

MECHANIC STUDY GUIDE

Electrical Systems

Automobile & Light Truck Repair

Listed below are a number of items and subjects which make up the mechanic certification test identified above. An individual's ability to pass the certification test will depend upon the amount of knowledge the person has concerning these items.

OHMS Law & Electrical Symbol

Recognition - 14%

Ohmmeter symbol
Splice symbol Resistor symbol
Switch symbol
Solenoid symbol
Circuit breaker symbol
Variable resistor symbol
Lamp symbol
Diode symbol
LED symbol

Test Methods/Meter & Equipment

Usage - 11%

Ohmmeter usage
Voltmeter usage
Ammeter usage

Starting System Diagnosis - 20%

Capacity/load testing
Starter armature testing
Starter current draw
Starter relay diagnosis
Voltage drop tests
Circuit resistance test
Battery test
Starter drive diagnosis

Charging System Diagnosis - 5%

R & R battery properly
Alternator output testing

Miscellaneous Circuit Diagnosis - 32%

Short to ground
Regulator diagnosis
Blower motor circuit diagnosis
Horn circuit diagnosis
Turn signal circuit
Dimmer switch diagnosis
Tail lamp circuit
Dashlight circuit
Windshield washer pump circuit
Cooling fan circuit
Oil pressure light circuit

General - 18%

Measuring current flow
Voltage drop
Parallel circuit diagnosis
Junction block replacement
E.S.D. (Electrostatic Discharge)
S.I.R. (Supplemental Inflatable Restraint)
Precautions

SAMPLE QUESTION:

The maximum allowable voltage drop across the ground circuit of the starter system is:

- A. .2 volt.
- B. .7 volt.
- C. 1/2 volt.
- D. 1 volt.

ANSWER: A