

PRACTICE EXAM 5 SIMULATION

1. A customer calls describing a noise and "thinks" they need a belt. Before quoting anything, the specialist's first step should be to:

- A. Ask when the noise occurs and what else has changed to define the real need
- B. Quote the least expensive belt to move the call along
- C. Ship a belt and a tensioner together without asking
- D. Tell the customer to bring the truck in for a full inspection first

2. A walk-in sets a worn part on the counter and a phone customer waits on hold for the same kind of part. The best handling is to:

- A. Inspect and identify the counter customer's physical part, then return to the call
- B. Ignore the counter customer until the call is fully complete
- C. Guess both parts from memory to save time
- D. Tell both customers to call back later

3. Midway through taking a five-line phone order, the specialist loses track of one quantity. The best next step is to:

- A. Guess the quantity to keep the order moving
- B. Fill the lines that are clear and drop the uncertain one
- C. Ask the customer to restate that line and read the full order back
- D. Round the quantity up to the nearest case

4. A customer is angry about a wrong part on a down truck. After listening fully, the specialist's most effective next step is to:

- A. Explain the company's return policy in detail
- B. Quote the price of the correct part immediately
- C. Point out that the customer gave incomplete information
- D. Acknowledge the impact and move to identify the correct part fast

5. A specialist promises to call when a special order arrives but the part is delayed two days. The best action is to:

- A. Wait silently until the part finally arrives
- B. Cancel the order to avoid the awkward call
- C. Resell the incoming part to a walk-in
- D. Call the customer proactively with an honest updated timeline

6. A customer gives a vague request but the one missing detail is the axle position. The most efficient next step is to:

- A. Ask a focused closed-ended question to confirm the axle
- B. Begin a broad open-ended discussion of the truck's history
- C. Assume the most common axle and proceed
- D. Quote every axle option and let them choose

7. A request cannot be filled from stock. To both serve the customer and aid stocking, the specialist should:

- A. Record the lost sale and offer to source or locate the part
- B. Tell the customer the part is unavailable and end the call
- C. Delete the request from the system
- D. Charge a search fee before looking further

8. A customer buying brake shoes mentions the drums "looked scored." The most appropriate next step is to:

- A. Sell only the shoes as requested
- B. Refuse the sale until the truck is inspected
- C. Discuss drums, hardware kits, and wheel seals for the complete job
- D. Recommend a full air-system overhaul

9. A fleet buyer hesitates on a premium part's price. The best response connects the price to:

- A. The store's monthly sales target
- B. The fact that premium parts are simply marked up
- C. Reduced downtime and fewer failures over the fleet's mileage
- D. The buyer's obligation to buy the best part

10. A customer questions a core charge added at checkout. The clearest first explanation is that the core charge is:

- A. A refundable deposit returned when the old unit comes back
- B. A non-refundable remanufacturing fee
- C. A government tax on rebuilt parts
- D. A penalty for choosing reman over new

11. A budget-focused customer with a rebuildable old unit asks for the lowest reasonable cost. The best-matched option is:

- A. The most expensive OE part
- B. A salvage part of unknown condition
- C. Refusing to offer any alternative

D. A remanufactured unit with a core charge

12. A customer ordering a clutch disc is most completely served when the specialist also addresses the:

A. Cabin air filter and blower motor

B. Front leaf springs and shackles

C. Pressure plate, release bearing, and pilot bearing

D. Radiator and thermostat

13. A customer's truck runs a severe vocational duty cycle. When two friction grades are available, the best recommendation is the:

A. Severe-service grade rated for the heat and load

B. Economy grade to lower the price

C. Light-duty passenger-style lining

D. Whichever grade is overstocked

14. A customer wants a premium alternator for a light-duty truck they plan to sell within months. The honest response is to:

A. Insist on the premium unit regardless of use

B. Explain a standard unit suits the use and avoid overselling

C. Refuse to sell anything but the premium part

D. Add several unneeded accessories to the order

15. A customer asks the difference between OE and OES parts. The accurate explanation is that OES parts are:

A. Made by the OE supplier but sold under the supplier's brand

- B. Always salvaged used components
- C. Lower quality economy parts in every case
- D. Identical to OE parts in both brand and price

16. A customer mentions they make many trips across town for parts. The most genuinely helpful service to promote is:

- A. A premium part they do not need
- B. A longer warranty on an unrelated item
- C. An extended-hours policy with no benefit to them
- D. The operation's delivery service to their shop

17. A medium-duty truck's brake complaint references "brake fluid" and a "wheel cylinder." The specialist's first conclusion should be that the truck has:

- A. An air brake system with spring chambers
- B. A hydraulic (or air-over-hydraulic) brake system
- C. A walking-beam suspension fault
- D. A turbocharger oil leak

18. A customer requests "pads" for a tractor that runs S-cam drum brakes. The best next step is to:

- A. Sell disc pads since terms are interchangeable
- B. Refuse the sale because the truck is old
- C. Clarify the brake type and supply the correct shoes and linings
- D. Order pads and let the technician adapt

19. A parked truck loses all air pressure. The specialist should expect that:

- A. The brakes release and the truck can roll
- B. The spring brakes apply automatically as the springs are released
- C. A hydraulic backup holds the truck
- D. Nothing changes until the engine restarts

20. A long-wheelbase truck's rear brakes apply later than the fronts. The component most likely responsible for correcting this is the:

- A. Master cylinder reservoir
- B. Relay valve near the rear chambers
- C. Cabin blend door
- D. Alternator regulator

21. A customer reports an ABS light but normal stopping. The most probable parts involved are:

- A. Wheel speed sensors, tone rings, or a modulator valve
- B. The master cylinder and brake fluid
- C. The clutch disc and pressure plate
- D. The water pump and thermostat

22. A truck's compressor never cuts out and over-pressurizes the system. The component that should control this is the:

- A. Relay valve
- B. Quick-release valve
- C. Governor
- D. Treadle valve

23. A customer wants to take apart a spring brake chamber to "save money." The first thing the specialist should convey is that:

- A. The chamber must be filled with brake fluid first
- B. The stored spring force makes disassembly hazardous
- C. Disassembly increases the chamber's air capacity
- D. The spring section only adds service braking

24. A truck's air system shows moisture damaging the valves. The maintenance part that protects against this is the:

- A. Master cylinder
- B. Tractor protection valve
- C. Quick-release valve
- D. Air dryer cartridge

25. A drum brake reliner is being quoted. The component that multiplies pushrod force and takes up wear is the:

- A. Treadle valve
- B. Double check valve
- C. Governor
- D. Slack adjuster

26. A truck repeatedly kills its batteries even after replacement. The most probable overlooked cause is:

- A. A clogged diesel particulate filter
- B. A weak alternator or corroded cables
- C. A worn front brake lining

D. A misadjusted front-end alignment

27. A blower fan works only on its highest speed. The most likely failed part is the:

A. A/C compressor

B. Blower motor resistor or speed control module

C. Cabin air filter

D. Heater core

28. A truck gives a single click and will not crank. The most probable cause is:

A. A worn brake lining

B. A clogged cabin air filter

C. A leaking charge-air boot

D. A dead battery or failed starter solenoid

29. A customer says a circuit's fuse "keeps blowing" and asks for a bigger one. The correct first response is to:

A. Supply the correct-rated fuse and explain the blowing signals a fault

B. Sell a fuse of double the amperage

C. Recommend a solid jumper in place of the fuse

D. State the circuit no longer needs protection

30. A customer needs repair wire for a heavy-gauge circuit. The specialist should select wire that:

A. Is the thinnest available for easy routing

B. Is uninsulated to shed heat

C. Matches or exceeds the original gauge for the load

D. Is any gauge, regardless of the load

31. When the key is turned, the starter solenoid's two simultaneous actions are to:

- A. Charge the battery and regulate voltage
- B. Engage the drive into the ring gear and close the high-current circuit
- C. Cool the intake air and meter fuel
- D. Apply the brakes and release the clutch

32. A truck cranks slowly in cold weather. The specialist's first diagnostic consideration should be:

- A. Selling a higher-output alternator
- B. Replacing the starter without testing
- C. Installing brighter headlights
- D. The batteries' state of charge and the condition of the cables

33. A customer with an AMT-equipped tractor needs clutch parts. The first thing to confirm is that an AMT:

- A. Uses a torque converter and has no clutch
- B. Still has a wearing friction clutch despite no clutch pedal
- C. Cannot have its clutch serviced
- D. Requires double-clutching on every shift

34. A driveline vibration worsens with speed and clunks on acceleration. The most probable worn component is the:

- A. Heater core
- B. Cabin air filter

- C. Universal joint
- D. Power steering reservoir

35. A customer requests service involving a "torque converter." The specialist concludes the truck has:

- A. A manual transmission with a friction clutch
- B. An automated manual with a clutch pedal
- C. A fully automatic transmission
- D. No transmission gearing

36. A tandem-drive truck whines and leaks at the rear. The best next step is to discuss:

- A. The cabin air filter and blower motor
- B. The front leaf springs and shackles
- C. The air conditioning condenser
- D. The pinion seal, pinion bearings, and possibly the power divider

37. Before quoting differential parts for a tandem truck, the specialist must first confirm the ratio from the:

- A. Truck's exterior paint code
- B. Customer's verbal estimate alone
- C. Differential or axle housing tag
- D. Cab interior trim level

38. A vocational operator wants the most startability under heavy loads. The correct gearing choice is a:

- A. Numerically lower ratio for highway economy
- B. Non-drive axle conversion

- C. Numerically higher axle ratio
- D. Ratio that does not match the other drive axle

39. A customer is replacing a carrier in one axle of a tandem. The critical requirement is that the new ratio:

- A. Matches the opposite drive axle exactly
- B. Is numerically higher than the other axle
- C. Is numerically lower than the other axle
- D. Has no relation to the other axle

40. A heavy clutch repeatedly fails early on a high-torque engine. The most probable cause is that the clutch is:

- A. Painted the wrong color
- B. Matched to the wrong HVAC setting
- C. Underrated for the engine's torque output
- D. Geared to the wrong axle ratio

41. A tractor on air suspension sits low and uneven at one corner. The most probable cause is a faulty:

- A. Power divider
- B. Height control (leveling) valve
- C. Slack adjuster
- D. Pitman arm

42. A vocational tandem "walks" over rough ground on a pivoting beam. The specialist identifies this as a:

- A. Pure air-bag suspension
- B. Walking-beam suspension
- C. MacPherson strut suspension
- D. Coil-spring suspension

43. A truck shows steering looseness and wander. The first high-wear linkage part to suspect is the:

- A. Tie rod ends
- B. Radiator cap
- C. Oil filter
- D. Brake drum

44. A truck wanders with uneven front tire wear and the linkage checks tight. The next component to consider is the:

- A. Cabin air filter
- B. Transmission torque converter
- C. Exhaust muffler
- D. Kingpins and their bushings

45. A customer's steer tires are wearing rapidly and unevenly. The most probable alignment cause is incorrect:

- A. Caster, set at the steering column
- B. Toe, adjusted through the tie rod
- C. Camber, set at the alternator
- D. Ride height, set at the muffler

46. A kingpin set fitted to a specific axle includes pins, bushings, thrust bearings, and:

- A. A blower motor resistor
- B. A DEF injector
- C. A radiator cap
- D. Seals

47. A clunk and wander on an air-suspension tractor suggests checking, beyond tie rod ends:

- A. The fuel injectors and common rail
- B. The DPF and SCR catalyst
- C. The clutch brake and pilot bearing
- D. Trailing-arm bushings and ride height

48. A customer reports a sweet smell, foggy windshield, and coolant loss. The most probable failed part is the:

- A. Evaporator
- B. Condenser
- C. Heater core
- D. Expansion valve

49. A customer buying an A/C compressor should, whenever the system is opened, also receive the:

- A. Front leaf spring
- B. Clutch disc
- C. Brake drum
- D. Receiver-drier with correct refrigerant and oil

50. A newer truck uses neither R-12 nor R-134a. The refrigerant it most likely uses is:

- A. R-22 household refrigerant
- B. R-1234yf
- C. Engine coolant
- D. Diesel exhaust fluid

51. A truck has no airflow from the vents in any mode. The first component to suspect, common to all modes, is the:

- A. A/C compressor clutch
- B. Blower motor
- C. Expansion valve
- D. Heater control valve

52. A customer needs the part that cools and dehumidifies cab air inside the HVAC case. This is the:

- A. Heater core
- B. Condenser at the front
- C. Power steering reservoir
- D. Evaporator

53. A customer with a diesel asks for spark plugs. The first thing the specialist should explain is that a diesel:

- A. Uses one spark plug per two cylinders
- B. Ignites fuel by compression and has no spark plugs
- C. Fires spark plugs only on cold starts
- D. Shares spark plugs with the A/C system

54. A customer plans to rebuild the engine without removing it from the chassis. The correct package to recommend is the:

- A. Inframe overhaul kit
- B. Exhaust aftertreatment assembly
- C. HVAC service kit
- D. Brake reline kit

55. A diesel's injectors failed after contaminated fuel. The first companion part the specialist should raise is the:

- A. Cabin air filter
- B. Brake air dryer cartridge
- C. Fuel filter and water separator
- D. Power steering filter

56. A truck shows low power and black smoke and the owner suspects the turbo. The cheaper cause to check first is a:

- A. Worn brake lining
- B. Failed wheel speed sensor
- C. Split charge-air boot leaking boost
- D. Discharged battery

57. A customer asks why the charge-air cooler matters. The accurate explanation is that cooling the compressed air:

- A. Raises its density for better combustion
- B. Filters soot from the exhaust
- C. Stores DEF for the SCR system

D. Lubricates the turbo bearing

58. A customer servicing the cooling system is most completely served with:

A. The water pump, thermostat, coolant, hoses, and coolant filter

B. A clutch kit and flywheel

C. Tie rod ends and kingpins

D. The DPF and SCR catalyst

59. A customer requests "diesel oil" for an emissions-equipped engine. The specialist must first confirm the specification because the wrong oil can:

A. Raise the cold cranking amps

B. Improve A/C performance

C. Change the axle ratio

D. Damage the diesel particulate filter

60. A customer needs the fluid the SCR system consumes to reduce NO_x. This is:

A. Engine coolant

B. Diesel Exhaust Fluid (DEF)

C. Power steering fluid

D. R-134a refrigerant

61. A customer asks which emissions part traps soot and burns it off. The specialist identifies the:

A. Diesel particulate filter (DPF)

B. Diesel oxidation catalyst

C. EGR cooler

D. SCR catalyst

62. A replacement turbo failed again within weeks. The most probable unaddressed root cause involves the:

- A. Front brake friction material
- B. Cabin air filter element
- C. Oil supply or charge-air system feeding the turbo
- D. Steering tie rod ends

63. A customer asks what the EGR system accomplishes. The accurate answer is that it:

- A. Generates the spark to ignite the fuel
- B. Stores air for the parking brakes
- C. Recirculates exhaust to lower combustion temperature and NO_x
- D. Converts hydraulic pressure into braking

64. A shop buys 10 belts at \$6 and 10 at \$8, then sells 10 under FIFO. The cost of goods sold per unit for those 10 is:

- A. \$6 (the oldest cost)
- B. \$8 (the newest cost)
- C. \$7 (the average)
- D. The lowest cost recorded

65. A part sells 6 units per week with a 2-week lead time. The reorder point must cover lead-time demand of at least:

- A. 6 units plus safety stock

- B. 2 units plus safety stock
- C. 3 units plus safety stock
- D. 12 units plus safety stock

66. A department fills 270 of 300 requested lines from stock. Its fill rate is:

- A. 100%
- B. 30%
- C. 70%
- D. 90%

67. A manager wants to keep the perpetual system accurate without an annual shutdown. The best method is:

- A. Cycle counting a rotating portion of inventory
- B. Ignoring discrepancies until year-end
- C. Counting only on customer disputes
- D. Removing the perpetual system

68. A cycle count finds 48 units where the system shows 50. The 2-unit difference is recorded as:

- A. A supersession
- B. A core credit
- C. An economic order quantity
- D. Inventory shrinkage

69. A shop buys 10 pumps at \$90 and 10 at \$110, then sells 10 under LIFO. The cost of goods sold per unit is:

- A. \$90 (the oldest cost)
- B. \$110 (the newest cost)
- C. \$100 (the average)
- D. The lowest cost recorded

70. Returned cores sit unshipped past the supplier's return window. The specialist should recognize these as:

- A. Scrap with no remaining value
- B. Lost credit, since unreturned cores forfeit their value
- C. Personal property of the counter staff
- D. Proof of a fraudulent sale

Answer Key & Explanations

1. A — Ask when the noise occurs and what else has changed to define the real need. An open-ended question surfaces the symptom and context before any part is quoted, which may reveal a tensioner or accessory issue alongside the belt. Defining the need first prevents a single-part guess.

2. A — Inspect and identify the counter customer's physical part, then return to the call. A physical part on the counter is the richest identification channel, so handling it efficiently while the call holds serves both. Inspection beats guessing.

3. C — Ask the customer to restate that line and read the full order back. Confirming the uncertain line and reading the whole order back catches the gap before it becomes an error. Guessing or dropping a line risks a wrong order.

4. D — Acknowledge the impact and move to identify the correct part fast. After listening, the down-truck customer values a fast fix most, so acknowledging and identifying the correct part comes next. Blame and policy lectures escalate rather than resolve.

5. D — Call the customer proactively with an honest updated timeline. Proactive, honest communication on a delay preserves trust, since doing what you said you would matters most. Silence or canceling damages the relationship.

6. A — Ask a focused closed-ended question to confirm the axle. With one specific detail missing, a targeted closed question drives to the single answer efficiently. Broad discussion or assumptions waste time or risk error.

7. A — Record the lost sale and offer to source or locate the part. Recording the lost sale captures unmet demand for stocking while offering to source it serves the customer. Both actions add value where ending the call does not.

8. C — Discuss drums, hardware kits, and wheel seals for the complete job. Scored drums plus the hardware and seals exposed during a reline complete the job and prevent a callback. Selling only shoes leaves the repair incomplete.

9. C — Reduced downtime and fewer failures over the fleet's mileage. Connecting the premium part to uptime and fewer failures reframes price as value for a fleet. The benefit, not the markup, justifies the cost.

10. A — A refundable deposit returned when the old unit comes back. The core charge is a deposit refunded on return of the rebuildable core, not a fee or tax. Explaining this resolves the customer's confusion.

11. D — A remanufactured unit with a core charge. A reman unit matches the budget-focused customer with a rebuildable core, delivering savings with reliable performance. It fits the priority better than OE, salvage, or refusing alternatives.

12. C — Pressure plate, release bearing, and pilot bearing. A clutch job replaces the disc together with the pressure plate, release bearing, and pilot bearing, which wear as a set. The other options belong to unrelated systems.

13. A — Severe-service grade rated for the heat and load. Severe vocational duty demands friction rated for its heat and load, so the severe-service grade is correct. Economy and passenger grades cannot handle it.

14. B — Explain a standard unit suits the use and avoid overselling. A light-duty truck the customer will soon sell does not warrant the premium part, so honest guidance avoids overselling. Matching the part to the actual use serves the customer.

15. A — Made by the OE supplier but sold under the supplier's brand. OES parts come from the same supplier that makes the OE part, branded by the supplier, with comparable quality at lower cost. They are neither salvage nor economy grade.

16. D — The operation's delivery service to their shop. A customer making many parts trips benefits genuinely from delivery, making it valuable service promotion. The other options serve the sale rather than the customer.

17. B — A hydraulic (or air-over-hydraulic) brake system. "Brake fluid" and a "wheel cylinder" are hydraulic-system terms, signaling the medium-duty truck is not on pure air brakes. Identifying the system type guides the right parts.

18. C — Clarify the brake type and supply the correct shoes and linings. "Pads" are disc parts, but the tractor runs S-cam drums, so the specialist clarifies and supplies shoes and linings. Confirming the type prevents a wrong part.

19. B — The spring brakes apply automatically as the springs are released. Losing all air releases the springs, which apply the brakes — the fail-safe design. Air loss applies, not releases, braking.

20. B — Relay valve near the rear chambers. The relay valve supplies the rear chambers promptly on signal, cutting the lag of air traveling the truck's length. It exists specifically to reduce brake lag.

21. A — Wheel speed sensors, tone rings, or a modulator valve. An ABS light with normal braking points to the ABS electronic layer, not the foundation brakes. Sensors, tone rings, and modulators are the likely parts.

22. C — Governor. The governor controls the compressor's cut-in and cut-out pressures; a fault can leave the system over-pressurized. The other valves serve application and release roles.

23. B — The stored spring force makes disassembly hazardous. A spring brake chamber holds tremendous spring force and must be caged before any service, so it is replaced as a sealed unit. The specialist should warn against taking one apart.

24. D — Air dryer cartridge. The air dryer cartridge removes moisture and oil to protect downstream valves. A failed dryer leads to the valve damage described.

25. D — Slack adjuster. The slack adjuster multiplies the chamber pushrod force and takes up lining wear via the S-camshaft. Automatic versions do this continuously.

26. B — A weak alternator or corroded cables. Repeatedly killed batteries, even after replacement, point to a weak alternator or corroded cables in the charging loop. Addressing the loop prevents the new batteries dying the same way.

27. B — Blower motor resistor or speed control module. Losing all but the highest fan speed is the classic failed-resistor symptom; the motor still runs. The resistor or speed control is the likely part.

28. D — A dead battery or failed starter solenoid. A single click with no crank typically means insufficient battery power or a solenoid that cannot close the high-current circuit. Slow cranking would instead point to batteries or cables.

29. A — Supply the correct-rated fuse and explain the blowing signals a fault. A repeatedly blowing fuse indicates an underlying fault, so the correct-rated fuse plus a diagnosis note is right. Upsizing or bypassing defeats the protection.

30. C — Matches or exceeds the original gauge for the load. Repair wire must carry at least the circuit's current, so it must match or exceed the original gauge. Undersized wire overheats.

31. B — Engage the drive into the ring gear and close the high-current circuit. The solenoid pushes the starter drive into the flywheel ring gear and closes the heavy-current path simultaneously. It performs both actions at once.

32. D — The batteries' state of charge and the condition of the cables. Slow cold cranking usually traces to weak batteries or corroded cables, so these are checked first. This avoids an unnecessary starter sale and return.

33. B — Still has a wearing friction clutch despite no clutch pedal. An AMT is a manual gearbox with automated actuators retaining a friction clutch, so clutch parts apply. It is not a torque-converter automatic.

34. C — Universal joint. A speed-related vibration with a clunk on acceleration is a classic worn-U-joint symptom. U-joints flex constantly and are a top driveline wear part.

35. C — A fully automatic transmission. The torque converter is the defining component of a true automatic. Its mention identifies the transmission type.

36. D — The pinion seal, pinion bearings, and possibly the power divider. A whine and leak at the rear differential point to the pinion seal and bearings, and on a tandem the power divider may be involved. The configuration shapes the parts.

37. C — Differential or axle housing tag. The axle tag lists the make, model, and ratio, the authoritative source since axles are sometimes re-gearred. Paint and guesses are unreliable.

38. C — Numerically higher axle ratio. A higher numeric ratio multiplies torque more for the startability a loaded vocational truck needs. Lower ratios favor highway economy.

39. A — Matches the opposite drive axle exactly. Both drive axles on a tandem must share the same ratio, or they fight each other and cause damage. The new carrier's ratio must match.

40. C — Underrated for the engine's torque output. A clutch that repeatedly fails early on a high-torque engine is likely underrated for that torque. Matching the clutch to engine torque prevents early failure.

41. B — Height control (leveling) valve. The leveling valve maintains ride height by adding or releasing air; a fault leaves a corner low. It is the logical suspect for an uneven, low-sitting air suspension.

42. B — Walking-beam suspension. A pivoting beam that keeps both tandem axles in contact over rough ground defines the walking-beam design. Strut and coil designs are not used this way on heavy trucks.

43. A — Tie rod ends. Tie rod ends are the highest-wear linkage part, and their wear produces looseness and wander. They are the first suspect for those symptoms.

44. D — Kingpins and their bushings. Wander with uneven front tire wear, when the linkage is tight, points to worn kingpins and bushings at the steer wheel ends. They are sold as sets fitted to the axle.

45. B — Toe, adjusted through the tie rod. Incorrect toe scrubs the tires and is the leading alignment cause of rapid uneven wear, set through the tie rod. This links worn tie rod ends to tire wear.

46. D — Seals. A kingpin set fitted to the axle includes pins, bushings, thrust bearings, and seals. The other listed items belong to unrelated systems.

47. D — Trailing-arm bushings and ride height. A clunk and wander on an air-suspension tractor, beyond tie rod ends, commonly involve worn trailing-arm bushings and ride height. These wear parts go together.

48. C — Heater core. A sweet smell, fogged windshield, and coolant loss are classic signs of a leaking heater core, which carries engine coolant inside the case. It links HVAC to the cooling system.

49. D — Receiver-drier with correct refrigerant and oil. Opening the refrigerant system compromises the drier's desiccant, so it must be replaced with fresh refrigerant and oil. Selling the compressor alone is incomplete.

50. B — R-1234yf. R-1234yf is the newest refrigerant, succeeding R-12 and R-134a. The progression runs R-12 → R-134a → R-1234yf.

51. B — Blower motor. The blower moves cab air in every mode, so its failure kills all airflow regardless of setting. It is the first shared component to suspect.

52. D — Evaporator. Inside the HVAC case the evaporator cools and dehumidifies the cab air. The heater core warms; the condenser sits at the front.

53. B — Ignites fuel by compression and has no spark plugs. Diesels use compression ignition, so they have no spark plugs. Glow plugs only aid cold starting.

54. A — Inframe overhaul kit. The inframe kit bundles liners, pistons, rings, bearings, and gaskets to rebuild the engine without removing it from the chassis. It is the correct package for an in-chassis rebuild.

55. C — Fuel filter and water separator. Contaminated fuel destroys injectors, so the fuel filter and water separator are the companion parts when injection components fail. Dirty fuel is what killed the old injectors.

56. C — Split charge-air boot leaking boost. A leaking charge-air boot is a far cheaper cause of low power and smoke than the turbo itself. Checking it first can save an unnecessary turbocharger.

57. A — Raises its density for better combustion. Compressing air heats it and lowers density; the charge-air cooler restores density for better combustion. Denser intake air supports more efficient power.

58. A — The water pump, thermostat, coolant, hoses, and coolant filter. A complete cooling service bundles the pump, thermostat, coolant, hoses, and coolant filter, which are serviced together. This anticipates the full job.

59. D — Damage the diesel particulate filter. Emissions diesels require low-ash oil; the wrong oil can harm the DPF. Matching the specification protects engine and aftertreatment.

60. B — Diesel Exhaust Fluid (DEF). DEF is the consumable the SCR injects to reduce NOx into nitrogen and water. It is consumed continuously.

61. A — Diesel particulate filter (DPF). The DPF traps soot and periodically regenerates by burning it off. The DOC oxidizes pollutants and the SCR reduces NO_x — different jobs.

62. C — Oil supply or charge-air system feeding the turbo. A repeat turbo failure usually means the root cause was never addressed, commonly an oil-supply or charge-air problem. Fixing the cause prevents another failure.

63. C — Recirculates exhaust to lower combustion temperature and NO_x. EGR routes some exhaust back to the intake, lowering peak combustion temperature and the NO_x formed. It works with the DPF and SCR.

64. A — \$6 (the oldest cost). Under FIFO the first units in are sold first, so the 10 sold are the oldest \$6 units. Cost of goods sold reflects the oldest cost.

65. D — 12 units plus safety stock. At 6 units per week over a 2-week lead time, demand during replenishment is 12 units, plus safety stock. The reorder point must cover lead-time demand.

66. D — 90%. Filling 270 of 300 lines is $270 \div 300 = 0.90$, or a 90% fill rate. Fill rate measures the share of demand met from stock.

67. A — Cycle counting a rotating portion of inventory. Cycle counting verifies a subset of stock on a rotating schedule, keeping perpetual records accurate without a full shutdown. It surfaces errors and shrinkage continuously.

68. D — Inventory shrinkage. A shortfall between the physical count (48) and the system (50) is shrinkage from loss or error. Cycle counts surface it for investigation.

69. B — \$110 (the newest cost). Under LIFO the most recently purchased units are sold first, so the 10 sold are the \$110 newest units. The \$90 units remain in ending inventory.

70. B — Lost credit, since unreturned cores forfeit their value. Cores must be returned within the program window to recover their credit; missing it forfeits the value. Unreturned cores are lost money.