

**NATEF AUTOMOTIVE TASK LIST**  
**AUT 131 – ELECTRICAL SYSTEMS**

TERM: \_\_\_\_\_

SID: \_\_\_\_\_

INSTRUCTOR: \_\_\_\_\_

NAME: \_\_\_\_\_

**For every task in Electrical Systems, 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.**

<b><u>Task Code</u></b>	<b><u>Task</u></b>	<b><u>Priority</u></b>
<b><u>B. Battery Diagnosis and Service</u></b>		
6.B.1	Perform battery state-of-charge test; determine necessary action.	P-1
6.B.2	Confirm proper battery capacity for vehicle application; perform battery capacity test; determine necessary action.	P-1
6.B.3	Maintain or restore electronics memory functions	P-1
6.B.4	Inspect and clean battery; fill battery cells; check battery cables, connectors, clamps, and hold-downs.	P-1
6.B.5	Perform slow/fast battery charge according to manufacturer's recommendations.	P-1
6.B.6	Jump-start vehicle using jumper cables and a booster battery or an auxiliary power supply.	P-1
6.B.7	Identify high-voltage circuits of electric or hybrid electric vehicle and related safety precautions.	P-3
6.B.8	Identify electronic modules, security systems, radios, and other accessories that require re-initialization or code entry after reconnecting vehicle battery.	P-1
6.B.9	Identify hybrid vehicle auxiliary (12v) battery service, repair and test procedures.	P-3
<b><u>C. Starting System Diagnosis and Repair</u></b>		
6.C.1	Perform starter current draw tests; determine necessary action.	P-1
6.C.2	Perform starter circuit voltage drop tests; determine necessary action.	P-1
6.C.3	Inspect and test starter relays and solenoids; determine necessary action	P-2
6.C.4	Remove and install starter in a vehicle.	P-1
6.C.5	Inspect and test switches, connectors, and wires of starter control circuits; perform necessary action.	P-2
6.C.6	Differentiate between electrical and engine mechanical problem that cause a slow-crank or no-crank condition.	P-2
<b><u>D. Charging System Diagnosis and Repair</u></b>		
6.D.1	Perform charging system output test; determine necessary action.	P-1
6.D.2	Diagnose (troubleshoot) charging system for the cause of undercharge, no-charge, and overcharge conditions.	P-1

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| 6.D.3 | Inspect, adjust, or replace generator (alternator) drive belts; check pulleys, and tensioners for wear; check pulley and belt alignment. | P-1 |
| 6.D.4 | Remove, inspect, and re-install generator (alternator)   | P-1 |
| 6.D.5 | Perform charging circuit voltage drop tests; determine necessary action.   | P-1 |