

BCSP CHST® - Quiz Questions with Answers

Emergency Preparedness, Incident Investigation, and Response

Emergency Preparedness, Incident Investigation, and Response

1.

Which of the following BEST describes heat transfer by radiation?

The transfer of thermal energy between objects via electromagnetic waves without requiring direct contact

The process where thermal energy is transferred through direct contact between solid objects

The movement of heat by the flow of a heated fluid such as air or liquid

The process by which heat is transferred through a solid material due to temperature difference

Correct answer: The transfer of thermal energy between objects via electromagnetic waves without requiring direct contact

Heat transfer by radiation involves the transmission of thermal energy through electromagnetic waves, which allows energy to move between objects without the need for direct physical contact.

This is different from conduction, where heat is transferred through direct contact between solid objects, or convection, where heat is carried by the movement of a fluid like air or liquid. Unlike conduction and convection, radiation can occur even in a vacuum, as seen with the heat from the sun reaching the Earth. The idea that heat is transferred through a solid material due to a temperature difference also refers to conduction, not radiation.

2.

What essential element must be included in an Exposure Control Plan under the OSHA Bloodborne Pathogens Standard?

An exposure determination that clearly identifies employees who are at risk of exposure to bloodborne pathogens

A comprehensive list of all chemicals present in the workplace to ensure proper handling and storage

A detailed emergency evacuation plan specifically tailored for fire and other emergencies

A maintenance schedule for all equipment used in handling hazardous materials to prevent malfunctions

Correct answer: An exposure determination that clearly identifies employees who are at risk of exposure to bloodborne pathogens

The Exposure Control Plan must include an exposure determination that clearly identifies which employees are at risk of exposure to bloodborne pathogens. This is crucial for implementing protective measures.

While a comprehensive list of workplace chemicals is important for a Hazard Communication program, it is not a requirement of the Exposure Control Plan. A detailed emergency evacuation plan is necessary for overall workplace safety but is not specific to managing bloodborne pathogens. Similarly, a maintenance schedule for equipment, though important, does not fulfill the requirement of identifying at-risk employees under the Exposure Control Plan.

3.

According to NFPA 101, where should "NOT AN EXIT" signs be placed within a building?

On doors that might be mistaken for an exit

On doors that lead to storage rooms

On all exit doors in the building

On windows that are used for ventilation

Correct answer: On doors that might be mistaken for an exit

"NOT AN EXIT" signs are required to be placed on doors that might be mistaken for exits. This is to prevent confusion during an emergency evacuation when every second counts, ensuring that people do not mistakenly try to exit through doors that do not lead to a safe exit path.

Doors leading to storage rooms do not need "NOT AN EXIT" signs unless they could be mistaken for an exit during an emergency. Placing "NOT AN EXIT" signs on all exit doors would be incorrect as those doors should be clearly marked as exits. Windows used for ventilation do not require such signage because they are typically not mistaken for exits.

4.

What is the final step in an emergency management plan?

Restoring business operations to normal

Conducting a company-wide survey

Hiring new employees

Redesigning the office layout

Correct answer: Restoring business operations to normal

The final step in an emergency management plan is to restore business operations to normal, ensuring the facility resumes its usual activities as smoothly and efficiently as possible.

Conducting a company-wide survey, hiring new employees, and redesigning the office layout are not related to the immediate restoration of business operations following an emergency.

5.

What is the likely behavior of a liquid with a specific gravity of less than one when it is spilled in water?

The liquid will float on the surface of the water

The liquid will sink to the bottom

The liquid will mix evenly with the water

The liquid will evaporate quickly from the surface

Correct answer: The liquid will float on the surface of the water

A liquid with a specific gravity less than one is lighter than water, meaning it will float on the surface rather than sinking. This is important to know for managing spills, as floating liquids can spread over a large area on the water's surface.

The idea that the liquid would sink to the bottom is incorrect because only liquids with a specific gravity greater than one are heavier than water and would sink. The statement that the liquid will mix evenly with the water doesn't apply here, as specific gravity determines whether the liquid floats or sinks, not how it mixes. The rate of evaporation is not determined by specific gravity but by other factors such as temperature and vapor pressure, so the liquid floating on water wouldn't necessarily evaporate quickly.

6.

What is the definition of the fire point in fire protection terminology?

The temperature at which a substance will give off a vapor that will burn continuously after ignition.

The temperature at which a liquid gives off vapor to form an ignitable mixture with air.

The lowest concentration of a flammable solvent for which air/vapor mixtures can ignite.

The highest concentration of a combustible substance capable of propagating a flame.

Correct answer: The temperature at which a substance will give off a vapor that will burn continuously after ignition.

The fire point is defined as the temperature at which a substance will give off a vapor that will burn continuously after ignition. This point is typically higher than the flash point, which is the temperature at which a liquid gives off vapor to form an ignitable mixture with air. The lowest concentration of a flammable solvent for which air/vapor mixtures can ignite is known as the lower flammability limit (LFL), and the highest concentration of a combustible substance capable of propagating a flame is referred to as the upper flammability limit (UFL).

7.

Which of the following BEST describes bloodborne pathogens?

Pathogenic microorganisms present in human blood that can cause diseases in humans

Microorganisms present in the air that cause respiratory infections

Chemical agents found in blood that can lead to chemical burns

Substances in blood that are responsible for clotting and healing wounds

Correct answer: Pathogenic microorganisms present in human blood that can cause diseases in humans

Bloodborne pathogens are specifically pathogenic microorganisms present in human blood that can cause diseases, such as hepatitis B and HIV.

Microorganisms present in the air that cause respiratory infections are actually airborne pathogens, not bloodborne. Chemical agents found in blood that can lead to chemical burns do not relate to pathogens, as they are typically hazardous substances, not living organisms. Substances in blood responsible for clotting and healing wounds are part of the body's natural process, like platelets, and are not considered pathogens.

8.

What characterizes the smoldering stage of fire?

The smoldering stage of fire is characterized by the increase of combustion particles until they become visible.

The smoldering stage is characterized by large amounts of toxic gases and significant heat.

The smoldering stage is characterized by visible flames and high temperature.

The smoldering stage is characterized by the production of both smoke and flames.

Correct answer: The smoldering stage of fire is characterized by the increase of combustion particles until they become visible.

The smoldering stage of fire occurs when the combustion particles generated in the incipient stage continue to increase until they become visible as smoke.

No flame or significant heat is present during this stage. This is different from the flame stage, where ignition occurs and flames start, and the heat stage, where large amounts of heat, flame, smoke, and toxic gases are produced.

9.

What is an essential maintenance practice for fire hoses to ensure they are ready for use in an emergency?

Fire hoses must be visually inspected at least once a year and tested by running water through them twice a year.

Fire hoses should be stored in a sealed, airtight container to prevent any exposure to moisture and air, ensuring they remain in pristine condition.

Fire hoses should only be reserved for non-emergency purposes, such as routine cleaning or watering, to avoid unnecessary wear and tear from frequent use.

Fire hoses must be stored wet after every use to prevent the material from becoming brittle and cracking over time, thus extending their lifespan.

Correct answer: Fire hoses must be visually inspected at least once a year and tested by running water through them twice a year.

Regular maintenance of fire hoses is important for ensuring they are reliable in an emergency. This includes conducting visual inspections at least once a year to detect any signs of wear, mildew, or damage and testing them by running water through them twice a year.

Storing fire hoses in sealed, airtight containers is not recommended as it could trap moisture, leading to mildew. Reserving fire hoses solely for non-emergency purposes contradicts their primary function of being ready for firefighting. Lastly, storing hoses wet is a poor practice as it can lead to mildew and deterioration; they should always be dried thoroughly after use to prevent damage.

10.

What is the PRIMARY purpose of establishing a chain of command in an emergency management plan?

To ensure accurate communication and prompt decision-making during a crisis

To determine the ranking manager's authority in non-crisis situations

To create a hierarchy for routine management tasks

To provide a clear structure for managing employee performance evaluations

Correct answer: To ensure accurate communication and prompt decision-making during a crisis

Establishing a chain of command in an emergency management plan is critical to ensure accurate communication and prompt decision-making during a crisis. This structure helps to maintain order, streamline communication, and ensure that decisions are made efficiently and effectively under extreme stress. The chain of command should be as small as practical, with personnel chosen for their ability to respond to a crisis, not based on their rank. The chain of command in an emergency management plan is not meant to determine authority in non-crisis situations; it is focused on managing during a crisis. It also isn't designed to handle routine management tasks, as its purpose is specific to emergencies. Additionally, the chain of command is not related to managing employee performance evaluations; it's about ensuring effective crisis response.

11.

Which type of fire detector reacts to the sudden change or rise in ambient temperature from a normal baseline condition?

Rate-of-rise heat detectors

Fixed-temperature heat detectors

Rate-compensation detectors

Smoke detectors

Correct answer: Rate-of-rise heat detectors

Rate-of-rise heat detectors react to the sudden change or rise in ambient temperature from a normal baseline condition. This sudden increase in temperature that matches the predetermined alarm criteria will trigger the alarm, indicating a potential fire.

Fixed-temperature heat detectors respond when the ambient temperature reaches a predetermined point, not to sudden changes.

Rate-compensation detectors are designed to compensate for normal changes in ambient temperature that are expected under non-fire conditions.

Smoke detectors, on the other hand, respond to the presence of smoke particles and do not measure temperature changes.

12.

Which of the following is considered an Other Potentially Infectious Material (OPIM) under the OSHA Bloodborne Pathogens Standard?

Saliva in dental procedures that may contain blood

Clean, uncontaminated water used for handwashing

Dust particles present in the workplace environment

Non-hazardous chemicals used for cleaning surfaces

Correct answer: Saliva in dental procedures that may contain blood

Saliva in dental procedures that may contain blood is considered an OPIM under the OSHA Bloodborne Pathogens Standard because it has the potential to carry bloodborne pathogens.

Clean, uncontaminated water used for handwashing does not pose a risk of infection and is not considered OPIM. Dust particles in the workplace are environmental contaminants but not infectious materials. Non-hazardous chemicals used for cleaning surfaces are not biological materials and do not fit the criteria for OPIM.

13.

How often must employees be trained on emergency action plans by their employer?

As a new employee and annually thereafter

Annually

Only when the plan is first implemented

Biannually

Correct answer: As a new employee and annually thereafter

Employees must be trained on emergency action plans as new employees and annually thereafter to ensure continuous familiarity and preparedness, in accordance with 29 CFR 1910.38. Regular training ensures that all employees, including new hires, are aware of the procedures and can respond effectively in an emergency. Annual training helps maintain this knowledge and readiness, preventing complacency and ensuring that everyone is up-to-date with any changes in the plan.

Training biannually, only at implementation, or only annually does not meet OSHA's requirement and would likely lead to decreased preparedness and increased risk during emergencies.

14.

Which of the following materials is most likely to be involved in a Class A fire?

Common combustibles such as wood, paper, or cloth

Electrical equipment such as wiring and controls

Flammable liquids like gasoline or oil

Combustible metals like magnesium and sodium

Correct answer: Common combustibles such as wood, paper, or cloth

Class A fires involve common combustibles such as wood, paper, cloth, rubber, and plastics. These materials are typically found in both residential and commercial settings, and they ignite easily when exposed to a heat source.

Electrical equipment, which is associated with Class C fires, flammable liquids (Class B fires), and combustible metals (Class D fires) are not involved in Class A fires. Therefore, wood, paper, and cloth are the correct answer when identifying the materials most likely to be involved in a Class A fire.

15.

When planning spill control for flammable or combustible liquids, which of the following is the MOST critical design consideration?

Ensure the structure can contain the full volume of the largest container, including leakage from tanks, pipes, and valves

Install a ventilation system to reduce vapor concentration in the air surrounding the tank

Apply aluminum or white paint to reduce internal vapor pressure within the tank

Maintain a constant watch on the filling rate and the liquid level during transfer operations.

Correct answer: Ensure the structure can contain the full volume of the largest container, including leakage from tanks, pipes, and valves

Designing a containment structure that can hold the full volume of the largest container is essential in preventing hazardous liquids from escaping, ensuring environmental safety.

While ventilation systems are important for managing vapors, and painting can help reduce vapor pressure, these measures are secondary to the need for proper containment.

Monitoring the filling process is also important but does not replace the importance of an effective containment design.

16.

Which class of flammable liquids requires that vent pipes for underground storage tanks must terminate outside of buildings?

Class I

Class II

Class III

Class IV

Correct answer: Class I

Class I flammable liquids are highly volatile and can produce flammable vapors at lower temperatures, making it critical that vent pipes terminate outside of buildings to prevent the accumulation of dangerous vapors indoors.

Class II and Class III liquids have different requirements as they are less volatile. Class IV is not a standard classification for flammable liquids in this context.

17.

What class of fire extinguisher is specifically designed for use on kitchen fires involving cooking oils and fats?

Class K

Class A

Class B

Class D

Correct answer: Class K

Class K extinguishers are specifically formulated to handle kitchen fires involving cooking oils and fats, making them the correct choice for this type of fire hazard.

Class A extinguishers are designed for ordinary combustibles like wood and paper, which are not typically involved in kitchen fires. Class B extinguishers are used for flammable liquids such as gasoline, but they are not effective for the high-temperature oils and fats in commercial kitchens. Class D extinguishers are meant for metal fires, which are not common in kitchen settings.

18.

What does an automatic external defibrillator (AED) do?

It automatically analyzes and detects cardiac arrhythmias and tachycardia of sudden cardiac arrest, producing a measured shock to stop the heart and allow it to reestablish a normal rhythm.

It monitors a person's heart rhythm and alerts emergency services if there is an issue.

It provides a continuous supply of oxygen to a patient in respiratory distress.

It measures blood pressure and provides medication when necessary.

Correct answer: It automatically analyzes and detects cardiac arrhythmias and tachycardia of sudden cardiac arrest, producing a measured shock to stop the heart and allow it to reestablish a normal rhythm.

The AED's primary function is to analyze cardiac arrhythmias and provide a shock if necessary to reestablish a normal heart rhythm.

Monitoring a person's heart rhythm and alerting emergency services is incorrect because the AED's main function is to administer a shock, not just monitor.

Providing a continuous supply of oxygen is not within the scope of an AED's functionality; this is typically done by other medical devices or procedures.

Measuring blood pressure and providing medication is also not a function of an AED; it is designed specifically to address sudden cardiac arrest.

19.

What is HAZWOPER?

A federal OSHA regulation for hazardous waste operations and emergency response, including specific training requirements for handling and controlling hazardous substances

A comprehensive program for chemical spill response and remediation, primarily designed for environmental scientists and engineers

A training protocol mandated by OSHA for emergency medical personnel to handle biological hazards

A standard operating procedure for fire departments dealing with hazardous material incidents in urban areas

Correct answer: A federal OSHA regulation for hazardous waste operations and emergency response, including specific training requirements for handling and controlling hazardous substances

HAZWOPER, which stands for Hazardous Waste Operations and Emergency Response, is a federal OSHA regulation designed to protect workers involved in hazardous waste operations, including emergency response to hazardous substance releases. The regulation mandates comprehensive safety practices, specific training requirements, monitoring, and operational procedures to ensure worker safety in hazardous environments.

The other answer options, such as a program for chemical spill response and remediation for environmental scientists, a training protocol for emergency medical personnel handling biological hazards, and a standard operating procedure for fire departments dealing with hazardous material incidents, pertain to different safety standards and protocols, making them incorrect in the context of HAZWOPER.

20.

What could happen if a water-based extinguisher is used to put out a Class C (electrical) fire?

The user could suffer from electrical shock due to water's conductivity

The fire could spread more quickly due to the flammable liquids involved

The water could cause the fire to reignite due to the presence of combustible metals

The fire could be safely extinguished without any risk

Correct answer: The user could suffer from electrical shock due to water's conductivity

Using a water-based extinguisher on a Class C fire, which involves energized electrical equipment, poses a significant risk of electrical shock. Water is a good conductor of electricity, and applying it to an electrical fire could result in the user being electrocuted.

The other answer choices describe scenarios related to other fire classes: flammable liquids are associated with Class B fires, combustible metals with Class D fires, and using the correct extinguisher would safely put out the fire without risk, which is not applicable when using the wrong type of extinguisher.

21.

Which type of sprinkler system is designed to release water only when a fire detection system, such as a smoke detector or heat detector, activates a valve?

Pre-action systems

Wet pipe systems

Dry pipe systems

Deluge systems

Correct answer: Pre-action systems

Pre-action systems are designed to release water only when a fire detection system, such as a smoke detector or heat detector, activates a valve. This type of system adds an additional layer of control by requiring both the fire detection system to sense a fire and the sprinkler system to be triggered before water is released.

Wet pipe systems have water in the pipes at all times and activate immediately when a sprinkler head is opened.

Dry pipe systems have air or nitrogen in the pipes, and water is released when the system is triggered.

Deluge systems release water through open sprinkler heads when a deluge valve is activated by a fire alarm system.

22.

Which of the following BEST defines a flammable liquid according to safety standards?

A liquid having a flash point below 100°F (37.8°C)

A liquid having a flash point at or above 100°F (37.8°C)

A liquid that ignites only at temperatures above 200°F (93.3°C)

A liquid that boils at temperatures above 100°F (37.8°C)

Correct answer: A liquid having a flash point below 100°F (37.8°C)

Flammable liquids are defined as those having a flash point below 100°F (37.8°C), making them more prone to ignite at lower temperatures compared to combustible liquids. This key characteristic distinguishes them from combustible liquids, which have higher flash points.

The other answer options either suggest a higher flash point or confuse flammability with other properties, such as boiling point or ignition temperature, which do not accurately define flammable liquids.

23.

Which color fire hydrant indicates the highest flow rate of water in gallons per minute (GPM)?

Blue

Red

Orange

Green

Correct answer: Blue

A blue fire hydrant indicates the highest flow rate, exceeding 1,500 gallons per minute (GPM). This high flow rate is essential for situations that require a substantial water supply, such as large-scale fires.

Red hydrants, on the other hand, indicate the lowest flow rate, less than 500 GPM. Orange hydrants fall between 500 and 1,000 GPM, and green hydrants have a flow rate between 1,000 and 1,500 GPM. Knowing these color codes allows firefighters to quickly assess which hydrant will provide the necessary water supply during an emergency.

24.

Class C fires are characterized by the involvement of which of the following?

Energized electrical equipment like wiring, controls, and motors

Flammable liquids like gasoline or oil

Combustible metals such as magnesium and sodium

Common combustibles such as wood, paper, or cloth

Correct answer: Energized electrical equipment like wiring, controls, and motors

Class C fires involve energized electrical equipment, such as wiring, controls, motors, data processing panels, or appliances. These types of fires are unique because they can be caused by a spark, power surge, or short circuit, and typically occur in locations where it may be difficult to access the source.

Flammable liquids and combustible metals are associated with Class B and Class D fires, respectively, while common combustibles like wood, paper, and cloth fall under Class A fires. Therefore, the correct identification for a Class C fire involves energized electrical equipment.

25.

Which type of sprinkler system is most commonly installed in areas where there is a potential for freezing, making the system inoperable if water is present in the pipes?

Dry pipe systems

Wet pipe systems

Deluge systems

Pre-action systems

Correct answer: Dry pipe systems

Dry pipe systems are commonly installed in areas where there is a potential for freezing, which would render a wet pipe system inoperable if water were present in the pipes. In dry pipe systems, the pipes are filled with air or nitrogen, and water is only released into the pipes when the system is triggered by a fire.

Wet pipe systems have water in the pipes at all times and are the most frequently installed system in areas where freezing is not a concern. Deluge systems are used in areas with special hazards requiring rapid water release, and pre-action systems are hybrids of wet, dry, and deluge systems used in areas where accidental discharge is undesirable.

26.

What is the key requirement for welding or cutting operations in hazardous locations?

Welding and cutting operations should be permitted only after ensuring all fire and explosion hazards have been eliminated.

Welding and cutting can proceed if the area has been marked off with caution tape.

Operations should be performed only if the containers in the area are tightly sealed.

No special precautions are necessary if the area is well-lit and ventilated.

Correct answer: Welding and cutting operations should be permitted only after ensuring all fire and explosion hazards have been eliminated.

Marking the area with caution tape or tightly sealing containers does not address the underlying hazards. While good lighting and ventilation are important, they do not replace the need to eliminate potential sources of fire or explosions in hazardous locations.

27.

Why is it important to bond and ground a drum when filling it with flammable liquid?

To prevent the build-up of static electricity that could cause a spark and ignite the flammable liquid

To increase the speed of the filling process

To ensure that the liquid flows more smoothly into the barrel

To reduce the temperature of the liquid during the transfer

Correct answer: To prevent the build-up of static electricity that could cause a spark and ignite the flammable liquid

Bonding and grounding a drum during the filling of flammable liquids are key safety practices. The primary purpose of bonding and grounding is to prevent the build-up of static electricity, which could potentially cause a spark, leading to the ignition of the flammable liquid.

The idea that bonding and grounding could increase the speed of the filling process is incorrect; these practices do not affect the rate of transfer. Similarly, while ensuring smooth flow is important, bonding and grounding do not directly influence the smoothness of liquid transfer. Grounding and bonding have no impact on reducing the temperature of the liquid during the filling process; their purpose is purely to prevent static electricity hazards.

28.

According to OSHA, how often must portable fire extinguishers be visually inspected?

Monthly

Annually

Biannually

Weekly

Correct answer: Monthly

OSHA mandates that portable fire extinguishers undergo visual inspections on a monthly basis to ensure they are in proper working condition and can be readily accessed in case of an emergency. This frequent inspection helps identify any potential issues such as damage, corrosion, or pressure loss that could render the extinguisher ineffective.

Annual inspections and servicing are also required, but the primary focus for visual checks is monthly. Biannual inspections would not provide the same level of oversight, potentially allowing issues to go unnoticed for too long. Weekly inspections, while thorough, are not required and could be seen as overly frequent, potentially leading to unnecessary use of resources.

29.

Which of the following items are considered MOST essential emergency equipment for every vehicle?

Fire extinguisher, essential tools for road repairs, spare bulbs, flares, and reflectors

GPS device, first aid kit, and blankets

Fire extinguisher, tire jack, spare tire, water, and sweatshirts

Fire extinguisher, mobile phone, flashlight, and snacks

Correct answer: Fire extinguisher, essential tools for road repairs, spare bulbs, flares, and reflectors

Every vehicle must be equipped with essential emergency equipment to ensure safety and preparedness in case of emergencies. This equipment includes a fire extinguisher, tools for road repairs, spare bulbs, flares, and reflectors. These items are necessary to handle emergencies like fires, collisions, or road breakdowns effectively.

GPS devices, mobile phones, sweatshirts, snacks, and other options may be useful in an emergency but are not required emergency equipment for each motor vehicle.

30.

What is the significance of a gas or vapor having a vapor density greater than one in an indoor environment?

The gas or vapor will sink and accumulate near the floor or lower levels

The gas or vapor will rise and accumulate near the ceiling

The gas or vapor will disperse evenly throughout the room

The gas or vapor will evaporate rapidly, reducing the concentration near the source

Correct answer: The gas or vapor will sink and accumulate near the floor or lower levels

A gas or vapor with a vapor density greater than one is heavier than air, which means it will tend to sink and accumulate near the floor or lower levels of an indoor environment. This is a critical consideration when designing ventilation systems or assessing the risk of hazardous gas accumulation.

The idea that the gas or vapor will rise and accumulate near the ceiling is incorrect because that would be true for gases with a vapor density less than one, which are lighter than air. The statement that the gas will disperse evenly is not accurate because vapor density affects how gases and vapors settle in a space. The evaporation rate is a separate concept and does not directly relate to vapor density, so the idea that the gas would evaporate rapidly is also incorrect.

31.

What does the "0" in the reactivity section of the NFPA diamond signify?

The material is stable and does not react with other substances under normal conditions

The material is highly reactive and may explode under normal conditions

The material is reactive with water and must be handled with caution to prevent hazardous reactions

The material can undergo a violent chemical change but only under elevated temperatures or pressures

Correct answer: The material is stable and does not react with other substances under normal conditions

A "0" in the reactivity section of the NFPA diamond indicates that the material is stable and does not react with other substances under normal conditions, meaning it poses no significant reactivity hazard.

The idea that the material is highly reactive and may explode under normal conditions is incorrect because such a material would have a higher reactivity rating. The statement that the material can undergo a violent chemical change under elevated temperatures or pressures applies to a material with a moderate reactivity rating, not a "0." The notion that the material is reactive with water and must be handled with caution is also incorrect for a "0" rating, which signifies stability and lack of reactivity.

32.

Which of the following BEST defines a combustible liquid according to safety standards?

A liquid having a flash point at or above 100°F (37.8°C)

A liquid having a flash point below 100°F (37.8°C)

A liquid that ignites at temperatures below 200°F (93.3°C)

A liquid that boils at a temperature below 100°F (37.8°C)

Correct answer: A liquid having a flash point at or above 100°F (37.8°C)

The correct definition of a combustible liquid is one that has a flash point at or above 100°F (37.8°C). This classification distinguishes combustible liquids from flammable liquids, which have flash points below 100°F.

The other answer options either misstate the flash point or confuse the definition of combustible liquids with other characteristics, such as boiling point or ignition temperature, which are not relevant to this specific classification.

33.

What is the PRIMARY purpose of providing an enclosed area with sufficient ventilation in spray booths during paint-spraying operations?

To prevent explosive mixtures of vapor and air

To maintain a comfortable temperature for workers

To ensure even application of paint

To reduce noise levels in the surrounding environment

Correct answer: To prevent explosive mixtures of vapor and air

The enclosed area with proper ventilation is designed to prevent hazardous vapors from building up, which could lead to explosions.

Maintaining a comfortable temperature for workers is not the main goal of the ventilation system.

Ensuring even application of paint has to do with the spraying technique, not ventilation.

Reducing noise levels is unrelated to the ventilation system; it's focused on safety from potential explosions.

34.

What is the general requirement for the placement of exits in buildings according to the NFPA 101?

Exits should be placed so that no part of the building is more than 150 ft away from an exit in buildings with medium- and low-hazard processes.

Exits should be placed so that no part of the building is more than 75 ft away from an exit regardless of the process hazard level.

Exits should be placed 100 ft away from each other.

Exits should be located within 30 ft of each other in all buildings.

Correct answer: Exits should be placed so that no part of the building is more than 150 ft away from an exit in buildings with medium- and low-hazard processes.

This is based on the guidelines provided by NFPA 101, which sets specific distance requirements depending on the hazard level within the building.

The idea that exits should be placed no more than 75 ft away from any part of the building is incorrect because this distance applies to high-hazard areas, not to medium- or low-hazard areas. Suggesting that exits should be placed 100 ft apart is also incorrect because exit placement is determined by the distance from any part of the building to an exit, not by the distance between exits themselves. The idea that exits should be within 30 ft of each other in all buildings is not accurate, as this would be an unnecessarily strict requirement not supported by safety codes.

35.

Which of the following statements BEST describes the significance of specific gravity in relation to chemical spills?

Specific gravity indicates whether a liquid is heavier or lighter than water, affecting how it spreads during a spill.

Specific gravity determines how quickly a liquid will evaporate at a given temperature.

Specific gravity measures the density of a gas compared to air to determine its behavior in a spill.

Specific gravity is used to calculate the pressure exerted by a liquid in a confined space.

Correct answer: Specific gravity indicates whether a liquid is heavier or lighter than water, affecting how it spreads during a spill.

Specific gravity is crucial in determining how a liquid will behave during a chemical spill, as it indicates whether the liquid is heavier or lighter than water, which affects how it spreads. Knowing this helps to effectively contain and clean up the spill.

The idea that specific gravity determines how quickly a liquid evaporates is incorrect because the evaporation rate is related to other properties, not specific gravity. The statement that specific gravity measures the density of a gas compared to air actually describes vapor density, not specific gravity. Additionally, specific gravity is not used to calculate the pressure exerted by a liquid in a confined space; pressure calculations are based on different principles.

36.

What is the BEST definition of combustion in the context of fire protection and prevention?

A chemical reaction that occurs between a fuel and an oxidizing agent

A process where heat is generated by mixing flammable liquids

The temperature at which a liquid produces enough vapor to ignite

The maximum concentration of a flammable vapor in air that can propagate a flame

Correct answer: A chemical reaction that occurs between a fuel and an oxidizing agent

Combustion is defined as a chemical reaction that occurs between a fuel and an oxidizing agent, which releases energy in the form of heat and light. This process is the fundamental cause of fire.

The other answer options are incorrect as they either describe related concepts—such as the flash point, which is the temperature at which vapor ignites, or the concentration of vapor needed to propagate a flame—or they inaccurately describe the combustion process as merely mixing liquids, which does not necessarily result in combustion.

37.

What must an organization do BEFORE developing an emergency management plan?

Assess the company's risk of various identified hazards, review existing or previously written plans, and decide on how to develop the emergency management plan best suited for the facility.

Implement comprehensive training programs for all employees to ensure they understand their roles in an emergency and are prepared to respond effectively.

Purchase a wide range of emergency response equipment and supplies to ensure that the organization is fully prepared for any type of emergency situation that may arise.

Establish a dedicated emergency response team that is trained and equipped to handle various types of emergencies, ensuring a quick and effective response.

Correct answer: Assess the company's risk of various identified hazards, review existing or previously written plans, and decide on how to develop the emergency management plan best suited for the facility.

Before developing an emergency management plan, an organization must assess the company's risk of various identified hazards, review existing or previously written plans, and decide on how to develop the emergency management plan that is best suited for the facility.

Implementing training programs, purchasing emergency response equipment, and establishing a dedicated response team are important steps that come after the initial assessment and plan development stages.

38.

Which of the following is considered Other Potentially Infectious Material (OPIM) under the OSHA Bloodborne Pathogens Standard?

Saliva in dental procedures

Tears

Sweat

Urine

Correct answer: Saliva in dental procedures

Saliva in dental procedures is considered OPIM because it can potentially contain blood, making it a risk for transmission of bloodborne pathogens. The OSHA Bloodborne Pathogens Standard specifically includes saliva in dental procedures as a potentially infectious material due to the increased risk of bloodborne pathogen transmission in those settings.

Tears, sweat, and urine are not classified as OPIM because they generally do not carry the same risk of containing bloodborne pathogens unless visibly contaminated with blood.

39.

What is the PRIMARY purpose of a fire blanket?

To extinguish burning clothing or small fires

To be used as a protective cover while escaping a fire

To put out large industrial fires

To smother flammable-liquid fires in large open containers

Correct answer: To extinguish burning clothing or small fires

Fire blankets are specifically designed to extinguish small fires by smothering them and cutting off the oxygen supply needed for the fire to burn.

Using a fire blanket as a protective cover while escaping a fire might seem like a viable option, but this is not its intended use, and it might not provide adequate protection. The idea of using a fire blanket to put out large industrial fires is impractical because fire blankets are not large or durable enough to handle such situations. While fire blankets can be used to smother small flammable-liquid fires, they are not designed for large open containers where the blanket might not effectively cover the fire's surface area.

40.

What are the four stages of fire?

The four stages of fire are incipient, smoldering, flame, and heat

The four stages of fire are ignition, smoldering, explosion, and heat

The four stages of fire are incipient, burning, flame, and extinguishing

The four stages of fire are ignition, smoldering, burning, and cooling

Correct answer: The four stages of fire are incipient, smoldering, flame, and heat

The four stages of fire include the incipient stage, where no visible smoke, flame, or significant heat develops but a large number of combustion particles are generated; the smoldering stage, where combustion particles increase until they become visible as smoke; the flame stage, where ignition occurs and flames start; and the heat stage, where large amounts of heat, flame, smoke, and toxic gases are produced.

This differs from the other answer options, which incorrectly include terms like ignition, explosion, extinguishing, burning, and cooling that are not part of the standard four stages of fire.

41.

What is an essential guideline that should be included in a workplace safety program regarding how workers are to obtain first aid?

Workers should be fully informed about the exact location of first aid supplies and trained on the proper procedures to access emergency medical care when needed.

Workers must be trained to administer complex medical procedures, including minor surgeries, to ensure immediate care.

Workers are required to evaluate the severity of their injuries on their own and determine whether first aid is necessary before seeking help.

Workers should be encouraged to wait until the end of their shift before seeking first aid, unless the injury is life-threatening.

Correct answer: Workers should be fully informed about the exact location of first aid supplies and trained on the proper procedures to access emergency medical care when needed.

A key aspect of a workplace safety program is ensuring that workers are well-informed about the location of first aid supplies and are adequately trained on how to access emergency medical care. This preparation is vital to providing timely and effective assistance in case of an injury.

Training workers to perform complex medical procedures, including surgeries, is unnecessary and exceeds the typical scope of first aid training. Requiring workers to self-assess the severity of their injuries before seeking first aid could lead to dangerous delays in care. Encouraging workers to wait until the end of their shift before seeking first aid, except in life-threatening situations, is unsafe and contradicts basic safety principles that prioritize immediate care for injuries.

42.

What type of labeling is required for containers that store or transport blood or other potentially infectious materials (OPIM) under the OSHA Bloodborne Pathogens Standard?

Labels must be orange-red with a biohazard symbol

Labels must be green with a safety check mark to indicate caution

Labels must be yellow with a chemical hazard symbol

Labels must be blue with a medical cross symbol

Correct answer: Labels must be orange-red with a biohazard symbol

Under the OSHA Bloodborne Pathogens Standard, containers that store or transport blood or other potentially infectious materials (OPIM) must be labeled with an orange-red label that includes the biohazard symbol. This ensures that workers can easily identify the presence of hazardous biological materials and take appropriate precautions.

Labels that are green with a safety check mark, yellow with a chemical hazard symbol, or blue with a medical cross symbol are not appropriate for indicating the presence of bloodborne pathogens and do not meet the standard's requirements.

43.

What type of fire extinguisher must heavy-duty trucks be equipped with to handle various fire hazards?

Type ABC fire extinguisher

Type A fire extinguisher

Type B fire extinguisher

Type D fire extinguisher

Correct answer: Type ABC fire extinguisher

Heavy-duty trucks must be equipped with type ABC fire extinguishers. These are listed by Underwriters Laboratories for use on various types of fires, including combustible materials (paper, cardboard), burning oil, gasoline, grease, and electrical equipment. This type of extinguisher ensures comprehensive protection against different fire hazards that may occur in or around heavy-duty trucks.

- *Type A fire extinguisher: This is incorrect as it is designed for ordinary combustibles like wood and paper but does not handle fires involving flammable liquids or electrical equipment.*
 - *Type B fire extinguisher: This is incorrect as it is designed for flammable liquids such as oil and gasoline but does not handle ordinary combustibles or electrical fires.*
 - *Type D fire extinguisher: This is incorrect as it is designed for flammable metals and is not suitable for the typical fire hazards encountered in heavy-duty trucks.*
-

44.

When storing flammable or combustible liquids in inside storage rooms, what is the minimum number of air changes per hour required?

Six air changes per hour

Three air changes per hour

Nine air changes per hour

12 air changes per hour

Correct answer: Six air changes per hour

When flammable or combustible liquids are stored in inside storage rooms, the room must be equipped with either a gravity or mechanical exhaust ventilation system. This system should be designed to provide for a complete change of air within the room at least six times per hour. This ensures that any potentially hazardous vapors are properly ventilated to maintain a safe environment.

The options of three, nine, and 12 air changes per hour do not meet the specified requirement for safe storage.

45.

What is the PRIMARY role of the safety professional in an emergency management plan?

Act as the consultant, guiding line management through the process of identifying potential emergency events, and developing primary and contingency plans

Lead the emergency response team directly on the ground

Handle all communications with external emergency services

Take the ultimate responsibility of the plan

Correct answer: Act as the consultant, guiding line management through the process of identifying potential emergency events, and developing primary and contingency plans

The safety professional's role in an emergency management plan is to act as a consultant, guiding line management in identifying potential emergency events, and developing primary and contingency plans.

Leading the emergency response team, handling external communications, and taking ultimate responsibility for the plan are responsibilities that usually fall to other specialized roles within the organization.

46.

Which type of sprinkler system discharges a mixture of water and low expansion foam concentrate, typically used in areas with high challenge fires, such as flammable liquids and airport hangars?

Foam water sprinkler systems

Wet pipe systems

Dry pipe systems

Water spray systems

Correct answer: Foam water sprinkler systems

Foam water sprinkler systems discharge a mixture of water and low expansion foam concentrate, making them suitable for areas with high challenge fires, such as those involving flammable liquids and airport hangars. This type of system provides an additional layer of fire suppression by creating a foam blanket that helps smother the fire and prevent re-ignition.

Wet pipe systems have water in the pipes at all times and are commonly used in standard building applications.

Dry pipe systems are used in areas where freezing is a concern, with pipes filled with air or nitrogen until activated.

Water spray systems operate similarly to deluge systems but are designed to protect uniquely configured hazards with specific spray patterns.

47.

Why is it essential for a workplace to have written emergency response and fire prevention plans?

They provide detailed procedures to ensure employees can effectively respond to emergencies and prevent fires, thereby minimizing potential harm and loss.

They are only necessary for workplaces that have experienced significant fire incidents or other emergencies in the past five years.

They reduce the frequency of mandatory fire drills and emergency preparedness training sessions by providing an alternative form of safety education.

They are primarily used to satisfy regulatory requirements and are rarely referred to during actual emergency situations.

Correct answer: They provide detailed procedures to ensure employees can effectively respond to emergencies and prevent fires, thereby minimizing potential harm and loss.

Written emergency response and fire prevention plans are crucial because they provide detailed and actionable procedures that ensure employees know how to respond effectively to emergencies and prevent fires. This reduces the likelihood of harm and loss in the event of an emergency.

The belief that such plans are only necessary if a workplace has a history of incidents is incorrect; every workplace needs these plans regardless of past experiences. Suggesting that written plans reduce the need for drills and training misunderstands the role of these plans, which should complement, not replace, regular training. While compliance with regulations is important, the primary purpose of these plans is to serve as a practical tool during actual emergencies, not just to meet regulatory requirements.

48.

What must employers do if an employee declines the hepatitis B vaccine offered under the OSHA Bloodborne Pathogens Standard?

Document the declination and have the employee sign a declination form

Provide a financial incentive for the employee to reconsider

Require the employee to undergo a health assessment before allowing them to decline

Automatically enroll the employee in a mandatory vaccine program

Correct answer: Document the declination and have the employee sign a declination form

If an employee declines the hepatitis B vaccine, the employer must document this decision and have the employee sign a declination form. This form is important for both compliance with OSHA's Bloodborne Pathogens Standard and for legal documentation purposes.

Providing financial incentives to reconsider is not required and could be seen as coercive. Requiring a health assessment before allowing a decline is not part of the standard's requirements. Automatically enrolling the employee in a mandatory vaccine program disregards the employee's right to decline the vaccine, which is protected under the standard.

49.

What is the recommended first aid procedure for chemical burns of the skin or eyes?

Flush the affected area with water for 15 minutes and seek medical aid

Flush the affected area with water for 5 minutes and seek medical aid

Flush the affected area with water for 30 minutes and apply a neutralizing agent

Flush the affected area with water for 10 minutes and seek medical aid

Correct answer: Flush the affected area with water for 15 minutes and seek medical aid

For chemical burns, it is essential to flush the affected area with water for at least 15 minutes to remove the harmful substance effectively.

Flushing for only 5 or 10 minutes is insufficient to ensure the chemical is thoroughly washed away. Applying a neutralizing agent is not recommended without proper instructions as it can potentially cause more harm. Therefore, the correct procedure is to flush the area with water for 15 minutes and then seek medical assistance.

50.

What term is defined as the minimum temperature at which a liquid gives off vapor within a test vessel in sufficient concentration to form an ignitable mixture with air near the surface of the liquid?

Flash point

Heat of combustion

Lower flammability limit

Upper flammability limit

Correct answer: Flash point

The flash point is the term used to describe the minimum temperature at which a liquid gives off vapor within a test vessel in sufficient concentration to form an ignitable mixture with air near the surface of the liquid. This indicates the susceptibility of the liquid to ignition.

The heat of combustion refers to the amount of heat evolved by the combustion of a substance. The lower flammability limit is the lowest concentration of a flammable solvent at which air/vapor mixtures can ignite, and the upper flammability limit is the highest concentration capable of propagating a flame through a homogeneous combustible mixture.

51.

Which type of sprinkler system is primarily installed in areas with special hazards where the rapid spread of fire is a major concern, and releases water through all sprinkler heads simultaneously when activated?

Deluge systems

Wet pipe systems

Dry pipe systems

Pre-action systems

Correct answer: Deluge systems

Deluge systems are primarily installed in areas with special hazards where the rapid spread of fire is a major concern. They are designed to release water through all sprinkler heads simultaneously when activated by a fire alarm system. This rapid and widespread water release helps to control or extinguish fires in high-risk areas.

Wet pipe systems have water in the pipes at all times and activate individual sprinkler heads as needed.

Dry pipe systems are used in areas where freezing is a concern, with pipes filled with air or nitrogen until activated.

Pre-action systems require both a fire detection system and the sprinkler system to be triggered before water is released, providing an extra layer of control to prevent accidental discharge.

52.

What safety program must employers create to protect workers from bloodborne pathogens?

Exposure Control Plan

Chemical Hazard Communication Program

Personal Protective Equipment (PPE) Program

Respiratory Protection Program

Correct answer: Exposure Control Plan

Employers are required to create and implement an Exposure Control Plan (ECP) to protect workers from bloodborne pathogens. This plan is designed to identify and control potential exposures to bloodborne pathogens in the workplace.

The other answer options, such as a Chemical Hazard Communication Program, PPE Program, and Respiratory Protection Program, are important safety programs but are not specifically designed to address bloodborne pathogens. Each of these programs focuses on different hazards: chemical hazards, personal protective equipment, and respiratory protection, respectively.

53.

According to the National Fire Protection Association (NFPA), which of the following is NOT a recognized classification for fires?

Class F

Class A

Class C

Class K

Correct answer: Class F

The National Fire Protection Association (NFPA) classifies fires into specific categories: Class A, B, C, D, and K. These classifications are based on the type of material involved in the fire.

Class A includes common combustibles like wood and paper; Class B involves flammable liquids; Class C is for energized electrical equipment; Class D covers combustible metals; and Class K involves cooking media like oils and grease. There is no "Class F" in the NFPA classification system, making it the incorrect option.

54.

What is the maximum travel distance to a fire extinguisher for a light hazard environment?

75 feet

30 feet

50 feet

100 feet

Correct answer: 75 feet

For a light hazard environment, the maximum travel distance to a fire extinguisher is 75 feet. This ensures that fire extinguishers are readily accessible in case of an emergency.

A travel distance of 30 feet or 50 feet applies to environments with higher hazard levels, such as extra hazards or commercial kitchens. 100 feet exceeds the maximum travel distance specified for any hazard level.

55.

What characterizes the incipient stage of fire?

The incipient stage of fire is characterized by no visible smoke, flame, or significant heat, but a large number of combustion particles are present.

The incipient stage is characterized by visible smoke and significant heat.

The incipient stage is characterized by visible flames and high temperatures.

The incipient stage is characterized by large amounts of toxic gases and heavy smoke.

Correct answer: The incipient stage of fire is characterized by no visible smoke, flame, or significant heat, but a large number of combustion particles are present.

The incipient stage of fire is the initial phase where there is no visible smoke, flame, or significant heat. During this stage, a large number of combustion particles are produced that are too small to be visible to the human eye.

This is in contrast to the other stages where visible smoke, flames, and high temperatures become apparent. The primary hazard in the incipient stage is the accumulation of these combustion particles, which can trigger ionization detectors.

56.

According to Heinrich's domino model, which of the following is NOT one of the five general factors involved in incidents?

Safety training

Environment of the risk

Fault of a person

Unsafe act or condition

Correct answer: Safety training

Heinrich's domino model includes the following five general factors involved in incidents:

- 1. Environment of the risk*
- 2. Fault of a person*
- 3. Unsafe act or condition*
- 4. Accident*
- 5. Injury*

Safety training, while important for preventing incidents, is not listed as one of the five general factors in Heinrich's model. This model illustrates how incidents result from a sequence of events, and addressing any one of these factors can prevent the incident from occurring.

57.

Under the OSHA Bloodborne Pathogens Standard, when must employers offer the hepatitis B vaccine to employees?

After an employee is trained on bloodborne pathogens and before they are exposed to potentially infectious materials

Only after an employee has been exposed to bloodborne pathogens

Within 24 hours of hiring any new employee, regardless of job duties

Only to employees who request the vaccine after starting their job

Correct answer: After an employee is trained on bloodborne pathogens and before they are exposed to potentially infectious materials

Employers are required to offer the hepatitis B vaccine to employees after they have been trained on bloodborne pathogens and before they are potentially exposed to infectious materials, ensuring that workers are protected from the risk of infection.

Offering the vaccine only after exposure is incorrect because the goal is to prevent infection before it occurs. Offering it within 24 hours of hiring, regardless of job duties, is not required and may not be practical or necessary for all positions. Limiting the offer to those who request the vaccine fails to comply with the proactive requirement to offer it to all at-risk employees.

58.

What does the number "4" in the flammability section of the NFPA diamond indicate?

The material is highly flammable and can ignite readily at most ambient temperatures, posing a severe fire hazard

The material is moderately flammable and requires an external ignition source at elevated temperatures

The material is non-flammable and poses no risk of igniting under normal conditions

The material is combustible only under extreme heat or pressure conditions

Correct answer: The material is highly flammable and can ignite readily at most ambient temperatures, posing a severe fire hazard

The number "4" in the flammability section of the NFPA diamond indicates that the material is highly flammable and can ignite readily at most ambient temperatures, making it a severe fire hazard. A "4" rating signifies the highest level of flammability risk.

The description of the material being moderately flammable, non-flammable, or combustible only under extreme conditions does not accurately reflect the severity indicated by a "4" rating in the NFPA system.

59.

What does the evaporation rate of a liquid describe?

How quickly the liquid turns into vapor at a specific temperature and pressure

The point at which the liquid starts to boil

The temperature at which the liquid can spontaneously ignite

How much of the liquid can dissolve in water

Correct answer: How quickly the liquid turns into vapor at a specific temperature and pressure

The evaporation rate of a liquid describes how quickly the liquid turns into vapor at a specific temperature and pressure. This is crucial for understanding how rapidly a liquid might become a vapor, which can influence fire hazards.

The point at which the liquid starts to boil is referred to as the boiling point, not the evaporation rate.

The temperature at which the liquid can spontaneously ignite is known as the autoignition temperature.

How much of the liquid can dissolve in water refers to its water solubility.

60.

How long must an employer maintain medical records related to employee exposure to bloodborne pathogens?

For at least 30 years after the employee's employment ends

For the duration of the employee's employment

For at least one year after the employee leaves the company

Medical records do not need to be maintained once the employee leaves the company

Correct answer: For at least 30 years after the employee's employment ends

Employers are required to maintain medical records related to employee exposure to bloodborne pathogens for at least 30 years after the employee's employment ends. This extended period is critical for tracking any long-term health effects that might arise from exposure.

Keeping records only for the duration of employment or for just one year after the employee leaves is insufficient and does not comply with OSHA's requirements. The idea that records do not need to be maintained once the employee leaves the company is incorrect, as OSHA mandates the 30-year retention period to ensure health monitoring and potential future claims.

61.

What precautions should be taken when welding or cutting near combustible materials?

Cover exposed combustible material with sheet metal or another non-combustible material

Ensure wood floors are thoroughly wetted down before welding or cutting

Do not allow hot metal or slag to fall through cracks in the floor or onto combustible materials below

Ensure gas cylinders are placed directly on the floor without securing them to prevent accidents

Correct answer: Cover exposed combustible material with sheet metal or another non-combustible material

Covering exposed combustible material with sheet metal or another non-combustible material effectively prevents sparks or slag from igniting the material.

Wetting down wood floors is not advised because it can be ineffective and does not remove the risk of ignition. Allowing hot metal or slag to fall through cracks can lead to fires, making it unsafe. Gas cylinders should always be secured in an upright position rather than left unsecured on the floor, as this is an unsafe practice that increases the risk of accidents.

62.

What is the minimum distance above ground level for tanks storing Class I or Class II liquids according to NFPA 30?

One foot (0.3 m)

Two feet (0.6 m)

Four feet (1.2 m)

Three feet (0.9 m)

Correct answer: One foot (0.3 m)

The correct answer is one foot (0.3 m). This distance is specified as the minimum requirement for above ground tanks to prevent potential hazards, such as the collapse of the tank's supports due to fire.

Two feet (0.6 m) is incorrect because it exceeds the NFPA 30 minimum requirement. Four feet (1.2 m) is also incorrect as it is a significantly greater distance than required, which might be considered in different contexts but not specifically by NFPA 30. Three feet (0.9 m) is incorrect as it is greater than the specified one-foot minimum, though it may be applied in specific cases depending on other risk factors.

63.

For what purposes are Liquefied Petroleum Gases (LPG) commonly used?

As fuel gases and to form special atmospheres in heat-treating furnaces

As a raw material in the production of plastics

As a cooling agent in refrigeration systems

As an additive in food processing

Correct answer: As fuel gases and to form special atmospheres in heat-treating furnaces

Liquefied Petroleum Gases (LPG) are primarily used as fuel gases and to create special atmospheres in heat-treating furnaces, making them essential in various industrial applications.

LPG is not commonly used as a raw material in the production of plastics, as other petrochemicals serve that purpose.

It is also not utilized as a cooling agent in refrigeration systems, where refrigerants are preferred.

LPG is not used as an additive in food processing, as it does not serve a functional role in that industry.

64.

Which class of flammable liquids has a flash point below 73°F and a boiling point below 100°F?

Class IA

Class IB

Class IC

Class II

Correct answer: Class IA

Class IA liquids are characterized by a flash point below 73°F and a boiling point below 100°F, making them highly flammable and easily ignitable at lower temperatures.

Class IB liquids also have a flash point below 73°F, but their boiling point is at or above 100°F. Class IC liquids have a slightly higher flash point, at or above 73°F but below 100°F. Class II liquids, on the other hand, are categorized as combustible, not flammable, with a flash point at or above 100°F and below 140°F. Understanding these distinctions is crucial for proper handling and storage of these liquids.

65.

A fire breaks out in a workshop where magnesium shavings are ignited, and a specialized dry powder extinguisher is required to put it out. Which class of fire does this scenario describe?

Class D

Class A

Class B

Class C

Correct answer: Class D

The scenario describes a fire involving combustible metals like magnesium, which requires a specialized dry powder extinguisher to extinguish. This type of fire falls under the Class D classification.

Class A fires involve common combustibles like wood or paper, Class B fires involve flammable liquids, and Class C fires involve energized electrical equipment. Therefore, the correct classification for a fire involving combustible metals is Class D.

66.

What is the appropriate first step in treating a cold contact burn?

Gently warm the affected area using lukewarm water

Apply ice to the affected area

Rub the area to warm it up quickly

Immediately apply an antiseptic cream

Correct answer: Gently warm the affected area using lukewarm water

The correct first step in treating a cold contact burn is to gently warm the affected area using lukewarm water. This helps to gradually restore normal blood flow without causing further damage.

Applying ice would exacerbate the injury by causing additional cold exposure.

Rubbing the area to warm it up quickly is harmful because it can damage the skin and underlying tissues.

While antiseptic cream may be used later, it's not the first step in treating a cold contact burn; the priority is to gently rewarm the area.

67.

Which of the following BEST describes heat transfer by convection?

The process by which thermal energy is transferred by the movement of a heated fluid such as liquid or air

The transfer of thermal energy through direct contact between two solid surfaces

The emission of thermal energy in the form of electromagnetic waves

The absorption of thermal energy by a solid material without any movement of fluid

Correct answer: The process by which thermal energy is transferred by the movement of a heated fluid such as liquid or air

Heat transfer by convection is best described as the process where thermal energy is transferred by the movement of a heated fluid, which can be a liquid or air. This is a key concept in understanding how heat moves in various environments, especially those involving fluids.

The idea that heat transfer occurs through direct contact between solid surfaces, is actually describing conduction, not convection. The emission of thermal energy as electromagnetic waves refers to radiation, not convection. The absorption of thermal energy by a solid material without fluid movement again relates more closely to conduction, not convection, as convection specifically involves the movement of a fluid.

68.

What does a green top color on a fire hydrant indicate about its water flow rate?

The hydrant has a flow rate between 1,000 and 1,500 gallons per minute (GPM)

The hydrant has a flow rate of less than 500 gallons per minute (GPM)

The hydrant has a flow rate between 500 and 1,000 gallons per minute (GPM)

The hydrant has a flow rate greater than 1,500 gallons per minute (GPM)

Correct answer: The hydrant has a flow rate between 1,000 and 1,500 gallons per minute (GPM)

A green top color on a fire hydrant indicates that its flow rate is between 1,000 and 1,500 gallons per minute (GPM). This is important information for firefighters, as it helps them quickly assess the water supply available from that hydrant.

A red top signifies a flow rate of less than 500 GPM, which is the lowest, while orange indicates a flow rate between 500 and 1,000 GPM. Blue, on the other hand, indicates a flow rate above 1,500 GPM, which is the highest. Understanding these color codes is crucial in emergency situations to ensure the appropriate hydrant is used.

69.

What are some of the PRIMARY responsibilities of the Incident Commander (IC) in an emergency situation?

Assessing incident priorities, ensuring safety for all personnel, and determining strategic goals and objectives

Delegating tasks to team members, managing financial resources, and conducting regular drills

Overseeing logistical operations, handling public relations, and documenting incident reports

Coordinating with local law enforcement, implementing security protocols, and conducting training sessions

Correct answer: Assessing incident priorities, ensuring safety for all personnel, and determining strategic goals and objectives

The Incident Commander (IC) has the critical role of managing the overall incident, regardless of its size. The IC's responsibilities include assessing the incident priorities, ensuring the safety of all personnel involved, and determining the strategic goals and objectives to manage the incident effectively. The IC must evaluate the safety issues, develop strategic goals, and transform these goals into practical objectives to minimize further damage.

The other answer options, such as delegating tasks and managing resources, while important, are not primary responsibilities of the IC.

70.

What is the PRIMARY concern when extinguishing Class K fires?

Applying extinguishing agents that can sap the cooking oil and create a barrier

Ensuring that the fire is cooled quickly to prevent re-ignition

Using water to rapidly cool down the heated cooking oil

Smothering the fire with a blanket to cut off the oxygen supply

Correct answer: Applying extinguishing agents that can sap the cooking oil and create a barrier

Class K fires involve cooking oils or fats, which burn at extremely high temperatures. The main concern when extinguishing a Class K fire is to apply an agent that can saponify the oil, turning it into a soapy substance that forms a barrier over the oil to prevent re-ignition.

Ensuring the fire is cooled quickly is important, but without the proper agent, re-ignition can still occur.

Using water is particularly dangerous for Class K fires as it can cause the oil to splash and spread the fire further.

While smothering a fire is effective for some types of fires, it is less effective for cooking oil fires due to the high temperatures involved.

71.

Which class of combustible liquids has a flash point at or above 200°F?

Class IIIB

Class II

Class IIIA

Class IC

Correct answer: Class IIIB

Class IIIB combustible liquids are characterized by having a flash point at or above 200°F, making them less prone to ignition compared to other classes of flammable and combustible liquids.

Class II liquids have flash points at or above 100°F and below 140°F, while Class IIIA liquids have flash points at or above 140°F and below 200°F. Class IC liquids, on the other hand, are classified as flammable, with flash points below 100°F. Understanding these distinctions helps ensure proper safety measures are taken when handling these substances.

72.

What is the PRIMARY role of a fire brigade?

Assist in fire suppression efforts until the municipal fire department arrives

Monitor fire alarms and notify external fire departments when a fire occurs

Inspect and maintain fire protection equipment within the facility

Conduct fire safety training sessions for all employees

Correct answer: Assist in fire suppression efforts until the municipal fire department arrives

The fire brigade's primary role is to assist in fire suppression efforts and control the situation until the municipal fire department arrives, which is key to preventing the spread of fire and minimizing damage.

Monitoring fire alarms and notifying external fire departments is typically the responsibility of automated systems or security personnel, not the primary role of a fire brigade.

Inspecting and maintaining fire protection equipment is essential, but this task is usually part of the facility's broader fire safety program and maintenance team duties, not specifically the fire brigade.

Conducting fire safety training sessions is critical for overall safety but is generally handled by safety officers or external trainers.

73.

What term describes the lowest concentration of a flammable solvent at a given temperature and pressure for which air/vapor mixtures can ignite?

Lower flammability limit

Heat of combustion

Flash point

Upper flammability limit

Correct answer: Lower flammability limit

The lower flammability limit is the term used to describe the lowest concentration of a flammable solvent at a given temperature and pressure at which air/vapor mixtures can ignite. This indicates the minimum concentration necessary for ignition.

The heat of combustion refers to the amount of heat evolved by the combustion of a substance, not concentration limits. The flash point is the temperature at which a liquid gives off vapor to form an ignitable mixture, not a concentration. The upper flammability limit represents the maximum concentration of a substance capable of sustaining a flame, which is the opposite of the lower flammability limit.

74.

What is the minimum thickness required for an underground tank's protective jacket, according to NFPA 30?

A jacket of at least six inches (15 cm) thick

A jacket of at least three inches (7.6 cm) thick

A jacket of at least 15 inches (38.1 cm) thick

A jacket of at least one inch (2.5 cm) thick

Correct answer: A jacket of at least six inches (15 cm) thick

The correct answer is that an underground tank must have a protective jacket that is at least six inches thick, as specified by NFPA 30.

A jacket of three inches or less would not provide adequate protection against corrosion or external forces, and a 15-inch jacket would be unnecessarily thick and impractical for typical installations. Similarly, a one-inch thick jacket would be far too thin to offer substantial protection, making it ineffective for use in this context.

75.

What are the two general ways in which the Incident Command System (ICS) command function may be conducted?

Single command and unified command

Centralized command and decentralized command

Direct command and indirect command

Local command and regional command

Correct answer: Single command and unified command

The Incident Command System (ICS) allows for two general command functions: single command and unified command. A single command is used when there is no overlap of jurisdictional boundaries or when a single incident commander is designated by the agency with overall management responsibility. In contrast, a unified command is applied when an incident occurs within one jurisdictional boundary but involves more than one agency sharing management responsibility.

The other answer options, such as centralized vs. decentralized command, direct vs. indirect command, and local vs. regional command, do not accurately reflect the ICS command functions.

76.

Which of the following is NOT a component of the fire tetrahedron?

Carbon dioxide

Fuel

Heat

Chemical chain reaction

Correct answer: Carbon dioxide

The fire tetrahedron consists of four components necessary to sustain combustion: fuel, heat, oxygen, and a chemical chain reaction. Carbon dioxide is not part of the fire tetrahedron; instead, it is often used as an extinguishing agent to suppress fires.

Fuel, heat, and a chemical chain reaction are essential elements that, along with oxygen, make up the fire tetrahedron, which helps in understanding both the causes and prevention of fires.

77.

Which class of fire involves flammable liquids such as gasoline, oil, and solvents?

Class B fires

Class A fires

Class C fires

Class D fires

Correct answer: Class B fires

Class B fires involve flammable liquids, gases, solvents, oil, gasoline, paint, lacquers, tars, and other synthetic or oil-based products. These types of fires often spread rapidly and can reflash after the flames are extinguished if not properly secured.

Class A fires involve common combustibles such as wood, paper, cloth, rubber, trash, and plastics. Class C fires involve energized electrical equipment like wiring and appliances. Class D fires involve combustible metals such as magnesium and sodium.

78.

What is a recommended step when dealing with nanomaterials to reduce the risk of fire or explosion?

Identify the physical and chemical properties that contribute to hazards

Avoid using any protective equipment

Focus solely on the size of the nanomaterial particles

Assume nanomaterials are less hazardous than bulk chemicals

Correct answer: Identify the physical and chemical properties that contribute to hazards

To reduce the risk of fire or explosion when dealing with nanomaterials, it is important to identify the physical and chemical properties that could contribute to hazards such as dustiness, combustibility, flammability, and conductivity.

Avoiding protective equipment is unsafe and does not address the specific hazards.

Focusing solely on the size of the particles overlooks other critical factors that influence safety.

Assuming that nanomaterials are less hazardous than bulk chemicals is dangerous, as their small size may actually increase certain risks.

79.

Which method is MOST commonly used to limit oxygen in a fire?

Smothering the fire with fire blankets, dirt, sand, or inert gas

Cooling the fire with water or foam

Removing the fuel source from the fire

Increasing ventilation around the fire

Correct answer: Smothering the fire with fire blankets, dirt, sand, or inert gas

This method effectively deprives the fire of the oxygen it needs to continue burning.

Cooling the fire with water or foam is incorrect because while it helps reduce the temperature and potentially stop the fire, it does not directly limit the oxygen supply.

Removing the fuel source from the fire can extinguish the fire, but it does not involve limiting oxygen.

Increasing ventilation around the fire is incorrect as it would provide more oxygen, potentially making the fire worse.

80.

Why is understanding the water solubility of a substance important in environmental studies?

It helps predict how a substance will dissolve in water and its potential impact on aquatic systems

It determines how quickly a substance will evaporate in the environment

It indicates whether a substance will sink or float when spilled in water

It measures the density of a substance compared to air

Correct answer: It helps predict how a substance will dissolve in water and its potential impact on aquatic systems

Understanding the water solubility of a substance is crucial in environmental studies because it helps predict how the substance will dissolve in water and the potential impact it might have on aquatic systems. This knowledge is essential for assessing the spread and concentration of chemicals in water bodies.

The idea that water solubility determines evaporation rate is incorrect because evaporation is influenced by factors like temperature and vapor pressure, not solubility. Whether a substance sinks or floats is related to its specific gravity, not its water solubility. Water solubility does not relate to the density of a substance compared to air, which is described by vapor density, not solubility.

Hazard and Risk Identification and Control

Hazard and Risk Identification and Control

81.

What is the minimum distance for placing warning lines from an edge to ensure worker safety?

Six feet

Two feet

Four feet

Eight feet

Correct answer: Six feet

The minimum distance for placing warning lines from an edge is six feet. This distance provides a buffer zone that allows workers to recognize the hazard and adjust their position to prevent a fall. It also complies with OSHA standards.

A distance of two or four feet would not provide sufficient space for workers to react and could lead to increased risk of falls.

An eight-foot distance, while safer, is not the standard guideline and could reduce the working area unnecessarily.

82.

What is the BEST definition of voltage?

Voltage is the potential difference between two points in an electrical circuit, acting as the force that pushes current through a conductor

Voltage is the amount of resistance encountered as current flows through a conductor

Voltage is the flow of electric current within a circuit, driving the energy through wires

Voltage is the energy stored in a battery, which is released when connected to a circuit

Correct answer: Voltage is the potential difference between two points in an electrical circuit, acting as the force that pushes current through a conductor

Voltage is defined as the potential difference between two points in an electrical circuit, which creates the force that pushes electric current through a conductor, making it the correct choice.

Resistance, on the other hand, refers to the amount of opposition a material offers to the flow of electric current, which is not the same as voltage.

The flow of electric current through a circuit, which is often driven by voltage, is referred to as current, not voltage itself.

The concept of energy stored in a battery, while related to voltage, is not an accurate description of what voltage is.

83.

What is a "qualified person" as defined by OSHA for electrical work?

Someone who has demonstrated skills and knowledge related to the construction and operation of electrical equipment and installations and has received training on the hazards involved.

Someone who has completed a college degree in electrical engineering.

Someone who has worked for at least ten years in the electrical industry.

Someone who holds a managerial position in an electrical company.

Correct answer: Someone who has demonstrated skills and knowledge related to the construction and operation of electrical equipment and installations and has received training on the hazards involved.

A college degree in electrical engineering alone does not ensure practical safety skills and knowledge.

Having ten years of experience in the industry does not necessarily mean the person has the specific training or skills required for safety.

Holding a managerial position does not ensure the individual has hands-on training or knowledge of electrical safety.

84.

What disorder is commonly referred to as tennis elbow?

Lateral epicondylitis

Rotator cuff tear

Carpal tunnel syndrome

Medial epicondylitis

Correct answer: Lateral epicondylitis

Lateral epicondylitis, commonly known as tennis elbow, is a condition where the outer part of the elbow becomes sore and tender.

Carpal tunnel syndrome affects the wrist, rotator cuff tear involves the shoulder, and medial epicondylitis (golfer's elbow) affects the inner part of the elbow.

85.

What are Threshold Limit Values (TLVs), and who publishes them?

Threshold Limit Values (TLVs) are recommended limits on exposure to workplace hazards, published by the American Conference of Governmental Industrial Hygienists (ACGIH).

TLVs are legal limits on exposure to workplace hazards, published by OSHA.

TLVs are guidelines for safe workplace behavior, published by the National Safety Council (NSC).

TLVs are safety standards for equipment usage, published by the American National Standards Institute (ANSI).

Correct answer: Threshold Limit Values (TLVs) are recommended limits on exposure to workplace hazards, published by the American Conference of Governmental Industrial Hygienists (ACGIH).

Threshold Limit Values (TLVs) are recommended limits on exposure to workplace hazards, designed to protect workers from adverse health effects. These limits are published by the American Conference of Governmental Industrial Hygienists (ACGIH).

TLVs are not legal limits, which are instead set by regulatory agencies such as OSHA. They also are not guidelines for workplace behavior or safety standards for equipment usage, which may be covered by organizations like the National Safety Council (NSC) and the American National Standards Institute (ANSI).

86.

What health problems can be attributed to working in clean rooms?

Chronic skin problems, upper respiratory issues, and eye irritation

Hearing loss, gastrointestinal issues, and migraines

Musculoskeletal disorders, cardiovascular problems, and digestive issues

Allergic reactions, mental health problems, and bone issues

Correct answer: Chronic skin problems, upper respiratory issues, and eye irritation

Health problems associated with working in clean rooms include chronic skin problems due to the dry, hot environment; upper respiratory issues from the rapid air changes and constant airflow; and eye irritation from dust and particles.

Hearing loss is related to high noise environments, and gastrointestinal issues and migraines are not typically linked to clean room conditions. Musculoskeletal disorders and cardiovascular problems arise from physical strain and poor ergonomics, while allergic reactions and mental health issues are not directly caused by clean room environments.

87.

What safety precaution should be taken when loading railcars with heavy machinery shipped on skids?

Bracing the skids inside the railcar to prevent shifting

Using a wrench to secure the skids directly to the railcar floor

Ensuring skids with large knots are used to provide extra grip

Allowing workers to use their hands to adjust skids during loading

Correct answer: Bracing the skids inside the railcar to prevent shifting

Bracing the skids inside the railcar to prevent shifting is a crucial safety precaution, as it helps ensure that heavy machinery remains stable during transport.

Using a wrench to secure the skids directly to the railcar floor is discouraged because it can damage the skids or railcar floor.

Skids with large knots are actually hazardous, as they are more likely to break under pressure.

Allowing workers to use their hands to adjust skids during loading is unsafe and can lead to injury; proper tools should be used instead.

88.

What is a key consideration for solid waste disposal in companies and facilities?

Ensuring containers are kept clean and insect-free

Scheduling infrequent waste pickups to save costs

Using open containers for easy access

Disposing of waste without following local ordinances

Correct answer: Ensuring containers are kept clean and insect-free

A key consideration for solid waste disposal in companies and facilities is ensuring that waste containers are kept clean and insect-free. This helps maintain hygiene and prevent health hazards.

Open containers can attract pests, and infrequent pickups can lead to overflow and additional health risks. Disposing of waste without adhering to local ordinances can result in legal issues and community health problems.

89.

What is the most common type of customer injury?

The most common type of customer injury is slips and falls

The most common type of customer injury is burns

The most common type of customer injury is cuts and lacerations

The most common type of customer injury is sprains and strains

Correct answer: The most common type of customer injury is slips and falls

Slips and falls are identified as the most common type of customer injury, often occurring due to wet or uneven walking surfaces.

Burns, cuts and lacerations, and sprains and strains are less frequent compared to slips and falls in typical retail or commercial environments. Ensuring proper maintenance and safety measures for walking surfaces can significantly reduce the risk of these common injuries.

90.

What are laboratories generally designed to provide?

Laboratories are designed to provide maximum flexibility to manage potentially hazardous operations.

Laboratories are designed to provide a large workspace for industrial production and hazardous waste management.

Laboratories are designed to offer fixed setups for long-term hazardous materials storage and use.

Laboratories are designed primarily for administrative tasks with minimal hazardous materials use.

Correct answer: Laboratories are designed to provide maximum flexibility to manage potentially hazardous operations.

Laboratories, as defined by the OSHA laboratory standard 29 CFR 1910.1450, are small general-use workplaces designed to provide as much flexibility as possible to manage potentially hazardous operations. This flexibility is crucial for handling hazardous materials in small quantities safely and effectively.

Laboratories are not intended for large-scale industrial production and hazardous waste management, which are typically handled in specialized facilities. Laboratories also do not have fixed setups for long-term hazardous material storage and use; instead, they require flexibility to adapt to various hazardous operations. Furthermore, laboratories are not primarily administrative spaces; they are designed for activities involving hazardous materials management and research.

91.

What is the PRIMARY function of bump caps, and when are they appropriate for use?

Bump caps are intended to protect against minor impacts from stationary objects and are appropriate in environments where there is low risk of overhead hazards.

Bump caps are designed to provide protection against high-voltage electrical shock and burns and should be used in all electrical work environments.

Bump caps offer general protection against impact hazards from falling objects and are suitable for use in construction and logging.

Bump caps are used to protect against chemical splashes and should be worn in laboratories handling hazardous substances.

Correct answer: Bump caps are intended to protect against minor impacts from stationary objects and are appropriate in environments where there is low risk of overhead hazards.

Bump caps are specifically designed to protect against minor impacts, such as those from stationary objects like low-slung pipes or catwalks. They are suitable for environments where the risk of overhead hazards is low and where ANSI Z89.1 protective helmets are not required.

Bump caps do not provide protection against high-voltage electrical shock and burns, nor are they appropriate for use in construction, logging, or chemical handling environments where more robust protection is needed.

92.

What is the significance of Assigned Protection Factors (APFs) in the selection of respiratory protective equipment?

APFs measure the level of effectiveness a respirator provides to the wearer

APFs indicate the level of training required for respirator use

APFs determine the lifespan of a respirator

APFs evaluate the comfort level of respirators

Correct answer: APFs measure the level of effectiveness a respirator provides to the wearer

Assigned Protection Factors (APFs) are crucial because they measure how effectively a respirator provides protection against hazardous contaminants. APFs help ensure that the chosen respirator can adequately protect workers from identified hazards.

APFs do not relate to the level of training required, which is addressed separately through training programs.

They also do not determine the lifespan of the respirator, which is influenced by other factors like usage conditions and maintenance.

Comfort level evaluation is important for user compliance but is not what APFs measure.

93.

What is the first step in the sequence of lockout procedures when servicing or maintaining equipment?

Notify employees that servicing or maintenance is required and that the machine will be locked out

Shut down the machine using the typical stopping procedure

Deactivate the energy-isolating device so that the machine is isolated from the energy source

Apply the lockout devices to the energy-isolating device

Correct answer: Notify employees that servicing or maintenance is required and that the machine will be locked out

The first step in the sequence of lockout procedures is to notify employees that servicing or maintenance is required and that the machine will be locked out. This ensures that everyone in the vicinity is aware of the maintenance activities and the potential hazards.

Shutting down the machine using the typical stopping procedure is the next step after notifying employees.

Deactivating the energy-isolating device and applying the lockout devices come after the machine has been shut down and isolated from its energy sources.

94.

What does the term radiation refer to?

The process by which energy is emitted by a source, transmitted through an intervening medium, and absorbed by another body.

The emission of light waves from the sun and stars, which travel through space and reach the Earth, providing it with light and heat.

The energy released only during nuclear reactions, such as those that occur in nuclear power plants or atomic bombs, and is limited to these specific scenarios.

The transfer of heat between two objects in direct contact, where the energy is conducted through the materials touching each other, resulting in a temperature change.

Correct answer: The process by which energy is emitted by a source, transmitted through an intervening medium, and absorbed by another body.

Radiation refers to the process where energy is emitted by a source, passes through an intervening medium, and is absorbed by another body. This includes various forms such as subatomic particles (charged particles) and electromagnetic waves (photons).

The other answers are incorrect because radiation is not limited to light waves from celestial bodies, nor is it confined solely to nuclear reactions. Additionally, the transfer of heat through direct contact describes conduction, not radiation.

95.

What is one of the key safety requirements for a powered industrial truck (PIT) when lifting loads higher than the operator's head or in areas where falling objects are a hazard?

The PIT must be equipped with an overhead guard

The PIT must have a load backrest extension to prevent the load from sliding backward onto the operator

The PIT must have a horn that is loud enough to be heard throughout the operating area

The PIT must be equipped with steering wheel knobs for improved maneuverability in tight spaces

Correct answer: The PIT must be equipped with an overhead guard

An overhead guard is essential for protecting the operator from hazards such as falling objects when the PIT is lifting loads higher than the operator's head.

The load backrest extension, while important, primarily prevents load movement, not falling objects. A horn is necessary for warning others but does not address the hazard of falling objects. Steering wheel knobs improve maneuverability but do not protect the operator from falling objects.

96.

Why is it important to pick up a load only when it is directly under the hoist?

To prevent imposing stresses on the hoist that it wasn't designed to handle

To allow the load to swing freely during lifting, making it easier to move around obstacles

To make it easier to adjust the load by hand, allowing for better positioning during the lift

To reduce the time it takes to lift the load by minimizing the distance the hoist needs to travel

Correct answer: To prevent imposing stresses on the hoist that it wasn't designed to handle

Picking up a load only when it is directly under the hoist is essential to prevent imposing uneven stresses on the hoist, which it wasn't designed to handle and could lead to equipment failure or accidents.

Allowing the load to swing freely might seem beneficial for maneuvering, but it actually increases the risk of loss of control and injury.

Adjusting the load by hand during lifting is dangerous and should not be relied upon for proper load positioning.

Reducing the time for lifting by minimizing travel distance is not as important as ensuring the hoist is used correctly for safety.

97.

What safety and health term can BEST be defined as: a methodical examination that involves analyses, tests, and confirmation of an organization's procedures and practices to verify whether they comply with legal requirements and internal policies and evaluate whether they conform with good SH&E practices?

Safety audit

Risk assessment

Job hazard analysis

Incident investigation

Correct answer: Safety audit

A safety audit is a methodical examination that involves analyses, tests, and confirmation of an organization's procedures and practices to verify whether they comply with legal requirements and internal policies and evaluate whether they conform with good safety, health, and environmental (SH&E) practices.

Risk assessment involves identifying and evaluating risks, job safety analysis focuses on breaking down a job to identify hazards, and incident investigation is the process of examining the root causes of incidents.

98.

How is the group Lockout/Tagout (LOTO) procedure BEST applied?

By having each worker independently apply and remove their lock

By centralizing the control of all locks by assigning a supervisor to monitor them

By allowing the use of a master key that can unlock all individual locks in case of an emergency

By minimizing the number of locks used by allowing one lock to represent the group

Correct answer: By having each worker independently apply and remove their lock

The primary purpose of a group lockbox in a Lockout/Tagout (LOTO) procedure is to ensure that each worker can independently apply and remove their lock, preventing the equipment from being re-energized until the last worker has finished.

Assigning a supervisor to control all locks would undermine individual control and safety, which is crucial in LOTO procedures.

Allowing the use of a master key to unlock all individual locks would compromise safety by potentially unlocking the system before all workers are safe.

Minimizing the number of locks by allowing one lock to represent the group would not provide each worker the necessary control over their own safety, as LOTO is designed to ensure that every worker has a personal lock in place.

99.

What is the minimum foot-candle requirement for entrance lighting?

The minimum foot-candle requirement for entrance lighting is 10 foot-candles.

The minimum foot-candle requirement for entrance lighting is 5 foot-candles.

The minimum foot-candle requirement for entrance lighting is 15 foot-candles.

The minimum foot-candle requirement for entrance lighting is 20 foot-candles.

Correct answer: The minimum foot-candle requirement for entrance lighting is 10 foot-candles.

The minimum foot-candle requirement for entrance lighting in stores and office buildings is specified as 10 foot-candles to ensure adequate visibility and safety. Proper lighting at the entrance helps prevent tripping and falling hazards by providing sufficient illumination.

The other values, 5, 15, and 20 foot-candles, are incorrect as they do not align with the standard requirement.
