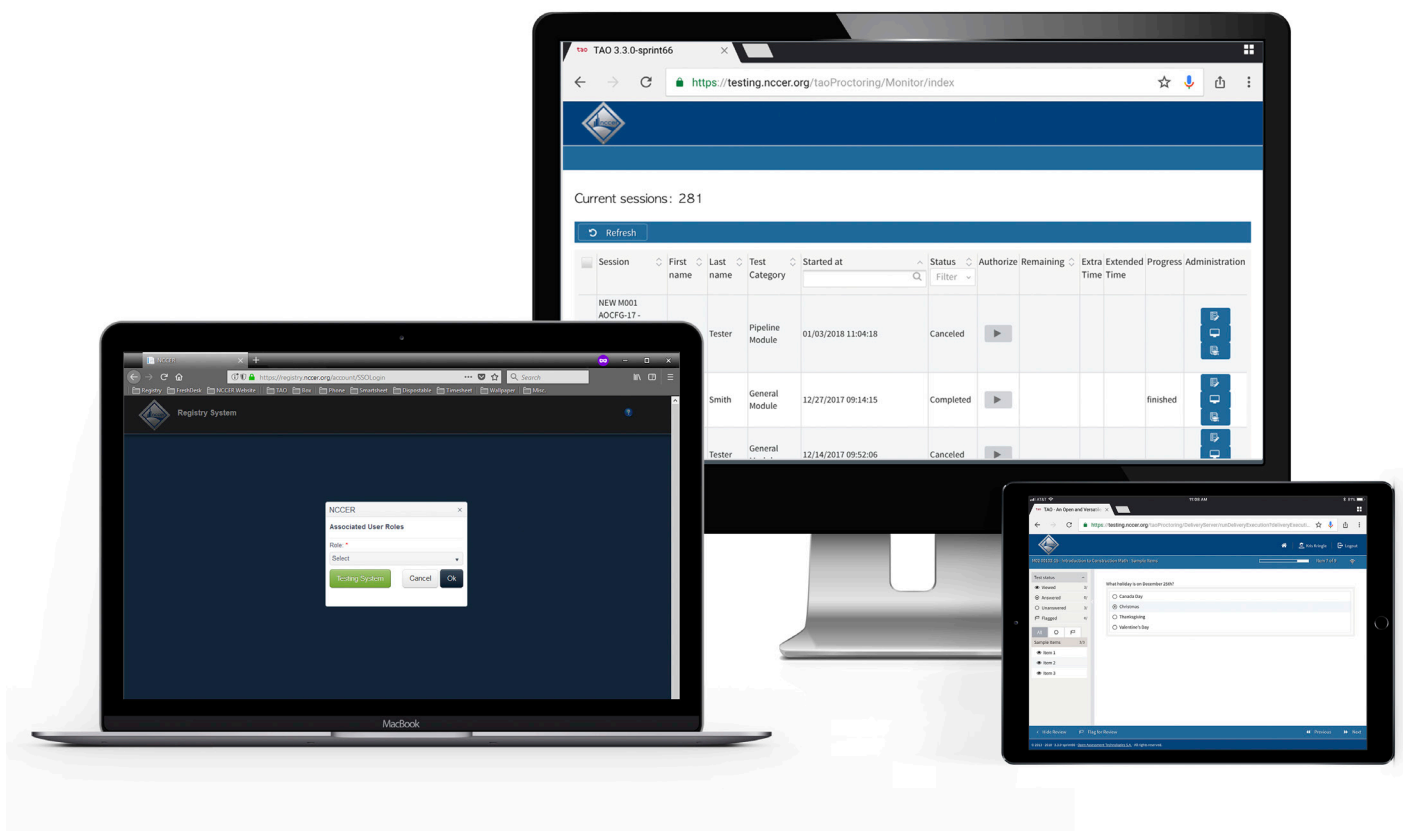


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Module 19310 Exam

Jacket Fabrication—Piping and Fittings

Trainee Name: _____

Social Security Number: _____ Date: _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- Which of the following sheet metal jacket finishes would reflect the most sunlight, making dents more obvious?
 - Smooth
 - Epoxy-painted
 - Stucco-embossed
 - Corrugated
- With which of the following statements is true?
 - Service temperature is an important factor for choosing sheet metal jacket material.
 - Only one type of jacket securement is approved for hot-service systems.
 - Penetrating fasteners should not be used for securing cold-service system jacket.
 - Aluminum banding for jacket securement is recommended for corrosive environments.
- When installing insulation jacket on overhead horizontal pipes, _____.
 - stop the jacket at the pipe hanger and continue it on the far side
 - run the jacket through the pipe hanger and saddle
 - install heavy sheet metal jacket at the hangers to prevent crushing the insulation
 - cut holes in the jacket under rigid insulation inserts
- If 73' (22.3 m) of pipe is to be jacketed with 36" (91.4 cm) roll sheet metal sections with a 2" (5.1 cm) butt overlap, how many whole sections will be required?
 - 23
 - 24
 - 26
 - 28
- One important structural reason for preparing the edge of sheet metal with a crimper is to _____.
 - make a decorative edge
 - ensure a close friction fit between pieces
 - fabricate a Pittsburgh seam
 - create an overlap at the jacket seam
- A finished Pittsburgh seam between two pieces of sheet metal has the advantage of _____.
 - slipping for ease of disassembly
 - resisting expansion and contraction
 - providing pre-fabricated holes for screws or rivets
 - joining sheet metal pieces without screws or rivets

7. A 36" (31 cm) pipe jacket section should have _____.
 - a. three evenly spaced bands
 - b. four evenly spaced bands
 - c. five evenly spaced bands
 - d. six evenly spaced bands

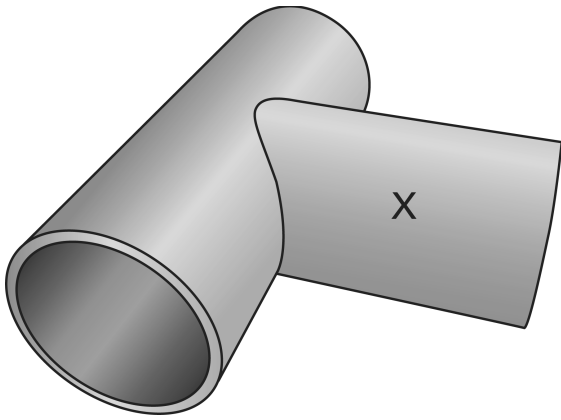
8. When planning the installation of jacket on any piping run, what is the main thing to keep in mind for the sequence of section installation?
 - a. Whole sections should be installed before cut sections.
 - b. Start at walls and work toward the middle of the pipe run.
 - c. Jacket the pipe run except for brackets, then go back and do the brackets.
 - d. Place the jacket seams in a sequence so they will always shed water.

9. What is the minimum required overlap between pipe jacket and an elbow jacket?
 - a. 1" (3 cm)
 - b. 2" (5 cm)
 - c. 3" (8 cm)
 - d. 4" (10 cm)

10. When preparing to measure pipe jacket for cutting a hole for a penetration, you should make sure that _____.
 - a. you know the thickness of insulation
 - b. you know the circumference of the insulated pipe
 - c. you have offset compound shears to make the hole
 - d. the jacket is snug and positioned so that the lap is aligned with the previous jacket

11. The term field-fabricated elbow jacket refers to elbow jacket _____.
 - a. laid out and made by the insulation mechanic
 - b. made out of a single piece of sheet metal
 - c. pressed into shape from sheet metal
 - d. obtained from distributors and installed in the field

12. Why is a good batten useful for laying out elbow jacket gore patterns?
 - a. It makes clear circles on sheet metal.
 - b. It helps to maintain the proper drawing scale.
 - c. It helps with creating smooth curves on a pattern.
 - d. It helps transfer the same dimensions repeatedly.



13. What part of the pipe tee is labeled "X" in the figure above?
- Stem pipe
 - Branch pipe
 - Main pipe
 - Cross pipe
14. To complete the jacket installation for an unequal tee with a larger branch pipe and smaller main pipe, what often is needed to finish it off?
- Structural foam must be sprayed under the jacket overhang.
 - Mineral fiber insulation is stuffed into the jacket overhang.
 - Jacket filler pieces are snapped into the jacket overhang.
 - Duct tape is applied to cover the jacket overhang.
15. Metal jacket covers for valve and pipe flanges are commonly field-fabricated with _____.
- multiple mitered gores
 - two-piece pressed covers
 - two-piece end caps
 - adhesive-backed aluminum sheet

Module 19310 Answer Key

Jacket Fabrication—Piping and Fittings

Question	Answer	Section Reference	Objective
1.	A	1.1.1	1a
2.	C	1.1.2	1a
3.	B	1.2.0	1b
4.	C*	1.3.0	1c
5.	B	1.4.2	1d
6.	D	1.4.2	1d
7.	B	2.1.0	2a
8.	D	2.1.0	2a
9.	A	2.2.1	2b
10.	D	2.3.0	2c
11.	A	2.4.2	2d
12.	C	2.4.2	2d
13.	B	2.5.0	2e
14.	C	2.5.2	2e
15.	C	2.6.3	2f

*Calculations for this question are provided below:

Question 4

Pipe length:

$$73' \times 12" = 876" (2,225 \text{ cm})$$

Jacket Exposed Length:

$$36" - 2" = 34" (86.4 \text{ cm})$$

Number of Sections:

$$876" \div 34"/\text{section} = 25.8 = \mathbf{26 \text{ sections}} \text{ (round up)}$$

or

$$2,225 \text{ cm} \div 86.4 \text{ cm}/\text{section} = 25.8 = \mathbf{26 \text{ sections}} \text{ (round up)}$$