Red Seal Plumbing Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. How high must a vent terminal be above a roof that is usable for activities such as sun-tanning?

A. 1.0 metre

B. 1.5 metres

C. 2.0 metres

D. 2.5 metres

2. An outside fresh air supply must be installed at least how many inches above finished grade level?

A. 6 inches

B. 8 inches

C. 10 inches

D. 12 inches

3. After the inspection of a hot water heating system shows that the system pressure is in excess of the designed operating pressure, which device will cause this problem?

A. Pressure relief valve

B. Water-feed valve

C. Thermostat

D. Expansion tank

4. Up to what temperature can Pyrex glass pipe resist heat?

A. 350°F

B. 400°F

C. 450°F

D. 500°F

5. If a wood range is to be converted to a gas range, one major adjustment is the:

A. addition of a gas regulator

B. replacement of manual dampers with barometric dampers

C. installation of a new vent system

D. replacement of the heating element

6. What is the minimum size of fire department connection (FD) in a building?

A. 2" (50mm)

B. 3" (75mm)

C. 4" (100mm)

D. 5" (125mm)

7. At what maximum pressure is the space between the first-stage and the second-stage regulator?

A. 10 psi

B. 50 psi

C. 60 psi

D. 100 psi

8. Which of the following does streptococci cause?

A. Common cold

B. Strep throat and blood poisoning

C. Chickenpox

D. Measles

9. What is the decrease in input rating of an appliance for every thousand feet above 4500 feet above sea level?

A. 2%

B. 4%

C. 6%

D. 8%

10. Where would a floor mounted hydronic cooling convector be located in a room?

A. Near the entrance

B. On the wall with the lowest heat gain

C. Next to the window

D. On the wall with the highest heat gain

Answers

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

Explanations

1. How high must a vent terminal be above a roof that is usable for activities such as sun-tanning?

A. 1.0 metre

B. 1.5 metres

C. 2.0 metres

D. 2.5 metres

The correct height for a vent terminal above a roof is 2.0 metres. This is because this height allows for safe ventilation while also preventing any potential obstructions or dangers for people engaging in rooftop activities, such as sun-tanning. Option A may be too low and could potentially obstruct the flow of air from the vent. Option B and D may also be too high, making it difficult to access and maintain the vent if needed. Therefore, option C is the most suitable and appropriate height for a vent terminal above a usable roof space.

2. An outside fresh air supply must be installed at least how many inches above finished grade level?

A. 6 inches

B. 8 inches

C. 10 inches

D. 12 inches

Installing an outside fresh air supply too low to the ground can lead to potential dangers, including contamination from rain, snow or debris on the ground and also poses a risk of tampering or damage. Option A, B, and C are all too close to the ground to provide adequate protection and proper air flow. Option D at 12 inches ensures that the fresh air supply is high enough to avoid these potential hazards.

3. After the inspection of a hot water heating system shows that the system pressure is in excess of the designed operating pressure, which device will cause this problem?

A. Pressure relief valve

B. Water-feed valve

C. Thermostat

D. Expansion tank

A Pressure relief valve is used to relieve high pressure in a system, not cause it. C: Thermostat is used to control the temperature, not the pressure. D: Expansion tank helps maintain constant system pressure, not cause it. The only device that can cause high pressure in a hot water heating system is the water-feed valve. This valve controls the water supply to the system and if it is malfunctioning, it can allow too much water into the system, causing the pressure to exceed its designed limit.

4. Up to what temperature can Pyrex glass pipe resist heat?

A. 350°F

B. 400°F

C. 450°F

D. 500°F

Pyrex glass pipes are made of borosilicate glass, which is known for its resistance to temperature changes and heat. In general, it can withstand temperatures of up to 450°F. Options A and B are incorrect because Pyrex glass is capable of withstanding higher temperatures. Option D is incorrect because while Pyrex glass can withstand temperatures close to 500°F, it is not recommended to heat it up that high for an extended period of time. Additionally, heating up the glass to a temperature close to its limit can increase the risk of premature cracking or breaking.

5. If a wood range is to be converted to a gas range, one major adjustment is the:

A. addition of a gas regulator

B. replacement of manual dampers with barometric dampers

C. installation of a new vent system

D. replacement of the heating element

When converting a wood range to a gas range, the manual dampers need to be replaced with barometric dampers. This is because manual dampers are used to control the amount of air flow for a wood fire, while barometric dampers are specifically designed for gas appliances. Option A, adding a gas regulator, is incorrect because a gas regulator is used to control the pressure of gas coming into the appliance, and is not directly related to the conversion from wood to gas. Option C, installing a new vent system, is incorrect because the existing vent system can often still be used for a gas range, as long as it meets the necessary safety requirements. Option D, replacing the heating element, is incorrect because that is only necessary for electric ranges, not gas ranges. Overall, the replacement of manual dampers with barometric dampers is the correct answer because it is a crucial adjustment that needs

6. What is the minimum size of fire department connection (FD) in a building?

A. 2" (50mm)

B. 3" (75mm)

C. 4" (100mm)

D. 5" (125mm)

The minimum size for a fire department connection (FD) in a building is 3" (75mm). This is because a 3" diameter pipe can provide enough water flow and pressure for firefighters to effectively fight a fire. Options A, C, and D are incorrect because they are either smaller or larger than the required minimum size, which could result in insufficient water flow or pressure, making it difficult to extinguish a fire. Selecting option A may lead to inadequate water supply and coverage, while options C and D may be too large and expensive for the building.

7. At what maximum pressure is the space between the first-stage and the second-stage regulator?

A. 10 psi

B. 50 psi

C. 60 psi

D. 100 psi

The space between the first-stage and second-stage regulator typically operates at a maximum pressure of 10 psi. This is because the first-stage regulator reduces the pressure of the gas from the high-pressure storage tank to around 10 psi, which is then further regulated by the second-stage regulator to the desired pressure for use. Options B, C, and D are incorrect because they are higher pressure levels that are not typically maintained in this space. This could lead to safety concerns or equipment malfunctions. Alternatively, if the pressure is too low, it may result in poor performance or low gas flow rates. Therefore, the correct answer is A, 10 psi, as it is the recommended maximum pressure for the space between the first-stage and second-stage regulator.

8. Which of the following does streptococci cause?

A. Common cold

B. Strep throat and blood poisoning

C. Chickenpox

D. Measles

Streptococci is a type of bacteria that can cause various infections in the body. While streptococci can cause both strep throat and blood poisoning (also known as sepsis), it is not typically associated with the common cold (Option A), chickenpox (Option C), or measles (Option D). Other types of bacteria or viruses are responsible for these illnesses. Therefore, B is the correct answer.

9. What is the decrease in input rating of an appliance for every thousand feet above 4500 feet above sea level?

A. 2%

B. 4%

C. 6%

D. 8%

This is because the decrease in input rating for every thousand feet above 4500 feet above sea level is directly proportional to the decrease in air density at higher altitudes. This means that the higher the altitude, the lower the air density, resulting in a lower input rating for the appliance. Therefore, the higher the altitude, the greater the decrease in input rating. Answer options A, C, and D are incorrect because they do not take into account the direct relationship between altitude and air density. They also do not accurately reflect the rate of decrease in input rating at higher altitudes. Additionally, answer option A represents a decrease of only 2%, which may not be significant enough to impact the performance of the appliance. Answer option D represents a decrease of 8%, which may be too high for most appliances. Therefore, answer option B, representing a decrease of 4%, is the best and

10. Where would a floor mounted hydronic cooling convector be located in a room?

A. Near the entrance

B. On the wall with the lowest heat gain

C. Next to the window

D. On the wall with the highest heat gain

A floor mounted hydronic cooling convector would be located on the wall with the highest heat gain in a room. This is because the convector is designed to draw in warm air from the room, cool it through the hydronic system, and then release it back into the room. Placing it on the wall with the highest heat gain ensures that the warm air is being pulled in and cooled efficiently. Placing it near the entrance or next to the window may not be as effective as it would not be in the path of the warm air. Placing it on the wall with the lowest heat gain may also not be as effective as it may not be in an area where the warm air is circulating. Therefore, option D is the best choice for optimal cooling.