Alabama Journeyman Plumbing Pre-Test Practice (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. What is the maximum vertical spacing for steel pipe hangers?

A. 10 feet

B. 15 feet

C. 20 feet

D. 25 feet

2. Which tool is commonly used to cut pipes when installing plumbing systems?

A. Pipe wrench

B. Pipe cutter

C. Hacksaw

D. Tubing bender

3. What is the standard size for a residential drainage pipe?

A. 1 inch

B. 2 inches

C. 3 inches

D. 4 inches

4. What is typically the function of a sewage pump?

A. To distribute clean water

B. To remove debris from sinks

C. To lift wastewater to a higher elevation

D. To mix water with chemicals

5. What is the purpose of a trap in a plumbing system?

A. To allow air into the system

B. To prevent sewer gases from entering a building

C. To provide a point for drainage

D. To increase water flow

6. Which system is used to supply hot water to fixtures in a home?

A. Cold water distribution system

B. Hot water distribution system

C. Boiler system

D. Ventilation system

7. For cleanouts on piping 6 inches and smaller, what is the minimum clearance required for rodding?

A. 12 inches

B. 15 inches

C. 18 inches

D. 24 inches

8. When installing sewer piping larger than 4 inches, what is the minimum size for the required cleanout?

A. 2 inches

B. 3 inches

C. 4 inches

D. 6 inches

9. What is a common application for a sewage pump in residential plumbing?

A. Pumping rainwater

B. Disposing of kitchen waste

C. Removing wastewater from a basement

D. Circulating hot water

10. What is the minimum condensate pipe diameter required for up to 20 tons of refrigeration?

A. 1/2 inch

B. 3/4 inch

C. 1 inch

D. 1 1/4 inch

Answers

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

Explanations

1. What is the maximum vertical spacing for steel pipe hangers?

A. 10 feet

B. 15 feet

C. 20 feet

D. 25 feet

The maximum vertical spacing for steel pipe hangers is 15 feet. This standard is established to ensure that the piping system is adequately supported, preventing sagging or movement that could lead to damage or leaks. Proper spacing of hangers is crucial for maintaining the integrity of the plumbing system, especially in larger installations where the weight of the pipe and the fluid it carries can create significant stress on the joints and connections. Additionally, maintaining a consistent and appropriate spacing helps in facilitating maintenance and inspection of the system. In plumbing practice, adhering to these spacing guidelines also supports safety measures, as well as compliance with local building codes and regulations. Such practices are essential for ensuring the longevity and reliability of the plumbing infrastructure.

2. Which tool is commonly used to cut pipes when installing plumbing systems?

A. Pipe wrench

B. Pipe cutter

C. Hacksaw

D. Tubing bender

The choice of a pipe cutter is ideal for cutting pipes during plumbing installations due to its design, which ensures clean and precise cuts. A pipe cutter typically consists of a circular cutting wheel and a mechanism that applies pressure around the pipe as it is turned, allowing it to slice through the material without causing deformation or burrs. This is particularly important for maintaining the integrity of the pipe, especially in systems where fittings must be fitted snugly and seal effectively. Using a pipe cutter also reduces the risk of producing metal shavings or debris that may enter the system and cause blockages or damage. This tool is particularly suitable for various types of pipes, including copper, PVC, and other materials commonly used in plumbing systems. While other tools, like a hacksaw, can also be used for cutting pipes, they may not provide the same level of precision and can create rough edges that require additional smoothing. A pipe wrench is designed for gripping pipes, not cutting, and a tubing bender is used for shaping pipes rather than sectioning them. Therefore, the pipe cutter stands out as the most effective tool for this specific task in plumbing installations.

3. What is the standard size for a residential drainage pipe?

A. 1 inch

B. 2 inches

C. 3 inches

D. 4 inches

The standard size for residential drainage pipes is primarily 3 inches. This size is commonly used for horizontal drainage systems, particularly for connecting fixtures like sinks, toilets, and tubs to the main drainage line. The 3-inch diameter effectively handles the typical volume of wastewater disposal in most residential settings, ensuring efficient drainage while minimizing the risk of clogs. Larger diameters, such as 4 inches, are often used for the main sewer lines or for vent systems, while smaller sizes, such as 1 inch or 2 inches, may be found in specific applications like sink drains or small fixtures but do not meet the general requirements for overall household drainage. Therefore, 3 inches strikes an ideal balance for the various demands of typical residential plumbing.

4. What is typically the function of a sewage pump?

A. To distribute clean water

B. To remove debris from sinks

C. To lift wastewater to a higher elevation

D. To mix water with chemicals

The function of a sewage pump is primarily to lift wastewater to a higher elevation. This is crucial in situations where gravity alone cannot effectively transport sewage or wastewater to the main sewage line or treatment facility. These pumps are designed to handle the denser and bulkier mixtures that come from toilets, sinks, and other wastewater sources, making them essential in residential and commercial plumbing systems where the installation of sewage lines must go uphill or over long distances. In contrast, distributing clean water pertains to the role of systems such as booster pumps or water supply systems, not sewage pumps. Similarly, removing debris from sinks typically involves different plumbing fixtures or devices like strainers and waste disposals, which are not specific functions of a sewage pump. Lastly, mixing water with chemicals is more aligned with processes in water treatment facilities rather than the function of sewage systems. Thus, the primary role of lifting and moving wastewater effectively makes option C the correct answer.

5. What is the purpose of a trap in a plumbing system?

A. To allow air into the system

B. To prevent sewer gases from entering a building

C. To provide a point for drainage

D. To increase water flow

The purpose of a trap in a plumbing system is fundamentally to prevent sewer gases from entering a building. Traps are curved sections of drain pipes designed to hold a small amount of water at all times. This water acts as a barrier against harmful gases and odors that can come from the sewer. By maintaining this water seal, traps ensure that noxious fumes can escape into the living spaces of a structure, thereby protecting the health and comfort of its occupants. While traps do play a role in drainage and plumbing function, their primary and most critical function is safeguarding indoor air quality by blocking sewer gas infiltration.

6. Which system is used to supply hot water to fixtures in a home?

A. Cold water distribution system

B. Hot water distribution system

C. Boiler system

D. Ventilation system

The hot water distribution system is specifically designed to deliver hot water from a water heater to various fixtures throughout a home, such as sinks, showers, and appliances. This system ensures that users have immediate access to hot water when needed, which is essential for comfort and functionality in residential plumbing. The hot water distribution system typically includes insulated pipes that minimize heat loss, valves to control flow, and connections to each fixture that requires hot water. It operates in conjunction with the water heater, which heats the water to the desired temperature before distributing it through the system. In contrast, the cold water distribution system is responsible for bringing cold water to fixtures, while a boiler system primarily serves the heating of water for hydronic heating applications, not directly for fixture supply. The ventilation system is unrelated to water supply, as it is involved in providing fresh air and regulating indoor air quality.

7. For cleanouts on piping 6 inches and smaller, what is the minimum clearance required for rodding?

A. 12 inches

B. 15 inches

C. 18 inches

D. 24 inches

To ensure effective maintenance and accessibility for cleaning out clogged pipes, plumbing codes specify a minimum clearance around cleanouts. For piping that is 6 inches in diameter or smaller, a minimum clearance of 18 inches is generally mandated from the cleanout to any obstruction. This distance allows adequate space for tools to access the cleanout and perform rodding or snaking of the drain lines. Maintaining this clearance is crucial as it not only complies with plumbing standards but also facilitates easier, safer, and more effective maintenance of the plumbing system. Limited clearance can lead to challenges when trying to insert rodding equipment, potentially increasing the time and effort needed to address clogs or blockages.

8. When installing sewer piping larger than 4 inches, what is the minimum size for the required cleanout?

A. 2 inches

B. 3 inches

C. 4 inches

D. 6 inches

The minimum size for the required cleanout when installing sewer piping larger than 4 inches is 4 inches. Cleanouts are essential in plumbing systems as they provide access for inspections and maintenance, allowing blockages to be cleared effectively. For piping systems with larger diameters, the cleanout needs to be appropriately sized to ensure that it can accommodate potential blockages and allow for the efficient passage of tools and equipment during maintenance. A 4-inch cleanout is specifically designed to match the diameter of the piping, ensuring that any debris or buildup can be removed without restriction. This standard helps to maintain the efficiency and functionality of the sewer system. Smaller cleanout sizes would not provide sufficient access for maintenance procedures in larger diameter pipes, as they may restrict the tools used for clearing blockages or create additional points of vulnerability in the plumbing system. Thus, the choice of a 4-inch cleanout aligns with established plumbing codes and best practices for larger sewer piping installations.

9. What is a common application for a sewage pump in residential plumbing?

A. Pumping rainwater

B. Disposing of kitchen waste

C. Removing wastewater from a basement

D. Circulating hot water

A sewage pump is specifically designed for the purpose of removing wastewater that contains solid waste, particularly from areas of a home where gravity drainage is not feasible, such as basements. In situations where the basement is below the level of the main sewer line, a sewage pump collects the wastewater and pumps it up to the level where it can flow freely into the sewer system. This is essential for maintaining proper sanitation and preventing sewage backflow or flooding in the living space. In contrast, while rainwater management is important, and kitchen waste disposal involves different types of plumbing systems (e.g., garbage disposals), they do not pertain to the sewage pump's primary function. Similarly, circulating hot water pertains to a different plumbing system focused on heating and HVAC rather than sewage disposal. Therefore, the correct answer emphasizes the critical role of sewage pumps in managing wastewater effectively in residential plumbing, especially in low-lying areas like basements.

10. What is the minimum condensate pipe diameter required for up to 20 tons of refrigeration?

A. 1/2 inch

B. 3/4 inch

C. 1 inch

D. 1 1/4 inch

For systems with up to 20 tons of refrigeration, the minimum condensate pipe diameter required is 3/4 inch. This specification is set to ensure that the condensate can drain effectively and that there is adequate capacity to handle the anticipated flow. The 3/4 inch diameter strikes a balance between sufficient drainage capability and maintaining a manageable pipe size within the plumbing system. A smaller diameter may lead to drainage issues, such as clogging or backup, particularly if the condensate flow is substantial during operation. Thus, using a 3/4 inch pipe helps to accommodate the volume of condensate produced without risking operational problems.