



SYSTEM SCAFFOLD



COMPETENT PERSON TRAINING

VERSION 11-19

ENDORSEMENT EXAM

INSTRUCTIONS IMPORTANT!

Read these instructions carefully before you start the exam.

DON'T WRITE IN THESE BOXES

I.D. NUMBER **PHONE NUMBER** **TEST FORM**

LAST NAME **FIRST NAME** **M.I.** **CODE**

SIMPSON HOMER J []

NAME **SUBJECT** **DATE** **HOURLY**

HOMER J. SIMPSON
CPT FRAME SCAFFOLDS
3 MARCH 2018

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- Use PENCIL only
- Write your name in CAPITAL letters
- Shade in the corresponding dot below each letter in your NAME.
- Make sure to shade in the whole dot as shown.
- ERASE thoroughly any mistakes
- Make sure the row number of the dot you shade matches the question you are answering
- Take time to check that you did not miss any questions.



USE IT OR LOSE IT?

Inspect the System Scaffold components in the pictures above and read the questions below and decide if it is safe to use.

- 1. PICTURE A: This V-Lock System Scaffold member is very rusty. Should it be used?**
 - a) YES
 - b) NO
- 2. PICTURE B: The components below this platform show signs of corrosion. Is this scaffold safe to use?**
 - a) YES
 - b) NO
- 3. PICTURE C: The baseplate on this screwjack is curled upwards in one corner - should you use it?**
 - a) YES
 - b) NO



SCENARIO:

ONE

You have been hired to build a photography platform 12ft (3.65m) above and across this motorcycle track for an upcoming 3 day race. The track is 25ft (7.62m) wide and there is 8ft (2.43m) of grass and compacted soil on either side of the track. The anticipated load on the platform is 10 - 12 photographers and their equipment.

SCENARIO SUMMARY:

WORK/ACTIVITY: *Photo/video of race*

TYPE & SHAPE OF STRUCTURE: *Outdoor race track 25ft (7.62m) wide*

CONDITIONS: *Outdoor use, grass/compacted soil foundation*

DURATION: *3 days*

LOADS: *10 - 12 photographers + equipment*

SCENARIO QUESTIONS

CHOOSE THE BEST ANSWER:

4. **What System Scaffold component(s) are used to span wider openings and support platforms?**
 - a) Runners
 - b) Sidebrackets
 - c) Lattice Girders
5. **What type of protection must you provide for the users of the platform?**
 - a) Enclose the scaffold to protect from bad weather
 - b) Install guardrails on all open sides and ends of the platform.
 - c) Install a catch platform below the scaffold
6. **How will you make sure the scaffold won't "sink" into the ground if it rains?**
 - a) Use appropriate size sills beneath the baseplates
 - b) Pour a concrete foundation below the scaffold
 - c) Spread plastic sheets under the scaffold
7. **The configuration of this scaffold will be two towers connected together to install a platform across the track. This type of scaffold is called....**
 - a) A bridging scaffold
 - b) A birdcage scaffold
 - c) A hanging scaffold
8. **What information could you expect to find in the sketch of this scaffold?**
 - a) Elevations
 - b) Manufacturer's specifications
 - c) Equipment list
9. **The race organizers want to hang plastic promotional banners on the scaffold. How might this affect the scaffold?**
 - a) The scaffold could be subjected to greater horizontal loads due to wind.
 - b) The weight of the banners could cause the scaffold to collapse.
 - c) The banners could damage the surfaces of the scaffold posts.



38ft
(11.58m)

SCENARIO:

TWO:

This 38ft (11.58m) tank needs to be sandblasted and re-painted. There is limited space on one side due to the adjacent building. A crew of three men will be required to sandblast and re-paint the tank over a period of two weeks. The loads will include the men and their materials/equipment. The foundation is a combination of compacted soil and gravel and is uneven in places.

SCENARIO SUMMARY:

WORK/ACTIVITY: *Sandblasting & re-painting*

TYPE & SHAPE OF STRUCTURE: *Circular tank with limited access on one side.*

CONDITIONS: *Outdoor use. Compacted soil and gravel surface.*

DURATION: *2 weeks*

LOADS: *3 men + sandblasting and painting materials/equipment.*

SCENARIO


CHOOSE THE BEST ANSWER:

- 10. Due to obstacles and limited space, around the tank which type of scaffold would be least suitable for this job?**
- a) Tube & Clamp Scaffold
 - b) System Scaffold
 - c) Frame Scaffold
- 11. Before you can build the scaffold what do you have to do?**
- a) Make sure the area where the scaffold is to be built is clear and nothing is in the way.
 - b) Excavate the soil and replace with crushed stone.
 - c) Attach a red tag so workers know the scaffold is not ready to use.
- 12. The foundation is uneven. What will you need to make the scaffold level?**
- a) Screwjacks
 - b) Wood or bricks for blocking or packing
 - c) Extension tubes with baseplates
- 13. What System Scaffold component(s) provides lateral bracing and also helps to set up and level the base?**
- a) Screwjacks
 - b) Base collars
 - c) Plan brace
- 14. How is the load transferred to the ground in a System Scaffold?**
- a) Through the bearer to the sill
 - b) Through the diagonal braces
 - c) Through the post to the sill
- 15. Why are the majority of parts of a system scaffold made from 1.9in (48.3mm) outside diameter tubes?**
- a) To enable the user to mix parts from different manufacturers
 - b) So they can be used with Tube & Clamp fittings
 - c) So steel and aluminum tubes can be used together on the same scaffold.

SCENARIO:

THREE:

This ship is in dry dock for 3 months for repairs and re-painting. A crew of 12 men will be working on different areas of the hull at the same time so there needs to be working platforms at several different levels. The loads will include the men, their welding and painting equipment and materials.



110ft
(33.5m)

SCENARIO SUMMARY:

Work/activity:	<i>Repair and repaint ship</i>
Structure:	<i>Curved ship hull</i>
Conditions:	<i>Exterior dry dock, smooth flat concrete foundation</i>
Duration:	<i>3 months</i>
Loads:	<i>Welding and painting equipment + 20 workers</i>

SCENARIO QUESTIONS:
TRUE OR FALSE?

- 16. System Scaffolds can only be built on a smooth, dry and level foundation.**
a) True
b) False
- 17. System Scaffold can be built around irregular-shaped structures because the verticals and horizontals come in different lengths.**
a) True
b) False
- 18. The concrete foundation will be able to support the anticipated loads.**
a) True
b) False
- 19. You can provide weather protection for the workers by enclosing the scaffold.**
a) True
b) False

SCENARIO QUESTIONS:
CHOOSE BEST ANSWER

- 20. You can't attach scaffold ties to the ship. What can you do to ensure the scaffold will be stable?**
a) Extend the width of the scaffold base.
b) Use casters with double-acting brakes.
c) Attach horizontal diagonal braces in every third bay.
- 21. You will use a scaffold hoist to get components to the upper lifts. What precautions must you take?**
a) Install a canopy structure beneath the scaffold in case any equipment falls.
b) Compensate for the overturning forces imposed on the scaffold by the hoist.
c) Make sure the hoist uses 16 gauge (1.29 mm diameter) wire ropes.
- 22. How will you determine the bracing requirements for the System Scaffold you need to build?**
a) Follow manufacturer's instructions regarding bracing requirements for your scaffold equipment.
b) By first determining the maximum bay width.
c) Bracing should be in every second bay horizontally.



HAZARDS

CHOOSE THE BEST ANSWER:

23. **PICTURE A:** What serious hazard(s) can you see in this photo?
- a) Electrical Hazard
 - b) Unstable foundation
 - c) Fall Hazard & Unsafe Access

24. **PICTURE B:** Why is this considered unsafe access?
- a) The ladder is not securely attached to the scaffold.
 - b) The worker is not climbing with three points of contact
 - c) The worker isn't wearing personal fall arrest equipment.

25. **PICTURE C:** What is the main hazard in this image ?
- a) The toeboard is not secured to the posts.
 - b) The scaffold is not tied to the structure.
 - c) The baseplate is not bearing on a stable foundation.