

# **ASE Practice Test A2**

## **Automatic Transmission**

### **General Transmission/Transaxle Diagnosis**

- 1) You are using a diagnostic symptom chart to diagnose an electronically controlled 5-speed automatic RWD (rear wheel drive) transmission with a strange noise in drive. Technician A says the control valve could be the cause and is an OFF-vehicle procedure. Technician B says the oil pump assembly could be the cause and is an OFF-vehicle procedure. Who is right?
  - a. A only
  - b. B only
  - c. Both A and B
  - d. Neither A nor B
- 2) On an electronically controlled 4-speed automatic transaxle, you experience a “shock” when shifting from “N” to “D”. Which of the following will require an OFF-vehicle repair?
  - a. Line pressure test
  - b. A/T fluid temperature sensor
  - c. Control valve assembly
  - d. Forward clutch
- 3) Technician A says you pick the symptom in the online service information that closely matches the customer concern. Technician B says the customer will describe their concerns as they are listed in the online service information. Who is correct?
  - a. A only
  - b. B only
  - c. Both A and B
  - d. Neither A nor B
- 4) This question has the word EXCEPT. For this question, look for the choice that could NOT fit the described situation. Read the entire question carefully before choosing your answer. Preliminary diagnosis on an electronically controlled automatic transmission/transaxle consists of all the following tests EXCEPT:
  - a. Line pressure test
  - b. Fluid check
  - c. Stall test
  - d. Flex plate check
- 5) Technician A says engine, suspension and driveline problems may appear to be caused by the transmission or transaxle. Technician B says you start with the simple inspections first to ensure that you have not overlooked something and you can use the scan tool for further clarification. Who is right?
  - a. A only
  - b. B only
  - c. Both A and B
  - d. Neither A nor B

- 6) You are checking fluid color on an automatic transmission/transaxle. Which of the following will cause the fluid to be varnished with a light to dark brown color?
- a. Oxidation from overfilling
  - b. Water contamination
  - c. Engine coolant contamination
  - d. Wear from friction material
- 7) If the fluid inspection shows a pinkish color and indicates water contamination, which coolant system component is the possible cause?
- a. Dipstick
  - b. Cooler
  - c. Water pump
  - d. Heater core
- 8) Technician A says the stall test is performed to see if the torque converter and internal holding components operate properly. Technician B says the stall test is conducted before the line pressure test. Who is right?
- a. A only
  - b. B only
  - c. Both A and B
  - d. Neither A nor B

### In-Vehicle Transmission/Transaxle Maintenance and Repair

- 9) A technician is checking the automatic transaxle manual valve control cable after an adjustment. Technician A says to make sure the transaxle is locked properly when the selector lever is placed in the P position. Technician B says to make sure that the starter operates only when placed in the N position. Who is right?
- a. A only
  - b. B only
  - c. Both A and B
  - d. Neither A nor B
- 10) A technician moves the gear selector lever from the PARK position to the MANUAL LOW position and cannot hear the detent and the pointer indicating the gear position is misaligned. Which of the following could be the cause?
- a. Replace control cable
  - b. Adjust control cable
  - c. Adjust PNP (park neutral position) switch
  - d. Replace PNP (park neutral position) switch
- 11) DTC (Diagnostic trouble code) P0705 PNP (park/neutral position) switch circuit is being diagnosed. Technician A says this code sets when the TCM (Transmission Control Module) or PCM (Powertrain control module) does not receive the correct voltage signal from the park/neutral position (PNP) switch. Technician B says the park/neutral position (PNP) switch circuit could be open or shorted. Who is right?
- a. A only
  - b. B only
  - c. Both A and B

d. Neither A nor B

12) Technician A says low line pressure on an electronically controlled transmission can cause the transmission to slip and operate sluggishly. Technician B says line pressure varies with engine speed. Who is right?

- a. A only
- b. B only
- c. Both A and B
- d. Neither A nor B

13) A line pressure test shows low pressure at idle in all ranges on an electronically controlled automatic transmission. Which of the following can be the cause?

- a. Maladjusted TP (throttle position) sensor
- b. ATF (automatic transmission fluid) temperature sensor
- c. Open in dropping resistor circuit
- d. Oil pump pressure regulator

14) Using the chart to diagnose a 4-speed automatic transaxle, which of the following is the MOST likely cause of no engine braking in manual second?

RANGE	GEAR	2-4 Band	Rev Input Clutch	Overrun Clutch	Forward Clutch	Forward Sprag	3-4 Clutch	Low Roller Clutch	Low Reverse Clutch
P-N									
D	1 <sup>st</sup>				Applied	Holding		Holding	
	2 <sup>nd</sup>	Applied			Applied	Holding			
	3 <sup>rd</sup>				Applied	Holding	Applied		
	4 <sup>th</sup>	Applied			Applied		Applied		
D	1 <sup>st</sup>			Applied	Applied	Holding		Holding	
	2 <sup>nd</sup>	Applied		Applied	Applied	Holding			
	3 <sup>rd</sup>			Applied	Applied	Holding	Applied		
2	1 <sup>st</sup>			Applied	Applied	Holding		Holding	
	2 <sup>nd</sup>	Applied		Applied	Applied	Holding			
1	1 <sup>st</sup>			Applied	Applied	Holding		Holding	Applied
R	REV		Applied						Applied

- a. Forward clutch
- b. Third clutch
- c. Input Sprag
- d. 2-4 Band

15) The low-reverse band has failed on a 4-speed transmission shown in the chart below. Technician A says there will be no reverse gear. Technician B says you

will have all forward gears in Drive. Who is right?

RANGE	GEAR	2-4 Band	Rev Input Clutch	Overrun Clutch	Forward Clutch	Forward Sprag	3-4 Clutch	Low Roller Clutch	Low Reverse Clutch
<b>P-N</b>									
<b>D</b>	<b>1<sup>st</sup></b>				Applied	Holding		Holding	
	<b>2<sup>nd</sup></b>	Applied			Applied	Holding			
	<b>3<sup>rd</sup></b>				Applied	Holding	Applied		
	<b>4<sup>th</sup></b>	Applied			Applied		Applied		
<b>D</b>	<b>1<sup>st</sup></b>			Applied	Applied	Holding		Holding	
	<b>2<sup>nd</sup></b>	Applied		Applied	Applied	Holding			
	<b>3<sup>rd</sup></b>			Applied	Applied	Holding	Applied		
<b>2</b>	<b>1<sup>st</sup></b>			Applied	Applied	Holding		Holding	
	<b>2<sup>nd</sup></b>	Applied		Applied	Applied	Holding			
<b>1</b>	<b>1<sup>st</sup></b>			Applied	Applied	Holding		Holding	Applied
<b>R</b>	<b>REV</b>		Applied						Applied

- a. A only
- b. B only
- c. Both A and B
- d. Neither A nor B

16) Two technicians are discussing TV (Throttle Valve) linkage adjustments. Technician A says electronically controlled transmissions use a scan tool to adjust the TV cable. Technician B says that an improperly adjusted TV linkage can cause early or late shifts. Who is right?

- a. A only
- b. B only
- c. Both A and B
- d. Neither A nor B

## Off-Vehicle Transmission/Transaxle Repair

17) Technician A says you should rotate the converter to align the bolt holes with the flexplate after the transmission has been bolted to the engine. Technician B says a transmission overhaul is not complete until it passes a road test. Who is right?

- a. A only
- b. B only
- c. Both A and B
- d. Neither A nor B

18) When removing an engine from a vehicle equipped with an automatic transmission, the torque converter does which of the following?

- a. Stays with transmission
- b. Stays with engine
- c. Must be drained
- d. Must be flushed

- 19) A torque converter flex plate is being inspected. Technician A says to check for loose, misaligned or missing bolts. Technician B says to check for cracks, especially around the bolt holes. Who is right?
- a. A only
  - b. B only
  - c. Both A and B
  - d. Neither A nor B
- 20) This question has the word EXCEPT. For this question, look for the choice that could NOT fit the described situation. Read the entire question before choosing your answer. When inspecting the flex plate shown in the photo, you should check it for all of the following EXCEPT:



- a. Cracks
  - b. Elongated holes
  - c. Damaged starter ring teeth
  - d. Crankshaft pilot bearing
- 21) A vehicle PCM requires programming to resolve a transmission shift problem listed in a service bulletin. Technician A says reprogramming consists of downloading new calibration files from a scan tool, personal computer or modem into the PCM's electronically erasable programmable read-only memory (EEPROM). Technician B says reprogramming is not an OBD-II requirement but that many vehicles will need a new PCM in the event software changes become necessary. Who is right?
- a. A only
  - b. B only
  - c. Both A and B
  - d. Neither A nor B
- 22) This question has the word EXCEPT. For this question, look for the choice that could NOT fit the described situation. Read the entire question carefully before choosing your answer. All of the following are industry-standard methods used to reprogram the EEPROM, EXCEPT:

- a. Remote programming
- b. Direct programming
- c. Off-board programming
- d. Indirect programming

23) An automatic transmission pressure test will identify which of the following?

- a. Dirty transmission filter
- b. Defective Engine Shutoff Solenoid (ESO)
- c. Defective torque converter
- d. Shift solenoid

24) This question has the word EXCEPT. For this question, look for the choice that does NOT meet the described situation. Read the entire question carefully before choosing your answer. All of the following actions are done in the repair of a damaged molded connector in a safety system, EXCEPT:

- a. It must be cut off and replaced
- b. It must be separated before making any repairs
- c. Special tools are used to remove the terminals
- d. Special tools are not needed