

NATEF AUTOMOTIVE TASK LIST
AUT 241 - AUTOMOTIVE AIR CONDITIONING

TERM: _____

SID: _____

INSTRUCTOR: _____

NAME: _____

For every task in Automotive Air Conditioning, the following safety requirement must be strictly enforced: Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

<u>Task Code</u>	<u>Task</u>	<u>Priority</u>
<u>A. General: A/C System Diagnosis and Repair</u>		
7.A.1	Identify and interpret heating and air conditioning problems; determine necessary action.	P-1
7.A.2	Research applicable vehicle and service information, vehicle service history, service precautions, and technical service bulletins.	P-1
7.A.3	Performance test A/C system; identify problems.	P-1
7.A.4	Identify abnormal operating noises in the A/C system; determine necessary action.	P-2
7.A.5	Identify refrigerant type; select and connect proper gauge set; record temperature and pressure readings.	P-1
7.A.6	Leak test A/C system; determine necessary action.	P-1
7.A.7	Inspect condition of refrigerant oil removed from A/C system; determine necessary action.	P-2
7.A.8	Determine recommended oil and oil capacity for system application.	P-1
7.A.9	Using a scan tool, observe and record related HVAC data and trouble codes.	P-3
<u>B. Refrigeration System Component Diagnosis and Repair</u>		
7.B.1	Inspect and replace A/C compressor drive belts, pulleys, and tensioners; determine necessary action.	P-1
7.B.2	Inspect, test, service or replace A/C compressor clutch components and/or assembly; check compressor clutch air gap; adjust as needed.	P-2
7.B.3	Remove, inspect, and reinstall A/C compressor and mountings; determine recommended oil quantity.	P-2
7.B.4	Identify hybrid vehicle A/C system electrical circuits and service/safety precautions.	P-2
7.B.5	Determine need for an additional A/C system filter; perform necessary action.	P-3
7.B.6	Remove and inspect A/C system mufflers, hoses, lines, fittings, O-rings, seals, and service valves; perform necessary action.	P-2
7.B.7	Inspect A/C condenser for airflow restrictions; perform necessary action.	P-1

7.B.8	Remove, inspect, and reinstall receiver/drier or accumulator/drier; determine recommended oil quantity.	P-2
7.B.9	Remove, inspect, and install expansion valve or orifice (expansion) tube.	P-1
7.B.10	Inspect evaporator housing water drain; perform necessary action.	P-1
7.B.11	Diagnose A/C system conditions that cause the protection devices (pressure, thermal, and PCM) to interrupt system operation; determine necessary action.	P-2
7.B.12	Determine procedure to remove and reinstall evaporator; determine required oil quantity.	P-2
7.B.13	Remove, inspect, and reinstall condenser; determine required oil quantity.	P-2

E. Refrigerant Recovery, Recycling and Handling

7.E.1	Perform correct use and maintenance of refrigerant handling equipment according to equipment manufacturer's standards.	P-1
7.E.2	Identify and recover A/C system refrigerant.	P-1
7.E.3	Recycle, label, and store refrigerant.	P-1
7.E.4	Evacuate and charge A/C system; add refrigerant oil as required.	P-1