



School

Inspection Date

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Automotive Technician Training Standards

Level I

Automotive Technology Fundamentals

All Skills must be documented.

The term "Lecture" can be documented by either a work sheet or test questions.

The term "Demo" can be documented by the performance of a task by the instructor in front of the class or by students actually performing the skill.

SCORE			I.D. NO.	SKILL
0	1	2		

BASIC LAB PROCEDURES

				LECTURE
			1.	Select the correct screwdriver for a given screw.
			2.	Select the proper punch to drive out a rivet or tight bolt.
			3.	Select the proper chisel to cut a given item.
			4.	Use a strap pipe cutter for exhaust tubing.
				DEMO
			5.	Remove a broken fastener.
			6.	Install a heli-coil or other thread repair.

Note: No Evidence = 0, Some Evidence = 1, Meets Standards = 2

				SHOP
			7.	Identify measuring instruments.
			8.	Measure to 1/64" using a rule or measuring tape.
			9.	Measure a gap using a feeler gauge.
			10.	Measure with a standard vernier or dial caliper.
			11.	Measure with a standard micrometer.
			12.	Convert between metric and inch measuring system.
			13.	Identify fastener specifications.
			14.	Tighten fastener to specifications.
			15.	Drill and tap a hole.
			16.	Use a tap and a die to chase and clean threads.
			17.	Identify basic hand tools and lab equipment.
			18.	Select the proper blade and cut metal using a hacksaw.
			19.	Complete a repair order.
			20.	Locate vehicle lift points.
			21.	Raise and support a vehicle using jack stands.
			22.	Raise a vehicle using a frame contact lift

SAFETY

				LECTURE
			23.	Hazardous material disposal
			24.	Fire extinguisher use
			25.	Eye safety
			26.	Ear protection

				27.
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Clothing

SERVICE INFORMATION

					LECTURE
				28.	Vehicle owner's manual
					SHOP
				29.	Read and explain a vehicle identification number (VIN)
				30.	Read and explain an under hood label
				31.	Use a service manual
				32.	Locate maintenance specifications
				33.	Operate a computerized shop library system

OIL CHANGE SERVICE

					SHOP
				34.	Check engine oil level
				35.	Change oil
				36.	Change oil filter

UNDER HOOD INSPECTION

					SHOP
				37.	Check brake master cylinder fluid level
				38.	Check clutch master cylinder fluid level
				39.	Check power steering fluid level
				40.	Check coolant level
				41.	Inspect hoses

			42.	Inspect accessory drive belts
			43.	Visually inspect a battery
			44.	Inspect operation of the lighting system
			45.	Replace a windshield wiper blade
			46.	Inspect windshield wiper reservoir level
			47.	Check automatic transmission fluid (ATF)

UNDER VEHICLE SERVICE

				SHOP
			48.	Inspect an exhaust system
			49.	Inspect suspension and steering linkage
			50.	Inspect gear case fluid levels
			51.	Complete lubrication, maintenance & inspection (LOF)

BELTS, HOSES, TUBING

				DEMO
			52.	Replace a radiator hose
			53.	Replace a heater hose
				SHOP
			54.	Adjust alternator V-belt tension
			55.	Adjust alternator V-ribbed belt tension
			56.	Replace a "V" belt
			57.	Replace a serpentine belt

ENGINE TESTING AND REPAIR

				LECTURE
			58.	Identify various cylinder head classifications (OHC/pushrod, etc)
			59.	Identify various engine cylinder arrangements, engine sizes and measurements (bore and stroke)
				DEMO
			60.	Check engine oil pressure using a mechanical gauge
			61.	Replace a valve cover gasket
				SHOP
			62.	Describe four stroke cycle and cam timing
			63.	Identify basic engine parts

ENGINE PERFORMANCE/TUNE-UP SERVICE

				LECTURE
			64.	Describe ignition system operation
				SHOP
			65.	Identify ignition system components
			66.	Understand the firing order
			67.	Remove, gap, and install spark plugs
			68.	Visually inspect spark plug cables and measure resistance
			69.	Remove spark plug cables and replace in proper order
			70.	Remove and replace a distributor cap and rotor
			71.	Check and adjust ignition base timing to manufacturer specifications
			72.	Check computer-controlled ignition base timing

			73.	Measure engine vacuum
			74.	Perform a compression test

COOLING SYSTEM SERVICE

LECTURE				
			75.	Describe radiator cap operation
			76.	Describe thermostat operation
DEMO				
			77.	Remove and replace a thermostat
			78.	Drain, refill and bleed a cooling system
			79.	Check electrical fan operation.
SHOP				
			80.	Perform a cooling system inspection
			81.	Pressure test a radiator cap
			82.	Identify cooling system parts
			83.	Pressure test a cooling system
			84.	Perform a cooling system combustion test
			85.	Check coolant antifreeze protection level
			86.	Check coolant voltage

FUEL AND EMISSION SERVICE

DEMO				
			87.	Remove and replace a fuel injection system fuel filter
			88.	Perform a fuel injection system pressure check

				SHOP
			89.	Identify fuel system components for carbureted and fuel injection systems
			90.	Identify exhaust system components
			91	Look-up required emission system components and identify them on a vehicle
			92.	Inspect a PCV valve and check for suction
			93.	Remove, inspect and replace an air filter element
			94.	Inspect vacuum hose condition
			95.	Identify air injection system components
			96.	Locate and identify an EVAP cannister
			97.	Locate and inspect a catalytic convertor

GENERAL ELECTRICAL SYSTEM SERVICE

				LECTURE
			98.	Demonstrate familiarity with basic electrical theory and terms
			99.	Identify starting system components
			100.	Identify charging system components
				SHOP
			101.	Perform glass and ceramic fuse tests
			102.	Perform blade fuse tests
			103.	Splice a wire with a crimp connector
			104.	Solder a wire connection
			105.	Replace a tail/brake light bulb
			106.	Replace a turn signal flasher
			107.	Replace a sealed beam headlamp

			108.	Replace a halogen headlamp bulb
			109.	Perform a headlamp adjustment with aiming tools
			110.	Locate a given point in a vehicle wiring system using an electrical wiring diagram

BATTERY SERVICE

				SHOP
			111.	Battery service (clean terminals/check electrolyte level)
			112.	Replace a battery cable
			113.	Perform a battery specific gravity test
			114.	Perform a battery open circuit voltage test
			115.	Perform a regulated voltage check
			116.	Perform a battery charge
			117.	Perform a battery jump start
			118.	Perform a battery capacity/load test with a battery starter tester
			119.	Perform a battery capacity/load test using a vehicle and a voltmeter
			120.	Perform a battery drain test (parasitic loss)
			121.	Perform a starter circuit voltage drop test

TIRE AND WHEEL SERVICE

				DEMO
			122.	Replace a rubber valve stem
			123.	Repair a tire puncture
				SHOP
			124.	Perform a tire inspection and identify causes of tire wear

			125.	Find a tire label and explain what it means
			126.	Adjust tire pressure
			127.	Dismount and mount a tire using a tire changer
			128.	Computer balance a tire
			129.	Rotate tires
			130.	Torque lug nuts

BRAKE AND WHEEL BEARING SERVICE

				SHOP
			131.	Identify brake system components
			132.	Manually bleed brakes
			133.	Remove a brake drum
			134.	Use asbestos containment procedure
			135.	Inspect drum brakes
			136.	Inspect front disc brakes
			137.	Perform a parking brake adjustment
			138.	Adjust a tapered roller wheel bearing
			139.	Repack tapered wheel bearings

SUSPENSION, STEERING, AND ALIGNMENT SERVICE

				LECTURE
			140.	Identify wheel alignment angles
				DEMO
			141.	Check ball joint wear

				SHOP
			142.	Identify suspension components and types
			143.	Identify steering components and types
			144.	Replace shock absorbers
			145.	Inspect shock absorbers

SCORING TOTALS

Total 0's _____, Total 1's _____, Total 2's = _____