General Contractor Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. **How should a masonry wall be prepared prior to applying plaster?**

   A. Dry and clean

   B. Moisten with water

   C. Scrub with detergent

   D. Apply a primer

2. **If a tendon is stretched at both ends, what is the recommended length of the outside the edge of the form at each end for stressing?**

   A. 10 inches

   B. 12 inches

   C. 14 inches

   D. 16 inches

3. **What is the maximum depth that a trench is allowed to be before protection is required?**

   A. 3 feet

   B. 4 feet

   C. 5 feet

   D. 6 feet

4. **Which measurement is closest to the size of an acre?**

   A. Half a football field

   B. Two square kilometers

   C. About 75% of a soccer field

   D. A full-size baseball field

5. **How much does a gallon of water weigh?**

   A. 6.5 lb

   B. 7.5 lb

   C. 8.33 lb

   D. 9 lb

6. What is the standard height for a typical door?

A. 6 foot 4 inches

B. 6 foot 6 inches

C. 6 foot 8 inches

D. 7 foot 0 inches

7. What term describes the upward force placed on concrete forms when concrete enters the forms?

A. Shear

B. Camber

C. Load

D. Pressure

8. Precast concrete forms are _____.

A. Temporary

B. Permanent

C. Reusable

D. Modular

9. What fall protection is required for a person working on a concrete deck at 8 feet high with controlled access?

A. Full fall harness

B. Guardrails

C. Not required

D. Safety nets

10. For a parapet wall above a 2-hour roof assembly, what is the requirement?

A. Must be installed

B. Is not necessary

C. Should be reinforced

D. Must be fire-rated

Answers

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

Explanations

1. How should a masonry wall be prepared prior to applying plaster?

A. Dry and clean

B. Moisten with water

C. Scrub with detergent

D. Apply a primer

Preparing a masonry wall before applying plaster is crucial for ensuring the best bond and finish quality. Moisten the wall with water helps to prevent the plaster from drying out too quickly, which can lead to cracks and poor adhesion. This step is particularly important because dry masonry can absorb moisture from the plaster, creating a situation where the plaster sets too fast and does not adhere properly to the wall surface. By moistening the masonry, the wall remains slightly damp, which allows the plaster to cure at a controlled rate, promoting better bonding and overall performance. This practice is especially relevant for new masonry or very porous surfaces that might otherwise draw moisture away too rapidly from the plaster mix. In contrast, simply having a dry and clean surface, while beneficial, does not address the need for moisture during the curing process. Scrubbing the wall with detergent or applying a primer could potentially introduce issues, such as residue left on the surface or an improper bonding layer, both of which would negatively affect the plaster application. Hence, moistening the masonry is the most appropriate and effective preparation method prior to plastering.

2. If a tendon is stretched at both ends, what is the recommended length of the outside the edge of the form at each end for stressing?

A. 10 inches

B. 12 inches

C. 14 inches

D. 16 inches

The recommended length for the tendon to extend outside the edge of the form at each end for stressing is typically set at 12 inches. This length provides sufficient room for the application of the stressing forces while ensuring that the structural integrity of both the tendon and the concrete is maintained during the stressing process. When tendons are stressed, they experience significant forces that can create tension in the concrete, and the additional length allows for effective anchoring and management of those forces. Furthermore, a minimum extension of 12 inches is considered a standard practice to allow for effective gripping by stressing equipment and to prevent any potential issues with alignment or slip during the stressing operation. Other lengths, such as 10, 14, or 16 inches, may either be insufficient or excessive for standard practices, highlighting the importance of adherence to established guidelines in construction and engineering practices.

3. What is the maximum depth that a trench is allowed to be before protection is required?

A. 3 feet

B. 4 feet

C. 5 feet

D. 6 feet

The maximum depth that a trench is allowed to be before requiring protective measures is 4 feet. This guideline is established to ensure the safety of workers involved in excavation work. When trenches reach this depth, the risk of cave-ins increases significantly, and standards set forth by regulatory agencies such as the Occupational Safety and Health Administration (OSHA) stipulate that protective systems, like trench boxes or shoring, must be utilized to mitigate these risks. This requirement is designed to prevent accidents that can occur due to soil failure, which can happen with little warning and can be severely dangerous. In practical terms, this means that if a trench is excavated to a depth equal to or greater than 4 feet, a general contractor must put safety protocols in place to protect workers from potential hazards. Understanding this aspect of trench safety is critical for general contractors, as it not only addresses legal compliance but also reinforces a commitment to worker safety on construction sites.

4. Which measurement is closest to the size of an acre?

A. Half a football field

B. Two square kilometers

C. About 75% of a soccer field

D. A full-size baseball field

An acre is a unit of area that is defined as 43,560 square feet. When visualizing this area, it's helpful to compare it to common field sizes. A standard American football field, including the end zones, is about 57,600 square feet, meaning an acre is slightly less than a football field. Therefore, stating that an acre is close to half a football field provides a reasonable approximation, as it suggests a simpler understanding of the size for those familiar with sports fields. The other options do not accurately represent the size of an acre. For instance, two square kilometers is significantly larger than an acre, as one square kilometer equals 247.1 acres. Similarly, while a soccer field's size can vary, it's generally around 68,000 square feet, which is more substantial than an acre. Finally, a full-size baseball field varies in dimensions, but the area also often exceeds that of an acre, furthering the inaccuracy when comparing those options to it.

5. How much does a gallon of water weigh?

A. 6.5 lb

B. 7.5 lb

C. 8.33 lb

D. 9 lb

A gallon of water weighs approximately 8.33 pounds. This weight is based on the standard measurement of water at its maximum density, which occurs at about 39.2°F (4°C). This value is commonly used in various applications, including construction and engineering, where understanding the weight of liquid materials is essential for planning and safety. For example, when calculating loads for structures or pipes, knowing the correct weight of water per gallon is crucial to ensure stability and integrity. The weights of water in the other options do not correctly reflect the widely accepted standard for the weight of a gallon of water at its optimal condition. While water can vary slightly in weight with changes in temperature or purity, 8.33 pounds is the standard metric used in most contexts.

6. What is the standard height for a typical door?

A. 6 foot 4 inches

B. 6 foot 6 inches

C. 6 foot 8 inches

D. 7 foot 0 inches

The standard height for a typical interior and exterior door in residential construction is 6 feet 8 inches. This measurement has become the norm because it accommodates a wide range of building needs while ensuring sufficient headroom for most individuals. Doors at this height allow for easy access while avoiding the need for excessively tall or short frame constructions, which can lead to structural challenges. When designing or specifying building plans, it's crucial to adhere to this standard to maintain consistency in door heights across various areas of the structure, which assists with uniformity in aesthetics and functionality. Having a common height also allows for easier replacement and installation, as most pre-hung doors are manufactured to this specification. While other options exist, such as 6 feet 4 inches, 6 feet 6 inches, or 7 feet, they are less commonly used in typical residential applications. The choice of 6 feet 8 inches strikes a balance between accessibility and design efficiency, thus making it the preferred height for most doors.

7. What term describes the upward force placed on concrete forms when concrete enters the forms?

A. Shear

B. Camber

C. Load

D. Pressure

The term that best describes the upward force placed on concrete forms when concrete enters the forms is pressure. When fresh concrete is poured into forms, it generates pressure against the walls of those forms due to its weight. This pressure results from the concrete's fluid nature before it sets, causing it to exert a force on the surfaces it comes into contact with. This ensures that the forms are adequately designed to withstand the force created by the wet concrete to prevent collapse or deformity. Camber refers to the slight upward curve given to structural elements to counteract deflection, which is unrelated to the immediate upward force experienced by forms during the pouring process. Shear relates to forces that cause parts of a material to slide past one another, which is not the primary concern with concrete forms at the moment of filling. Load generally refers to the total weight or external forces acting upon a structure rather than specifically addressing the intrinsic pressures created during the pouring of concrete.

8. Precast concrete forms are _____.

A. Temporary

B. Permanent

C. Reusable

D. Modular

Precast concrete forms are considered permanent because they are designed to be part of the final structure. When precast concrete elements, like walls, beams, and slabs, are manufactured in a controlled environment and then transported to the construction site, they are installed as permanent fixtures of the building. The process involves creating durable, high-strength concrete products that are intended to remain in place for the life of the structure, providing stability and longevity. While some forms may be reusable or modular in construction applications, the core characteristic that defines precast concrete forms is their permanence in the context of the structural assembly. This distinguishes them from temporary forms, which are meant to support concrete until it sets and can stand on its own. Thus, the permanence of precast forms is essential to their role in modern construction practices.

9. What fall protection is required for a person working on a concrete deck at 8 feet high with controlled access?

A. Full fall harness

B. Guardrails

C. Not required

D. Safety nets

When working on a concrete deck that is 8 feet high, under certain conditions, fall protection may not be immediately necessary. The requirement for fall protection in construction settings generally depends on the height of the work surface and the type of work being performed. For heights up to 6 feet for general industry and up to 8 feet for the construction industry, some regulations allow for controlled access zones where fall protection measures may not be required if the area is clearly marked and access is limited. In this scenario, if there are safety protocols in place, such as controlled access to the area where the work is being done, it's possible that workers may be allowed to work without the necessity for fall protection. This controlled access can consist of delineating areas where only trained and authorized personnel are permitted, thereby minimizing the risk of falls among untrained workers. Thus, depending on the specific guidelines or standards followed, in this context, the absence of a fall protection requirement at 8 feet with controlled access can be justified. Different contexts or worksites may impose stricter regulations where harnesses, guardrails, or other fall protection measures would be mandatory, but under these specified conditions, fall protection may be deemed unnecessary.

10. For a parapet wall above a 2-hour roof assembly, what is the requirement?

A. Must be installed

B. Is not necessary

C. Should be reinforced

D. Must be fire-rated

For a parapet wall above a 2-hour roof assembly, the requirement is that it is not necessary in all cases. In building code guidelines, the purpose of a parapet wall is often to provide fire protection and prevent the spread of flames across a roof. When considering a 2-hour roof assembly, it is designed to offer significant fire resistance, and in many circumstances, the presence of a fully complying 2-hour assembly negates the need for an additional parapet wall for fire safety. However, it is important to note that local building codes may have specific stipulations regarding the necessity of parapets based on factors like the type of occupancy, proximity to property lines, or potential fire spread to adjacent structures. Therefore, while parapet walls can provide additional safety, they are not universally required when an adequate roof assembly is in place. This understanding emphasizes the importance of consulting local regulations and building codes to determine the requirements for any given project.