# TREC Roof Systems 200 Hr Practice Test (Sample)

## Study Guide


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# Questions

**1. What is the minimum gauge requirement for galvanized sheet metal used for open roof valley flashing for asphalt shingles?**

**A. 24 gauge**

**B. 26 gauge**

**C. 28 gauge**

**D. 30 gauge**

**2. What is the recommended lifespan for asphalt shingles?**

**A. 10 to 15 years**

**B. 15 to 30 years, depending on quality and climate**

**C. 30 to 50 years**

**D. 5 to 10 years**

**3. True or False: No one should walk on roofs made out of slate.**

**A. True**

**B. False**

**C. Only professionals should**

**D. Only in dry conditions**

**4. On a site with expansive soil, roof drainage water should discharge at least how many feet from the foundation walls?**

**A. 3 feet**

**B. 5 feet**

**C. 10 feet**

**D. 15 feet**

**5. What is the name given to the bottom of a roof slope?**

**A. Ridge**

**B. Peak**

**C. Gable**

**D. Eave**

**6. What is the correct statement regarding the fastening of mineral surfaced roll roofing?**

- **A. Must be fastened to solid sheathed roofs**
- **B. Shall not be fastened to solidly sheathed roofs**
- **C. Can be fastened if sealed**
- **D. Should be glued only**

**7. How can roof performance be evaluated?**

- **A. By calculating the total roof area**
- **B. Through regular inspections and assessments after severe weather events**
- **C. By evaluating the color and design of the roof**
- **D. Through the installation date**

**8. What is the required minimum roof slope at which special fastening methods are needed for asphalt shingles?**

- **A. 15 units vertical in 12 units horizontal**
- **B. 10 units vertical in 12 units horizontal**
- **C. 5 units vertical in 12 units horizontal**
- **D. 20 units vertical in 12 units horizontal**

**9. What is a common method to inspect a roof for damage?**

- **A. Visual inspection from the roof**
- **B. Visual inspection from the ground or ladder**
- **C. Infrared scanning**
- **D. Ultrasonic measurements**

**10. What is the minimum size for collar ties?**

- **A. 1"×2"**
- **B. 1"×3"**
- **C. 1"×4"**
- **D. 1"×5"**

# Answers

**1. B**
**2. B**
**3. A**
**4. B**
**5. D**
**6. B**
**7. B**
**8. D**
**9. B**
**10. C**

# Explanations

## 1. What is the minimum gauge requirement for galvanized sheet metal used for open roof valley flashing for asphalt shingles?

**A. 24 gauge**

**B. 26 gauge**

**C. 28 gauge**

**D. 30 gauge**

**The minimum gauge requirement for galvanized sheet metal used for open roof valley flashing for asphalt shingles is 26 gauge. This specification is important because the gauge thickness of the metal impacts its strength and durability. Using a material that is at least 26 gauge ensures that the flashing will provide adequate support and resist bending or warping. Flashings are critical components of the roofing system, as they help direct water away from vulnerable areas, such as the intersection of two roof planes. A thicker gauge, like 26, offers better resistance to weather conditions and the weight of accumulated debris, ultimately prolonging the life of the flashing and the integrity of the roof system. Choosing a gauge thicker than 26 would be acceptable, but using anything lighter, such as 28 or 30 gauge, may not provide the necessary durability and protection, which could lead to water infiltration and damage over time.**

## 2. What is the recommended lifespan for asphalt shingles?

**A. 10 to 15 years**

**B. 15 to 30 years, depending on quality and climate**

**C. 30 to 50 years**

**D. 5 to 10 years**

**The recommended lifespan for asphalt shingles is generally between 15 to 30 years, with variations depending on factors such as the quality of the shingles and the climate in which they are installed. Higher-quality asphalt shingles, often called architectural or dimensional shingles, can last longer due to their thicker construction and better resistance to weather-related damage. Additionally, geographical location plays a significant role; in regions with extreme weather conditions, such as heavy winds, hail, or intense heat, the lifespan may be shortened. Understanding these variables is crucial for homeowners and professionals in the roofing industry when making recommendations for roofing materials. Thus, the range provided reflects a balanced understanding of these influencing factors, making this the correct answer.**

## 3. True or False: No one should walk on roofs made out of slate.

**A. True**

**B. False**

**C. Only professionals should**

**D. Only in dry conditions**

**The statement that no one should walk on roofs made out of slate is a reflection of the inherent fragility and potential hazards associated with slate roofing. Slate roofs are typically comprised of thin, naturally occurring stone tiles that can be quite brittle. When weight is applied, especially from someone who is not experienced in navigating such surfaces, there is a significant risk of breaking the tiles, which could lead to costly repairs and structural damage. In addition, walking on a slate roof can also create safety hazards for the person walking on it. The surface can be slippery, particularly in wet conditions, increasing the risk of slips and falls. This makes it advisable to avoid walking on slate roofs unless absolutely necessary. While there are situations where it may be essential for maintenance work to be performed by professionals, the overarching principle is that, due to the characteristics of slate roofs, it is generally best to avoid foot traffic altogether. Hence, the statement is accurately conveyed as true.**

## 4. On a site with expansive soil, roof drainage water should discharge at least how many feet from the foundation walls?

**A. 3 feet**

**B. 5 feet**

**C. 10 feet**

**D. 15 feet**

**Discharging roof drainage water at least 5 feet from the foundation walls is important to prevent soil erosion and maintain the structural integrity of a building, especially in areas with expansive soils. Expansive soils are prone to significant volume changes with moisture variations, which can lead to ground movement and potential damage to the foundation. When water is allowed to pool too close to the foundation, it can increase the moisture content in the surrounding soil, exacerbating the swelling and shrinking cycles of expansive soils. By ensuring that water is discharged at least 5 feet away, there is a reduced risk of causing such adverse effects. This distance helps to keep the foundations stable and mitigates the potential for structural damage over time, ensuring the longevity and safety of the building. While other distances may be considered in different contexts or for various soil types, the 5-foot benchmark is widely accepted for managing drainage effectively in expansive soil areas.**

## 5. What is the name given to the bottom of a roof slope?

**A. Ridge**

**B. Peak**

**C. Gable**

**D. Eave**

**The term used to identify the bottom of a roof slope is the eave. The eave serves as the overhang at the edge of the roof, extending beyond the walls of the building. This design is crucial for directing rainwater away from the foundation, preventing water damage, and improving aesthetics. Additionally, the eave often includes features like gutters which collect rainwater and funnel it away from the structure. Understanding the function of the eave and its placement in the overall roof structure is essential. This helps ensure proper drainage and enhances the longevity of the roofing system. Other terms like ridge (top of the roof), peak (highest point of a pitch), and gable (triangular wall section at the end of a pitched roof) refer to different parts of the roof structure and do not denote the bottom of the slope.**

## 6. What is the correct statement regarding the fastening of mineral surfaced roll roofing?

**A. Must be fastened to solid sheathed roofs**

**B. Shall not be fastened to solidly sheathed roofs**

**C. Can be fastened if sealed**

**D. Should be glued only**

**The correct statement regarding the fastening of mineral surfaced roll roofing is that it shall not be fastened to solidly sheathed roofs. Mineral surfaced roll roofing is a type of roofing material that is commonly used for low-slope applications. When considering the installation of this material, it is crucial to ensure that it is applied to structures designed to accommodate the specific fastening requirements. Solidly sheathed roofs do not allow for the necessary ventilation and moisture management that roll roofing systems need to perform effectively over time. If fastened directly to a solid surface, there is a risk of moisture accumulation which can lead to roofing issues such as deterioration or mold growth. Instead, the installation should typically be performed over a more suitable underlayment or system that provides better ventilation and drainage, ensuring the longevity and effectiveness of the roofing system. This approach helps maintain the integrity of both the roofing and the underlying structure.**

## 7. How can roof performance be evaluated?

**A. By calculating the total roof area**

**B. Through regular inspections and assessments after severe weather events**

**C. By evaluating the color and design of the roof**

**D. Through the installation date**

**Evaluating roof performance is best achieved through regular inspections and assessments, particularly following severe weather events. This process allows for a comprehensive review of the roof's condition, identifying any damage or wear that may affect its functionality and longevity. Regular inspections enable property owners and roofing professionals to catch potential issues early, which can help prevent more severe damage and costly repairs later on. By assessing the roof after severe weather, one can also determine if the materials have sustained harm due to environmental factors, such as wind, hail, or heavy rain. In contrast, calculating the total roof area does not provide insights into the actual performance or condition of the roof. While understanding the area is important for material estimation during installation or repair, it does not reflect how well the roof system holds up under various conditions. Evaluating the color and design of the roof, while aesthetic factors can impact energy efficiency, does not directly assess the roof's structural integrity or water-tightness. Considering the installation date might provide context regarding the age of the roofing materials, but it does not constitute an evaluation of the roof's ongoing performance or condition. Therefore, regular inspections and evaluations after significant weather events are the most effective methods for ensuring optimal roof performance.**

## 8. What is the required minimum roof slope at which special fastening methods are needed for asphalt shingles?

**A. 15 units vertical in 12 units horizontal**

**B. 10 units vertical in 12 units horizontal**

**C. 5 units vertical in 12 units horizontal**

**D. 20 units vertical in 12 units horizontal**

**The required minimum roof slope at which special fastening methods are necessary for asphalt shingles is 20 units vertical in 12 units horizontal. At this slope, the steepness of the roof increases the risk of water infiltration and ensures that the shingles are more prone to being lifted by winds. As a result, special fastening techniques are implemented to provide additional security and to ensure the shingles remain in place under these conditions. Roofs with a slope of 20:12 or steeper often face harsher environmental challenges, including increased wind uplift forces and potential water drainage issues. Therefore, it becomes crucial to follow the manufacturer's recommendations and local building codes, which may stipulate enhanced fastening methods for improved performance and reliability of the roofing system in these scenarios.**

## 9. What is a common method to inspect a roof for damage?

**A. Visual inspection from the roof**

**B. Visual inspection from the ground or ladder**

**C. Infrared scanning**

**D. Ultrasonic measurements**

**A visual inspection from the ground or ladder is a common method to inspect a roof for damage due to its practicality and accessibility. This approach allows the inspector to assess the roof's condition without needing to be on the roof itself, which can be safer and reduces the risk of additional damage during the inspection process. It enables the inspector to look for visible signs of wear or damage such as missing shingles, sagging areas, or debris accumulation. While inspecting from the roof can provide a more detailed view of the roof's surface, it may not always be feasible due to safety considerations or the condition of the roof. Infrared scanning and ultrasonic measurements are more advanced techniques that can detect underlying issues or moisture, but they require specialized equipment and training, making them less common for general inspections. Therefore, a visual inspection from the ground or ladder remains a widely used method for assessing roof conditions.**

## 10. What is the minimum size for collar ties?

**A. 1"×2"**

**B. 1"×3"**

**C. 1"×4"**

**D. 1"×5"**

**The minimum size for collar ties is 1"×4". Collar ties are horizontal members that help to prevent the rafters from spreading apart under load, particularly in roofs with a slope of 4:12 or greater. The 1"×4" size provides adequate strength and support for this purpose, as it can effectively bear the loads typically encountered in residential construction. Using smaller dimensions, such as 1"×2" or 1"×3", would not provide the required structural integrity to prevent the rafters from sagging or moving out of alignment under weight, particularly in areas experiencing snow loads or high winds. Therefore, the 1"×4" dimension is the industry standard, ensuring that the collar ties are robust enough to perform their intended function in the roofing system.**