PRACTICE EXAM 13: HAZMAT & TANKER SIMULATION (50 QUESTIONS)

HAZMAT SECTION (Questions 1–30)

1. A driver picks up a hazardous materials shipment at a chemical warehouse. The shipping papers are complete, and the packages are properly marked and labeled. However, the driver notices that several packages have orientation arrows pointing in different directions — some up, some sideways. All packages appear to be loaded upright with arrows pointing up except for three packages where the arrows are pointing sideways. What does this inconsistency indicate?

A. The arrows on the sideways packages are printing errors by the manufacturer and have no regulatory significance

B. The three packages with sideways arrows have been loaded incorrectly — they must be repositioned so all orientation arrows point upward

C. Orientation arrows that point sideways indicate the packages should be loaded on their sides for optimal weight distribution

D. The inconsistency means the shipper has mixed two different product lines that require different loading orientations

2. A driver transporting a placarded load of Class 8 Corrosive material in drums is approaching a tunnel on a fourlane highway. The tunnel entrance has a sign reading "HAZARDOUS MATERIALS VEHICLES — USE RIGHT LANE ONLY." The driver is currently in the left lane traveling at the speed limit. What should the driver do?

A. Remain in the left lane because the sign applies only to vehicles carrying explosives or poison gas, not corrosive materials

B. Stop the vehicle before the tunnel entrance and wait for a police officer to provide an escort through the tunnel

C. Maintain the left lane and increase speed to clear the tunnel as quickly as possible, reducing exposure time

D. Safely merge into the right lane before the tunnel entrance and comply with the posted HazMat lane restriction

3. Under the Hazardous Materials Regulations, what specific information must a driver be able to determine from the fourdigit identification number displayed on a placard or orange panel?

A. The identification number allows emergency responders to look up the specific material in the Emergency Response Guidebook and determine the appropriate response procedures, isolation distances, and protective actions

B. The identification number indicates the year the material was manufactured and the specific production batch for quality tracing

C. The identification number shows the carrier's federal operating authority number and the specific trailer unit assigned to the load

D. The identification number reveals the driver's HazMat endorsement expiration date and the state that issued the CDL

4. A driver is transporting hazardous materials when a tire on the trailer's tandem axle blows out. The driver safely pulls over onto the shoulder. After setting out reflective triangles, the driver realizes the blown tire is directly below the cargo area where drums of Class 3 Flammable Liquid are loaded. What additional concern does the tire failure create beyond the standard blown tire situation?

A. The blown tire has released rubber particles into the atmosphere that could react chemically with the flammable liquid vapors

B. The trailer's suspension has dropped on one side, tilting the drums and increasing the probability of package failure from the shifted weight

C. The blown tire may have generated enough heat to warm the cargo area above the flash point of the flammable liquid, and the exposed wheel rim could produce sparks from road contact that ignite flammable vapors

D. The trailer's electronic stability control system has been disabled by the tire failure, requiring the driver to manually balance the remaining tires

5. A driver is at a loading facility when the shipper asks the driver to help apply labels to packages that are not yet labeled. The shipper says the labels are the correct ones for the material and just need to be peeled and stuck onto the packages. Should the driver help with this task?

A. Yes, because applying preselected labels to packages is a simple task that any person at the loading dock can perform

B. No, labeling is the shipper's responsibility — the driver's role is to verify that labels are correct and present, not to apply them

C. Yes, but only if the driver first completes a hazard communication training course specific to the labeling process

D. No, because physically touching hazardous materials labels without Level B PPE violates OSHA dermal exposure regulations

6. A vehicle is carrying 1,100 pounds of Division 5.1 Oxidizer and 200 pounds of Division 4.3 Dangerous When Wet material. What placards must be displayed?

A. Only OXIDIZER placards, because Division 5.1 exceeds 1,001 pounds and is the heavier material on the vehicle

B. DANGEROUS placards, because two different hazard classes are present and the combined total exceeds 1,001 pounds

C. Only DANGEROUS WHEN WET placards, because Table 1 always takes priority and overrides all Table 2 placards

D. Both OXIDIZER and DANGEROUS WHEN WET placards — Division 5.1 exceeds the 1,001pound Table 2 threshold, and Division 4.3 is Table 1 at any quantity

7. A driver is transporting hazardous materials and stops for fuel at a station that also has a propane filling station for consumer tanks approximately 50 feet from the diesel fuel pumps. While the driver is fueling, a customer at the propane station drops a portable propane tank, and the driver hears a hissing sound as gas escapes from the damaged valve. What should the driver do?

A. Stop fueling immediately, do not start the engine, move away from the area upwind, and alert the fuel station attendant about the propane leak

B. Continue fueling because the propane leak at 50 feet is outside the 25foot nosmoking zone and presents no direct hazard to the HazMat vehicle

C. Drive the HazMat vehicle away from the fuel station immediately to remove the placarded vehicle from the vicinity of the gas leak

D. Use the vehicle's fire extinguisher to spray the leaking propane tank and cool it down to prevent the gas from igniting

8. A driver transporting Division 2.3 Poison Gas arrives at a delivery facility. The receiving clerk asks the driver to leave the shipping papers with the product so the clerk can process them later. The driver still has two more HazMat deliveries on the remaining route. Should the driver leave the shipping papers?

A. Yes, because the shipping papers belong to the shipper and must be transferred to the receiver at the point of delivery

B. Yes, as long as the driver makes a photocopy of the papers before leaving them with the clerk for the remaining deliveries

C. No, the driver needs the shipping papers for the remaining hazardous materials still on the vehicle — the papers must stay with the HazMat cargo

D. No, but only because Division 2.3 materials require the original papers to remain with the driver until the driver's shift ends

9. A driver arrives at a shipper's facility and discovers that the load to be picked up includes packages of Division 6.1 Toxic material (PG I, Inhalation Hazard Zone B) and pallets of sealed bottled juice intended for retail distribution. The shipper says both loads are going to the same destination. Can the driver accept both loads on the same vehicle?

A. Yes, because the bottled juice is in sealed containers and cannot be contaminated by the toxic material during normal transport

B. No, because Poison Inhalation Hazard materials must never be loaded in the same vehicle as any food or material intended for consumption

C. Yes, as long as the toxic material is loaded at the front of the trailer with the juice at the rear, separated by at least 10 feet

D. No, but only if the juice is an organic product — conventional juice products are exempt from the food segregation rule

10. Under the Hazardous Materials Regulations, what is the primary purpose of requiring that hazardous materials entries on shipping papers be clearly distinguished from nonhazardous entries?

A. To ensure that anyone reviewing the shipping papers — driver, inspector, or emergency responder — can immediately identify which items are hazardous without reading through every line on the document

B. To calculate the total weight of hazardous materials for toll road pricing that charges premium rates for HazMat vehicles

C. To determine the driver's overtime pay rate, which increases by a fixed percentage for each hazardous material entry on the papers

D. To allow the carrier's billing department to apply the correct HazMat surcharge to the customer's freight invoice

11. A driver is transporting a bulk shipment of a hazardous material in a cargo tank. The tank displays FLAMMABLE placards and orange panels showing "UN1203." A DOT inspector stops the vehicle and checks the shipping papers, which read "Gasoline, 3, UN1203, PG II, 8,500 gal." The inspector asks the driver whether the identification number on the orange panels matches the shipping papers. What is the correct answer?

A. The driver cannot determine whether they match because identification numbers on orange panels and shipping papers use different numbering systems

B. The driver should tell the inspector that orange panel numbers are the carrier's internal tracking codes and are unrelated to the shipping paper entries

C. The identification numbers cannot be compared because the orange panels show the tank specification number, not the product identification number

D. Yes, both the orange panels and the shipping papers show UN1203, confirming that the identification number displayed on the vehicle matches the product documented on the papers

12. A driver transporting hazardous materials encounters a road closure due to a major traffic accident ahead. The detour route passes through a small town with narrow streets, a school zone, and a residential neighborhood. The driver's GPS estimates the detour adds 45 minutes to the trip. What should the driver consider about this detour?

A. HazMat vehicles should avoid heavily populated areas, narrow streets, and school zones unless no practicable alternative exists — the driver should evaluate whether another detour avoiding these areas is available before committing to this route

B. The 45minute delay makes the detour impractical, so the driver should wait at the road closure for the accident to be cleared regardless of how long it takes

C. School zones are restricted for HazMat vehicles only during school hours, so the detour is acceptable if school is not in session

D. The detour is acceptable without further analysis because the road closure is an emergency situation that automatically waives all HazMat routing restrictions

13. A driver is reviewing shipping papers and notices that one entry lists the hazard class as "5.2" with no packing group designation. The material is an organic peroxide. Is the absence of a packing group a deficiency?

A. Yes, all hazardous materials must have a packing group assigned, and the shipper has made an error by omitting it

B. Yes, but the driver should assign Packing Group II as a default for all Division 5.2 materials when the shipper fails to provide one

C. No, Division 5.2 Organic Peroxides do not use the packing group system — the absence of a packing group is correct for this material

D. No, because packing groups are required only for materials with identification numbers beginning with "UN," not those beginning with "NA"

14. A driver transporting Class 3 Flammable Liquid in a dry van trailer is parked at a truck stop. The driver decides to run the trailer's auxiliary power unit (APU) to maintain cab temperature overnight. The APU is dieselpowered and mounted on the frame beneath the trailer, near the cargo area. Is there any HazMat concern with running the APU?

A. No, because APUs are sealed units that produce no exhaust, heat, or ignition risk near the cargo area

B. The driver should be aware that the APU's exhaust and heat output near the cargo area could present an ignition risk if flammable vapors are leaking from the cargo — the driver should verify no vapor odors are present before running the APU

C. Yes, APUs are prohibited on all vehicles carrying placarded hazardous materials regardless of hazard class or cargo condition

D. No, because dieselpowered APUs do not produce sparks and therefore cannot ignite flammable vapors under any circumstances

15. A driver has been transporting hazardous materials for six hours when the vehicle's speedometer stops working. The driver can estimate speed using engine RPM and gear selection. Can the driver continue the trip with a nonfunctioning speedometer?

A. Yes, because speedometers are not classified as safety equipment and their failure does not affect the legal operation of the vehicle

B. Yes, because the driver can accurately estimate speed using the tachometer, gear position, and road feel without any loss of safety

C. No, because driving without a speedometer automatically violates the hoursofservice regulations for all HazMat vehicles

D. A nonfunctioning speedometer is an equipment violation — the driver should continue to the nearest safe stop and have it repaired, as accurate speed monitoring is essential for safe HazMat transport, particularly on curves and downgrades

16. A shipper offers a driver a load of hazardous materials. The packages are properly marked and labeled, and the shipping papers are complete. However, when the driver checks the placards, the shipper has provided CORROSIVE placards, but the shipping papers identify the material as Class 3 Flammable Liquid. The shipper says, "Those are the only placards we have — just use them." What should the driver do?

A. Accept the CORROSIVE placards and add a handwritten note below each one reading "ACTUAL CLASS: FLAMMABLE LIQUID"

B. Accept the load without placards and drive to the carrier's terminal to obtain the correct FLAMMABLE placards before continuing

C. Refuse to depart until the correct FLAMMABLE placards are obtained — displaying the wrong placards is as dangerous as displaying no placards because it communicates false hazard information

D. Accept the CORROSIVE placards and display them alongside DANGEROUS placards to indicate the placarding discrepancy

17. A driver transporting hazardous materials is approaching a weigh station. The vehicle is within the weight limits, and all documentation is in order. The driver notices other trucks bypassing the weigh station using the bypass lane. Can the HazMat vehicle use the bypass lane?

A. Yes, HazMat vehicles follow the same weigh station procedures as all commercial vehicles — if the bypass lane is authorized for the driver's vehicle through a bypass system, it may be used

B. No, all HazMat vehicles must enter every open weigh station regardless of bypass authorization or technology

C. Yes, but only if the vehicle is carrying Table 2 materials — Table 1 materials always require entry and inspection at open weigh stations

D. No, HazMat vehicles are permanently excluded from all electronic bypass systems and must be physically inspected at every weigh station

18. A driver transporting Division 1.1 Explosives is driving through a residential area (no alternate route available) when a school bus ahead activates its flashing red lights and extends its stop sign arm. Children begin exiting the bus. What must the driver do?

A. Stop the vehicle as required by traffic law — the HazMat load does not exempt the driver from any standard traffic regulations, including school bus stop laws

B. Slowly proceed past the school bus at 5 mph because stopping a vehicle loaded with Division 1.1 Explosives near children creates a greater danger

C. Activate the HazMat vehicle's emergency flashers and continue past the bus while honking to alert the children to move away

D. Make a Uturn to avoid the school bus stop zone entirely, because HazMat vehicles must never be stopped within 200 feet of children

19. A driver is reviewing the shipping papers for a load that includes an entry marked "Limited Quantity." The packages bear the limited quantity diamond marking (black upper and lower corners on a white background). The shipper states no placards are needed and no HazMat endorsement is required. The total shipment weighs 800 pounds. Is the shipper correct about the endorsement requirement?

A. No, the limited quantity exception reduces packaging requirements but does not affect the endorsement or placarding requirements

B. No, because 800 pounds exceeds the maximum total weight allowed under the limited quantity exception, voiding the exemption entirely

C. Yes, but only if the driver carries a copy of the limited quantity exception regulation in the cab as proof of the exemption

D. Yes, materials properly shipped under the limited quantity exception are exempt from placarding requirements and do not require the driver to hold a HazMat endorsement

20. A vehicle is carrying 1,800 pounds of Division 2.2 NonFlammable Gas in compressed cylinders and 600 pounds of Class 3 Flammable Liquid in drums. What placards must be displayed?

A. Both NONFLAMMABLE GAS and FLAMMABLE placards, because the combined total exceeds 2,000 pounds

B. NONFLAMMABLE GAS placards only, because Division 2.2 exceeds the 1,001pound threshold while Class 3 at 600 pounds does not

C. FLAMMABLE placards only, because Class 3 materials always take placarding priority over Division 2.2 in mixed loads

D. DANGEROUS placards, because two different hazard classes are present regardless of individual weights

21. A driver is involved in a minor HazMat incident — a single drum of Class 8 Corrosive leaked approximately 2 gallons onto the trailer floor during transport. The driver contained the spill using absorbent pads and the leak has been stopped. No one was injured, no evacuation occurred, and property damage is minimal. Must the driver file a written report on DOT Form 5800.1?

A. Yes, any unintentional release of a hazardous material during transportation requires a written incident report on DOT Form 5800.1 within 30 days, regardless of the quantity released or consequences

B. No, because the spill was less than 5 gallons and was successfully contained by the driver without outside assistance

C. Yes, but only if the corrosive material is also classified as a marine pollutant or has a reportable quantity designation

D. No, because the driver successfully contained the spill, which constitutes a "mitigated incident" exempt from written reporting

22. A driver picks up a load of hazardous materials at a chemical plant. The shipper provides an emergency response telephone number on the shipping papers. The number is for a contract emergency response service the shipper uses. The driver calls the number to verify it works and reaches an automated voicemail system with a message saying "Leave your name and number and we will return your call within 4 business hours." Does this number satisfy the regulatory requirement?

A. Yes, because any telephone number printed on the shipping papers automatically satisfies the emergency response number requirement

B. Yes, because a 4hour callback window is within the regulatory guideline of responding within one business day

C. No, the number must connect to a live person knowledgeable about the material at all times — a voicemail system with a 4hour callback does not provide the immediate realtime assistance that emergency responders need

D. No, but only because the voicemail message did not include the specific proper shipping names of the materials covered by the service

23. A driver transporting Class 7 Radioactive material discovers during an enroute inspection that one of the packages has shifted and is now touching a box of undeveloped photographic film being transported for another customer. What is the concern?

A. The radioactive material may have contaminated the outer surface of the film box, requiring decontamination before the film can be delivered

B. Radiation from the radioactive package can fog and damage undeveloped photographic film — the materials must be separated by distances specified in regulation based on the transport index

C. The physical contact between the packages may have cracked the radioactive package's shielding, increasing the radiation emission level

D. The film box may be blocking the radioactive package's required ventilation openings, causing internal pressure buildup

24. A driver transporting hazardous materials is driving through a severe rainstorm with heavy downpour and reduced visibility. The driver's windshield wipers are operating at maximum speed but visibility remains extremely poor — approximately 50 feet. What should the driver do?

A. Continue driving at the posted speed limit because the vehicle's headlights and placards provide adequate warning to other motorists

B. Turn on the vehicle's fourway hazard flashers and maintain current speed to alert following drivers to the reduced visibility

C. Pull into the left lane where other drivers are less likely to rearend the slower HazMat vehicle during reduced visibility

D. Reduce speed significantly or pull off the road to a safe location — continuing to drive when visibility is reduced to 50 feet means the driver cannot stop within the visible distance, especially with a HazMat load

25. Under the Hazardous Materials Regulations, a motor carrier's security plan for HazMat operations must address "en route security." Which of the following is an example of an en route security measure?

A. Following the planned route without unnecessary deviations and choosing welllit, populated locations for stops to reduce the vulnerability of the shipment to theft or tampering

B. Installing bulletresistant glass in the cab windows to protect the driver from armed robbery attempts during highway transport

C. Equipping the vehicle with militarygrade tracking devices that transmit realtime location data to the Department of Defense

D. Hiring an armed security guard to ride in the passenger seat for every HazMat shipment regardless of hazard class or quantity

26. A driver is transporting a bulk shipment of diesel fuel (NA1993, Class 3 Flammable Liquid) in a DOT 406 cargo tank. During a stop, the driver checks the identification number displayed on the orange panels and notices they show "UN1203" (gasoline) instead of "NA1993" (diesel fuel). What should the driver do?

A. Continue driving because both gasoline and diesel are Class 3 Flammable Liquids and the FLAMMABLE placard is correct for either product

B. Correct the identification number on the orange panels to match the product currently in the tank — the panels must display the ID number for the material actually being transported, not a previous load

C. Remove the orange panels entirely and rely solely on the FLAMMABLE placards for hazard communication during the remainder of the trip

D. Call the National Response Center to report the identification number discrepancy as a potential security threat

27. A driver is at a rest area with a placarded vehicle when another truck driver parks nearby and begins performing maintenance on their own vehicle using an acetylene cutting torch. Sparks and flame are visible from the torch operation approximately 30 feet from the HazMat vehicle. What should the driver of the placarded vehicle do?

A. Ignore the situation because the other driver's maintenance activities are not the HazMat driver's responsibility

B. Ask the other driver to move their maintenance operation to the far end of the parking lot away from all other vehicles

C. Call 911 immediately because any open flame within 100 feet of a placarded vehicle constitutes a federal crime

D. Move the HazMat vehicle to a location at least 300 feet from the torch operation, or ask the other driver to relocate — open flame within the nosmoking/noflame zone of a placarded vehicle is a serious fire risk

28. A driver notices during a pretrip inspection that one of the four placards on the vehicle is the correct type for the material being carried, but the placard's color has faded significantly — the originally bright red background now appears pale pink. The hazard class number and symbol are still legible. Is this placard compliant?

A. Yes, because the hazard class number and symbol are still legible, which is the only requirement for placard compliance

B. Yes, because natural color fading from sun exposure is expected and acceptable as long as the diamond shape is intact

C. No, placards must be maintained with the prescribed colors clearly visible — a faded placard that no longer displays the correct red color may not be recognized as a FLAMMABLE placard from a distance

D. No, but only during nighttime operations — faded placards are acceptable during daylight hours when the symbol is still visible

29. A driver transporting a mixed load discovers during a stop that two materials from different hazard classes have been loaded directly adjacent to each other. The driver checks the segregation table and finds an "O" designation at the intersection of these two classes. What does the "O" mean?

A. The materials may be loaded together only if they are separated in a manner that prevents interaction in the event of leakage from either package

B. The "O" stands for "open loading" and means the materials may be loaded together with no restrictions on placement or separation

C. The "O" indicates the materials are completely prohibited from being on the same vehicle under any circumstances

D. The "O" means the materials must be oriented in opposite directions — one package facing forward and one facing rearward

30. A driver is preparing to transport a shipment of hazardous materials that will cross the U.S.Canada border. The shipping papers use a proper shipping name from the U.S. Hazardous Materials Table with an "NA" identification number. Will this documentation be accepted at the Canadian border?

A. Yes, because U.S. and Canadian HazMat regulations are identical in all respects, including proper shipping names and ID numbers

B. No, because Canada does not recognize any U.S. hazardous materials designations and requires completely separate documentation

C. The driver should verify that the proper shipping name and identification number are recognized for North American transport — NA numbers are specifically designated for use within North America, including Canada, but some materials may have different requirements

D. Yes, but only if the driver carries a translated copy of the shipping papers in French for compliance with Canadian bilingual regulations

TANKER SECTION (Questions 31–50)

31. A tank vehicle driver is hauling a full load of liquid in a baffled tank at highway speed. The driver applies the brakes to slow for a construction zone. During braking, the driver feels a distinct pulsing sensation through the brake pedal and the vehicle seems to slow in a series of small jerks rather than a smooth deceleration. What is the most likely cause?

A. The liquid is surging against each baffle in sequence as it moves forward through the tank, creating a pulsing force that the driver feels through the brake pedal as rhythmic resistance

B. The vehicle's ABS system has activated and is rapidly cycling the brakes to prevent wheel lockup on the construction zone's uneven surface

C. The baffles represent a series of separate liquid masses, and as each mass reaches its baffle, it produces a distinct surge pulse — this sequential surge is a normal characteristic of braking in a baffled tank

D. The brake drums have developed hot spots from sustained braking, creating uneven friction surfaces that produce a pulsing sensation during brake application

32. A driver is loading a cargo tank at a terminal when the facility's loading operator asks the driver to step away from the tank because the operator needs to "start the product flowing at maximum rate to save time." The operator says the driver can return to monitor the fill level once the tank is half full. Should the driver comply with this request?

A. No, the driver or a qualified representative must be present at the tank actively monitoring the loading operation at all times — stepping away during loading violates this requirement

B. Yes, because the loading facility operator is responsible for all aspects of the loading process until the tank is half full

C. No, but only because maximum flow rate is prohibited during the first 10 percent of loading — once past 10 percent, the driver may step away

D. Yes, because the loading operator holds a higher safety certification than the driver and assumes all liability during the loading process

33. A tank vehicle carrying 7,000 gallons of a liquid product in a 9,000gallon smooth bore tank approaches a highway offramp. The advisory speed for the ramp is 35 mph. The driver reduces speed to 25 mph before entering the ramp. Halfway through the ramp, the driver feels the vehicle leaning noticeably. Despite being 10 mph below the advisory speed, what is causing the lean?

A. The ramp's pavement has settled unevenly since the advisory speed was calculated, creating a road surface defect that tilts the vehicle

B. The vehicle's leftside suspension has weakened from repeated turning in the same direction during the trip's other ramp exits

C. The driver's 25 mph entry speed has triggered the vehicle's electronic stability control system, which intentionally tilts the vehicle to test the rollover threshold

D. The 2,000 gallons of empty space in the smooth bore tank allows the liquid to surge laterally to the outside of the curve and climb the tank wall, dynamically raising the center of gravity — even at 10 mph below advisory, the combination of high center of gravity and unrestricted lateral surge produces significant lean

34. During a pretrip inspection of a DOT 406 cargo tank, the driver discovers that the tank has a visible dent approximately 8 inches in diameter and 1 inch deep on the side of the tank shell. The dent does not appear to have cracked the metal, and no leaking is visible. Should the driver load and operate the vehicle?

A. Yes, because the dent is cosmetic damage that does not affect the tank's structural integrity as long as no crack or leak is present

B. No, the driver should report the dent to the carrier for professional evaluation — a dent can indicate hidden structural damage, metal fatigue, or wall thinning that is not visible from the outside and may compromise the tank under pressure or road stress

C. Yes, as long as the dent is smaller than 12 inches in diameter, which is the regulatory threshold for reportable tank shell damage

D. No, but the driver may load the tank to no more than 50 percent capacity to reduce the internal pressure on the dented area

35. A tank vehicle driver is making a delivery of heating oil to a commercial building. The building's receiving tank fill pipe is located in a mechanical room inside the building, accessible through a door at ground level. The driver must run a delivery hose approximately 75 feet through the mechanical room to reach the fill pipe. What specific concern does this indoor delivery configuration create?

A. The 75foot hose length will generate excessive static electricity due to the friction of the product flowing through the extended hose run

B. The indoor delivery increases the weight of the product in the hose, requiring a more powerful pump setting than outdoor deliveries

C. Vapors displaced from the receiving tank during filling will accumulate inside the enclosed mechanical room, potentially creating a fire hazard or oxygendepleting atmosphere in the confined indoor space

D. The mechanical room's concrete floor will absorb the product if a leak occurs, making cleanup more difficult than outdoor spills on pavement

36. A loaded tank vehicle is traveling at 50 mph on a highway when the driver encounters a section of road with standing water approximately 2 inches deep extending across both lanes for about 100 feet. What specific tank vehicle concern does this standing water create?

A. The water will contaminate the exterior of the tank, requiring an immediate wash at the next truck wash facility

B. The standing water presents no additional concern for a tank vehicle beyond what any commercial vehicle would face

C. The water will enter the tank through the bottom discharge valve and contaminate the product being transported

D. Hydroplaning is a significant risk — if the tires lose contact with the road surface, the driver loses the ability to control the heavy liquidladen vehicle, and any braking attempt during hydroplaning will produce uncontrolled surge

37. A driver operating an MC 331 propane delivery truck is making a residential delivery. The homeowner asks the driver how much propane is currently in the truck's tank. The driver checks the tank's liquid level gauge, which shows 45 percent. How does this 45 percent fill level affect the truck's handling compared to when it was 85 percent full at the start of the route?

A. At 45 percent, the liquid has significantly more room to surge in all directions — forwardbackward during braking and sidetoside during turns — making the vehicle less stable and more prone to rollover than when it was 85 percent full

B. At 45 percent, the vehicle handles better because the reduced weight lowers the center of gravity and improves overall stability

C. The fill level has no effect on MC 331 tank handling because the highpressure nature of the product prevents any liquid movement inside the sealed tank

D. At 45 percent, the vehicle's braking distance is shorter because the reduced weight requires less braking force to decelerate

38. A tank vehicle driver is backing into a delivery bay and must make several forwardreverseforward adjustments to align the vehicle with the unloading connection. The tank is approximately 60 percent full with a lowviscosity liquid in a smooth bore tank. What handling effect should the driver anticipate during these repeated maneuvers?

A. The liquid will freeze in place during lowspeed backing because surface tension prevents any movement below 5 mph

B. The reverse gear mechanically locks the liquid in position, eliminating all surge effects during backing maneuvers

C. Each forwardreverse transition triggers a surge reversal — the liquid slams against one end of the tank, then reverses direction with each gear change, creating a rocking effect that the driver must manage with gentle, gradual inputs

D. The smooth bore tank's aerodynamic shape channels all surge energy downward during lowspeed maneuvers, stabilizing the vehicle

39. A driver operating a loaded tank vehicle notices that the vehicle's air pressure gauge is reading lower than normal — approximately 85 psi instead of the usual 120 psi operating range. The brakes still feel normal during a gentle test application. What concern does this lowerthannormal air pressure create specifically for a tank vehicle?

A. Lower air pressure reduces the cooling effect of the air brake system, causing the brake drums to overheat faster during sustained braking

B. If air pressure continues to drop, the brakes will become progressively weaker — in a loaded tank vehicle, weakened brakes may not be able to overcome forward liquid surge during hard braking, potentially making the vehicle impossible to stop

C. Lower air pressure causes the tank's internal pressure to decrease proportionally, reducing the structural integrity of the tank shell

D. The reduced air pressure indicates the vehicle's engine is losing power, which will affect the driver's ability to maintain highway speed on upgrades

40. A tank vehicle driver completes a delivery and begins the empty return trip. The tank previously carried a nonhazardous liquid (liquid sugar). No placards were displayed during the loaded trip because the product is nonhazardous. During the empty return, what handling consideration should the driver keep in mind?

A. The empty vehicle handles identically to a loaded vehicle because the tank structure provides the same stability regardless of load

B. The empty vehicle requires lower tire pressure to compensate for the reduced weight, and the driver should deflate the tires before departing

C. The empty vehicle is safer in all conditions because the absence of liquid cargo eliminates all surge, rollover, and stability concerns

D. The empty vehicle is more susceptible to crosswinds due to the large surface area and reduced weight, and may feel bouncy or unstable compared to the loaded condition — the driver should reduce speed in windy conditions

41. A cargo tank's pressure relief valve activates during highway transport, releasing a visible stream of vapor from the top of the tank. The driver notices the venting while checking mirrors. What should the driver do?

A. Continue driving because pressure relief valve activation is a normal safety function and the valve will close automatically when pressure normalizes

B. Pull over safely, do not attempt to close or tamper with the relief valve, and contact the carrier immediately — the activation indicates the tank's internal pressure has exceeded normal operating levels and the underlying cause must be investigated

C. Increase speed to create additional airflow over the tank, which will cool the product and reduce internal pressure

D. Stop the vehicle and manually close the pressure relief valve using the override lever to prevent further product loss

42. A driver is preparing to load a cargo tank that last carried diesel fuel. The current load will be a foodgrade liquid (vegetable oil). What must happen before the vegetable oil can be loaded?

A. The tank must be flushed with water and dried — no special cleaning is needed because diesel fuel and vegetable oil are both noncorrosive

B. The tank can be loaded immediately because vegetable oil will float on top of any residual diesel, naturally separating the two products

C. The driver must apply a temporary interior liner to the tank walls to prevent any residual diesel from contacting the vegetable oil

D. The tank must be thoroughly cleaned and sanitized to foodgrade standards to remove all diesel residue, vapors, and contamination before any foodgrade product can be loaded

43. A tank vehicle equipped with a multicompartment tank is being loaded. The terminal operator fills compartments 1 through 4 but leaves compartment 5 (the rearmost compartment) empty because the customer at the last stop did not place an order. How does the empty rear compartment affect the vehicle during the trip to the first delivery?

A. The empty rear compartment shifts weight forward compared to a fully loaded vehicle, potentially underloading the trailer's rear axles and changing the vehicle's braking and handling characteristics

B. The empty rear compartment has no effect because bulkheads prevent any interaction between loaded and empty compartments

C. The empty rear compartment improves stability by lowering the overall center of gravity at the rear of the trailer

D. The empty rear compartment causes the vehicle to accelerate faster because the reduced rear weight decreases rolling resistance

44. A driver operating a tank vehicle on a highway at 55 mph suddenly encounters dense fog that reduces visibility to approximately 75 feet. What is the most critical immediate action?

A. Activate highbeam headlights to penetrate the fog and maintain current speed to avoid being rearended by following traffic

B. Maintain current speed but activate fourway hazard flashers to warn following vehicles of the reduced visibility condition

C. Reduce speed immediately so the vehicle can stop within the visible distance ahead — at 55 mph, a tank vehicle's stopping distance far exceeds 75 feet, meaning the driver cannot stop for any hazard within the visible range at current speed

D. Change lanes to the left to be closer to oncoming traffic headlights, which provide additional forward visibility through the fog

45. A driver is unloading a cargo tank at a customer site. Midway through the delivery, the customer asks the driver to pause the delivery for approximately 30 minutes while they rearrange equipment in their receiving area. What should the driver do with the product hose and connections during this pause?

A. Leave the hose connected and the valves open so the delivery can resume quickly when the customer is ready

B. Close all discharge valves on the cargo tank, but the hose may remain connected — closing the valves prevents any flow or drip during the pause and allows for quick resumption

C. Disconnect the hose entirely, cap all connections, and remove the grounding and bonding cables during the 30minute pause

D. Leave the system exactly asis and walk away to rest in the cab, because the customer is now responsible for the equipment

46. A tank vehicle's specification plate shows the tank was manufactured in 2010. The driver calculates that the tank is now 16 years old. Does the age of the tank affect its fitness for continued service?

A. The tank's fitness is determined by its testing and inspection record, not its age alone — as long as periodic tests are current and the tank passes all required inspections, it may continue operating regardless of age

B. Cargo tanks older than 15 years are automatically retired from hazardous materials service under federal agingout regulations

C. Tanks older than 10 years must be inspected monthly rather than annually, tripling the normal inspection frequency

D. The tank's age is irrelevant because all cargo tanks are designed for a minimum 50year service life with no degradation

47. A driver operating a loaded tank vehicle feels a sudden, strong gust of wind hit the vehicle from the right side while crossing an open bridge. The vehicle sways noticeably to the left. At the same time, the liquid cargo shifts to the left. What is happening, and how should the driver respond?

A. The wind pushed the vehicle left, and the liquid followed due to inertia — the driver should brake immediately to anchor the vehicle against further movement

B. The wind pushed the vehicle left, and the liquid's shift to the left has temporarily raised the center of gravity on the left side — the driver should accelerate quickly to reduce the lateral profile exposed to the wind

C. The wind and liquid are moving in opposite directions, which actually stabilizes the vehicle through counterbalancing forces

D. The wind pushed the vehicle left, and the liquid's momentum to the left adds to the overturning force — the driver should grip the wheel firmly, make small gradual corrections, and reduce speed without sudden inputs

48. A driver is conducting a pretrip inspection on a cargo tank and checks the discharge piping underneath the tank. The driver notices that one of the pipe support brackets has a cracked weld — the bracket is still attached but moves slightly when pushed. What should the driver do?

A. Report the cracked bracket to the carrier for repair — a failed pipe support could allow the discharge piping to sag, vibrate, or separate during transport, potentially causing a product release

B. Reinforce the cracked bracket with duct tape and wire ties as a temporary field repair, then schedule a permanent weld repair at the next maintenance interval

C. Ignore the cracked bracket because discharge piping is supported primarily by its own structural rigidity and does not depend on external brackets

D. Remove the cracked bracket entirely to prevent it from falling off during transport and becoming a road hazard for following vehicles

49. A tank vehicle driver is making the last delivery of the day. After pumping out the remaining 1,500 gallons to the customer, the tank is completely empty. The driver disconnects the hose and begins securing the vehicle for the return trip. Before departing, what should the driver check regarding the discharge valve area?

A. The driver should open the discharge valve fully to drain any residual product trapped in the piping below the valve

B. The driver should leave the discharge valve partially open during the return trip to prevent vacuum buildup inside the empty tank

C. The driver should verify that all discharge valves are fully closed, all caps and plugs are installed on unused connections, and no product is dripping from any fitting

D. No check is needed because the tank is empty and the discharge valves have no function during the return trip

50. A driver who has been hauling tank vehicles for many years transfers to a new carrier and is assigned a tank vehicle with a different configuration than the driver is accustomed to — the new vehicle has the remote emergency shutoff handles in different locations than the driver's previous vehicles. What should the driver do before operating this unfamiliar vehicle?

A. Operate the vehicle using the same procedures as the previous carrier's vehicles because all tank vehicles have standardized control layouts

B. Locate and test every remote emergency shutoff handle on the new vehicle before the first trip — know their positions so they can be activated quickly in an emergency without searching

C. Ask another driver at the new carrier to point out the shutoff locations verbally, then proceed with the first trip based on the verbal description

D. Assume the shutoff handles are in the same location as the previous vehicle and plan to search for them if an emergency actually occurs

Practice Exam 13: Answer Key and Explanations

1. B — Orientation arrows on packages indicate the direction that must face upward to prevent liquid in inner containers from pressing against closures and leaking. Packages with arrows pointing sideways have been loaded incorrectly — they must be repositioned so all orientation arrows point upward. The driver should require the shipper to correct the loading before accepting the shipment.

2. D — Posted HazMat lane restrictions at tunnels must be obeyed. The driver should safely merge into the designated right lane before reaching the tunnel entrance. These restrictions are typically implemented because specific lanes provide safer containment, ventilation, or emergency access in case of a HazMat incident inside the confined tunnel space.

3. A — The fourdigit identification number is the key that allows emergency responders to look up the specific material in the Emergency Response Guidebook. Using the ID number, responders can find the material's name, the threedigit guide number, and then turn to the orange section for specific fire, spill, and first aid response instructions — and check the green section for isolation distances if applicable.

4. C — A blown tire near drums of Class 3 Flammable Liquid creates a dual hazard. The tire failure generates significant heat from friction between the deflated tire and the road surface, which can warm the cargo area. Additionally, the exposed metal wheel rim contacting the road can produce sparks. Either heat or sparks near flammable liquid vapors could cause ignition.

5. B — Labeling packages is the shipper's responsibility under the Hazardous Materials Regulations. The driver's role is to verify that labels are correct, present, visible, and consistent with the shipping papers — not to apply them. If packages arrive at the loading dock without labels, the shipper must complete the labeling before offering the shipment for transport.

6. D — Division 4.3 Dangerous When Wet is a Table 1 material requiring DANGEROUS WHEN WET placards at any quantity — the 200 pounds triggers this automatically. Division 5.1 Oxidizer at 1,100 pounds exceeds the 1,001pound Table 2 threshold, requiring OXIDIZER placards. Both materials independently trigger their respective placarding requirements, so both must be displayed on all four sides.

7. A — A propane leak 50 feet from a HazMat vehicle creates an immediate ignition and explosion risk. Propane is a Division 2.1 Flammable Gas that forms explosive mixtures with air. The driver should stop fueling immediately (to prevent additional ignition sources), not start the engine (spark risk), move away upwind, and alert the station attendant to the leak.

8. C — The shipping papers must remain with the hazardous materials still on the vehicle. If the driver leaves the papers with the first delivery receiver, the remaining two HazMat loads on the truck would be traveling without the required documentation. Emergency responders at a subsequent incident would have no way to identify the materials on board.

9. B — Division 6.1 materials with Packing Group I and Inhalation Hazard Zone B are Poison Inhalation Hazard materials — Table 1 materials with the absolute prohibition against coloading with any food, animal feed, or material intended for human or animal consumption. Bottled juice for retail distribution is a food product. This prohibition is absolute regardless of packaging, separation, or distance.

10. A — The primary purpose of distinguishing HazMat entries from nonhazardous entries is to ensure immediate identification. During an emergency or inspection, the reviewer must be able to scan the document and instantly find the hazardous material entries without reading every line. This rapid identification is critical when seconds matter — particularly for emergency responders at an accident scene.

11. D — Both the orange panels on the vehicle and the shipping papers show UN1203, confirming the identification number matches. This consistency is essential — a mismatch between the displayed ID number and the documented ID number would indicate either the wrong product was loaded or the wrong number was displayed, creating dangerous confusion for emergency responders.

12. A — HazMat vehicles should avoid heavily populated areas, narrow streets, school zones, and places where crowds gather unless no practicable alternative exists. Before committing to a detour through a small town with these characteristics, the driver should evaluate whether another detour avoiding these sensitive areas is available, even if it adds additional time to the trip.

13. C — Division 5.2 Organic Peroxides do not use the packing group system. Other classes that do not use packing groups include Class 1 (Explosives), Class 2 (Gases), Division 6.2 (Infectious Substances), Class 7 (Radioactive), and Class 9. The absence of a packing group designation for a Division 5.2 material is correct and expected.

14. B — A dieselpowered APU mounted near the cargo area produces exhaust gases, heat, and potentially hot surfaces. If flammable vapors are leaking from the Class 3 cargo inside the trailer, the APU's heat and exhaust could serve as an ignition source. The driver should verify no flammable vapor odors are present near the trailer before operating the APU during overnight parking.

15. D — A nonfunctioning speedometer is an equipment violation that impairs the driver's ability to monitor speed accurately. For HazMat transport, precise speed control is essential — particularly on curves, downgrades, and in construction zones where exceeding safe speeds creates amplified risks. The driver should have the speedometer repaired at the earliest safe opportunity.

16. C — Displaying CORROSIVE placards on a vehicle carrying Class 3 Flammable Liquid communicates false hazard information that could lead to wrong emergency response actions. Responders approaching a vehicle with CORROSIVE placards would prepare for acid or base

exposure, not for a flammable vapor ignition risk. The driver must refuse to depart until the correct FLAMMABLE placards are obtained.

17. B — HazMat vehicles generally follow the same weigh station procedures as all commercial vehicles. If the driver's vehicle is authorized to use the bypass lane through an electronic bypass system (such as PrePass), the driver may use it unless the specific weigh station or state has rules requiring all HazMat vehicles to enter. The driver should follow the bypass system's instructions.

18. A — A HazMat vehicle must comply with all standard traffic laws, including school bus stop laws. The driver must stop the vehicle as required when a school bus activates its red flashing lights and stop arm. The presence of hazardous materials does not exempt the driver from any traffic law, and attempting to pass a stopped school bus is both illegal and dangerous.

19. D — Materials properly shipped under the limited quantity exception are exempt from placarding requirements, and the driver does not need a HazMat endorsement to transport them. The exception applies because the small perpackage quantities present a reduced risk during transportation. However, the shipment must genuinely qualify — quantities must be within regulatory thresholds and proper markings must be applied.

20. B — Division 2.2 NonFlammable Gas at 1,800 pounds exceeds the 1,001pound Table 2 threshold, requiring NONFLAMMABLE GAS placards. Class 3 Flammable Liquid at 600 pounds does not independently reach 1,001 pounds. Each hazard class is evaluated separately against its threshold — one class exceeding the threshold does not trigger placarding for another class that falls below it.

21. A — Any unintentional release of a hazardous material during transportation requires a written Hazardous Materials Incident Report on DOT Form 5800.1, filed within 30 days. This requirement applies regardless of the quantity released, whether injuries occurred, or whether the driver successfully contained the spill. Even a 2gallon leak that was quickly cleaned up must be reported.

22. C — The emergency response telephone number must connect to a live person knowledgeable about the material at all times — 24 hours a day, 7 days a week. An automated voicemail system with a 4hour callback window does not provide the immediate, realtime technical guidance that emergency responders need during the critical first minutes of a HazMat incident.

23. B — Radiation from Class 7 Radioactive material packages can fog and damage undeveloped photographic film. The regulations require separation between radioactive packages and undeveloped film by distances based on the transport index and expected transit time. Direct contact between the packages eliminates all separation distance, exposing the film to maximum radiation levels.

24. D — Visibility reduced to 50 feet means the driver cannot see hazards far enough ahead to stop safely — especially in a HazMat vehicle with surgeextended stopping distances. The driver should reduce speed significantly so the vehicle can stop within the visible range, or pull off the road entirely to a safe location until visibility improves.

25. A — Following the planned route without unnecessary deviations reduces the vulnerability of the shipment to theft, diversion, or tampering. Choosing welllit, populated locations for stops ensures the vehicle is visible to others and less attractive as a target. Both practices are core en route security measures that the driver implements as part of the carrier's security plan.

26. B — The orange panels must display the identification number for the material actually being transported — NA1993 for diesel fuel, not UN1203 for gasoline. Displaying the wrong identification number directs emergency responders to the wrong ERG guide, potentially leading to incorrect response actions. The driver must correct the orange panels to match the current product before continuing.

27. D — An acetylene cutting torch 30 feet from a placarded vehicle creates an immediate fire risk. Open flame, sparks, and intense heat within the nosmoking/noflame zone of a HazMat vehicle could ignite flammable vapors if present. The driver should either move the HazMat vehicle to at least 300 feet from the torch operation or ask the other driver to relocate their maintenance activity.

28. C — Placards must maintain their prescribed colors clearly visible for recognition at a distance. A FLAMMABLE placard that has faded from bright red to pale pink may not be recognized as a flammable hazard warning by motorists, enforcement officers, or emergency responders approaching from a distance. The faded placard must be replaced with one displaying the correct prescribed color.

29. A — An "O" designation in the segregation table means the materials may be loaded together only if they are separated in a manner that prevents interaction in the event of leakage from either package. This typically requires physical separation by distance, placement in different compartments, or impervious barriers. It is a conditional permission, not an unrestricted allowance.

30. C — NA identification numbers are specifically designated for use within North America, including the United States, Canada, and Mexico. However, different countries may have additional requirements or variations in proper shipping names for certain materials. The driver should verify that the documentation meets the requirements for crossborder transport before arriving at the border.

31. C — In a baffled tank, the liquid exists as separate masses between each baffle. During braking, each mass surges forward and hits the baffle ahead of it in sequence — the front mass first, then each successive mass as it catches up. This sequential impact creates a pulsing surge pattern that the driver feels as rhythmic resistance through the braking system, which is a normal characteristic of baffled tank braking.

32. A — The driver or a qualified representative must be present at the tank and actively monitoring the loading operation at all times. Stepping away while the tank is being loaded at any flow rate — even for a brief period — violates this requirement. The driver must monitor fill levels, watch for leaks, and be ready to shut down the loading system immediately if any problem develops.

33. D — A smooth bore tank at approximately 78 percent capacity (7,000 of 9,000 gallons) has 2,000 gallons of empty space allowing unrestricted lateral surge. On the curve, centrifugal force pushes the liquid to the outside of the turn, and in a smooth bore tank it climbs the curved wall

freely, raising the center of gravity. Even at 10 mph below advisory speed, this dynamic shift produces significant lean.

34. B — A visible dent in the tank shell may indicate hidden structural damage that is not apparent from the outside. The metal behind the dent may have stretched, thinned, or developed microcracks that could propagate under road vibration, internal pressure, or thermal stress. The driver should report the dent to the carrier for professional evaluation — typically ultrasonic thickness testing — before loading.

35. C — During an indoor delivery, vapors displaced from the receiving tank as product enters have nowhere to disperse except into the enclosed mechanical room. These vapors — which may be flammable, toxic, or oxygendisplacing — can accumulate to dangerous concentrations in the confined indoor space. Adequate ventilation must be verified before and maintained throughout the indoor delivery.

36. D — When a tank vehicle enters standing water at highway speed, the tires may hydroplane — losing contact with the road surface and riding on a film of water. During hydroplaning, the driver has no steering or braking control. In a loaded tank vehicle, any braking attempt during hydroplaning produces uncontrolled surge because the liquid continues moving even though the vehicle cannot decelerate in a controlled manner.

37. A — At 45 percent capacity, the liquid has significantly more room to surge in all directions compared to 85 percent. Forwardbackward surge during braking is more violent, and lateral surge during turns is more pronounced because the liquid can travel farther and build more momentum before hitting the tank walls. The vehicle is less stable and more prone to rollover at the lower fill level.

38. C — Each forwardreverse transition in a smooth bore tank causes the liquid to slam from one end to the other. At 60 percent capacity with a lowviscosity liquid, the unrestricted mass generates significant force with each direction change. The repeated reversals create a rocking effect that can make the vehicle feel increasingly unstable. The driver must use gentle, gradual inputs for every brake and acceleration.

39. B — Lowerthannormal air pressure means the brake system has reduced force available for each application. In a loaded tank vehicle, the brakes must overcome not only the vehicle's kinetic energy but also the forward surge force from the liquid cargo during braking. If the brakes weaken from dropping air pressure, they may reach a point where they cannot overcome the combined forces, making the vehicle nearly impossible to stop.

40. D — An empty tank vehicle retains its large surface area but has lost nearly all of its cargo weight. The large cylindrical tank acts as a sail in crosswinds, and the reduced weight provides less tire traction to resist lateral wind forces. The vehicle may also feel bouncy and less stable on rough roads. The driver should reduce speed in windy conditions and anticipate the lighter, less predictable handling.

41. B — Pressure relief valve activation during highway transport indicates the tank's internal pressure has exceeded the valve's opening threshold. While the valve is performing its safety function by preventing overpressure, the activation signals an abnormal condition — potentially from overloading, excessive thermal expansion, or a product reaction. The driver should stop safely and report the condition for investigation.

42. A — Switching from a petroleum product to a foodgrade liquid requires complete cleaning and sanitization to foodgrade standards. Residual diesel fuel — even trace amounts of liquid film or vapor — would contaminate the vegetable oil and make it unfit for human consumption. The tank must be professionally cleaned, sanitized, and verified free of all contamination before any foodgrade product is loaded.

43. D — With compartments 1 through 4 loaded and compartment 5 empty, the vehicle's weight is concentrated toward the front and center of the trailer, with no weight at the rear. This shifts weight distribution forward, potentially underloading the trailer's rear axles and changing the vehicle's braking balance, steering feel, and handling characteristics compared to a fully loaded vehicle.

44. B — At 55 mph, a loaded tank vehicle's stopping distance — including surge — far exceeds 75 feet. Continuing at this speed means the driver cannot stop for any hazard within the visible range. Reducing speed immediately to a point where the vehicle can stop within 75 feet, or pulling safely off the road, is essential to prevent a collision that could have catastrophic HazMat consequences.

45. C — During a 30minute delivery pause, closing all discharge valves on the cargo tank prevents any product flow or drip while the hose remains connected. This is the safest and most practical approach — it secures the product without requiring the full disconnection and reconnection process. When the customer is ready, the driver can simply reopen the valves and resume pumping.

46. A — A cargo tank's fitness for service is determined by its testing and inspection record, not by age alone. As long as the tank passes all required periodic tests — external visual, internal visual, pressure test, leakage test, and thickness test — at the required intervals, it may continue operating. Many cargo tanks operate safely for decades when properly maintained and tested.

47. D — The wind pushes the vehicle to the left, and the liquid's inertia causes it to follow — shifting mass to the left side. This leftward mass shift raises the center of gravity on the left, adding to the wind's overturning force. The driver should grip the wheel firmly, make small gradual corrections without overcorrecting, and reduce speed to lower the aerodynamic force — sudden inputs could trigger amplified surge oscillations.

48. A — A cracked pipe support bracket allows the discharge piping to move, vibrate, and sag unsupported during highway transport. Over time, the unsupported pipe section can fatigue, develop cracks at stress points, or separate from its connections — potentially causing a product release while the vehicle is in motion. The driver should report the cracked bracket for professional repair before operating the vehicle.

49. C — After completing the last delivery and emptying the tank, the driver must verify that all discharge valves are fully closed, all caps and plugs are installed on unused connections, and no product is dripping from any fitting. Even though the tank is "empty," residual product in the piping and fittings can drip during the return trip if valves are not fully secured.

50. B — Different tank vehicles have different configurations — remote shutoff handles, valve positions, gauge locations, and emergency equipment may be in different locations than what the driver is accustomed to from previous vehicles. The driver must locate and physically test

every remote emergency shutoff handle before the first trip to ensure they can be found and activated instantly in an emergency.