

## NATEF TASK SHEET --- SECTION A.6 B.1, D.1 (P-1)

### SC6: ALTERNATOR VOLTAGE OUTPUT TEST:

#### **IS THE ALTERNATOR WORKING?**

Student: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

Vehicle 1: VIN: \_\_\_\_\_ Year: \_\_\_\_\_ Make: \_\_\_\_\_ Model: \_\_\_\_\_

Vehicle 2: VIN: \_\_\_\_\_ Year: \_\_\_\_\_ Make: \_\_\_\_\_ Model: \_\_\_\_\_

**OBJECTIVE:** Student will test the alternator outputs on two different vehicles and determine necessary action.

- MATERIALS:**
1. EYE PROTECTION!
  2. Volt-Ohm-Meter
  3. Two Vehicles (see instructor)

**PROCEDURE: WEAR EYE PROTECTION!** Watch power point SC6.

Use fender cover, seat covers, and floor mats. Start with ignition OFF. All accessories OFF. Key out of ignition. Doors, glove box and trunk closed. Inspect alternator belt, note condition, and tension. 1. Connect voltmeter to vehicle battery and note voltage reading. 2. Start engine and allow to idle and note voltage reading. 3. Rev engine to fast idle. (1800rpm) and note voltage reading. 4. Still at fast idle, Turn on headlamps and note voltage reading. Record your results below. Repeat for second vehicle.

**(TO PASS, ALL RUNNING VOLTAGE READINGS MUST BE HIGHER THAN "OFF" VOLTAGE)**

**HIGHER THAN "OFF" VOLTAGE)**

**Note Alternator Belt Condition:**    VEHICLE 1: \_\_\_\_\_    VEHICLE 2: \_\_\_\_\_

<b>VOLTAGE READINGS:</b>	VEHICLE 1	VEHICLE 2
IGNITION OFF VOLTAGE		
IDLE VOLTAGE		
FAST IDLE VOLTAGE		
WITH HEADLAMPS AT FAST IDLE VOLTAGE		

**Vehicle 1:** (Circle) PASS    FAIL    **Vehicle 2:** (Circle) PASS    FAIL

*(TO PASS, ALL RUNNING VOLTAGE READINGS MUST BE HIGHER THAN "OFF" VOLTAGE)*

What would you recommend if the vehicle fails this test? \_\_\_\_\_

Your recommendations for these vehicles: \_\_\_\_\_

*(Does the alternator need to be replaced? How about the belt?)*

#### INSTRUCTORS EVALUATION

LEVEL OF SKILL ATTAINED	WORK PROFESSIONALISM	Points
Student can evaluate results and determine necessary action (5)	Documentation Completeness (1)	
Student can interpret outcomes (4)	Safety Compliance (1)	
Student can recall/recite procedure (2)	Floor mats, seat covers, and fender cover (3)	
Student has observed procedure (1)	LEVEL OF SKILL ATTAINED (1-5)	
	TOTAL SCORE	

INSTRUCTOR'S SIGNATURE: \_\_\_\_\_

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