusal.
- 88. What is the purpose of a horizontal diagonal (plan) brace on a system rolling tower?
 - a. It securely attaches the casters to the standards.
 - b. It provides an anchor point for the access ladder.
 - c. It keeps the scaffold square when it is being moved.
 - d. It locks the runners and bearers during movement.
- 89. When is a mudsill, base plate, or screw jack with base plate required on a stationary scaffold?
 - a. These components are required at all times.
 - b. Only when ties are not required.
 - c. When the scaffold is erected on dirt.
 - d. When erecting tube and coupler scaffold.



- 90. A scaffold project is considered to be closed when:
 - a. the complete scaffold is inspected and handed off to the end user.
 - b. the scaffold is dismantled and put into storage for the next use.
 - c. the blueprints have been stamped and approved by the engineers.
 - d. the quality assurance and quality control process are complete.
- 91. When the requirements of a scaffold job change or increase, it also increases the of the project.
 - a. commitment
 - b. quality
 - c. cost
 - d. risk
- 92. Scaffold components are made by many different manufacturers. When erecting a frame scaffold, you may:
 - a. only use components from one manufacturer, they cannot be mixed.
 - b. mix components from approved manufacturers, only some are compatible.
 - c. only mix components that fit together or that have similar measurements.
 - d. use or mix components from any manufacturer, as they are all compatible.
- 93. What are the three components of a tie?
 - a. The force of compression, the scaffold, and the structure.
 - b. The force of tension, the uprights, and the building.
 - c. The force of tension, the force of compression, and the anchor.
 - d. The scaffold, the braces, and the anchor.
- 94. The installation of a cantilever on a scaffold structure adds to the load.
 - a. tensile
 - b. dead
 - c. live
 - d. point
- 95. What is the primary purpose of adjustable screw jacks?
 - a. They stabilize the scaffold.
 - b. They level the scaffold.
 - c. They add height to the scaffold.
 - d. They increase the base dimension.



- 96. Name the coupler that is most often used for connecting the horizontal and vertical members of tube and coupler scaffold.
 - a. Parallel coupler.
 - b. Inside tube connector.
 - c. Sleeve connector.
 - d. Right angle coupler.
- 97. Which tool is appropriate for ensuring a scaffold transom is level?
 - a. Torpedo level.
 - b. Plumb bob.
 - c. Builders level.
 - d. String line.
- 98. Wedges and bolts should not be overtightened because:
 - a. it makes it too difficult for the end user to remove them.
 - b. it reduces the allowable load of the overall structure.
 - c. it causes the tubes to narrow where the parts are installed.
 - d. the resulting damage shortens the lifespan of the parts.
- 99. In what situation can coupling pins be used with different sized collars?
 - a. They must have the same allowable load rating.
 - b. They can be mixed on any type of frame scaffold.
 - c. Only if they're from the same manufacturer.
 - d. They can never be mixed with different sizes.
- 100. What is the correct procedure for bracing frames?
 - a. Every single frame must have a cross brace attached to it.
 - b. Every second cross brace stud must have a cross brace attached.
 - c. Every frame must be braced to at least one other frame.
 - d. Every cross-brace stud must have a cross brace attached to it.