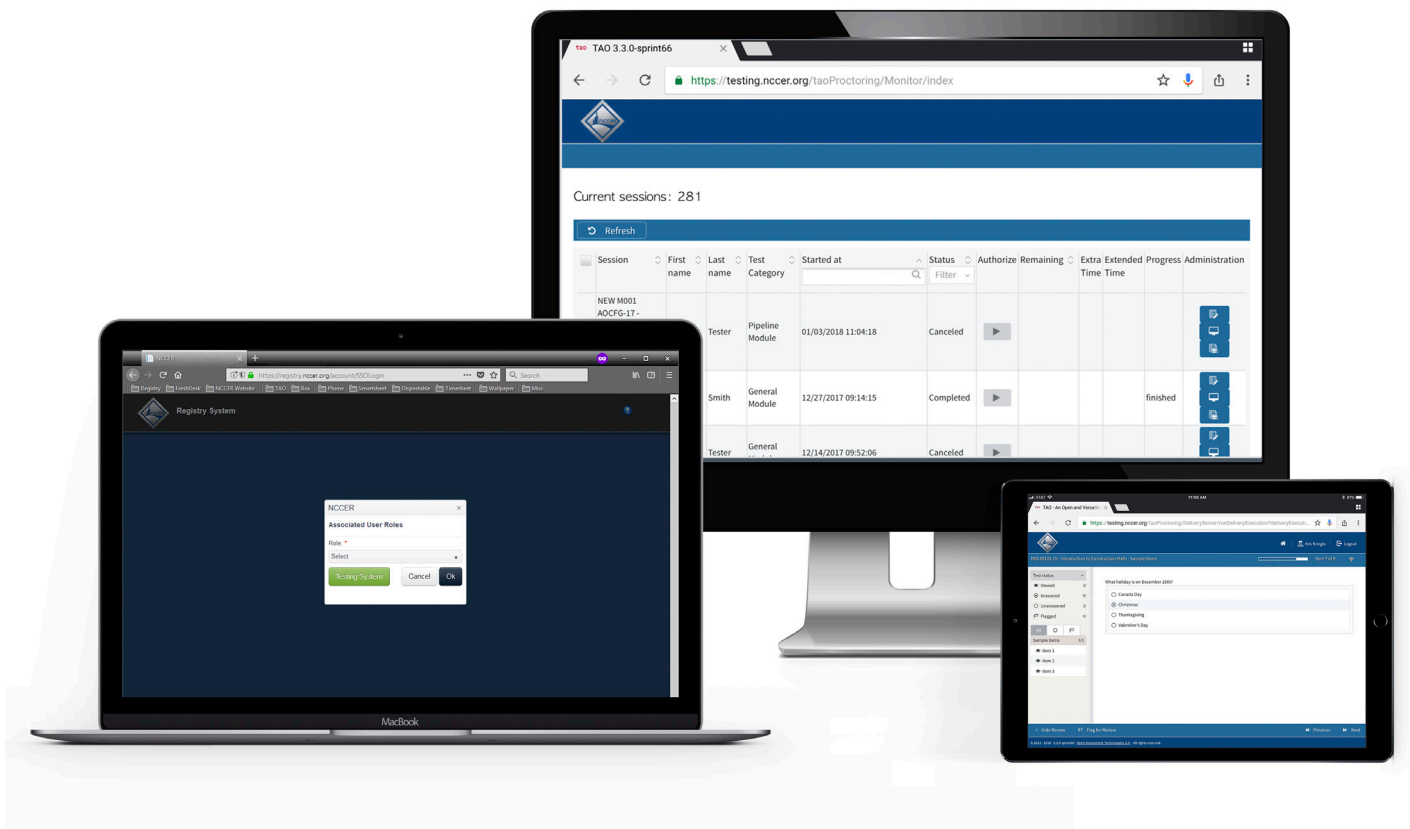


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Module 19207 Exam

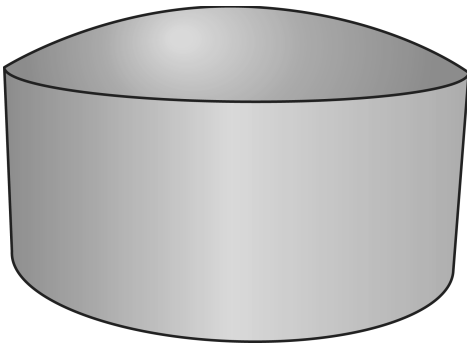
Board and Block Insulation

Trainee Name: _____

Social Security Number: _____ Date: _____

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

1. Rigid polymeric foam is made from _____.
 - a. calcium silicate foam
 - b. plastic foam
 - c. glass foam
 - d. resin foam
2. Faced fiberglass board insulation is limited to service temperatures of less than _____.
 - a. 1,000°F (540°C)
 - b. 850°F (450°C)
 - c. 450°F (232°C)
 - d. 150°F (66°C)
3. The friability of glass foam blocks requires which of the listed actions?
 - a. Limiting the block stack height
 - b. Use of PPE for skin and eye protection
 - c. Minimizing temperature changes
 - d. Coating it in mastic or adhesive
4. The use of a solvent-based mastic may be restricted during application because _____.
 - a. the system must be hot
 - b. it is flammable
 - c. it can dissolve most types of board insulation
 - d. the system must be cold
5. Metal jacketing is usually installed over board and block insulation because of its _____.
 - a. insulating properties
 - b. vapor retarder properties
 - c. anticorrosion properties
 - d. protective properties
6. For insulating a cylindrical vessel 14' in diameter with 3.5" thick block, how many lags per course will be required if the lag's outer width is 4.5"?
 - a. 119
 - b. 121
 - c. 123
 - d. 125



7. The vessel head shown in the figure would best be described as _____.
 - a. flat
 - b. elliptical
 - c. a cap
 - d. conical

8. Tops of large vessels that may be walked on are usually insulated with _____.
 - a. fiberglass batt
 - b. rigid block or board
 - c. mineral wool board
 - d. polymeric foam board

9. The maximum width of an insulation gore to cover a vessel head should be determined by _____.
 - a. the number of gores chosen to cover the head
 - b. the preference of the insulation mechanic
 - c. limiting the size of gap between the board and vessel surface
 - d. the diameter of the vessel

10. Why is a gore pattern valuable for covering a spheroidal shape?
 - a. It is least wasteful of materials.
 - b. It permits flat materials to cover a curved surface.
 - c. It is the easiest pattern to use.
 - d. It is the only pattern that works.

Module 19207 Answer Key

Board and Block Insulation

Question	Answer	Section Reference	Objective
1.	B	1.1.3	1a
2.	D	1.1.1	1a
3.	B	1.2.2	1b
4.	B	1.3.1	1c
5.	D	1.3.2	1c
6.	C*	2.1.1	2a
7.	C	2.2.1	2b
8.	B	2.2.3	2b
9.	C	2.3.1	2c
10.	B	2.3.0	2c

*Calculations for this question are provided below:

Question 4

Convert vessel diameter to inches:

$$14 \text{ ft} \times 12"/\text{ft} = 168"$$

Calculate insulation diameter:

$$\text{vessel diameter} + 2 \times \text{insulation thickness} = 168" + 3.5" + 3.5" = 175"$$

Calculate insulation circumference:

$$175" \times 3.14 = 549.5"$$

Divide insulation by lag outer width:

$$549.5" \div 4.5" = 122.1 \text{ lags per course (round up to } \mathbf{123})$$