InterNACHI Roofing Practice Exam (Sample)

Study Guide

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Questions

1. Traditional built-up roofing is abbreviated as BUR. What is another name for it?

A. Punch-and-gravel roofing

B. Tar-and-gravel roofing

C. Coal-and-tar roofing

D. Fiberglass roofing

2. Is an underlayment required under all asphalt shingles?

A. Yes

B. No

C. Only in certain climates

D. Only on steep roofs

3. True or False: Rusting steel gutters are merely a cosmetic issue and don't need to be reported.

A. True

B. False

C. Only if they are minor

D. Only for new installations

4. How long do clay/concrete tiles generally last?

A. 15 to 25 years

B. 40 to 80 years

C. 100+ years

D. 25 to 50 years

5. True or False: Clay and concrete tiles usually feature specially manufactured ridge caps that are either nailed or mortared in place.

A. True

B. False

C. Depends on the manufacturer

D. Only for clay tiles

6. Ridge caps on slate tile roofs are typically made from which material?

A. Plastic

B. Fiberglass

C. Terracotta

D. Concrete

7. What is the underlayment for asphalt shingles designed to do?

A. Insulate the roof

B. Prevent moisture from backing up

C. Provide additional weight

D. Enhance aesthetic appeal

8. What is one common cause of issues in built-up roofing?

A. High installation costs

B. Weathering elements

C. Water or air expansion

D. Improper tools used

9. What is the term for deflection of the ridge beam?

A. Buckling

B. Swayback or saddleback

C. Bow or warp

D. Twist or bend

10. The bottom of a roof should have a _____ flashing where it meets a wall.

A. Kickout

B. Ridge

C. Apron

D. Pan

Answers

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

Explanations

1. Traditional built-up roofing is abbreviated as BUR. What is another name for it?

A. Punch-and-gravel roofing

B. Tar-and-gravel roofing

C. Coal-and-tar roofing

D. Fiberglass roofing

Traditional built-up roofing, abbreviated as BUR, is commonly referred to as tar-and-gravel roofing. This name accurately captures the key components of this roofing system, which consists of layers of bitumen (tar) and a protective gravel surface. The gravel serves several purposes: it adds weight to the roofing system to protect it from wind uplift, it provides UV protection for the underlying materials, and it helps to dissipate heat. The other terms mentioned are either inaccurate or do not widely represent the BUR system. For instance, "punch-and-gravel" does not correspond to any established roofing terminology, and while "coal-and-tar" may refer to a specific type of bitumen material, it is not a recognized name for the traditional built-up roofing system. Likewise, "fiberglass roofing" refers to a different type of roofing material that utilizes fiberglass for its structural integrity and does not relate to the tar-and-gravel method used in built-up roofing. Thus, tar-and-gravel stands out as the correct and most recognized alternative name for BUR.

2. Is an underlayment required under all asphalt shingles?

A. Yes

B. No

C. Only in certain climates

D. Only on steep roofs

An underlayment is indeed required under all asphalt shingles as it serves several critical functions. It acts as a secondary barrier against water infiltration, protecting the roof deck from moisture that may penetrate the shingles due to wind-driven rain or other factors. This is especially important since asphalt shingles, while generally effective, can be susceptible to leaks over time, particularly in areas where there may be high wind or snow accumulation. Furthermore, underlayment provides an additional layer of insulation and can help prevent the shingles from sticking to the roof deck, which can be beneficial in prolonging the lifespan of the roofing material. Additionally, it can enhance the roof's fire resistance, improving the overall safety of the structure. Because of these reasons, building codes and manufacturers typically require this installation regardless of climate or roof pitch, making it an essential part of roofing systems using asphalt shingles.

3. True or False: Rusting steel gutters are merely a cosmetic issue and don't need to be reported.

A. True

B. False

C. Only if they are minor

D. Only for new installations

Rusting steel gutters indicate a more significant issue than just a cosmetic concern. When steel gutters rust, it is a sign that the metal is corroding, which can lead to leaks, structural damage, and further deterioration of the gutter system. Over time, this corrosion can affect not only the gutters themselves but also the roof, siding, and foundation of the house if water is not properly channeled away. Inspectors must report rusting gutters to ensure that homeowners are aware of the potential for costly repairs that could arise from neglecting what seems to be a minor issue. Catching and addressing these problems early can help prevent further damage and more severe structural concerns. Thus, it's essential for inspectors to recognize the significance of rust in steel gutters, marking it as a necessary item for reporting rather than dismissing it as merely cosmetic.

4. How long do clay/concrete tiles generally last?

A. 15 to 25 years

B. 40 to 80 years

C. 100+ years

D. 25 to 50 years

Clay and concrete tiles are renowned for their durability and longevity in roofing applications. When properly installed and maintained, these materials can often last well over 100 years. This is largely due to their inherent properties, which include resistance to cracking, fading, and weathering. Both clay and concrete tiles can withstand extreme weather conditions, including high winds, heavy rain, extreme heat, and freezing temperatures, contributing to their extensive lifespan. The longevity of these tiles also means they require fewer replacements compared to other roofing materials, making them a popular choice for homeowners looking for a long-term roofing solution. In contrast, other roofing materials typically have shorter lifespans, which is why the provided alternatives do not match the longevity associated with clay and concrete tiles. Understanding the lifespans of different roofing materials can greatly assist homeowners in making informed decisions about which roofing options best suit their needs.

5. True or False: Clay and concrete tiles usually feature specially manufactured ridge caps that are either nailed or mortared in place.

A. True

B. False

C. Depends on the manufacturer

D. Only for clay tiles

The statement is true because clay and concrete tiles are indeed designed with specially manufactured ridge caps that serve both functional and aesthetic purposes. These ridge caps are essential for ensuring a watertight seal at the peak of a roof, which helps prevent water infiltration. They can be installed in one of two primary ways: either by nailing them in place or by applying mortar to secure them. The use of mortar is common in traditional installations, particularly for clay tiles, as it provides a strong bond and can help with wind resistance. Nailing may also be employed, especially in areas susceptible to high winds. This flexibility in installation methods allows for adherence to local building codes and regional practices, contributing to the overall durability and effectiveness of the roofing system. Considering these points, the statement accurately reflects common practices in the roofing industry for both clay and concrete tile installations.

6. Ridge caps on slate tile roofs are typically made from which material?

A. Plastic

B. Fiberglass

C. Terracotta

D. Concrete

Ridge caps on slate tile roofs are typically made from terracotta. Terracotta is favored for this application because it is a traditional material that not only complements the aesthetic of slate roofs but also offers durability and weather resistance. The natural clay used in terracotta provides a classic appearance that blends well with the overall design of the roofing, enhancing the roof's visual appeal while ensuring long-lasting performance. Terracotta ridge caps effectively manage the transitions at the peak of the roof, helping to prevent water infiltration and providing added protection against the elements. This material has a long history of use in various roofing applications, particularly in regions that value both style and function. Other materials like plastic, fiberglass, and concrete do not have the same historical significance or aesthetic compatibility with slate roofs, which makes them less suitable for this specific purpose. They may not provide the same level of durability or match the traditional look that terracotta offers, making terracotta the superior choice for ridge caps on slate tile roofs.

7. What is the underlayment for asphalt shingles designed to do?

A. Insulate the roof

B. Prevent moisture from backing up

C. Provide additional weight

D. Enhance aesthetic appeal

The underlayment for asphalt shingles is specifically designed to prevent moisture from backing up. This is crucial for the longevity and effectiveness of the roofing system. Underlayment serves as a secondary barrier that protects the roof deck from water infiltration, which can occur from rain, ice, or snow. In particular, it helps to manage any water that could seep under the shingles, minimizing the risk of leaks that could lead to structural damage or mold development. In its role, the underlayment acts as a layer of defense against water that may accumulate on the roof surface, especially in areas with prolonged exposure to harsh weather conditions. By effectively blocking moisture, the underlayment aids in safeguarding the integrity of the roofing system and contributes to the overall durability of the asphalt shingles. This function of moisture prevention is why the correct answer pertains to backing up moisture. The other options do not accurately capture the primary role of the underlayment in roofing systems designed for asphalt shingles. For instance, while insulation and aesthetic appeal are important considerations in roofing, they are not the primary purposes of the underlayment. Similarly, while it may add some weight to the roof, that is not its intended function either.

8. What is one common cause of issues in built-up roofing?

A. High installation costs

B. Weathering elements

C. Water or air expansion

D. Improper tools used

Water or air expansion is a common cause of issues in built-up roofing due to the nature of the materials used and the environmental conditions they are subjected to. Built-up roofing systems consist of multiple layers of waterproof materials, often including felt and asphalt, which can expand and contract with temperature changes and moisture levels. When water or air becomes trapped beneath the layers, it can lead to pressure build-up, causing the roofing material to lift, crack, or ultimately fail. This expansion and contraction must be considered during the installation process to ensure proper drainage, ventilation, and accommodation for temperature fluctuations. Failure to address these factors can result in significant long-term damage to the roofing system. Other factors such as high installation costs, weathering elements, or improper tools used might contribute to roofing issues, but they are not as directly linked to the core functional integrity of the building materials as the effects of water or air expansion.

9. What is the term for deflection of the ridge beam?

A. Buckling

B. Swayback or saddleback

C. Bow or warp

D. Twist or bend

The term for deflection of the ridge beam is "swayback or saddleback." This term refers specifically to the bending of a ridge beam, typically observed where the center of the beam dips lower than the ends, creating a concave appearance. This condition can occur due to various factors, including excessive loads, improper construction, or the aging of materials, which lead to structural deformities. Understanding this terminology is crucial for roof inspection and maintenance, as swayback or saddleback not only indicates structural integrity issues but can also affect the overall performance of the roofing system, potentially leading to water pooling and further damage. Identifying this type of deflection helps inspectors to inform homeowners about potential repairs needed to maintain the safety and efficiency of the structure. Other terms like buckling, bow, or warp, and twist or bend describe different forms of deformation and do not specifically characterize the particular deflection of the ridge beam as swayback does.

10. The bottom of a roof should have a _____ flashing where it meets a wall.

A. Kickout

B. Ridge

C. Apron

D. Pan

The correct answer is that the bottom of a roof should have a kickout flashing where it meets a wall. Kickout flashing plays an essential role in directing water away from the intersection of the roof and wall. This type of flashing is specifically designed to prevent water from running down the wall and behind the siding or other materials, which can lead to water intrusion and damage. Kickout flashing is typically installed at the lower edges of a roof where it meets a vertical surface, ensuring that rainwater is effectively channeled away from sensitive areas. By moving water away from the wall, kickout flashing helps protect against issues such as mold growth, rotting, and structural damage, thereby extending the lifespan of both the roof and the wall materials. In contrast, ridge flashing is used at the peak of a roof where two slopes meet, apron flashing is generally placed at the bottom edge of a sloped roof to direct water away from a wall, and pan flashing is usually found along the base of chimneys or other vertical structures to provide an effective barrier against water. While these flashing types serve specific purposes, kickout flashing is crucial for the particular scenario of a roof meeting a wall, making it the appropriate choice in this context.