Georgia Plumbing Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. Which of the following is NOT a commonly used type of pipe in plumbing systems?

A. Copper

B. PVC

C. Steel

D. PEX

2. What is the minimum bending radius of a polyethylene plastic pipe?

A. 20 times pipe diameter

B. 25 times pipe diameter

C. 30 times pipe diameter

D. 35 times pipe diameter

3. What is the minimum size of a potable water service line?

A. 1/2"

B. 3/4"

C. 1"

D. 1.5"

4. What is the maximum allowable temperature of water in a domestic potable water distribution system?

A. 150 degrees F

B. 180 degrees F

C. 210 degrees F

D. 120 degrees F

5. What is the gross earning for a married employee who works 40 hours at a rate of $8.00 per hour in one week?

A. $300.00

B. $320.00

C. $350.00

D. $340.00

6. The building end of a PVC potable water service pipe must terminate at which point?

A. At the meter

B. First full open ball valve

C. 5 FT inside the building

D. Both first full open ball valve and 5 FT inside the building

7. How does a t-fitting function in plumbing?

A. To close off a section of pipe

B. To connect three sections of pipe in a Y-shaped configuration

C. To change the direction of flow

D. To separate hot and cold water lines

8. Which method is recommended for correcting over-excavation of a trench before laying pipe?

A. Gravel only

B. Sand or fine gravel, 6 inches max - compacted

C. Concrete filling

D. Soil replacement

9. What type of payment does Form GA-7 relate to?

A. Weekly Wage Payment

B. Quarterly Maintenance Fee

C. Quarterly Tax Payment

D. Monthly Expense Report

10. What does the term "drainage area" refer to in plumbing systems?

A. The area that collects rainwater runoff

B. The region where drainage flows toward a common outlet

C. A designated area for sewer waste management

D. The location of the main drain pipe

Answers

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

Explanations

1. Which of the following is NOT a commonly used type of pipe in plumbing systems?

A. Copper

B. PVC

C. Steel

D. PEX

Steel is less commonly used in modern plumbing systems compared to the other options listed. While steel pipes were historically prevalent, especially in older installations, their use has declined significantly due to various factors. Steel is prone to rust and corrosion, which can compromise the integrity of plumbing systems over time. In contrast, copper, PVC, and PEX are widely utilized materials in contemporary plumbing. Copper is favored for its durability and resistance to bacteria, while PVC is popular for its lightweight properties and resistance to corrosion. PEX has gained popularity for its flexibility and ease of installation. Therefore, steel, while still found in some applications, is considered less common in today's plumbing practices.

2. What is the minimum bending radius of a polyethylene plastic pipe?

A. 20 times pipe diameter

B. 25 times pipe diameter

C. 30 times pipe diameter

D. 35 times pipe diameter

The minimum bending radius of a polyethylene plastic pipe is crucial for preventing damage to the pipe during installation and operation. A radius of 30 times the pipe diameter is widely recommended in the industry. This specification ensures that the pipe is not overly stressed or deformed during bending, which could lead to kinking, cracking, or other integrity issues. Polyethylene has a degree of flexibility, but if the bend exceeds the minimum radius, it may compromise the structural integrity of the pipe. Such bending can lead to stress concentrations and eventual failure, which is why following this guideline is important for maintaining a reliable plumbing system. Choosing a bending radius lesser than 30 times the pipe diameter increases the risk of mechanical failure during service, thus adhering to the proper minimum ensures durability and performance in various applications.

3. What is the minimum size of a potable water service line?

A. 1/2"

B. 3/4"

C. 1"

D. 1.5"

The minimum size for a potable water service line is established to ensure adequate water pressure and flow for residential and commercial properties. A 3/4-inch diameter line is commonly recognized in plumbing codes as the minimum size necessary to efficiently serve standard household needs, such as providing sufficient water volume for fixtures and appliances while maintaining appropriate pressure levels. Using a line that is too small can result in insufficient water supply, leading to inadequate performance of essential appliances like dishwashers and washing machines, and can strain plumbing systems if multiple fixtures are used simultaneously. The standards are informed by factors such as typical flow rates required for household use and the need to minimize pressure loss. While smaller diameters like 1/2-inch can be used for individual fixtures or maintenance lines under certain conditions, they are not suitable as the primary service line for potable water in a residential setting. Sizes larger than 3/4-inch are more appropriate for larger properties with higher demands or specific applications, but for the average residential scenario, 3/4-inch remains the minimum standard for service lines supplying potable water.

4. What is the maximum allowable temperature of water in a domestic potable water distribution system?

A. 150 degrees F

B. 180 degrees F

C. 210 degrees F

D. 120 degrees F

In a domestic potable water distribution system, the maximum allowable temperature of water is 180 degrees Fahrenheit. This temperature limit is set to ensure safety and reduce the risk of scalding for individuals, especially vulnerable populations such as children and the elderly. Water temperatures above this threshold may cause burns or injuries upon exposure, and keeping the maximum temperature at 180 degrees F helps to maintain safe usage conditions for drinking, bathing, and cooking. Additionally, while higher temperatures can improve the efficiency of certain plumbing fixtures or appliances, they also increase the potential for negative health effects if water is incorrectly dispensed or if there is a malfunction. Keeping the temperature at or below 180 degrees allows for sufficient heating for sanitation and cleaning purposes while still being within safe limits for human interaction.

5. What is the gross earning for a married employee who works 40 hours at a rate of $8.00 per hour in one week?

A. $300.00

B. $320.00

C. $350.00

D. $340.00

To determine the gross earnings for a married employee working 40 hours at a rate of $8.00 per hour, you need to multiply the hourly wage by the total number of hours worked in a week. In this scenario, the calculation is as follows: Hourly Rate: $8.00 Hours Worked: 40 hours Gross Earnings = Hourly Rate x Hours Worked Gross Earnings = $8.00 x 40 = $320.00 Thus, the gross earnings for the employee is $320.00, which corresponds with the correct answer. This approach to calculating earnings is standard and ensures that the employee's pay accurately reflects the hours they have worked at their specified hourly rate.

6. The building end of a PVC potable water service pipe must terminate at which point?

A. At the meter

B. First full open ball valve

C. 5 FT inside the building

D. Both first full open ball valve and 5 FT inside the building

The termination point of a PVC potable water service pipe is significant for ensuring proper access, functionality, and compliance with plumbing codes. The correct answer indicates that the pipe should terminate at both the first full open ball valve and a distance of 5 feet inside the building. This is important because the first full open ball valve serves as an essential isolation point for the water supply system. It allows for easy maintenance and repairs without needing to shut off the water supply to the entire building. Furthermore, the requirement for the termination to be at least 5 feet inside the building helps to protect the pipe from potential damage due to external elements, provides additional security, and ensures that any leaks are contained within the building's envelope, minimizing water waste and damage. By having both of these criteria, the plumbing system is designed for safety and convenience in maintenance, which is especially critical in a potable water system where the integrity and access to water are paramount. This dual-compliance approach enhances the overall effectiveness of the water supply system within the building.

7. How does a t-fitting function in plumbing?

A. To close off a section of pipe

B. To connect three sections of pipe in a Y-shaped configuration

C. To change the direction of flow

D. To separate hot and cold water lines

A t-fitting, also known as a tee fitting, is designed specifically to connect three sections of pipe together in a configuration resembling the letter "Y." This fitting has one inlet and two outlets, allowing for the branching of a pipeline. It is commonly used in plumbing systems to facilitate the flow of fluids from a main line into a secondary branch line, thereby enabling effective distribution of water or other fluids to different locations, like connecting a vertical line to a horizontal one. This functionality is particularly important in both residential and commercial plumbing applications, where the system needs to efficiently direct water to multiple fixtures or appliances that require supply lines. The design of the t-fitting ensures that the flow can split seamlessly while maintaining adequate pressure and volume through the pipes.

8. Which method is recommended for correcting over-excavation of a trench before laying pipe?

A. Gravel only

B. Sand or fine gravel, 6 inches max - compacted

C. Concrete filling

D. Soil replacement

Using sand or fine gravel, compacted to a maximum depth of 6 inches, is the recommended method for correcting over-excavation of a trench before laying pipe because it effectively provides a stable and supportive base. This method ensures that the surrounding soil retains proper drainage characteristics while also distributing load evenly around the pipe. Compacted sand or fine gravel helps to minimize settlement and instability that might arise if the trench were filled with unsuitable materials or allowed to remain unfilled. The use of a maximum of 6 inches ensures that the material does not shift excessively, contributing to the structural integrity of the installation. In contrast, using gravel only might not provide the same level of compaction needed for optimal support. Concrete filling, while sturdy, could lead to complications with drainage and flexibility, which are crucial in plumbing applications. Soil replacement may not achieve adequate compaction unless done with great care and consideration, as loosely placed soil can easily lead to shifting and settling. Therefore, the choice of sand or fine gravel, with careful compaction, presents the most effective solution.

9. What type of payment does Form GA-7 relate to?

A. Weekly Wage Payment

B. Quarterly Maintenance Fee

C. Quarterly Tax Payment

D. Monthly Expense Report

Form GA-7 is specifically related to the reporting of quarterly tax payments for state income taxes. In Georgia, this form is used by employers to report and remit withholding taxes from employee wages on a quarterly basis. Understanding the significance of this form is crucial for compliance with state tax regulations, as it ensures that the amounts withheld are accurately reported and paid on time. Quarterly tax payments are necessary to fulfill tax obligations and avoid penalties, illustrating the importance of precise record-keeping and timely submissions. Other options, such as weekly wage payments, monthly expense reports, and quarterly maintenance fees, do not pertain to the specific requirements and functions associated with Form GA-7, highlighting its distinct purpose within the realm of state taxation.

10. What does the term "drainage area" refer to in plumbing systems?

A. The area that collects rainwater runoff

B. The region where drainage flows toward a common outlet

C. A designated area for sewer waste management

D. The location of the main drain pipe

The term "drainage area" in plumbing systems specifically refers to the region where drainage flows toward a common outlet. This definition encompasses both natural and constructed systems where water, whether from rainfall, wastewater, or other sources, is directed to a particular point for removal or treatment. In this context, understanding the drainage area is essential for effective plumbing design and management. It helps ensure that all wastewater flows efficiently toward sewers or treatment systems, preventing flooding and maintaining sanitation. The design and layout of plumbing systems must consider this area to optimize flow and minimize issues such as backflow or blockages. Other options, while related to water management, do not convey the broad concept encapsulated in the term "drainage area." For example, merely collecting rainwater or designating an area for sewer waste management does not fully capture the systematic flow and convergence of drainage systems toward a designated exit point, which is critical for understanding overall plumbing functionality.