

Prepare yourself for ASE testing with these questions on AUTO MAINTENANCE AND LIGHT REPAIR

NOTE: The following questions are written in the ASE style, and are similar to the kinds of questions you will see on the ASE test. None of these questions, however, will actually appear on the test.

1. Technician A says that when pressure testing a radiator cap, a special adapter is needed. Technician B says the best way to check thermostat operation is while it is in the engine. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

2. A technician is checking resistance in an engine's spark plug wires using an ohmmeter. A general rule is to replace a wire if resistance is over:

- A. 50,000 ohms
- B. 30,000 ohms
- C. 35,000 ohms
- D. 25,000 ohms

3. Technician A says that in an ignition system, the voltage supplied to the coil during starting is battery voltage. Technician B says the coil uses electromagnetic induction to create high voltage. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

4. A Front Wheel Drive (FWD) vehicle with an automatic transaxle has excessive vibration. Technician A says that the vibration could be caused by worn engine/transaxle mounts. Technician B says that the vibration could be caused by a misaligned engine/transaxle subframe. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

5. A technician suspects that a faulty camshaft sensor causes a driveability complaint. The sensor is equipped with a three-wire connector. What type of sensor is this?

- A. a Hall effect type
- B. a magnetic reluctance type
- C. an inductive resistance type
- D. none of the above

6. All of the following can cause a problem in the Hydro-boost system EXCEPT:

- A. loose power steering pump belt
- B. leaking power steering hoses
- C. low power steering pump pressure
- D. leaking check valve

7. Technician A says that if a wire is getting too hot, it's a sign of higher-than-normal current flowing through. Technician B says the wire would heat up if some of the individual strands are broken inside the wire insulation. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

8. Technician A says electrical connectors can be disconnected with the ignition switch ON, as long as the technician is using a ground strap. Technician B says when welding on a vehicle, the technician needs to use a static wrist strap. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

9. Technician A says the thermostat maintains maximum engine operating temperature. Technician B says if the engine continuously runs hot, install a cooler thermostat. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

10. A vehicle equipped with a MacPherson strut suspension is in the repair shop for new tires and an alignment. The technician noticed that the vehicle has some play in the left-side inner tie-rod. What should the technician tell the customer?

- A. It is not a problem that will affect alignment.
- B. He can align the front end, but the tie-rod should be replaced soon.
- C. The inner tie-rod needs to be replaced before an alignment can be performed.
- D. He can set the vehicle alignment to compensate for the play in the inner tie-rod.

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11. An engine is losing coolant, yet has no external leaks. Technician A says to run the engine and see if there is white smoke out of the exhaust. Technician B says to find out if the engine's emission system uses a catalytic converter before running the test above. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
12. LED bulbs can remain effective for up to how long depending on the size of the bulb and the conditions to which the bulb is exposed?
- A. 1,000 hours
 - B. 200-15000 hours
 - C. 100,000 hours
 - D. 50,000 hours
13. All of the following should be performed during a preliminary transmission inspection EXCEPT:
- A. check transmission fluid level
 - B. visually check wiring and electrical connections
 - C. check the condition of the filter
 - D. check for fluid leaks
14. A smearable film on the windshield is an indication of:
- A. evaporator core leak
 - B. water valve leak
 - C. heater core leak
 - D. restricted drain hose
15. Technician A says that all power should be removed from a circuit before testing the circuit with an ammeter. Technician B says that all power should be removed from a circuit before testing the circuit with an ohmmeter. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
16. A Rear Wheel Drive (RWD) vehicle with a one-piece driveshaft has excessive driveshaft vibration during low speed acceleration. Which of the following is the MOST likely cause?
- A. binding U-joints
 - B. excessive driveshaft runout
 - C. driveshaft out of balance
 - D. improper driveshaft angle
17. When replacing an integral hub/bearing assembly on a Front Wheel Drive (FWD) vehicle, all of the following must be removed EXCEPT:
- A. brake rotor
 - B. brake caliper
 - C. steering knuckle
 - D. wheel
18. The warning light on a vehicle with an anti-lock brake system lights when the vehicle is started. When the vehicle is moving, the light stays on. Which of the following could be the cause?
- A. misadjusted wheel sensor
 - B. bad air release solenoid
 - C. blown fail-safe monitor fuse
 - D. bad warning light relay
19. The driver of a vehicle with hydraulic brakes says the brake pedal is extremely hard when stopping. Technician A says the problem could be in the power assist system. Technician B says the problem is most likely a weak or broken brake shoe return spring. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
20. Technician A says that DOT 3 brake fluid has a higher boiling point than DOT 4 brake fluid. Technician B says that DOT 5 brake fluid should not be used in a vehicle with ABS. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
21. Technician A says Diesel Exhaust Fluid (DEF) has no affect on vehicle performance. Technician B says a high-rate battery discharge test is the same as a load test. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
22. All of the following are procedures for removing air from a hydraulic system EXCEPT:
- A. bench bleeding
 - B. power bleeding
 - C. manual bleeding
 - D. vacuum bleeding

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23. A vehicle is leaking hydraulic fluid from a brake line. Technician A says a short splice can be used to repair the line. Technician B says if the line has not drained the master cylinder, the system does not need to be bled. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
24. A vehicle with hydraulic brakes has been diagnosed with contaminated brake fluid. Of the following, what would be the proper procedure in the repair process?
- A. Repair the system and manually bleed with fresh brake fluid.
 - B. Repair the system and flush with fresh brake fluid.
 - C. Repair the system and top-off with fresh brake fluid.
 - D. None of the above.
25. Technician A says the pressure differential switch activates a light on the dash warning the driver of a brake fluid pressure loss. Technician B says the combination valve activates a light on the dash warning the driver of a brake fluid pressure loss. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
26. All of these could cause tire wear if not within manufacturer's specification EXCEPT:
- A. caster
 - B. wheel balance
 - C. toe-in
 - D. camber
27. The ball joints on a MacPherson strut suspension are being replaced. Technician A says that the coil spring compressor should be installed before separating the control arm and spindle. Technician B says that the wheel alignment should be checked after the ball joints have been replaced. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
28. Technician A says that a vehicle with a TPMS can be identified by looking for a TPMS indicator on the instrument panel during the Key On Engine Off bulb check. Technician B says that all vehicles with TPMS have metal tire valve stems and this feature can be the identifier. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
29. A vehicle suspension system is being checked for radial and axial tolerances. Technician A says the ball joints should be checked. Technician B says the idler arm should be checked. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
30. A vehicle has a noise coming from the power steering pump. Technician A says that a loose belt could be the cause. Technician B says that air in the system could be the cause. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
31. Technician A says maintenance-free batteries have a built-in hydrometer can give you an indication of the battery's overall condition. Technician B says since a maintenance-free battery is sealed, it should be checked using a test light. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B
32. Technician A says that lubricant can be used to help seat a tire on a wheel rim. Technician B says that if necessary, it is OK to exceed the maximum tire pressure rating to seat the bead, as long as the pressure is reduced immediately afterward. Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both A and B
 - D. Neither A or B

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33. Technician A says that all vehicles with strut-type front suspension require that the strut is removed to replace the front coil springs. Technician B says that the coil spring should be compressed before removal from an SLA front suspension. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

34. Which of the following causes for ball joint replacement could also require steering knuckle replacement?

- A. torn dust boot
- B. worn ball and socket
- C. wear indicator below surface
- D. broken ball stud

35. All of the following are true statements regarding tapered wheel bearings EXCEPT:

- A. The bearings and outer races must be replaced as an assembly.
- B. They must be adjusted after installation.
- C. Used bearings must be reinstalled on their original races.
- D. They are mostly used on drive axles.

36. Technician A says an indirect measurement Tire Pressure Monitoring System (TPMS) uses wheel speed sensors to measure tire pressure. Technician B says a direct measurement TPMS uses tire pressure sensor to measure tire pressure. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

37. Tire cupping is MOST likely caused by which of the following?

- A. worn shock absorbers
- B. wheel imbalance
- C. loose tie-rod ends
- D. all of the above

38. Technician A says a noisy alternator could be caused by a bad diode. Technician B says a noisy alternator could be caused by a worn bearing.

Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

39. Which setting on a digital multimeter is used to check resistance?

- A. millivolt
- B. milliamp
- C. ohms
- D. voltage

40. Voltage drop tests are used to locate:

- A. low resistance
- B. shorts
- C. opens
- D. high resistance

41. When testing computer-controlled systems, a Digital Multimeter (DMM) should be used with an input impedance of at least:

- A. 10k ohms
- B. 100k ohms
- C. 1 Megaohm
- D. 10 Megohm

42. Technician A says a Digital Graphing Multimeter (GMM) can be used to view electronic wave forms. Technician B says GMMs can be used to view vehicle-specific information displayed on-screen. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

43. A vehicle has experienced a charging problem. A technician inspected the charging system, found loose alternator mounting bolts, and tightened them. Afterwards, the vehicle performed OK. Technician A says the problem might have been a slipping belt. Technician B says the problem might have been poor grounding of the alternator. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

44. A horn is inoperative. Technician A says in order to repair the horn switch; the Supplemental Restraint System (air bag) should be disabled. Technician B says to check for voltage at the relay. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

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45. A wiper motor is not operating. However, when the linkage is disconnected, the motor operates OK. Technician A says the problem could be a bad relay. Technician B says the problem is MOST likely binding linkage. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

46. Technician A says that a test light is a good diagnostic tool for testing general lighting circuits and grounds, but should not be used on solid-state electronic circuits. Technician B says that a self-powered test light is a good diagnostic tool for testing voltage sources. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

47. A windshield washer system is being checked. Fluid is spraying from the nozzle on the passenger side, but not on the driver's side. Of the following answers, what is the most likely cause?

- A. blown fuse
- B. no voltage at the pump
- C. low fluid level
- D. kinked or blocked hose

48. Technician A says that if a wire is getting too hot, it is a sign of higher-than-normal current flowing through the wire. Technician B says the wire would heat up if some of the individual strands were broken inside the wire insulation. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

49. Starting system voltage drop tests are used to locate:

- A. low resistance
- B. shorts
- C. opens
- D. high resistance

50. Cooling system pressure is maintained by the use of the:

- A. fan clutch
- B. water pump
- C. thermostat
- D. radiator cap

51. Technician A says that when checking charging system voltage output, all electrical accessories should be on. Technician B says when checking charging system voltage output, the reading should be around 18 volts. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

52. Technician A says that pink colored transmission fluid is evidence of fluid aeration. Technician B says that pink colored transmission fluid is caused by coolant contamination. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

53. The driver notices a clear fluid dripping from the underside of his vehicle with the engine running and the A/C on. Technician A says this is refrigerant overflow. Technician B says the dripping will stop after the A/C system is shut off. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

54. There is liquid leaking into the passenger compartment from the evaporator. Technician A says a leaking heater core could be the problem. Technician B says a clogged evaporator drain could be the problem. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

55. A customer is complaining of insufficient air flow through the vents when the A/C is turned on. Technician A says that the problem could be a clogged cabin air filter. Technician B says that the problem could be short at the blower motor. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both A and B
- D. Neither A or B

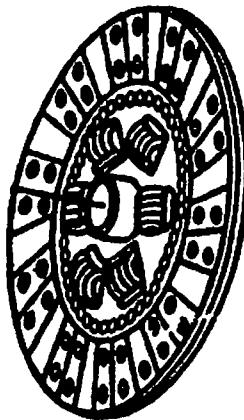
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NOTE: The following questions are written in the ASE style. They are similar to the kinds of questions that you will see on the ASE test, however none of these questions will actually appear on the test.

6. The 'PCV' in PCV valve stands for:
A. pollution control vortex
B. positive crankcase ventilation
C. piston clearance variable
D. preignition combustion virago

1. Which of these is NOT a common location for the VIN number to be found?

- A. stored on the PCM
- B. on the driver's side dash panel
- C. decal on the radiator support
- D. decal on the B pillar



2. How many camshafts are there in a DOHC V6 engine?

- A. one
- B. two
- C. six
- D. four

7. The part shown above is a:

- A. pressure plate
- B. brake rotor
- C. clutch disc
- D. vibration damper

3. A connecting rod connects:

- A. the camshaft and rocker arm
- B. the crankshaft and distributor
- C. the crankshaft and output shaft
- D. the crankshaft and piston

8. Service consultant A says the ABS light comes on when the system fails. Service consultant B says the vehicle can't be driven when the ABS system fails because the brakes won't work. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

4. A catalytic converter is part of the:

- A. Ignition system
- B. cooling system
- C. sound system
- D. exhaust system

9. Service consultant A says a transaxle is a transmission and axles combined in one unit. Service consultant B says a transaxle is a transmission and differential combined in one unit. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

5. Sequential injection describes a type of which of these:

- A. EFI
- B. ABS
- C. PCV
- D. EGR

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10. Which of the following is used to protect a vehicle's electrical components from excessive current flow?
- A. circuit breaker
 - B. voltage regulator
 - C. transistor
 - D. diode
11. Service consultant A says the function of the thermostat is to allow the engine to warm up as soon as possible. Service consultant B says if a car is overheating, a thermostat with a different heat range should be installed. Who is right?
- A. Service consultant A only
 - B. Service consultant B only
 - C. Both A and B
 - D. Neither A or B
12. Vehicle emissions contain all of the following EXCEPT:
- A. hydrocarbons
 - B. oxides of nitrogen
 - C. methylene chloride
 - D. carbon monoxide
13. Which of the following is NOT a true statement regarding R134A refrigerant?
- A. it can be interchanged with R12
 - B. requires recycling equipment
 - C. requires a MACS certification to purchase
 - D. requires a MACS certification to service
14. Service consultant A says that four-wheel drive systems in today's vehicles are all full time. Service consultant B says that Constant Velocity (CV) joint boots protect the joints from the weather and road dirt. Who is right?
- A. Service consultant A only
 - B. Service consultant B only
 - C. Both A and B
 - D. Neither A or B
15. In which of these components is the automatic transmission cooler most likely to be found?
- A. transaxle
 - B. condenser
 - C. radiator
 - D. evaporator
16. How do you handle an irate customer who is shouting at you about a comeback?
- A. Shout back at him so he will listen to you.
 - B. Remain calm and look for a way to get the comeback fixed.
 - C. Remain calm and ask for all of the information on the vehicle again.
 - D. Let another service consultant take care of the customer.
17. Service consultant A says that keeping his work area clean and organized is important because it looks professional. Service consultant B says that keeping his work area clean and organized is important because it generates customer confidence. Who is right?
- A. Service consultant A only
 - B. Service consultant B only
 - C. Both A and B
 - D. Neither A or B
18. What does the M&S on a tire stand for?
- A. manufacturer and starting date
 - B. mold and system information
 - C. production stamp
 - D. mud and snow
19. Which of these is a related repair for a starter with a damaged drive gear?
- A. flexplate
 - B. harmonic balancer
 - C. timing chain tensioner
 - D. voltage regulator

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20. Which of these may be part of the heating system?

- A. evaporator
- B. water control valve
- C. EGR valve
- D. low-pressure switch

21. When is the best time to address a customer's concerns about any repairs or maintenance they are considering?

- A. never, it is not your job
- B. after the car is repaired
- C. when they come up
- D. after the RO is completed

22. Which of these fluids is used in the cooling system?

- A. R134A
- B. ATF
- C. hydraulic fluid
- D. antifreeze

23. Service consultant A says it is important to identify each customer's primary concerns. Service consultant B says it is important to make sure the primary concern is repaired. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

24. Service consultant A says if they are in a hurry, customers do not have to sign the RO. Service consultant B says the customer's signature gives the business the authorization to do repairs. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

25. Service consultant A believes that the customer should rely on him to decide what repairs are needed. Service consultant B believes that he should recommend repairs and/or maintenance, explain why they are needed and let the customer decide what should be done. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

26. Service consultant A says that relays use low amperage circuits to control higher amperage circuits. Service consultant B says that relays are commonly used on fuel pump circuits. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

27. Service consultant A says that the shop will achieve the highest production output by utilizing an appointment log. Service consultant B says that an appointment log will help to make sure that equipment needed to perform a repair is available. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

28. In many shops, who is responsible for managing the workflow for customers' vehicles.

- A. the service consultant
- B. the parts manager
- C. the technician working on the vehicle
- D. each individual department

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29. Service consultant A says campaigns are extended periods of warranty on a repair or changes to specific vehicles. Service consultant B says recalls are government mandated repairs or changes. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

30. Service consultant A says understanding warranties and service contracts are not her responsibility; that is what a warranty clerk does. Service consultant B says service campaigns should only be checked for once a year. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

31. A customer brings his relatively new vehicle in for service. He purchased his vehicle at the service facility but he doesn't have his warranty with him. What should the service consultant do?

- A. ask him to go home and get the warranty papers
- B. look up the warranty for him
- C. Tell him the warranty can't be honored as he doesn't have the paperwork with him.
- D. ask him to come back another day with the papers

32. What is one of the best ways to identify vehicle needs for the RO:

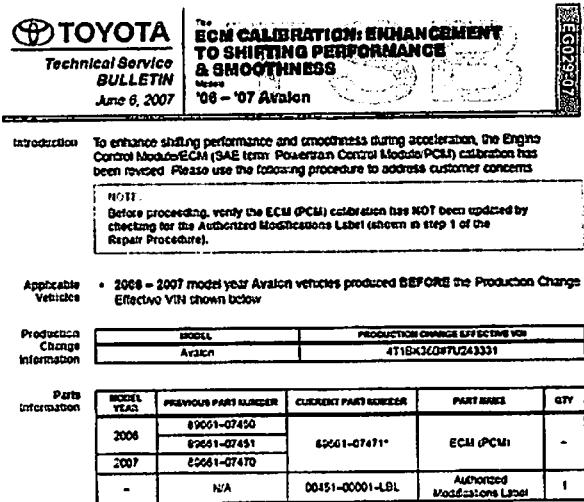
- A. Tell the customer what they need by looking at the mileage.
- B. Ask for the customer's concerns and help them identify any required maintenance.
- C. Tell the customer what they need by going by the vehicle history.
- D. Ask the technician who has worked on the vehicle in the past.

33. Service consultant A believes he will make his customers angry if he suggests additional repairs or maintenance. Service consultant B believes that he can help his customers by identifying additional repairs or services for their vehicles. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

34. Who is usually responsible for explaining the final bill to the customer?

- A. the cashier
- B. the warranty clerk
- C. the service consultant
- D. the technician that worked on the vehicle



(Courtesy: Toyota Motor Corp.)

35. The subject vehicle has a VIN of 4T1BK36B#7U186683 and a PCM part number of 89661-07468. Service consultant A says that the TSB shown above applies based on VIN. Service consultant B says that the TSB shown above applies based on PCM part number. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

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36. When is the best time to address a customer's objections about any repairs or maintenance on their vehicle or anything else about your business policies?

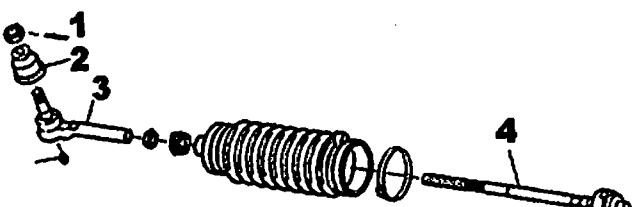
- A. when they come up
- B. after the car is repaired
- C. only when the service manager is available
- D. before you fill out the RO

37. Service consultant A says using service maintenance schedules or menus is not a good idea because it looks like you are pushing service on the customer. Service consultant B says service menus and maintenance schedules help remind him what services are due and are a good visual for the customers. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

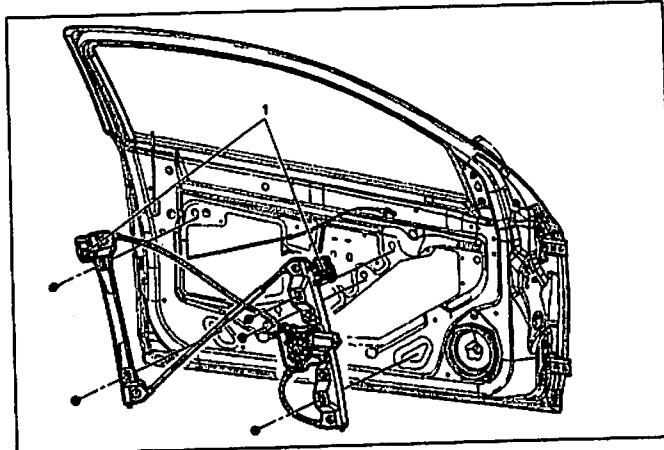
38. Service consultant A says if maintenance schedules from the manufacturer are not followed, it can void parts of the warranty. Service consultant B says all maintenance is recommended, not required. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B



39. In the illustration shown above, which component is the dust boot?

- A. 1
- B. 2
- C. 3
- D. 4



40. Identify the component indicated by the No.1 in the illustration shown above:

- A. seat belt retractor
- B. window regulator
- C. power door lock actuator
- D. windshield wiper transmission

41. Which of these is NOT a good place to find vehicle service intervals?

- A. TSB
- B. service information
- C. owner's manual
- D. shop manual

SECTION 303-01 Engine — 3.5L		2003 Edge/MDX Workshop Manual Procedure revision date 07/17/2003	
SPECIFICATIONS			
Material	Item	Specification	Fill Capacity
	Motorcraft® High Performance Engine RTV Silicone TA-357	WSE-M4G323-A6	—
	Motorcraft® Metal Surface Prep ZC-31-A	—	—
	Motorcraft® Premium Gold Engine Coolant VC-7-B (US), CVC-7-A (Canada), or equivalent	WSS-M97B51-A1	—
	Motorcraft® SAE 5W-20 Premium Synthetic Blend Motor Oil XO-5W20-OSP (US), Motorcraft® SAE 5W-20 Super Premium Motor Oil CXO-5W20-LSP12 (Canada), or equivalent	WSS-M2C930-A	5.2L (5.5 qt) includes filter change
	Silicone Gasket Remover ZC-30	—	—
	Thread Sealant with PTFE TA-24	WSK-M2G350-A2	—

(Courtesy: Ford Motor Co.)

Prepare yourself for ASE testing with these questions on AUTOMOBILE SERVICE CONSULTANT

42. According to the manual page shown above, what is the engine oil specification for this vehicle?

- A. SAE 5W-20 Premium Synthetic Blend Motor Oil
- B. 5.5 Quarts including filter
- C. WSS-M97B51-A1
- D. WSS-M2C930-A

43. Which of these is NOT an example of a passive restraint?

- A. seat belt
- B. seat belt pre-tensioner
- C. driver side air bag
- D. canopy air bag

44. Who is usually responsible for reviewing the RO and making sure it is ready for the customer?

- A. the manager
- B. the parts department
- C. the service consultant
- D. the cashier

45. Service consultant A says it is helpful to check the customer's repair history to see if the repair requested relates to repairs done before, and to see if it is time for any related or maintenance services that should be suggested to the customer. Service consultant B says the history is helpful when dealing with any repairs the customer claims is a comeback. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

46. Service consultant A says if she is waiting on a walk-in customer and the phone rings, she should answer the phone and take care of the call immediately. Service consultant B says when there is a long line of customers, each customer should be treated with courtesy and in an unhurried manner. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

47. When is it a good idea to put the customer contact information on the RO:

- A. never, this is not important
- B. always, you never know whether you will have to contact them
- C. only if you know you will have to call them
- D. only if the customer asks you to call them

48. Service consultant A says it is important to have the type of customer identified on the RO. Service consultant B says only the cashier needs to know the type of customer. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

49. Service consultant A believes technicians shouldn't be bothered with customers' concerns and should be left alone to figure out each vehicle's problems. Service consultant B believes he needs to work with the technician to make sure he understands what the customer wants. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

50. Service consultant A says that timely and well-run alternative transportation is an important part of the customer experience. Service consultant B says that determining the need for and arranging alternative transportation is part of his job. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

Prepare yourself for ASE testing with these questions on AUTOMOBILE SERVICE CONSULTANT

51. When a customer first enters the shop, the service consultant is judged by his/her

- A. appearance
- B. ability
- C. attitude
- D. aggressiveness

52. Of the items listed below, what is the MOST important component of a service consultant's job?

- A. appearance
- B. ability
- C. attitude
- D. aggressiveness

53. Service consultant A says if he doesn't know the answer to a customer's question, it is important to make an answer up so he looks good. Service consultant B says she is responsible for developing her own procedures for handling phone calls. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

54. The technician working on your customer's car just got sick and had to go home. What do you do?

- A. Leave the car outside until the technician comes back to work and tell your customer when he comes for the car later that day.
- B. See if there is another technician that can do the repair and call your customer with an update.
- C. Wait until closing time to tell the customer.
- D. Wait to see if someone can help.

55. The technician working on your customer's car just told you that he discovered the front brake pads were worn beyond specification. The customer had asked you to have the technician check the car over, so you know he may want the brakes serviced. What do you do?

- A. Tell the technician to go ahead with the repair.
- B. Call the customer, tell him what was found and get an approval for the additional cost.
- C. Wait until the customer comes for his car and make another appointment.
- D. Wait until your break to call the customer.

56. A technician is looking at a car that has just been brought in. He understands all of the customer's requests and concerns listed on the RO. Who's job is it to make sure everyone involved agrees that the car can be completed when the customer expects it?

- A. No one, it doesn't matter when the car will be done.
- B. the service consultant's
- C. the parts department's
- D. the technician's

57. What is the purpose of a shock absorber?

- A. increase ride height
- B. stiffen the ride
- C. control suspension movement
- D. increase spring tension

58. Service consultant A says paint and trim codes can be found with the VIN number on the dashboard. Service consultant B says they can be found on the Vehicle Safety Certification label. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

Prepare yourself for ASE testing with these questions on AUTOMOBILE SERVICE CONSULTANT

59. Service consultant A says that universal joints are used to allow movement between a rotation shaft and a fixed point. Service consultant B says Constant Velocity (CV) joint boots are available as full and split boots. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

60. Another term for a full frame, is:

- A. unibody
- B. space frame
- C. body over frame
- D. modular

61. Service consultant A says that if a replacement wheel on a vehicle is the wrong size, it can affect speedometer and odometer readings and the anti-lock brake system. Service consultant B says the wrong wheel size can affect the vehicle steering control. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

62. Service consultant A says an unbalanced wheel and tire assembly can cause vibration as the vehicle moves down the road. Service consultant B says more than one tire and wheel assembly has to be unbalanced to cause a vibration. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

63. Service consultant A says that wheel alignments are preventive maintenance procedures that help prevent abnormal tire wear and shortened tire life. Service consultant B says wheel alignments help achieve the best handling and steering control on a vehicle. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

64. Service consultant A says maintenance warning lights reset automatically. Service consultant B says that the maintenance warning light is also the MIL. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

65. Perimeter and ladder are types of what kind of frames?

- A. unibody
- B. space
- C. modularized
- D. full

66. All new vehicles have used R134a in their A/C systems since what year?

- A. 1996
- B. 1990
- C. 2000
- D. 1975

67. Service consultant A says that motorized seat belts are considered a passive restraint system. Service consultant B says that air bags are a passive restraint system. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

Prepare yourself for ASE testing with these questions on AUTOMOBILE SERVICE CONSULTANT

68. During replacement of a clutch, which of these could be considered a related repair?

- A. rear main seal replacement
- B. harmonic balancer replacement
- C. engine mount replacement
- D. transmission filter replacement

69. An angry customer visits the service department while a number of customers are also present. Which of these is the best way to handle the situation?

- A. ask the customer to leave
- B. address the angry customer's problem immediately
- C. offer a discount on their next repair
- D. arrange a time when you can review the problem together

70. A wrist pin is a component of which of these?

- A. manual transaxle
- B. differential
- C. engine
- D. front suspension

71. A Torque Converter is a component of which of these?

- A. automatic transaxle
- B. differential
- C. engine
- D. front suspension

72. Which of these has a required, extended warranty period over the standard bumper-to-bumper coverage?

- A. instrument cluster
- B. powertrain control module
- C. anti-lock brake control module
- D. brake pads

73. A vehicle that has had internal coolant leakage from a head gasket failure will probably require which of these as a related repair?

- A. intake manifold
- B. fuel injectors
- C. oxygen sensors
- D. mass airflow sensor

74. A customer authorizes an estimate for repairs of their vehicle in the morning and the vehicle is promised by 5:00pm. The service consultant discovers at 1:00pm that a needed part may not arrive in time to meet the completion time. What should the service consultant do?

- A. Reassemble the vehicle and reschedule the repair.
- B. Contact the customer at 4:30 if the part does not arrive.
- C. Contact the customer as soon as possible to discuss their options.
- D. Tell the technician to complete the work without the part.

75. A customer drops their vehicle off after hours, without an appointment, with the keys and a note asking for several hours of service work. How should the service consultant handle this?

- A. Secure the vehicle and put it on the schedule.
- B. Contact the customer to discuss the shop schedule.
- C. Ask one of the technicians to work it in.
- D. Wait for the customer to call.

76. Which of these is a best practice when a customer comes to pick up their vehicle?

- A. Give them a copy of the estimate to sign.
- B. Ask how they plan to pay and point them toward the cashier.
- C. Go over the list of recommended repairs.
- D. Review the work that was performed and answer any questions.

Prepare yourself for ASE testing with these questions on AUTOMOBILE SERVICE CONSULTANT

77. During initial write up, a customer describes a vibration while driving on the highway. Which of these should the service consultant do?

- A. Explain to the customer that the vehicle needs alignment.
- B. Explain the process used to diagnose this type of problem.
- C. Write down what the customer says word for word.
- D. Explain that the vehicle has warped brake rotors.

78. A customer's vehicle is used mostly for short trips and rarely gets driven more than 2,000 miles in 3 months. Which maintenance schedule should the service consultant recommend?

- A. standard service
- B. standard service with 3,000-mile oil changes
- C. severe service
- D. extended service intervals

79. An automatic transmission has failed. Which of these is NOT a warranty dependent related repair?

- A. radiator replacement
- B. transmission cooler flushing
- C. U-joint inspection
- D. transmission fluid type

80. A vehicle's MIL is flashing. Which of these should the service consultant recommend?

- A. Make an appointment at the customer's first convenience.
- B. Discontinue use of the vehicle immediately.
- C. Disconnect the battery and drive the vehicle in for service.
- D. Drive for a few more days to see if the light goes out.

81. Which of these is the best way to identify a fleet vehicle in your shop management system?

- A. driver ID or name
- B. unit number
- C. license plate
- D. VIN

82. Service consultant A says that the best way to collect information concerning a driveability repair is to write down everything the customers says. Service consultant B says that asking open ended questions concerning the problem can help the technician get to the problem quicker. Who is right?

- A. Service consultant A only
- B. Service consultant B only
- C. Both A and B
- D. Neither A or B

83. The vehicle speed sensor has failed on an OBD II vehicle. Which of the following would LEAST likely be affected by this failure?

- A. anti-lock brakes
- B. automatic transmission shifting
- C. automatic temperature controls
- D. powertrain control module

84. When performing a timing belt replacement, which of these is not an example of a related repair?

- A. oil pump
- B. tensioner
- C. idler pulley
- D. accessory drive belt

85. A truck with a limited slip differential is having the differential fluid changed. Which of these might the manufacturer recommend as part of this service?

- A. flushing with ATF
- B. adding a friction modifier
- C. re-torquing the pinion flange nut
- D. verifying gear wear patterns

86. Which of these is most likely to occur if automatic transmission fluid is not serviced at regular intervals?

- A. accelerated clutch pack wear
- B. transmission overheating
- C. engine over revving
- D. transmission cooler failure

87. During the course of an estimate a customer indicates that the cost of all of the repair work recommended is more than they can afford. What should the service consultant do?

- A. Make a new appointment when the customer can afford the repairs.
- B. Choose the items that come as close to the customer's budget as possible.
- C. Recommend that work necessary to insure safety be performed first.
- D. Offer to give the customer a discount.

Prepare yourself for ASE testing with these questions on AUTOMOBILE PARTS SPECIALIST

NOTE: The following questions are written in the ASE style. They are similar to the kinds of questions that you will see on the ASE test. However, none of these questions will actually appear on the test.

1. Parts Specialist A says merchandise should always be faced because it gives the store a neat and uniform appearance. Parts Specialist B says that facing the merchandise makes stock rotation easier. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

2. A physical inventory means:

- A. stock that is heavy to lift
- B. counting all the store's inventory
- C. the value of the store's stock in the bookkeeper's records
- D. the value of service work in the store's shop

3. A customer can't decide whether to buy standard shock absorbers or upgrade to more expensive shock absorbers that have longer life and will give a better ride. He asks the Parts Specialist for advice. What should the Parts Specialist recommend?

- A. the standard shocks, because customers are always happy with the lowest price
- B. the upgraded shocks, because there's really no difference and the store makes more money
- C. tell the customer to make up his own mind; that way he can't complain later
- D. the upgraded shocks, because they're better and the store makes more money

4. In October, an auto supply store sets up a display near the entrance selling windshield washer premix and winter windshield wipers. Using merchandising terminology, this is an example of:

- A. related and seasonal items
- B. impulse and obligatory items
- C. confrontation and anxiety items
- D. corresponding and autumnal items

5. For security purposes, high-value items such as tools are often kept in locking display cases. As a rule, the display case can be left unlocked as long as:

- A. needed to help the customer at the case
- B. it takes to ring out another customer
- C. the store is open
- D. the tools aren't very small

6. How is a traditional index in a catalog organized?

- A. by vendor
- B. by price order
- C. by function
- D. in alphabetical order

7. An experienced Parts Specialist asked a customer for the car's engine size when the customer asked for shock absorbers. The Parts Specialist probably:

- A. was trying to identify the model of car
- B. thought that cars with different engines sometimes have different suspensions
- C. was developing a marketing database
- D. was going to promote related engine parts, hoping to sell more to the customer

8. A customer asks where the Vehicle Identification Number (VIN) can be found on a 1988 model year car. Parts Specialist A says, "On a tag on the top of the dash on the driver's side." Parts Specialist B says, "On a tag on the passenger's door or B-pillar." Who gave the customer the right information?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

9. To measure the thickness of a disc brake rotor, use:

- A. an outside micrometer
- B. an inside micrometer
- C. a feeler gauge
- D. a depth gauge

10. The owner's manual of an older European car lists the engine's oil capacity at four liters. About how many quarts of oil is that?

- A. two
- B. four
- C. six
- D. eight

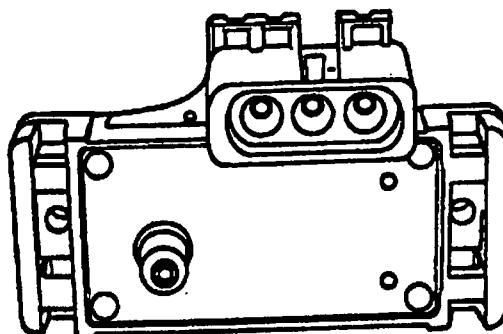
11. A connecting rod connects:
A. the camshaft and rocker arm
B. the crankshaft and distributor
C. the crankshaft and output shaft
D. the crankshaft and piston
12. The purpose of valve seals is to:
A. keep oil from leaking over the outside of the engine
B. keep oil from leaking down the valve guide
C. keep valves from allowing compression leaks
D. keep hydraulic filters operating properly
13. A car with a DOHC V6 engine has how many cams?
A. one
B. two
C. four
D. six
14. A customer buys a head gasket for a car that has an overhead camshaft driven by a timing belt. Which mean more sales (replacing bent valves, etc.) at the following should the Parts Specialist do?
A. Ring up the sale. If the belt breaks later, it will cost the customer the store's reputation, refuse to sell the customer the head gasket unless he should be replaced.
15. Parts Specialist A says a throttle body fuel injection system can have sequential fuel injection. Parts Specialist B says a multipoint fuel injection system can have sequential fuel injection. Who is right?
A. Parts Specialist A only
B. Parts Specialist B only
C. Both A and B
D. Neither A or B
16. Parts Specialist A says a spark plug with a heat range that is too hot can cause vehicle damage. Parts Specialist B says a spark plug with a heat range that is too cold won't cause vehicle damage. Who is right?
A. Parts Specialist A only
B. Parts Specialist B only
C. Both A and B
D. Neither A or B
17. A resonator is part of the:
A. ignition system
B. cooling system
C. sound system
D. exhaust system
18. The PCV in PCV valve stands for:
A. pollution control vortex
B. positive crankcase ventilation
C. piston clearance version
D. preignition combustion virago
19. An AIR (Air Injection Reactor) pump limits exhaust emissions by injecting air into the exhaust system.
Parts Specialist A says this completes combustion of hydrocarbons. Parts Specialist B says it changes carbon dioxide to carbon monoxide. Who is right?
A. Parts Specialist A only
B. Parts Specialist B only
C. Both A and B
D. Neither A or B
20. Torque multiplication is performed in a vehicle's:
A. engine
B. transmission
C. electronic control computer
D. brake pads

21. A customer has called you and given you a part number from a filter that he has on the shelf. What section of the catalog would you look in to determine what it fits?
A. the index
B. the table of contents
C. the footnotes
D. the part number index
22. A customer says a multiport fuel injection system can have sequential fuel injection. Who is right?
A. Parts Specialist A only
B. Parts Specialist B only
C. Both A and B
D. Neither A or B
23. A car has a timing belt that has visible wear. Ask if the timing belt on the car has visible wear.
A. if it does, the belt may be ready to break and should be replaced.
B. recommend replacement of the timing belt for that time.
C. the extra sale now
D. for the sake of the store's reputation, refuse to sell the customer the head gasket unless he buys the timing belt
24. A customer buys a head gasket for a car that has an overhead camshaft driven by a timing belt. Which mean more sales (replacing bent valves, etc.) at the following should the Parts Specialist do?
A. Ring up the sale. If the belt breaks later, it will cost the customer the store's reputation, refuse to sell the customer the head gasket unless he should be replaced.
25. Parts Specialist A says a throttle body fuel injection system can have sequential fuel injection. Parts Specialist B says a multipoint fuel injection system can have sequential fuel injection. Who is right?
A. Parts Specialist A only
B. Parts Specialist B only
C. Both A and B
D. Neither A or B

Prepare yourself for ASE testing with these questions on AUTOMOBILE PARTS SPECIALIST

22. Parts Specialist A says a transaxle is used in front-wheel drive cars. Parts Specialist B says a transaxle can be used in rear-wheel drive cars. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B



23. Parts Specialist A says that the ring gear is part of the flywheel. Parts Specialist B says that the clutch disc is bolted to the flywheel. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

24. The three most common types of springs used in suspension systems are:

- A. hairpin, coil and shock
- B. hairpin, tension and compression
- C. compression, rebound and tension
- D. leaf, coil and torsion bar

25. The pitman arm connects the steering box to the:

- A. center link
- B. idler arm
- C. tie-rods
- D. ball joints

26. Which of the following is NOT used to protect an automobile's electrical system against excessive current flow?

- A. fuse
- B. fusible link
- C. diode
- D. circuit breaker

27. Self-tapping screws:

- A. are also called sheet metal screws
- B. are designed so as not to over-tighten
- C. are designed to be used with a bolt
- D. can be used to hold one part on another, such as a carburetor on an intake manifold

28. Parts Specialist A says that the part shown above is a Manifold Absolute Pressure (MAP) sensor. Parts Specialist B says that the part shown is a Barometric Pressure (BP) sensor. Who is right?

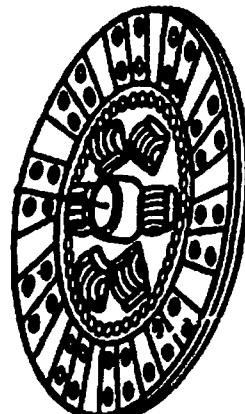
- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

29. Before replacing a MAP sensor, what else should be considered?

- A. condition of the exhaust manifold gaskets
- B. condition of the vacuum hoses
- C. condition of the AIR pump
- D. all of the above

30. A Parts Specialist is looking for a V-belt for a non-automotive application. What would he need to know to obtain one that will fit and perform properly?

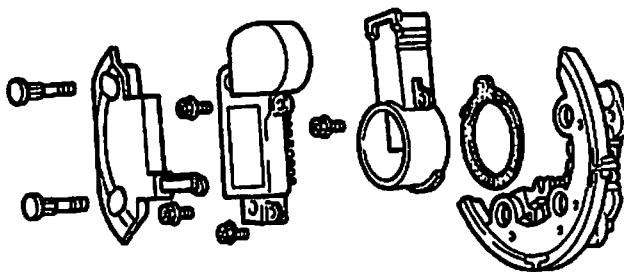
- A. length and top width of the old belt
- B. belt width and pitch
- C. belt diameter around the pulleys
- D. all of the above



31. The part shown here is a:

- A. pressure plate
- B. brake rotor
- C. clutch disc
- D. vibration damper

Prepare yourself for ASE testing with these questions on AUTOMOBILE PARTS SPECIALIST

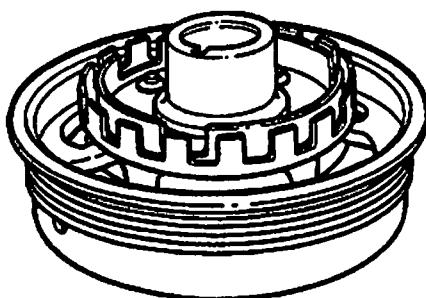


32. Parts Specialist A says the component shown above is a distributor module assembly. Parts Specialist B says the component shown above is an alternator regulator and brush assembly. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

33. A part you have special ordered from your regular supplier has just arrived at your store. The box has been opened and re-taped closed and there are greasy handprints on it. What should you do with it?

- A. Return it to the supplier.
- B. Ship it to the customer as quickly as possible.
- C. Open it and check the contents, try to verify that it is the correct part and has not been installed.
- D. Clean the package up and ship it.



34. Parts Specialist A says that the part shown above is an anti-lock brake toothed sensor ring. Parts Specialist B says that the part shown above is a crankshaft damper with crankshaft position sensor interrupter rings. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

35. A DIY customer returns a new radiator hose, and claims that as the engine cooled, the radiator hose collapsed. Parts Specialist A says that the hose is the wrong design, and should have had wire coil supports inside. Parts Specialist B says that this is caused by a defective thermostat. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

36. Parts Specialist A says that the thermostat controls maximum engine temperature. Parts Specialist B says if the engine continuously runs hot, you should sell the customer a cooler thermostat. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

37. A Parts Specialist has purchased a part from an outside vendor for \$5.25 and wants to make a 30% profit when he resells it. How does he figure the markup to achieve this?

- A. multiply $5.25 \times .30$
- B. add \$3.00 to the price
- C. subtract the cost price from \$30.00
- D. multiply the cost of \$5.25 by 1.43

38. An MSD sheet is a:

- A. Material Supply Demand sheet used for requisitioning parts
- B. Master Store Directory used for arranging catalog racks
- C. Material Safety Data sheet used to list properties of chemical compounds
- D. Master Spares Directory used to identify options installed on a vehicle

Prepare yourself for ASE testing with these questions on AUTOMOBILE PARTS SPECIALIST

39. Parts Specialist A has just invoiced a part that Parts Specialist B has taken back as a return. When he goes to pull the part, Parts Specialist A can't find it on the shelf even though the inventory says it is on hand. Which of the following could be the reason for not finding the part?

- A. Someone stole it.
- B. It was taken back as a new part when it should have been a warranty.
- C. It was not returned to the proper shelf.
- D. all of the above

40. A Parts Specialist wants a day off but management says he is needed that day. What should he do?

- A. complain to a coworker
- B. complain to any customer who will listen
- C. try to make his case as best as he can with management
- D. quit

41. A Parts Specialist has looked up a set of shock absorbers through the computerized lookup, but the customer says they don't look like the right ones. What is the first thing he should do?

- A. Try to upsell the customer to better shocks.
- B. Look in the paper catalog or the manufacturer's web site to verify the part number.
- C. Look at a picture in the buyer's guide to see if they are boxed wrong.
- D. Tell the customer that he must have given him incorrect vehicle information.

42. Which tool might see the most use behind a parts counter?

- A. dial indicator
- B. dial indicating caliper
- C. caliper resetting tool
- D. digital micrometer

43. If a customer attempts to pay with a credit card and the sale is declined, you should:

- A. ask them for another card
- B. ask them for another form of ID
- C. ask them how they would like to handle the situation
- D. ask them to pay their credit card bill and then come back

44. Parts Specialist A needs to know the engine size in a GM vehicle before he can look up an EGR valve. He tells the customer to look for it on the VECI label under the hood. Parts Specialist B says to look for the eighth digit of the VIN. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

45. A customer has requested a rebuilt master cylinder because the brake pedal travels to the floor and the fluid reservoir is empty. What other components should be checked and what else might he need?

- A. all lines and hoses and suggest brake fluid
- B. wheel cylinders and calipers as well as brake linings
- C. the power brake booster
- D. all of the above

46. A DIY customer who does all of his own basic maintenance, such as oil changes and bulb replacements, is asking you about a halfshaft problem. Knowing that the job may be beyond his ability, what should you do?

- A. Sell him a service manual and tell him to read up on it.
- B. Explain the procedure for replacing the halfshaft and remind him of the specialized tools and lifting equipment required, then let him decide if he wants to tackle the job.
- C. Sell him a halfshaft and send him to a garage to get it replaced.
- D. none of the above

47. A DIY customer has just priced a set of front brake pads from you and wants to know why yours are more expensive than the discount store across town. How should you reply?

- A. Tell him that yours is a higher quality pad.
- B. Tell him that the other store's merchandise is all junk.
- C. Tell him that the other store most likely looked them up incorrectly.
- D. none of the above

Prepare yourself for ASE testing with these questions on AUTOMOBILE PARTS SPECIALIST

48. Parts Specialist A is looking for a fuel pump for a 1999 GM truck. The catalog lists several options, depending on the tag number of the part. Parts Specialist A thinks this number is on the SPID label. Parts Specialist B says it will be on the part itself. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

49. A customer has returned a failed battery that was purchased 18 months ago. Since the battery had a one-year, free replacement before being pro-rated, Parts Specialist A says all that is needed is the original invoice and six months of pro-rate to be paid. Parts Specialist B says that you need the original invoice and 18 months of pro-rate charges. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

50. What do the markings on the head of a USS bolt indicate?

- A. grade or hardness
- B. hex diameter
- C. thread pitch
- D. body diameter

51. A valued professional installer customer has called you up screaming because a new person on your counter has sent him the wrong part and the vehicle has to be finished ASAP. What should you do?

- A. ask him to call you back when he calms down
- B. shout back at him so he will hear you
- C. make sure you have the right part and tell him it will be delivered right away
- D. act and speak calmly, get to the root of the problem and ask what he would like you to do

52. In the situation in question 51, what should you do after the problem is resolved?

- A. Remind the customer that the counterperson who sent the wrong part is new and that you will keep an eye on him and help him if he has problems.
- B. Tell the customer to just ask for you whenever he calls.
- C. Tell your manager or supervisor and let them deal with it.
- D. Forget about it and move on.

53. What does it mean when an item in inventory is turned?

- A. The item is stock rotated.
- B. It is returned to the vendor.
- C. The item is sold.
- D. The item is stolen.

54. A customer is walking through your display area, apparently searching for a certain item, while you are on the phone. What should you do?

- A. Ask the phone customer to hold while you assist the walk-in customer.
- B. Ask the phone customer to hold, and ask the walk-in what they need and point to it.
- C. Ask another person on the counter to assist the walk-in customer.
- D. none of the above

55. What are some of the things that will cause an ECM unit to fail?

- A. voltage spikes
- B. failure of another component
- C. accident damage
- D. all of the above

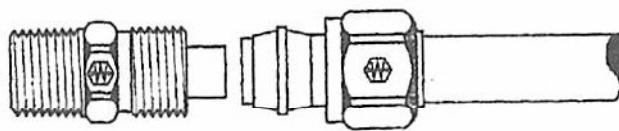
56. A customer has a pickup truck that he uses to carry heavy loads, and he wants to add more capacity to his suspension. Parts Specialist A says to install heavy-duty shock absorbers. Parts Specialist B says that shocks alone won't do, that the spring capacity must be increased also. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

Prepare yourself for ASE testing with these questions on AUTOMOBILE PARTS SPECIALIST

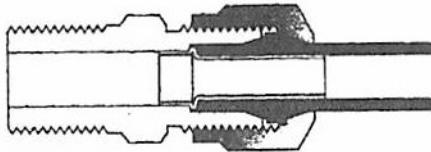
57. An OBD II scan tool is used for:

- A. checking outboard dust boots on a halfshaft
- B. checking for outer body dents
- C. on-board diagnostics trouble code retrieval
- D. none of the above



58. A customer asks for a recommendation on restoring a vehicle's exterior paint. Parts Specialist A asks the customer how bad the finish is and how deeply he wants to get involved. Parts Specialist B says that all the customer needs is a good rubbing compound and wax. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B



59. What is the difference between a metering valve and a proportioning valve in a brake hydraulic system?

- A. nothing, they both limit brake application
- B. one limits brake pressure while the other controls brake timing
- C. both of the above
- D. none of the above

60. What are the two most common types of steering systems?

- A. rack-and-pinion and recirculating ball
- B. hydraulic and manual
- C. power and radial
- D. kingpin and ball joint

61. Which of the following is the **MOST** important reason to have an original invoice when processing a returned part?

- A. to prove that the customer bought it from you
- B. to verify that the money being refunded is not more than what was originally paid
- C. to harass the customer and hope he never returns anything else
- D. all of the above

62. The fitting shown above is a:

- A. bubble flair fitting
- B. double flair fitting
- C. collar fitting
- D. compression fitting

63. What considerations should be given to core returns?

- A. that the unit was originally purchased from you
- B. that the core is in acceptable condition
- C. that it is marked as a core and stored where it belongs
- D. all of the above

64. What is the difference between tubing and hose?

- A. Tubing is not always as flexible as hose.
- B. Tubing size is measured on the outside diameter.
- C. Hose can have reinforcing plies.
- D. all of the above

65. The fuel pressure regulator in an EFI system:

- A. shuts off the fuel pump
- B. maintains a specific amount of fuel in the fuel rail
- C. maintains a specific pressure in the fuel rail
- D. maintains a specific amount of fuel in the intake manifold

66. What is the difference between a halogen and a sealed beam headlight?

- A. nothing
- B. one has a permanent reflectorized surface
- C. the gas used inside the bulb
- D. none of the above.

Prepare yourself for ASE testing with these questions on AUTOMOBILE PARTS SPECIALIST

67. What is a short circuit?

- A. a circuit that uses small pieces of wiring
- B. a powered wire that is grounded before the device it operates
- C. a powered wire that is grounded after the device it operates
- D. a low powered circuit

68. Why is it important to maintain a professional appearance personally and in the store?

- A. to gain customer confidence
- B. It makes you worth more to your employer.
- C. It improves your standing in the community.
- D. all of the above

69. Parts Specialist A says an alternator produces AC current that is compatible with the type of current used in the vehicle. Parts Specialist B says an old style generator puts out DC current that is regulated to the vehicle's voltage rating. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

70. What add on sale items might you suggest to a DIY customer buying exhaust parts?

- A. clamps and hangers
- B. exhaust size adaptors
- C. exhaust gas recirculation valve
- D. all of the above

71. A DIY customer had come to you looking for a rebuilt power steering pump. While examining the core you notice that the bearings are destroyed and the pump spins hard. What else might you suggest the customer check?

- A. the drive belt condition
- B. Make sure the belt is properly tensioned when installed.
- C. Check for debris and metal shavings in the rest of the system.
- D. all of the above.

72. A customer is buying replacement pads and rotors for the front brakes on his car. Parts Specialist A has suggested caliper slide lube and anti-squeal compound as well. Parts Specialist B says to also check the caliper itself and to clean the rotor mounting surface. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

73. What does flex fuel or meth-flex refer to?

- A. alcohol based fuel
- B. synthetic fuel
- C. nitro methane fuel
- D. bio diesel

74. A customer is inquiring about a CV-joint boot. Parts Specialist A suggests a rebuilt shaft instead. Parts Specialist B suggests checking the condition of the CV-joint very carefully. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

75. Parts Specialist A has just special ordered a part for a DIY customer for a very old vehicle. He took a deposit on the part and entered a lost sale report as well. Parts Specialist B says this is unnecessary because it is such a slow moving part. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

76. A customer has come to you looking for a tie-rod end for a piece of construction equipment and you have no application listings for it. Where else might you look to find him what he needs?

- A. In an OEM index
- B. In the illustrated buyer's guide
- C. In the catalog footnotes
- D. all of the above

Prepare yourself for ASE testing with these questions on AUTOMOBILE PARTS SPECIALIST

77. What does wire gauge refer to?
- A. wire insulation size
 - B. the wires ability to carry current
 - C. wire diameter
 - D. all of the above
78. What function does the MIL light perform?
- A. warns of a brake system failure
 - B. warns of low brake fluid
 - C. tells the driver that the ECM has set a trouble code
 - D. all of the above
79. When a stock order is delivered to your store, what is the first thing that must be done with it?
- A. verify outgoing parts
 - B. rotate the old and new stock
 - C. report any discrepancies between the packing slip and the actual parts received
 - D. none of the above
80. On a special ordered part, what information should be listed on the packing slip before it is turned in?
- A. the part number and price
 - B. the invoice number it was resold on
 - C. any freight or handling charges
 - D. all of the above
81. A customer with an older vehicle has come to you looking for SG grade motor oil, which you don't have. What recommendations can you make that will possibly help him?
- A. Sell him different weight oil.
 - B. Sell him a different grade of oil.
 - C. Explain how the grading system works and suggest higher-grade oil.
 - D. Sell him a non-mineral based oil.
82. A customer who is trying to fit a performance aftermarket muffler with a large inlet to a much smaller pipe, has come to you for help. What information will you need and how do you obtain it?
- A. Ask for year make and model and look up correct pipes for the vehicle.
 - B. Ask the customer to take exact measurements of both the muffler and pipe.
 - C. Ask the customer what brand of muffler it is and explain that your pipes may not fit it.
 - D. all of the above
83. A DIY customer has asked for a recommendation regarding a rust repair and is not concerned about the final finish as long as the vehicle will pass a safety inspection. What type of products might this customer MOST likely want?
- A. urethane paint because of its durability
 - B. lacquer spray paint because of its ease of use
 - C. metal working hammers and a dolly
 - D. fiberglass reinforced fillers, pop rivets and spray paint
84. Why is it important to have inventory in stock that is turned regularly?
- A. so that a profit is returned on stocked merchandise
 - B. so that older parts that don't move as fast can still be stocked
 - C. so that merchandise on display does not get sun faded or shopworn
 - D. all of the above
85. Parts Specialist A has asked a customer for the paint code of a vehicle and has told him to look on the driver's door pillar. Parts Specialist B says it can be found in the VIN number. Who is right?
- A. Parts Specialist A only
 - B. Parts Specialist B only
 - C. Both A and B
 - D. Neither A or B
86. A customer who has been quoted a price on a water pump wants to know why it's more expensive than one from the store down the street. Parts Specialist A says it may be because his is new and the other one is a rebuilt unit. Parts Specialist B says that his probably has a longer warranty than the competitors. Who is right?
- A. Parts Specialist A only
 - B. Parts Specialist B only
 - C. Both A and B
 - D. Neither A or B

Prepare yourself for ASE testing with these questions on AUTOMOBILE PARTS SPECIALIST

87. A DIY customer asks for an Engine Coolant Temperature (ECT) sensor because an ECT sensor fault code was found with a scan tool. Parts Specialist A says that the old sensor can be checked with a multimeter prior to replacing it to see if that is really the problem. Parts Specialist B says that other factors can cause a sensor failure as well and that any other trouble codes should be checked out as well. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

88. What does it mean to pro-rate a warranty?
A. to give the customer a better price on the warranty
B. to only give a warranty to professional installer customers
C. to determine the amount of warranty credit based on length of service
D. none of the above

89. When conducting a physical inventory of heater hose, Parts Specialist A finds a new sealed box containing a 25-foot roll and believes he should count it as one unit rather than 25. Parts Specialist B says he should check to see if the stock keeping unit is by the foot or by the box. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

90. A customer has come into the store looking for brake fluid. His manual recommends using DOT 3 or DOT 4 fluid. Parts Specialist A says that DOT 4 is just a heavy-duty version of DOT 3, with a higher boiling point. Parts Specialist B says that DOT 5 can be used in place of DOT 3 or DOT 4. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

91. Parts Specialist A has been asked for a thermostatic fan switch for a vehicle that has an overheating problem. He has advised the customer to also check the wiring to be certain that power is present at the switch. Parts Specialist B says that the fan clutch may also be at fault. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

92. A customer you have recently sold brake pads and rotors has returned complaining of pedal pulsation. What are some of the possible causes for this?

- A. improper installation of the calipers
- B. improper installation of the rotors
- C. incorrect parts installed on the vehicle
- D. all of the above

93. A customer has asked you for a replacement vacuum power brake booster. What other component might have caused the booster to fail?

- A. the vacuum line from the manifold
- B. the power steering pump
- C. the master cylinder
- D. all of the above

94. A customer has requested an O₂ sensor from you to replace one he installed less than a month prior. What might be the cause of this premature failure?

- A. poor quality gasoline
- B. a leaking head gasket
- C. the wrong gasket sealer used on the thermostat housing
- D. all of the above

95. A customer has requested a starter motor for their vehicle. The customer is complaining of hard starting and grinding noises when the starter is engaged. Parts Specialist A says a bad pinion or ring gear can cause this. Parts Specialist B says that it might also be caused by a low battery and poor pinion engagement. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

Prepare yourself for ASE testing with these questions on AUTOMOBILE PARTS SPECIALIST

96. A customer who is changing rear brake shoes on a vehicle without sealed hub/bearing assemblies may also need what other parts to complete the job?

- A. wheel bearings and seals
- B. pinion bearings and seals
- C. brake rotors
- D. all of the above

97. A customer has requested a replacement alternator for their vehicle. What added sales suggestions and advice should a good Parts Specialist recommend with the sale?

- A. Check the condition of the drive belts.
- B. Check the condition of the vehicle's battery.
- C. Check all of the electrical connections at the battery and alternator.
- D. all of the above

98. A customer with a vehicle that only sees summer usage has asked for a replacement battery because the one he bought a year ago is dead. Parts Specialist A says this may be due to the battery going dead over the winter and freezing. Parts Specialist B says it may be due to the alternator not putting out enough to recharge it. Who is right?

- A. Parts Specialist A only
- B. Parts Specialist B only
- C. Both A and B
- D. Neither A or B

99. In the above scenario, assume that the battery had a 65-month warranty with 12-month free replacement, and the customer was given a free replacement after one year. When he returns the following year with the same problem how should his warranty be handled?

- A. Give him another free replacement since this one only lasted a year.
- B. Don't give him anything since he obviously did nothing to correct the problem.
- C. Pro-rate the replacement battery for 2 years.
- D. Sell him a better grade of battery.

100. Which of the following is **MOST** likely to cause an ABS warning light or failure to occur on a vehicle with sealed front hub bearings with integrated sensors?

- A. improperly torqued lug nuts
- B. a bad caliper mount
- C. improper torque of the axle nut
- D. none of the above

101. Parts specialist A is looking for an intermediate exhaust pipe for a pickup truck, and the catalog lists several different lengths depending on the wheelbase. One of the pipes has a notation of "NA" next to it. Specialist A says that this means not applicable to this vehicle, while parts specialist B says this means not available. Which parts specialist is correct?

- A. Parts specialist A only.
- B. Parts specialist B only.
- C. Both parts specialist.
- D. Neither parts specialist.

102. When dealing with a vehicle that was delivered by the manufacturer to a utility body company as a cab on chassis only, what is a good method of determining the vehicles model year?

- A. The VIN number.
- B. The date of manufacture sticker on the door.
- C. The VECI label.
- D. All of the above.

103. Parts specialist A has been trying to locate the correct O2 sensor for a customer's vehicle and got the wrong one, despite fully understanding all the notations and footnotes pertaining to the listing, and having identified the vehicle with the VIN. Parts specialist A says it's probably due to an incorrect listing in the computer. Parts specialist B says he should have the customer check the VECI label on the car. Who is most correct?

- A. Parts specialist A only.
- B. Parts specialist B only.
- C. Both parts specialists.
- D. Neither parts specialist.

Prepare yourself for ASE testing with these questions on AUTOMOBILE PARTS SPECIALIST

104. A DIY customer has asked you about possible causes for his vehicles check engine light being on and a trouble code indicating an EVA problem on his pocket code scanner. What should you recommend? A. Change the fuel cap, reset the light and see if it happens again.
- B. Take it to a professional for a complete check.
- C. Explain how the system works and ask them to do a physical inspection of all related components, wiring, and hoses before continuing.
- D. Tell him to slowly remove the fuel cap and listen for the sound of escaping pressure in an effort to trace the problem.
105. Parts specialist A is looking for an EVA part number and is not sure what group and sub group to look in his electronic cataloging. Parts specialist A thinks he should look in the paper catalog table of contents. Parts specialist B says that by switching to alpha mode lookup all he has to do is enter in a description or keyword and he will be directed to the proper area. Who is most correct?
- A. Parts specialist A only.
- B. Parts specialist B only.
- C. Both parts specialists.
- D. Neither parts specialists.

Answers to Study-Guide Test Questions

- 1. The correct answer is C.** The decal on the radiator support typically contains belt routing, A/C related information or emissions system information. All the other answers are common places for the VIN to be found. The PCM uses the VIN in many cases as part of the anti-theft system.
- 2. The correct answer is D.** Engines with overhead camshafts typically come in two varieties; single and dual overhead cams. This refers to how many cams there are per cylinder head. A dual overhead camshaft or DOHC application for a 4-cylinder engine would have two camshafts where a V6 or V8 application would have four camshafts. In most cases a DOHC engine also has two intake valves and two exhaust valves per cylinder. This is the primary reason why an extra camshaft per head is required.
- 3. The correct answer is D.** The connecting rod converts the up and down motion of the piston to the rotary motion of the crankshaft.
- 4. The correct answer is D.** The catalytic converter helps remove pollutants from the exhaust and is typically located between the exhaust manifold and the muffler.
- 5. The correct answer is A.** EFI is Electronic Fuel Injection and Sequential is one common type of EFI.
- 6. The correct answer is B.** The positive crankcase ventilation valve allows crankcase fumes to be burned in the combustion chamber.
- 7. The correct answer is C.** The part shown is the clutch disc.
- 8. The correct answer is A.** When the ABS system stops working the light comes on, but the brake system still functions without ABS.
- 9. The correct answer is B.** A transaxle, most often found in front-wheel drive vehicles, is a transmission and differential combined.
- 10. The correct answer is A.** There are several devices used to limit current flow through circuits and protect wiring should a shorted circuit or component failure occur. The fuse and fusible link are designed to fail when current flow exceeds their rated design. Basically they are a small wire or metal plate that will burn through and open the circuit. Circuit breakers are also used in situations where a temporary excessive current demand may occur. Unlike the circuit breakers in your home, these circuit breakers will reset themselves once the load returns to a normal level. These are commonly used on things like power seats where something stuck under the seat could cause excessive amperage demand. Another common use for a circuit breaker is headlight circuits where it is imperative that the circuit stay on if at all possible. If a bulb fails and shorts to ground, as it fails the breaker will shut down the lights for a moment and then turn back on so the remaining lights can continue to work.
- 11. The correct answer is A.** The thermostat's function is to help the engine quickly reach normal operating temperature and then maintain a minimum operating temperature. Only a thermostat rated for the correct heat range should be installed, because the engine's computer bases fuel mixture, ignition timing, EGR operation and other functions on coolant temperature. If the thermostat is good and the engine runs hot, a different problem exists.
- 12. The correct answer is C.** Hydrocarbons (HC), Carbon Monoxide (CO) and Oxides of Nitrogen (NOx) are all emissions found in automotive exhaust.
- 13. The correct answer is A.** R134A was introduced in the early 1990s as an environmentally friendly replacement for R12. It is now known to be about equally damaging to stratospheric ozone as R12 once was. Initially enforcement of certifications and equipment was somewhat lax. Now, its proper use is being carefully enforced. Other than the need to understand that R134A, R12 and their lubricating oils are not compatible in the same system as well as the need for managing its release, the service consultant will not be called on to answer any more technical questions about refrigerant. You will still need to be able to identify other components of the air conditioning system.

Answers to Study-Guide Test Questions

14. The correct answer is B. Four-Wheel Drive (4WD) systems can be part-time or full-time. Constant Velocity (CV) joint boots protect the joints from the weather and road dirt.

15. The correct answer is C. Transmission coolers are an integral component of the radiator. This allows the coolant/antifreeze to warm up the transmission fluid and maintain a consistent temperature. Some vehicles with towing packages will also have an auxiliary cooler after the radiator cooler.

16. The correct answer is B. Remain calm and look for a way to get the vehicle fixed as soon as possible. Running from the problem or letting your emotions drop to the customer's level will not solve anything.

17. The correct answer is C, both service consultants are right. A clean and organized work area gives a professional appearance, generates customer confidence and is a form of silent salesmanship.

18. The correct answer is D. M&S means the tire is a mud and snow tire.

19. The correct answer is A. A flexplate can be damaged by a faulty starter drive over time. Vehicles that have a noisy starter or a starter that has failed numerous times should have the gear on the flexplate (or flywheel on manual transmission vehicles) inspected to avoid comebacks and new part damage.

20. The correct answer is B. Many vehicles utilize a water control valve to control the flow of heated antifreeze into the heater core. This component is also a part of the cooling system.

21. The correct answer is C. A customer's concerns should be addressed as they come up. This is the best time to handle concerns. Waiting or ignoring them is not good customer service and does not tend to generate customer trust.

22. The correct answer is D. The cooling system refers to the radiator, all the water hoses, water pump, thermostat, heater core, etc. This system contains

antifreeze and serves the dual purpose of balancing the temperature within the engine, and carrying away heat that is not needed by air via water transfer in the radiator and, when the heater is on, through the heater core.

23. The correct answer is C, both service consultants are right. It is important to identify each customer's primary concerns. These are the most important repairs or maintenance to do. They should be done first in case you run out of time.

24. The correct answer is B. The RO is a legal document. The customer's signature is the customer's approval for your business to do the repairs.

25. The correct answer is B. An explanation should be given to the customer as to what repairs and/or maintenance should be done and why. However, in the end, it is up to each customer to decide what they are willing to have done to their vehicle. This process promotes customer satisfaction and allows for additional sales.

26. The correct answer is C, both service consultants are right. Relays are used so that low amperage (typically under one amp) switching circuits such as computer controls and multi-function switches can control higher amperage circuits like fuel pumps, lighting, heater blowers, cooling fans and anti-lock brake systems.

27. The correct answer is C, both service consultants are right. Appointment logs help keep shops busy and organized. They help fit in as many customers as possible and help get the work done on time by better managing personnel and equipment or bays that are job specific.

28. The correct answer is A. In many shops, it is the service consultant's job to manage the workflow for his or her customers' vehicles. Someone has to monitor the work done, parts ordered and the timing of the process.

Answers to Study-Guide Test Questions

29. The correct answer is C, both service consultants are right. Campaigns are extended periods of warranty on a repair or changes to specific vehicles and recalls are government mandated safety and pollution control-related repairs.

30. The correct answer is D, neither service consultant is right. Understanding warranties and service contracts are part of the service consultant's responsibilities. They must be able to work with customers' warranties and service contracts. Service campaigns should be checked for each time the vehicle is brought in.

31. The correct answer is B. If customers do not have their warranty information with them, it is good customer service to provide all of the information they need.

32. The correct answer is B. The best way to keep the customer in the process and agreeable to any bill, is to ask them what their concerns are and help them identify any other repairs or maintenance their vehicle may need.

33. The correct answer is B. Every customer won't know everything their vehicle needs. You can help them identify repairs or services that could provide safer driving and a longer life for their vehicle. Presented in a professional manner, it will not upset the customers. They will see it as good service.

34. The correct answer is C. To avoid surprises and for good customer service, the service consultant is usually responsible for explaining each bill in detail to the customer before the bill is paid. Any questions, concerns or mistakes can be taken care of before they cause major customer dissatisfaction.

35. The correct answer is D, neither service consultant is right. When reading Technical Service Bulletins it is very important to make sure that the subject vehicle meets all criteria required by the TSB. Manufacturers will often call out a VIN that starts or ends a group of affected vehicles but it is also important to make sure that the rest of the vehicle information is relevant. For example, a 4-cylinder

equipped vehicle would not apply to a TSB that only includes 6-cylinder equipped models even if the VIN is within the affected group. In our example, the vehicle VIN is before the cutoff point but the PCM does not match any in the list. Applying this TSB could cause damage to the PCM or other parts of the powertrain.

36. The correct answer is A. Customer's objections should be addressed as they come up. This is the best time to handle them. Waiting or ignoring them is not good customer service and does not tend to generate customer trust.

37. The correct answer is B. Service menus and maintenance schedules help remind the service consultant what service is due to be performed and related work that can be sold to the customer. The menu and schedule is also a good visual for the customers.

38. The correct answer is A. The manufacturer warranties include required maintenance. If the maintenance is not performed and a failure occurs, the warranty on the failed parts can be voided.

39. The correct answer is B. steering and suspension joints that contain grease have a dust boot. In this case the dust boot protects the outer tie-rod end.

40. The correct answer is B. The component is a power window regulator assembly

41. The correct answer is A. A Technical Service Bulletin, or TSB, is not a good place to find service intervals. The vehicle owner's manual is the best place to find manufacturer recommended service intervals. In most cases it will contain different interval recommendations along with other special considerations for standard and severe duty operation.

42. The correct answer is D. The incorrect application of motor oil could very well be the most expensive mistake that can occur in a shop. A seemingly simple task can turn into a several thousand-dollar problem. It is important to be able to read the product data and specification sheets for the vehicles your shop provides service on.

Answers to Study-Guide Test Questions

43. The correct answer is A. Restraint systems are divided into passive and active restraints. These terms come from how they are used and not what they do. Active restraints require the seat occupant to actively employ them. Passive restraints function without interaction by the passenger. Arguably there have been passive seat belts in the past with the motorized shoulder harness. Also, the seat belt pre-tensioner that tightens the lap belt during air bag deployment and the inertia reel within the seat belt are passive, but unless the occupant puts the seat belt on to begin with these systems cannot function.

44. The correct answer is C. The service consultant needs to review the RO and make sure it is ready for the customer.

45. The correct answer is C, both service consultants are right. The vehicle history helps trigger the service consultant's suggestions on related items or maintenance that is due. If the customer is complaining that a repair is a comeback, it is very important to be able to refer to the history.

46. The correct answer is B. If you are waiting on a walk-in customer and the phone rings, you can ask the person on the phone if they can hold while you finish with the customer you are already working with or you can take a number and call them back. When there is a long line of customers, each customer should be treated with courtesy and in an unhurried manner. Hurrying and abrupt behavior is not good for customer service and satisfaction.

47. The correct answer is B. You should always have a way to contact each customer. You never know when something might come up, such as an additional repair or a timing problem.

48. The correct answer is A. The type of customer must be identified on the RO so billing is correct. Fleet and internal customers may have a different rate and a different payment agreement than what is expected from customer paid jobs.

49. The correct answer is B. You need to communicate the customers' requests and concerns to

the technicians. If they are left alone to figure it out, they may miss something, not address the primary concerns and go way past the agreed upon estimate.

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Answers to Study-Guide Test Questions

57. The correct answer is C. Shock absorbers control or dampen suspension movement. Stiffer shocks will not raise ride height or improve load carrying capacity; they will only lead to a harsher ride quality.

58. The correct answer is B. Paint and trim codes are listed on the Vehicle Safety Certification label.

59. The correct answer is C, both service consultants are right. Universal joints are used to allow movement between a rotation shaft and a fixed point, such as between the driveshaft and the transmission output shaft. Constant Velocity (CV) joint boots are available as full and split boots although split boots are not used by professional shops, due to their poor reliability.

60. The correct answer is C. Full frames are also called body over frames.

61. The correct answer is C, both service consultants are right. The wrong size wheel on a vehicle can affect speedometer and odometer readings, the anti-lock brake system, as well as the vehicle steering control.

62. The correct answer is A. An unbalanced wheel and tire assembly can cause vibration as the vehicle moves down the road. Only one unbalanced tire is necessary for this to occur.

63. The correct answer is C, both service consultants are right. Wheel alignments are preventive maintenance procedures that help prevent abnormal tire wear, shortened tire life and help achieve the best handling and steering control on a vehicle.

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65. The correct answer is D. Perimeter and ladder are types of full frames/body on frames.

66. The correct answer is A. R134a has been used in new vehicles since 1996.

67. The correct answer is C, both service consultants are right. Both motorized seat belts and air bags are types of passive restraint systems.

68. The correct answer is A. It is often necessary or wise to service full circle type rear main seals during clutch replacement for a couple of reasons. First, it can save the customer the considerable later expense of removing the transmission again to replace the seal that is exposed while the flywheel is off. Second, a leaking rear main seal can cause damage to the new clutch, leaving the shop and the vehicle owner open to a warranty dispute.

69. The correct answer is D. While it is tempting to consider answers A, B or C it is best to ask the angry customer for a chance to discuss their problem when you are not distracted or attending to other customers needs. This is the most polite thing to do for your other customers and it will often give the angry customer an opportunity to see that you are willing to help without having an argument when they are already upset. For most consultants this does not happen very often so we don't ever get really experienced in this uncomfortable situation.

70. The correct answer is C. The wrist pin is the pivoting component that connects the connecting rod to the piston in an engine. In modern vehicles they rarely fail but when they do they have a unique signature sound that helps technicians identify the failure.

71. The correct answer is A. The torque converter is a very sophisticated hydraulic means of linking the engine to the transmission while allowing the engine a little slippage on take off and when unloaded, as in idle or coasting. Originally torque converters were designed to provide an automatic replacement for the clutch. They have evolved to include clutches themselves that are actuated by the Powertrain Control Module to lock up the connection between the engine and the transmission during lightly loaded cruise speeds, to improve gas mileage.

72. The correct answer is B. While some manufacturers offer extended coverage on many of these items, only the powertrain control module is required to carry an extended warranty by the EPA.

Answers to Study-Guide Test Questions

- 73. The correct answer is C.** When a vehicle burns antifreeze it will usually damage the oxygen sensors, requiring replacement.
- 74. The correct answer is C.** It is difficult to know what the customer's situation will be unless you talk with them. It may be possible, if they have enough time, to arrange for alternative transportation so that the repair can be completed the next day.
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- 83. The correct answer is C.** All of the other systems typically require input from the vehicle speed sensor to operate properly.
- 84. The correct answer is A.** Water pumps are often replaced during timing belt replacement but oil pumps are not a related service.
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Answers to Study-Guide Test Questions

1. The correct answer is C. The decal on the radiator support typically contains belt routing, A/C related information or emissions system information. All the other answers are common places for the VIN to be found. The PCM uses the VIN in many cases as part of the anti-theft system.
2. The correct answer is D. Engines with overhead camshafts typically come in two varieties; single and dual overhead cams. This refers to how many cams there are per cylinder head. A dual overhead camshaft or DOHC application for a 4-cylinder engine would have two camshafts where a V6 or V8 application would have four camshafts. In most cases a DOHC engine also has two intake valves and two exhaust valves per cylinder. This is the primary reason why an extra camshaft per head is required.
3. The correct answer is D. The connecting rod converts the up and down motion of the piston to the rotary motion of the crankshaft.
4. The correct answer is D. The catalytic converter helps remove pollutants from the exhaust and is typically located between the exhaust manifold and the muffler.
5. The correct answer is A. EFI is Electronic Fuel Injection and Sequential is one common type of EFI.
6. The correct answer is B. The positive crankcase ventilation valve allows crankcase fumes to be burned in the combustion chamber.
7. The correct answer is C. The part shown is the clutch disc.
8. The correct answer is A. When the ABS system stops working the light comes on, but the brake system still functions without ABS.
9. The correct answer is B. A transaxle, most often found in front-wheel drive vehicles, is a transmission and differential combined.
10. The correct answer is A. There are several devices used to limit current flow through circuits and protect wiring should a shorted circuit or component failure occur. The fuse and fusible link are designed to fail when current flow exceeds their rated design. Basically they are a small wire or metal plate that will burn through and open the circuit. Circuit breakers are also used in situations where a temporary excessive current demand may occur. Unlike the circuit breakers in your home, these circuit breakers will reset themselves once the load returns to a normal level. These are commonly used on things like power seats where something stuck under the seat could cause excessive amperage demand. Another common use for a circuit breaker is headlight circuits where it is imperative that the circuit stay on if at all possible. If a bulb fails and shorts to ground, as it fails the breaker will shut down the lights for a moment and then turn back on so the remaining lights can continue to work.
11. The correct answer is A. The thermostat's function is to help the engine quickly reach normal operating temperature and then maintain a minimum operating temperature. Only a thermostat rated for the correct heat range should be installed, because the engine's computer bases fuel mixture, ignition timing, EGR operation and other functions on coolant temperature. If the thermostat is good and the engine runs hot, a different problem exists.
12. The correct answer is C. Hydrocarbons (HC), Carbon Monoxide (CO) and Oxides of Nitrogen (NO_x) are all emissions found in automotive exhaust.
13. The correct answer is A. R134A was introduced in the early 1990s as an environmentally friendly replacement for R12. It is now known to be about equally damaging to stratospheric ozone as R12 once was. Initially enforcement of certifications and equipment was somewhat lax. Now, its proper use is being carefully enforced. Other than the need to understand that R134A, R12 and their lubricating oils are not compatible in the same system as well as the need for managing its release, the service consultant will not be called on to answer any more technical questions about refrigerant. You will still need to be able to identify other components of the air conditioning system.

Answers to Study-Guide Test Questions

14. The correct answer is B. Four-Wheel Drive (4WD) systems can be part-time or full-time. Constant Velocity (CV) joint boots protect the joints from the weather and road dirt.

15. The correct answer is C. Transmission coolers are an integral component of the radiator. This allows the coolant/antifreeze to warm up the transmission fluid and maintain a consistent temperature. Some vehicles with towing packages will also have an auxiliary cooler after the radiator cooler.

16. The correct answer is B. Remain calm and look for a way to get the vehicle fixed as soon as possible. Running from the problem or letting your emotions drop to the customer's level will not solve anything.

17. The correct answer is C, both service consultants are right. A clean and organized work area gives a professional appearance, generates customer confidence and is a form of silent salesmanship.

18. The correct answer is D. M&S means the tire is a mud and snow tire.

19. The correct answer is A. A flexplate can be damaged by a faulty starter drive over time. Vehicles that have a noisy starter or a starter that has failed numerous times should have the gear on the flexplate (or flywheel on manual transmission vehicles) inspected to avoid comebacks and new part damage.

20. The correct answer is B. Many vehicles utilize a water control valve to control the flow of heated antifreeze into the heater core. This component is also a part of the cooling system.

21. The correct answer is C. A customer's concerns should be addressed as they come up. This is the best time to handle concerns. Waiting or ignoring them is not good customer service and does not tend to generate customer trust.

22. The correct answer is D. The cooling system refers to the radiator, all the water hoses, water pump, thermostat, heater core, etc. This system contains

antifreeze and serves the dual purpose of balancing the temperature within the engine, and carrying away heat that is not needed by air via water transfer in the radiator and, when the heater is on, through the heater core.

23. The correct answer is C, both service consultants are right. It is important to identify each customer's primary concerns. These are the most important repairs or maintenance to do. They should be done first in case you run out of time.

24. The correct answer is B. The RO is a legal document. The customer's signature is the customer's approval for your business to do the repairs.

25. The correct answer is B. An explanation should be given to the customer as to what repairs and/or maintenance should be done and why. However, in the end, it is up to each customer to decide what they are willing to have done to their vehicle. This process promotes customer satisfaction and allows for additional sales.

26. The correct answer is C, both service consultants are right. Relays are used so that low amperage (typically under one amp) switching circuits such as computer controls and multi-function switches can control higher amperage circuits like fuel pumps, lighting, heater blowers, cooling fans and anti-lock brake systems.

27. The correct answer is C, both service consultants are right. Appointment logs help keep shops busy and organized. They help fit in as many customers as possible and help get the work done on time by better managing personnel and equipment or bays that are job specific.

28. The correct answer is A. In many shops, it is the service consultant's job to manage the workflow for his or her customers' vehicles. Someone has to monitor the work done, parts ordered and the timing of the process.

Answers to Study-Guide Test Questions

29. The correct answer is C, both service consultants are right. Campaigns are extended periods of warranty on a repair or changes to specific vehicles and recalls are government mandated safety and pollution control-related repairs.

30. The correct answer is D, neither service consultant is right. Understanding warranties and service contracts are part of the service consultant's responsibilities. They must be able to work with customers' warranties and service contracts. Service campaigns should be checked for each time the vehicle is brought in.

31. The correct answer is B. If customers do not have their warranty information with them, it is good customer service to provide all of the information they need.

32. The correct answer is B. The best way to keep the customer in the process and agreeable to any bill, is to ask them what their concerns are and help them identify any other repairs or maintenance their vehicle may need.

33. The correct answer is B. Every customer won't know everything their vehicle needs. You can help them identify repairs or services that could provide safer driving and a longer life for their vehicle. Presented in a professional manner, it will not upset the customers. They will see it as good service.

34. The correct answer is C. To avoid surprises and for good customer service, the service consultant is usually responsible for explaining each bill in detail to the customer before the bill is paid. Any questions, concerns or mistakes can be taken care of before they cause major customer dissatisfaction.

35. The correct answer is D, neither service consultant is right. When reading Technical Service Bulletins it is very important to make sure that the subject vehicle meets all criteria required by the TSB. Manufacturers will often call out a VIN that starts or ends a group of affected vehicles but it is also important to make sure that the rest of the vehicle information is relevant. For example, a 4-cylinder

equipped vehicle would not apply to a TSB that only includes 6-cylinder equipped models even if the VIN is within the affected group. In our example, the vehicle VIN is before the cutoff point but the PCM does not match any in the list. Applying this TSB could cause damage to the PCM or other parts of the powertrain.

36. The correct answer is A. Customer's objections should be addressed as they come up. This is the best time to handle them. Waiting or ignoring them is not good customer service and does not tend to generate customer trust.

37. The correct answer is B. Service menus and maintenance schedules help remind the service consultant what service is due to be performed and related work that can be sold to the customer. The menu and schedule is also a good visual for the customers.

38. The correct answer is A. The manufacturer warranties include required maintenance. If the maintenance is not performed and a failure occurs, the warranty on the failed parts can be voided.

39. The correct answer is B. steering and suspension joints that contain grease have a dust boot. In this case the dust boot protects the outer tie-rod end.

40. The correct answer is B. The component is a power window regulator assembly

41. The correct answer is A. A Technical Service Bulletin, or TSB, is not a good place to find service intervals. The vehicle owner's manual is the best place to find manufacturer recommended service intervals. In most cases it will contain different interval recommendations along with other special considerations for standard and severe duty operation.

42. The correct answer is D. The incorrect application of motor oil could very well be the most expensive mistake that can occur in a shop. A seemingly simple task can turn into a several thousand-dollar problem. It is important to be able to read the product data and specification sheets for the vehicles your shop provides service on.

Answers to Study-Guide Test Questions

43. The correct answer is A. Restraint systems are divided into passive and active restraints. These terms come from how they are used and not what they do. Active restraints require the seat occupant to actively employ them. Passive restraints function without interaction by the passenger. Arguably there have been passive seat belts in the past with the motorized shoulder harness. Also, the seat belt pre-tensioner that tightens the lap belt during air bag deployment and the inertia reel within the seat belt are passive, but unless the occupant puts the seat belt on to begin with these systems cannot function.

44. The correct answer is C. The service consultant needs to review the RO and make sure it is ready for the customer.

45. The correct answer is C, both service consultants are right. The vehicle history helps trigger the service consultant's suggestions on related items or maintenance that is due. If the customer is complaining that a repair is a comeback, it is very important to be able to refer to the history.

46. The correct answer is B. If you are waiting on a walk-in customer and the phone rings, you can ask the person on the phone if they can hold while you finish with the customer you are already working with or you can take a number and call them back. When there is a long line of customers, each customer should be treated with courtesy and in an unhurried manner. Hurrying and abrupt behavior is not good for customer service and satisfaction.

47. The correct answer is B. You should always have a way to contact each customer. You never know when something might come up, such as an additional repair or a timing problem.

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