PRACTICE EXAM 6: HAZMAT & TANKER SIMULATION (50 QUESTIONS)

HAZMAT SECTION (Questions 1–30)

1. A driver is transporting 3,000 pounds of Class 8 Corrosive liquid in drums. At a second stop, the driver picks up 800 pounds of Division 5.1 Oxidizer. After the second pickup, the driver realizes that the oxidizer drums have been placed directly adjacent to the corrosive drums with no separation. Is this a problem?

A. No, because Class 8 and Division 5.1 materials have no segregation requirement and may be loaded in direct contact

B. Yes, the driver must verify compatibility and ensure that these materials are separated according to the segregation requirements in 49 CFR §177.848

C. No, because segregation rules apply only when both materials are Table 1 materials, and neither Class 8 nor Division 5.1 is Table 1

D. Yes, but only if the combined weight of both materials exceeds 5,000 pounds, which triggers enhanced segregation requirements

2. A driver transporting placarded hazardous materials is approaching a toll plaza on a major highway. Several lanes are available, including an EZPass electronic lane that does not require stopping. Is the driver permitted to use the electronic toll lane?

A. No, all HazMat vehicles must use cashonly toll lanes so that toll booth operators can visually inspect the placards

B. No, HazMat vehicles are prohibited from passing through any toll plaza and must use alternate routes that avoid all toll roads

C. Yes, but only during nonpeak hours when traffic volume is low enough to allow safe passage of the HazMat vehicle

D. Yes, unless the toll facility has specific restrictions on HazMat vehicles — the driver should comply with any posted HazMatspecific signage at the plaza

3. A driver is reviewing the shipping papers for a load and notices that the hazard class column shows "6.1" for one of the entries. What type of material does this hazard class represent?

A. Division 6.1 is Toxic Material (Poison) — a substance that can cause death or serious injury through ingestion, skin contact, or inhalation

B. Division 6.1 is Infectious Substance — a material containing pathogens that can cause disease in humans or animals

C. Division 6.1 is Organic Peroxide — a thermally unstable compound that can undergo selfaccelerating decomposition

D. Division 6.1 is Flammable Solid — a readily combustible solid that may contribute to fire through friction during handling

4. A shipment of hazardous materials arrives at a driver's truck on pallets. Each pallet contains 20 boxes, and each box is properly marked, labeled, and sealed. However, the shrink wrap around one pallet has torn, and three boxes have shifted and are hanging partially off the edge of the pallet. Should the driver accept this pallet?

A. Yes, because the individual boxes are properly marked and labeled and the torn shrink wrap does not affect the regulatory status

B. Yes, as long as the driver reinforces the shrink wrap with packing tape before loading the pallet onto the trailer

C. No, the shifted boxes are at risk of falling during transport, which could damage the packages and cause a release of hazardous material

D. No, but only if the boxes contain Table 1 materials — Table 2 materials may be loaded with minor pallet damage

5. A driver is hauling a placarded load and needs to park for a mandatory 30minute rest break. The only available parking is a paved pulloff area on the highway shoulder, approximately 8 feet from the nearest travel lane. Is this location acceptable?

A. No, because parking on a highway shoulder does not satisfy the requirement to park in a safe haven for unattended HazMat vehicles

B. Yes, if the vehicle remains attended — the driver stays in the cab and awake, or within 100 feet with the vehicle in clear view

C. No, because HazMat vehicles are prohibited from stopping on any highway shoulder for any reason, including mechanical breakdown

D. Yes, because the 8foot distance exceeds the 5foot minimum setback from the traveled portion of the roadway

6. Under the Hazardous Materials Regulations, what is the minimum distance a placarded vehicle must maintain from a bridge, overpass, or tunnel when parked?

A. 25 feet from any structural element of the bridge, overpass, or tunnel entrance or exit ramp

B. 100 feet from the nearest point of any bridge deck, overpass structure, or tunnel opening

C. 300 feet from any bridge, overpass, or tunnel, which is the same distance required from open fires

D. A placarded vehicle must not be parked on or within 5 feet of a bridge, overpass, or tunnel

7. A driver discovers that a Class 3 Flammable Liquid drum loaded on the trailer has a label showing a flame symbol on a red diamond AND a second label showing a skull and crossbones on a white diamond. The shipping papers confirm the material is Class 3 with a subsidiary hazard of 6.1. What placards must be displayed on the vehicle if the total weight is 2,000 pounds?

A. Both FLAMMABLE and POISON placards on all four sides, because both the primary and subsidiary hazards require separate placards when subsidiary labels are specified

B. Only FLAMMABLE placards, because subsidiary hazards never generate a separate placarding requirement on highway vehicles

C. Only POISON placards, because the toxic hazard is more dangerous to human life than the flammable hazard

D. DANGEROUS placards only, because the material presents two different hazards and the DANGEROUS placard covers multihazard loads

8. A hazardous material is listed in the Hazardous Materials Table with the symbol "D" in Column 1. What does this symbol indicate?

A. The material has been discontinued from the table and may no longer be legally transported by any mode

B. The material is classified as a "delayed hazard" that does not present an immediate danger but becomes hazardous after 72 hours

C. The proper shipping name is appropriate for domestic transportation only within the United States

D. The material requires double packaging — an inner container within an outer container — for all modes of transport

9. A driver transporting Class 7 Radioactive material checks the shipping papers and sees the total transport index listed as 3.5. What does this number tell the driver about the separation requirements?

A. The transport index determines the minimum distance required between the radioactive packages and any occupied space, such as the driver's cab

B. The transport index indicates the number of packages in the shipment that emit radiation above background levels

C. The transport index represents the total weight of the radioactive material in the shipment measured in kilograms

D. The transport index shows the number of years until the radioactive material decays to a level that no longer requires regulated transport

10. A driver is fueling a placarded vehicle at a truck stop. While the fuel nozzle is in the tank, the driver walks 10 feet to the windshield cleaning station to wash the windshield. The fuel nozzle has an automatic shutoff that will stop fuel flow when the tank is full. Is this acceptable?

A. Yes, because the automatic shutoff feature eliminates the risk of fuel overflow, making direct monitoring unnecessary

B. Yes, as long as the driver remains within 25 feet of the vehicle during the entire fueling process

C. No, but only if the vehicle is carrying Division 1 Explosives or Division 2.3 Poison Gas — other hazard classes allow unmonitored fueling

D. No, someone must be at the nozzle controlling the flow of fuel at all times during fueling — the nozzle must never be left unattended

11. Which of the following statements correctly describes the relationship between the Hazardous Materials Table and the Emergency Response Guidebook?

A. The ERG replaces the Hazardous Materials Table during emergency situations and provides updated hazard classifications in real time

B. The Hazardous Materials Table contains the ERG guide numbers directly in Column 7, eliminating the need for a separate reference document

C. The identification numbers assigned in Column 4 of the Hazardous Materials Table are the key that links each material to its ERG response guide

D. The ERG and the Hazardous Materials Table are published by different agencies and use incompatible identification systems

12. A shipper prepares a shipping paper for a load of ammonium nitrate. The entry reads: "Ammonium nitrate, 5.1, UN1942, PG III, 4,500 lbs." The driver notices that the shipping paper does not include the letters "RQ" anywhere in the entry. Does this necessarily mean the shipment is below its reportable quantity?

A. Not necessarily — the absence of "RQ" means either the quantity is below the reportable quantity threshold or the shipper may have made an error in omitting it

B. Yes, the absence of "RQ" is a definitive regulatory confirmation that the quantity is below the material's reportable quantity

C. The "RQ" designation is obsolete and was removed from shipping paper requirements in 2020, so its absence has no significance

D. The "RQ" designation applies only to Class 7 Radioactive materials and is never used for Division 5.1 Oxidizer shipments

13. A driver picks up a load of hazardous materials from a shipper who tells the driver, "The placards are already on the trailer — I put them on this morning." The driver walks around the

vehicle and confirms that four identical placards are displayed. However, the driver notices the placards show a yellow diamond with a flameovercircle symbol (OXIDIZER), while the shipping papers describe the load as Class 3 Flammable Liquid. What should the driver do?

A. Accept the load because the shipper is the party legally responsible for placarding and the driver is not required to verify accuracy

B. Call the shipper's supervisor to arbitrate the discrepancy and accept whichever placard the supervisor recommends

C. Accept the load with the OXIDIZER placards but add FLAMMABLE placards as well, displaying both on each side of the vehicle

D. Do not transport the load until the discrepancy is resolved — either the placards or the shipping papers must be corrected to match

14. A driver is transporting hazardous materials in a cargo tank and arrives at a delivery location at 2:00 AM. The facility is closed and locked, with no personnel onsite. The delivery was scheduled for this time. What should the driver do?

A. Leave the cargo tank parked at the facility gate and take a taxi to a nearby hotel, returning when the facility opens in the morning

B. Contact the carrier for instructions — the driver cannot leave the placarded vehicle unattended at an unsecured location

C. Open the facility gate, back the vehicle to the unloading dock, and begin unloading without facility personnel present

D. Park the vehicle in the facility's parking lot, activate the hazard flashers, and sleep in the sleeper berth until morning

15. How does the hazard presented by a Division 4.3 (Dangerous When Wet) material differ from the hazard presented by a Division 4.1 (Flammable Solid) material?

A. Division 4.1 materials are readily combustible solids that burn when exposed to an ignition source, while Division 4.3 materials are nonflammable

B. Division 4.3 materials require refrigerated transport, while Division 4.1 materials may be transported at ambient temperature

C. Division 4.3 materials emit flammable or toxic gases when they contact water, while Division 4.1 materials burn through direct combustion or friction

D. Division 4.1 materials are dangerous only in quantities above 10,000 pounds, while Division 4.3 materials are dangerous at any quantity

16. A driver is assigned to transport a shipment of lithium batteries classified as Class 9 Miscellaneous Hazardous Material. The total weight is 600 pounds. Are placards required?

A. No, because 600 pounds is below the 1,001pound Table 2 threshold required for Class 9 placarding

B. Yes, because lithium batteries are specifically exempted from the weight threshold and require placarding at any quantity

C. No, because Class 9 materials are completely exempt from all placarding requirements regardless of weight or quantity

D. Yes, because all batteries — lithium and otherwise — are classified as Table 1 materials due to their fire and explosion risk

17. A vehicle is carrying 1,500 pounds of Division 2.2 NonFlammable Gas in compressed gas cylinders. The driver also has shipping papers showing 300 pounds of Class 8 Corrosive in drums. What placards must be displayed?

A. Both NONFLAMMABLE GAS and CORROSIVE placards, because the combined total exceeds the threshold for each individual class

B. DANGEROUS placards, because the vehicle carries two different Table 2 classes with a combined total above 1,001 pounds

C. NONFLAMMABLE GAS placards only, because Division 2.2 exceeds 1,001 pounds while Class 8 at 300 pounds does not

D. CORROSIVE placards only, because corrosive materials always take placarding priority over nonflammable gas in mixed loads

18. A hazardous materials incident occurs during transportation, and a small quantity of a Division 6.1 Toxic material is released from a damaged drum. No one is injured, but the

material soaks into a grassy area alongside the highway. The cleanup is handled quickly by the driver using absorbent pads. Must this incident still be reported?

A. No, because the driver successfully contained and cleaned up the release without any injuries or significant property damage

B. No, because Division 6.1 releases are reportable only when the released quantity exceeds the material's reportable quantity

C. Yes, but only a verbal report to the carrier's safety department is required — no written DOT report is necessary for minor spills

D. Yes, any unintentional release of a hazardous material during transportation requires a written report on DOT Form 5800.1 within 30 days

19. The "Hazardous Materials Table" in 49 CFR §172.101 uses Column 3 to show the hazard class or division number for each listed material. A driver sees "2.1" in Column 3 for a material being shipped. What does "2.1" tell the driver?

A. The material is an oxidizer with a secondary flammability hazard rated at level 1 on the subsidiary hazard scale

B. The material is a Division 2.1 Flammable Gas — a gas that forms a flammable mixture with air at specific concentrations

C. The material is a Class 2 gas with a Packing Group I designation, indicating the highest level of danger within its class

D. The material requires two separate labels (label type 1) to be placed on opposite sides of each package before transport

20. A driver transporting 500 pounds of Division 2.3 Poison Gas (Table 1) makes a delivery stop and drops off the entire poison gas shipment. The driver then picks up 2,000 pounds of Class 3 Flammable Liquid (Table 2) at the same facility. After the swap, what placards must be displayed?

A. FLAMMABLE placards only, because the Poison Gas has been completely removed and the Class 3 material now exceeds 1,001 pounds

B. Both POISON GAS and FLAMMABLE placards, because the vehicle previously carried Poison Gas and residue may remain

C. DANGEROUS placards, because the vehicle handled two different hazard classes during the same trip regardless of current cargo

D. No placards are required during the transition period between loads — placards may be updated at the carrier's terminal

21. A shipping paper entry shows a material with a packing group of "I" (Roman numeral one). Compared to the same hazard class material with a packing group of "II," what does the PG I designation indicate about handling and risk?

A. PG I materials present the greatest degree of danger within their class and are subject to the most stringent packaging and handling requirements

B. PG I materials present the least degree of danger and may be transported with fewer restrictions than PG II or PG III materials

C. PG I materials are the most commonly transported and the Roman numeral indicates their market availability ranking

D. PG I materials are limited to transport by rail and air only — highway transport of PG I materials is prohibited under federal law

22. A driver is at a loading dock when the shipper's forklift operator accidentally punctures a drum of Class 3 Flammable Liquid with the forklift tines. The drum begins leaking on the dock floor. What should the driver do?

A. Help the forklift operator upright the drum and use rags to mop up the spilled liquid before it reaches the storm drain

B. Immediately drive the vehicle away from the loading dock to remove the HazMat vehicle from the vicinity of the spill

C. Move away from the spill to a safe distance upwind, alert all persons in the area, and ensure the shipper contacts emergency services

D. Retrieve the fire extinguisher from the vehicle and spray the spilled liquid with foam to suppress the release of flammable vapors

23. A driver has been transporting hazardous materials for several hours and stops for a break. Upon returning to the vehicle, the driver notices that one of the four placards has been

vandalized — someone has spraypainted over it, making it completely illegible. What must the driver do before continuing?

A. Contact law enforcement to report the vandalism, then proceed to the destination since the remaining three placards provide adequate warning

B. Replace the vandalized placard with a correct, legible placard before resuming the trip, because all four placards must be displayed and readable

C. Cover the vandalized placard with a blank white panel and continue to the destination, where the placard can be properly replaced

D. Photograph the vandalized placard for the carrier's records, then continue driving because vandalism is beyond the driver's control

24. A driver notices that the shipping papers for a hazardous material shipment list the emergency response telephone number as "911." Does this meet the regulatory requirement?

A. Yes, because 911 is a universal emergency number that connects to a person who can provide immediate emergency response guidance

B. Yes, but only if the driver is transporting the shipment within a single county where the 911 dispatch center has HazMat expertise

C. No, but the driver may accept the shipment if the driver carries a personal copy of the Emergency Response Guidebook in the cab

D. No, because the required number must connect to a person knowledgeable about the specific material, not a general emergency dispatch center

25. Under the HazMat regulations, what is the minimum information a driver should be able to provide to emergency responders if involved in a HazMat incident?

A. The shipping papers, which contain the proper shipping name, hazard class, identification number, packing group, quantity, and emergency contact

B. The driver's CDL number, the carrier's MC number, and the date of the driver's most recent HazMat training course completion

C. The retail price of the hazardous material, the name of the consignee, and the estimated time of arrival at the delivery point

D. The vehicle's license plate number, the trailer's DOT inspection date, and the serial number of the fire extinguisher mounted in the cab

26. A driver transporting Class 1, Division 1.2 Explosives with a projection hazard discovers during a stop that the rear placard has been damaged by road debris and is only partially legible. The remaining three placards are in good condition. What is the driver's obligation?

A. Continue driving because three out of four placards provide sufficient warning to emergency responders approaching from most directions

B. Cover the damaged placard with a DANGEROUS placard as a temporary substitute until a proper replacement can be obtained

C. Replace the damaged placard immediately — all four placards must be present, correct, and legible at all times during transport

D. Radio the carrier for permission to continue with three placards, since Division 1.2 has specific exemptions for minor placard damage

27. A driver transporting hazardous materials approaches a weigh station with a sign that reads "ALL TRUCKS MUST ENTER." As the driver pulls onto the scale, the scale operator asks to see the shipping papers. The driver hands over the papers, and the operator notes that the hazardous materials entries are highlighted in yellow. Is this highlighting method an acceptable way to distinguish HazMat entries?

A. No, highlighting is not recognized as an acceptable method — only listing HazMat entries first or placing an "X" in a designated column is permitted

B. No, the highlighting must be in red or orange specifically — yellow highlighting does not meet the regulatory color requirements

C. Yes, but only if the driver also provides a separate index listing the line numbers of all highlighted entries on the shipping paper

D. Yes, highlighting hazardous materials entries in a contrasting color is one of the accepted methods for distinguishing them from nonhazardous entries

28. A shipper offers a driver a load of hazardous materials and states that no placards are needed because the shipment qualifies for a "limited quantity" exception. The driver is unfamiliar with this exception. What should the driver understand about limited quantity shipments?

A. Limited quantity shipments of certain hazardous materials are exempt from placarding and HazMat endorsement requirements when the quantities per package fall within regulatory thresholds

B. The limited quantity exception eliminates all hazardous materials requirements, including shipping papers, marking, labeling, and driver training

C. Limited quantity exceptions apply only to materials shipped by air and have no relevance to highway transportation by commercial vehicles

D. The limited quantity exception means the material is no longer classified as hazardous and may be treated identically to nonhazardous general freight

29. A driver transporting a bulk shipment of Class 3 Flammable Liquid in a cargo tank discovers during a stop that the tank's pressure relief valve has a small icicle hanging from its discharge port on a cold winter day. What might this indicate?

A. The pressure relief valve is completely frozen shut and will not function in an emergency, requiring immediate replacement before continuing

B. The icicle is a normal occurrence caused by moisture in the atmosphere freezing on the cold metal surface of the valve body

C. The tank's internal temperature has dropped below the product's pour point, causing the liquid to solidify and block the relief valve

D. The valve may have been weeping or venting a small amount of vapor, which condensed and froze in the cold air — this suggests the valve may not be seating properly

30. A driver is delivering hazardous materials to a construction site. Upon arrival, the driver sees that welding operations are taking place approximately 40 feet from the planned unloading position. What should the driver do?

A. Proceed with the delivery because 40 feet provides adequate separation between welding sparks and the hazardous materials vehicle

B. Request that the welding operations be suspended or that the unloading position be moved to a location farther from the welding activity

C. Begin unloading but ask a site worker to stand between the welding and the unloading area as a human shield against sparks

D. Proceed with the delivery but keep the vehicle's engine running so the driver can move the vehicle quickly if sparks reach the cargo area

TANKER SECTION (Questions 31–50)

31. A tank vehicle carrying 7,000 gallons of liquid product has a total tank capacity of 9,000 gallons. The tank is a smooth bore design with no baffles. The driver approaches a red traffic light and begins braking. What is the most significant handling challenge in this scenario?

A. The 2,000gallon outage space limits the tank's structural integrity, making the shell vulnerable to deformation during braking

B. The smooth bore tank with no baffles produces minimal surge because the large volume of liquid creates enough inertia to remain stationary

C. The engine braking system is less effective on partially loaded vehicles because the reduced weight provides insufficient resistance

D. The 2,000 gallons of empty space allows the liquid to surge forward as a single unrestricted mass, producing a powerful force that pushes the vehicle forward during braking

32. A tank vehicle driver is operating on a straight highway at 60 mph when a tire on the trailer's tandem axle suddenly blows out. The driver feels the vehicle pull slightly to one side. What is the safest immediate response?

A. Accelerate briefly to stabilize the vehicle's trajectory before attempting to pull over to the shoulder

B. Gradually ease off the accelerator without sudden braking, grip the steering wheel firmly, and carefully guide the vehicle to a safe stop on the shoulder

C. Apply maximum brake pressure immediately to stop the vehicle before the damaged tire causes additional structural damage to the trailer

D. Steer sharply to the opposite side of the pull to counteract the directional drift caused by the blown tire

33. An MC 331 cargo tank is designed to transport liquefied compressed gases under high pressure. What would happen if a driver attempted to load this tank with a nonpressure liquid such as diesel fuel?

A. The diesel fuel would immediately vaporize inside the highpressure tank, creating a dangerous cloud of fuel vapor in the loading area

B. The tank would implode because nonpressure liquids create a vacuum effect inside tanks designed for positive pressure operation

C. The tank is not designed or authorized for nonpressure liquids — diesel requires a DOT 406 tank, and using the wrong specification is a regulatory violation

D. The diesel fuel would corrode the MC 331 tank's internal surfaces because the tank's steel alloy is incompatible with petroleum products

34. A driver operating a loaded tank vehicle is traveling at 45 mph when rain suddenly begins falling heavily. Within seconds, the road surface goes from dry to heavily wet. What is the driver's most critical immediate adjustment?

A. Reduce speed significantly and increase following distance immediately, because wet roads reduce traction while liquid surge forces remain unchanged

B. Activate the windshield wipers and headlights but maintain current speed because the vehicle's weight provides adequate traction in rain

C. Apply the brakes firmly once to test traction levels, then resume driving at the original speed if the vehicle stops without skidding

D. Move to the left lane where rainwater is less likely to accumulate, and maintain speed to avoid being rearended by faster traffic

35. A cargo tank equipped with compartments separated by bulkheads is being loaded at a petroleum terminal. The terminal operator fills compartment 3 (center) first, then compartments 1 and 5 (front and rear), leaving compartments 2 and 4 empty. What potential problem does this loading pattern create?

A. The empty compartments 2 and 4 will act as thermal insulators, causing the product in compartments 1, 3, and 5 to overheat

B. The product in the center compartment will generate higher internal pressure than the end compartments due to the temperature differential

C. The empty compartments between loaded compartments create no handling issues because bulkheads prevent liquid transfer between sections

D. The alternating loaded and empty compartments may create an uneven weight distribution that produces unpredictable handling and potentially illegal axle weights

36. During a cargo tank pretrip inspection, the driver discovers that the grounding cable reel's retraction spring is broken — the cable will not retract automatically when released. The cable itself and the clamp appear to be in good working condition. Can the driver use this grounding equipment?

A. No, the broken retraction spring means the grounding cable does not meet DOT certification standards and must be replaced entirely

B. Yes, the retraction spring is a convenience feature — as long as the cable and clamp function properly, the grounding system is operationally effective

C. No, a nonretracting cable will drag on the ground during transport, creating sparks that could ignite flammable vapors near the tank

D. Yes, but only if the driver disconnects the broken spring mechanism and stores the cable in a separate compartment during transport

37. A tank vehicle is negotiating a long, sweeping left curve on an interstate highway. The driver is maintaining a speed 10 mph below the posted advisory speed. Halfway through the curve, the driver feels the vehicle leaning noticeably to the right. What is causing this lean, and is the driver's speed appropriate?

A. The lean is caused by a flat tire on the right side of the vehicle, and the driver should stop immediately in the curve to inspect

B. The lean is caused by a failed rightside suspension component, and the driver should accelerate to straighten the vehicle before inspecting

C. The lean is caused by liquid surging to the outside (right side) of the left curve — even at 10 mph below advisory speed, the driver should consider whether further speed reduction is needed

D. The lean is a normal characteristic of all heavy vehicles in curves and does not indicate any handling concern requiring speed adjustment

38. A driver is unloading a cargo tank using gravity discharge. The product is flowing slowly from the bottom discharge valve into the customer's receiving tank below. Partway through the delivery, the flow stops completely even though the cargo tank still contains a significant amount of product. What is the most likely cause?

A. A vapor lock has formed in the tank or discharge piping — as liquid drains out, a vacuum develops that prevents further flow unless air is admitted through a vent

B. The product has solidified inside the discharge piping due to a sudden drop in ambient temperature below the liquid's freezing point

C. The customer's receiving tank has automatically engaged its overfill prevention system, sending a signal that stopped flow from the cargo tank

D. The cargo tank's internal emergency shutoff valve has closed spontaneously due to a malfunction in the remote control mechanism

39. What distinguishes the rollover risk of a tank vehicle carrying a highdensity liquid (such as sulfuric acid at 15.3 lbs/gal) from one carrying a lowdensity liquid (such as gasoline at 6.1 lbs/gal), assuming both tanks are loaded to the same fill percentage?

A. Highdensity liquids produce less surge because their greater viscosity slows lateral movement, making rollover less likely

B. Lowdensity liquids are more dangerous because they evaporate faster, creating vapor pressure that pushes against the tank walls during turns

C. There is no meaningful difference in rollover risk because rollover is determined by tank geometry, not liquid density

D. The highdensity liquid raises the center of gravity higher because more weight is concentrated in the same volume, increasing the overturning moment in curves

40. A tanker driver is approaching a tight, 90degree right turn at an intersection in an urban area. The driver is carrying a full load of liquid cargo in a baffled tank. What specific technique should the driver use to execute this turn safely?

A. Accelerate into the turn to maintain momentum and prevent the vehicle from stalling in the middle of the intersection

B. Reduce speed to a crawl before entering the turn, turn the steering wheel gradually, and maintain a slow, steady speed through the turn without braking

C. Apply the brakes firmly at the start of the turn to shift the liquid forward, lowering the center of gravity for the duration of the turn

D. Take the turn at normal intersection speed because the baffles will prevent all surge and eliminate the rollover risk during the maneuver

41. A driver is performing a pretrip inspection on a DOT 407 cargo tank used to transport industrial chemicals. The driver checks the tank's specification plate and notes the MAWP is listed as 25 psi. What does this tell the driver?

A. The tank was last tested at 25 psi during its most recent qualification test and may need retesting if the pressure has changed

B. The tank must never be operated at an internal pressure exceeding 25 psi — this is the maximum safe working pressure the tank is designed to withstand

C. The tank's capacity is 25 percent of a standard cargo tank, indicating it is a reducedsize unit for local delivery operations

D. The tank can safely transport materials with a vapor pressure up to 250 psi because the MAWP represents onetenth of the burst pressure

42. A tank vehicle driver is unloading product at a delivery site when a nearby vehicle catches fire. The fire is approximately 250 feet from the driver's cargo tank. What should the driver do?

A. Immediately stop the unloading operation, disconnect hoses, close all valves, and move the vehicle away from the fire if it can be done safely and quickly

B. Continue unloading because 250 feet provides adequate separation between the fire and the cargo tank

C. Leave the vehicle in place, abandon the unloading operation, and evacuate the area on foot without attempting to move the vehicle

D. Use the vehicle's fire extinguisher to suppress the nearby vehicle fire before it can spread closer to the cargo tank

43. A driver notices that the liquid level in a cargo tank appears to have risen since loading, even though no additional product has been added. The tank was loaded early in the morning when temperatures were cool, and it is now midafternoon on a hot day. What explains the apparent rise in liquid level?

A. Product has been transferred from the loading facility's underground piping into the tank through a faulty check valve

B. Condensation from humid air has entered the tank through the pressurevacuum vent and mixed with the product

C. The vehicle's suspension has compressed on one side, tilting the tank and making the liquid appear higher on the gauge

D. The liquid has expanded due to thermal heating from the sun and rising ambient temperature, causing the level to rise within the tank

44. A loaded tank vehicle experiences a complete brake failure while traveling at moderate speed on a level road. No runaway truck ramp is available. What is the driver's best course of action?

A. Shift into the highest gear possible to maximize engine braking effect and slow the vehicle through transmission resistance

B. Turn off the ignition to kill the engine and eliminate all power to the drive wheels, allowing rolling friction to slow the vehicle

C. Downshift progressively to use engine compression braking, apply the parking brake gradually, and steer toward the safest available area to bring the vehicle to a stop

D. Steer the vehicle into the nearest solid obstacle such as a concrete barrier to force an immediate stop before speed increases further

45. A tank vehicle driver delivering heating oil to a residential customer must connect a delivery hose from the cargo tank to the customer's home heating oil fill pipe. Before pumping, the driver should verify which critical factor about the customer's tank?

A. That the customer's tank has adequate capacity to receive the delivery without overfilling, which could cause a spill on the property

B. That the customer's insurance policy covers accidental fuel oil spills during the delivery process

C. That the customer has signed a delivery confirmation form acknowledging the hazardous nature of heating oil

D. That the customer's furnace is turned off and will not attempt to draw fuel from the tank during the delivery process

46. A tank vehicle driver encounters a section of highway with a posted speed limit of 65 mph. The driver is carrying a full load of liquid in a baffled tank. Should the driver operate at the posted speed limit?

A. Yes, because the posted speed limit is the legally mandated speed for all vehicles on that road regardless of vehicle type or cargo

B. Yes, because a fully loaded baffled tank produces minimal surge and can safely operate at any posted speed limit

C. No, because tank vehicles are restricted to a maximum speed of 45 mph on all highways regardless of the posted speed limit

D. Not necessarily — the driver should operate at a speed that accounts for the vehicle's high center of gravity, liquid surge characteristics, road conditions, and traffic, which may be below the posted limit

47. During unloading of a cargo tank, the driver notices that the product hose has developed a noticeable bulge near one of the couplings. The hose is not leaking, but the bulge was not present when the hose was connected. What should the driver do?

A. Continue unloading because hose bulges are a normal result of internal product pressure and will return to normal when flow stops

B. Stop the unloading operation immediately — a bulge in a product hose indicates a weakening in the hose wall that could rupture under pressure

C. Increase the flow rate to complete the delivery faster before the bulge has time to develop into a full rupture

D. Wrap duct tape around the bulge to reinforce the weakened area and continue unloading at reduced pump speed

48. A tank vehicle is being loaded with a chemical that the loading facility operator describes as "slightly corrosive." The cargo tank is a DOT 406 aluminum tank normally used for petroleum products. Should the driver accept this load?

A. Yes, because a "slightly corrosive" chemical can be safely carried in any cargo tank regardless of the tank's specification or material of construction

B. Yes, as long as the driver places a plastic liner inside the tank before loading to protect the aluminum shell from the corrosive chemical

C. No, corrosive chemicals can attack aluminum, and the DOT 406 tank may not be designed or authorized for this product — the driver should verify compatibility before loading

D. No, because all corrosive chemicals are prohibited from highway transport and may only be shipped by rail or water vessel

49. A driver completing a delivery empties the cargo tank and begins driving to the next pickup location. The empty tank was previously carrying gasoline. While driving, the driver notices a strong gasoline odor inside the cab. What could this indicate?

A. Residual gasoline vapors are escaping from the "empty" tank through a valve that is not fully closed or a compromised seal, and the driver should stop to investigate

B. The odor is a normal characteristic of empty gasoline tanks and will dissipate within 30 minutes of driving at highway speed

C. The vehicle's own fuel system has developed a leak, which is unrelated to the cargo tank and does not require immediate attention

D. The cab's ventilation system is recirculating air from outside the vehicle where other gasolinecarrying trucks are producing vapor

50. A tank vehicle driver is navigating through a parking lot at very low speed (approximately 5 mph) to position the vehicle at an unloading dock. The tank is approximately 60 percent full. Even at this low speed, what surgerelated concern should the driver be aware of?

A. At 5 mph, liquid surge is physically impossible because the liquid cannot generate momentum at speeds below 10 mph

B. Surge occurs only during braking and acceleration, so the driver is safe as long as a constant 5 mph speed is maintained

C. The liquid will freeze in place due to surface tension at low speeds, eliminating surge until the vehicle returns to highway speed

D. Surge still occurs at low speeds during turns, stops, and starts in the parking lot — the driver should brake gently and steer smoothly to prevent rocking the partially loaded tank

Practice Exam 6: Answer Key and Explanations

1. B — The driver must verify compatibility and ensure proper segregation between Class 8 Corrosive and Division 5.1 Oxidizer materials according to the segregation table in 49 CFR §177.848. Certain corrosiveoxidizer combinations can react dangerously if containers fail and the materials come into contact. Loading incompatible materials directly adjacent with no separation violates segregation requirements.

2. D — There is no blanket federal prohibition against HazMat vehicles using electronic toll lanes. However, some toll facilities, tunnels, and bridges have specific restrictions on hazardous materials vehicles — including designated lanes, time restrictions, or outright prohibitions. The driver must comply with any posted HazMatspecific signage or restrictions at each individual toll facility.

3. A — Division 6.1 is Toxic Material (Poison) — substances other than gases that are known or presumed to be toxic to humans and can cause death or serious injury through ingestion, skin absorption, or inhalation of vapors or dust. Division 6.2 is the separate division covering Infectious Substances. The two divisions within Class 6 address fundamentally different types of biological and chemical hazards.

4. C — Shifted boxes hanging off the edge of a pallet are at risk of falling during transport due to vehicle movement, vibration, and road irregularities. Falling hazardous materials packages can be damaged on impact, potentially rupturing containers and releasing hazardous material. The driver should require the shipper to restack and rewrap the pallet securely before loading.

5. B — The parking location meets the 5foot minimum setback from the traveled roadway (8 feet exceeds 5 feet). The key issue is attendance — the vehicle must be attended while parked on a highway shoulder. If the driver remains in the cab and awake, or within 100 feet with the vehicle in clear view, the attendance requirement is satisfied and the parking location is acceptable.

6. D — A placarded vehicle must not be parked on or within 5 feet of a bridge, overpass, or tunnel. This restriction reflects the extreme danger of a HazMat release or fire in the confined space of a tunnel or on the structurally vulnerable surface of a bridge. The 5foot distance applies to all placarded vehicles regardless of hazard class or quantity.

7. A — When a material has both a primary hazard label and a subsidiary hazard label as specified in Column 6 of the Hazardous Materials Table, both the primary and subsidiary placards must be displayed on each of the four sides of the vehicle. The FLAMMABLE placard represents the primary Class 3 hazard, and the POISON placard represents the subsidiary Division 6.1 hazard. Both are required.

8. C — The "D" symbol in Column 1 of the Hazardous Materials Table indicates that the proper shipping name is appropriate for domestic transportation only — within the United States. Materials with a "D" designation may have different proper shipping names or classifications under international regulations. The "I" symbol indicates international applicability, and some entries show both.

9. A — The transport index on radioactive material packages indicates the maximum radiation level at one meter from the package surface. This value determines the minimum separation distances required between the radioactive packages and occupied spaces such as the driver's cab. Higher transport index values require greater separation distances to limit radiation exposure.

10. D — During fueling of any vehicle, someone must be at the nozzle controlling the flow of fuel at all times. The automatic shutoff is a backup safety feature, not a substitute for active monitoring. Walking away from an unattended fuel nozzle creates a risk of overflow, spill, or equipment malfunction that could result in a fuel release near a placarded HazMat vehicle.

11. C — The fourdigit identification numbers assigned in Column 4 of the Hazardous Materials Table are the same numbers used in the ERG's yellowbordered section to look up each material's corresponding threedigit Emergency Response Guide number. This shared identification number system connects the regulatory classification framework to the emergency response framework.

12. A — The absence of "RQ" on the shipping papers could mean either that the quantity is genuinely below the reportable quantity threshold or that the shipper made an error by omitting the designation. The driver should not assume compliance — if there is any doubt, the driver should ask the shipper to confirm whether the RQ designation applies. An omitted RQ notation is a shipping paper deficiency.

13. D — A mismatch between the placards on the vehicle and the hazard class on the shipping papers is a serious discrepancy that must be resolved before transport. Either the placards are wrong (OXIDIZER instead of FLAMMABLE), the shipping papers are wrong, or the wrong material was loaded. The driver must not transport the shipment until the placard, paperwork, and actual cargo are all confirmed to match.

14. B — A placarded vehicle cannot be left unattended at an unsecured location. A closed and locked facility with no personnel onsite is not a safe haven. The driver cannot leave the vehicle at the gate, sleep in the sleeper berth at an unsecured site, or unload without authorized facility personnel. The driver must contact the carrier for instructions on how to proceed.

15. C — Division 4.3 Dangerous When Wet materials emit flammable or toxic gases in dangerous quantities when they contact water, making water exposure the critical trigger. Division 4.1 Flammable Solids are readily combustible through direct ignition or friction but do not react with water. This distinction is important for emergency response — water must never be used on Division 4.3 materials.

16. A — Class 9 Miscellaneous Hazardous Material is a Table 2 classification. At 600 pounds, the shipment is below the 1,001pound Table 2 threshold, so no placards are required. Lithium batteries are not Table 1 materials and do not have special anyquantity placarding requirements. The standard Table 2 weight threshold applies.

17. C — Division 2.2 NonFlammable Gas at 1,500 pounds exceeds the 1,001pound Table 2 threshold, requiring NONFLAMMABLE GAS placards on all four sides. Class 8 Corrosive at 300 pounds does not independently reach the 1,001pound threshold. Each hazard class is evaluated separately against the threshold — one class exceeding it does not trigger placarding for another class that falls below it.

18. D — 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 of discovering the incident. This requirement applies regardless of the quantity released, whether injuries occurred, or whether the driver cleaned up the spill. The written report is mandatory for all unintentional releases.

19. B — The number "2.1" in Column 3 identifies the material as Division 2.1 Flammable Gas — a gas that forms a flammable mixture with air at a concentration of 13 percent or less by volume, or that has a flammable range with air of at least 12 percent. Common examples include propane, butane, hydrogen, and acetylene. Division 2.1 is a Table 2 material requiring placarding at 1,001 pounds or more.

20. A — The Poison Gas has been completely removed from the vehicle, and the vehicle is now carrying only 2,000 pounds of Class 3 Flammable Liquid, which exceeds the 1,001pound Table 2 threshold. Only FLAMMABLE placards are required for the current cargo. The previous POISON GAS placards should be removed since the material is no longer on board and no residue remains.

21. A — Packing Group I indicates the greatest degree of danger within a hazard class. PG I materials are the most toxic, most flammable, most corrosive, or most reactive in their category. They require the most stringent packaging, handling, and transportation controls. The Roman numeral ranking goes from most dangerous (I) to least dangerous (III).

22. C — A spill of Class 3 Flammable Liquid creates an immediate fire and vapor hazard. The driver's first priority is personal safety — moving away from the spill to a safe distance upwind. The driver should alert all persons in the area to the flammable vapor hazard and ensure the shipper contacts emergency services. Attempting to mop up a flammable liquid spill without proper equipment risks ignition and injury.

23. B — All four placards must be present, correct, and legible at all times during transport. A vandalized placard that is completely illegible fails the regulatory standard and must be replaced before the vehicle continues. Three placards do not satisfy the fourplacard requirement, and the driver cannot control vandalism but is responsible for correcting the deficiency before resuming transport.

24. D — The emergency response telephone number must connect to a person knowledgeable about the specific hazardous material being shipped, or to someone with immediate access to such a person. A 911 dispatch center provides general emergency response but does not have materialspecific technical knowledge about the hazardous cargo. The shipper must provide a dedicated 24hour number such as CHEMTREC or the shipper's own emergency response line.

25. A — The shipping papers are the most critical information source for emergency responders. They contain the proper shipping name, hazard class, identification number, packing group, quantity, and the emergency response telephone number — everything

responders need to identify the material and determine the appropriate response actions. Providing shipping papers to responders is the driver's most important contribution at an incident scene.

26. C — All four placards must be present, correct, and legible at all times. A damaged placard that is only partially legible does not meet the regulatory standard and must be replaced immediately. This is especially critical for Division 1.2 Explosives, where accurate hazard communication is essential due to the extreme danger the material presents.

27. D — Highlighting hazardous materials entries in a contrasting color is one of the accepted methods for distinguishing them from nonhazardous entries on the same shipping paper. Other accepted methods include listing HazMat entries first, placing an "X" in a designated column, or printing them in a different color. Any method that allows immediate identification is compliant.

28. A — The limited quantity exception allows certain hazardous materials in small perpackage quantities to be shipped with reduced regulatory requirements, including exemption from placarding and the HazMat endorsement requirement. However, the exception has strict quantity limits per package, requires the limited quantity marking, and does not eliminate all requirements — shipping papers and proper packaging are still required.

29. D — An icicle on a pressure relief valve's discharge port in cold weather suggests the valve has been weeping or venting a small amount of vapor, which condensed and froze in the cold air. This indicates the valve may not be seating properly and could be allowing a slow, continuous release. The driver should report this condition to the carrier for investigation before continuing.

30. B — Welding operations near a HazMat unloading area create sparks, heat, and open flame that could ignite flammable vapors, reactive materials, or combustible packaging. The driver should request that welding operations be suspended during unloading or that the unloading position be relocated to a safer distance from the welding activity. Safety takes precedence over delivery convenience.

31. D — A smooth bore tank with 2,000 gallons of empty space allows the entire 7,000gallon liquid mass to surge forward as a single unrestricted wave during braking. With no baffles to slow the movement, the full force of the liquid hits the front head of the tank, pushing the vehicle forward and extending the stopping distance well beyond the mechanical braking capacity of the vehicle.

32. B — A tire blowout on a loaded tank vehicle requires a calm, controlled response. The driver should gradually ease off the accelerator without sudden braking, grip the steering wheel firmly to maintain directional control, and carefully guide the vehicle to a safe stop on the shoulder. Sudden braking or sharp steering inputs can trigger liquid surge and loss of control.

33. C — MC 331 tanks are designed specifically for liquefied compressed gases under high pressure. They are not designed, constructed, or authorized for nonpressure liquids like diesel fuel. Diesel requires a DOT 406 tank designed for atmosphericpressure flammable liquids. Using the wrong tank specification for a product is a federal violation and creates safety risks from incompatible design parameters.

34. A — When roads suddenly become wet, tire traction drops significantly. The driver must reduce speed immediately and increase following distance because liquid surge forces remain unchanged on wet roads while the vehicle's ability to resist those forces through tire friction is dramatically reduced. The combination of unchanged surge and reduced traction creates a significantly longer stopping distance.

35. D — Loading compartments 1, 3, and 5 while leaving 2 and 4 empty creates an alternating loadedempty pattern that may produce uneven weight distribution across the axle groups. The weight concentrations at three nonadjacent points along the tank's length may overload certain axles while underloading others, potentially producing illegal axle weights and unpredictable handling characteristics.

36. B — The retraction spring is a convenience mechanism that automatically rewinds the cable after use. Its failure does not affect the cable's ability to conduct static electricity to ground or the clamp's ability to make contact with a grounding point. As long as the cable and clamp are in good working condition, the grounding system is functionally effective. The driver should manually coil and stow the cable after each use.

37. C — In a left curve, centrifugal force and liquid surge push the liquid to the outside of the turn — the right side. This shifts the center of gravity rightward and upward, causing the noticeable lean. Even at 10 mph below the advisory speed, the lean indicates significant lateral force. The driver should evaluate whether further speed reduction is needed based on the severity of the lean and the remaining curve distance.

38. A — When liquid drains from a sealed tank through a bottom discharge valve, the departing liquid creates a vacuum in the space it previously occupied. If the tank has no vent or if the vent is blocked, the vacuum pressure can equal or exceed the gravitational force driving the liquid out, stopping flow completely. Opening a vent or the pressurevacuum device on the manhole cover admits air and restores flow.

39. D — A highdensity liquid concentrates more weight in the same volume of tank space, raising the center of gravity higher than a lowerdensity liquid at the same fill level. During a turn, this higher concentration of mass shifting to the outside of the curve produces a greater overturning moment. Heavier liquids make rollover more likely at any given speed compared to lighter liquids in the same tank.

40. B — A tight 90degree turn requires the driver to reduce speed to a crawl before entering the turn, then steer gradually while maintaining a slow, steady speed through the turn. Braking during the turn adds forward surge to the lateral surge, increasing rollover risk. The baffles help with forwardbackward surge but do not prevent the sidetoside surge that is the primary rollover threat in tight turns.

41. B — MAWP (Maximum Allowable Working Pressure) is the highest internal pressure the tank is designed to withstand during normal operation. For a DOT 407 tank with a MAWP of 25 psi, the driver must ensure that internal pressure never exceeds 25 psi during loading, transport, or unloading. Operating above the MAWP risks structural failure of the tank shell, heads, or fittings.

42. A — A fire 250 feet from the cargo tank is within the 300foot minimum clearance distance required for placarded vehicles. The driver must immediately stop the unloading operation,

disconnect hoses, close all valves, and move the vehicle away from the fire if it can be done safely and quickly. If the vehicle cannot be moved, the driver should evacuate the area and notify emergency services.

43. D — The liquid has expanded due to thermal heating from solar radiation and rising ambient temperature throughout the day. All liquids expand when heated, and the rise in liquid level is the visible result of this expansion within the tank. This is the exact reason outage space is required during loading — to accommodate this predictable thermal expansion without overpressurizing the tank.

44. C — With complete brake failure, the driver should downshift progressively to use engine compression braking, which slows the vehicle through the resistance of the engine turning at high RPM in a lower gear. The parking brake can be applied gradually as a supplementary braking source. The driver should steer toward the safest available area — an open field, a flat runoff area, or an uphill grade that will help slow the vehicle.

45. A — Before pumping product into any receiving tank, the driver must verify that the tank has adequate capacity to accept the full delivery without overfilling. Overfilling a customer's heating oil tank causes a spill that contaminates the property, creates environmental damage, and generates significant cleanup costs. Verifying available capacity is a standard predelivery check for every tank vehicle operator.

46. D — The posted speed limit is the maximum legal speed, not a target or mandate. Tank vehicle drivers must consider their vehicle's high center of gravity, liquid surge characteristics, road conditions, weather, traffic, and load status when selecting an appropriate operating speed. A fully loaded tank vehicle may need to operate below the posted limit, particularly on curves, downgrades, and in adverse conditions.

47. B — A bulge in a product hose indicates that the hose wall has weakened at that point, and the internal pressure is pushing the weakened section outward. This is a precursor to hose rupture — if the bulge grows or the weakened area fails, the hose will burst, releasing product under pressure. The driver must stop the unloading operation immediately and replace the defective hose before resuming.

48. C — DOT 406 tanks are constructed of aluminum and designed for nonpressure petroleum products. Even "slightly corrosive" chemicals can attack aluminum, causing pitting, thinning, and eventual shell failure. The driver should verify that the cargo tank's specification and material of construction are compatible with the product being loaded. Corrosive chemicals typically require a DOT 407 or DOT 412 tank.

49. A — A strong gasoline odor in the cab while driving an "empty" gasoline tank suggests that residual vapors are escaping from the tank through a valve that is not fully closed, a compromised manhole gasket, or a deteriorated seal. The driver should stop in a safe location and inspect all valves, closures, and fittings. Residual gasoline vapor in an empty tank can be within the flammable concentration range.

50. D — Liquid surge occurs at any speed — including very low speeds in parking lots. During stops, starts, and turns at 5 mph, the partially loaded tank's liquid still shifts in response to every speed and direction change. At 60 percent capacity, the liquid has significant room to move.

The driver should brake gently, steer smoothly, and avoid abrupt inputs that could rock the partially loaded tank.