

# **MECHANIC STUDY GUIDE**

## **Brakes & Braking 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.

#### **System Diagnosis - 20%**

Load sensing proportioning valves  
Brake pedal pulsation  
Grabbing brakes  
Brake lock-up  
Dragging brakes  
Combination valve  
Gear lube in drums  
Brake booster

#### **Master Cylinder Diagnosis & Repair - 9%**

Low fluid level  
Rebuilding  
Swollen diaphragm  
Sinking pedal

#### **ABS Diagnosis & Repair - 20%**

Pump/motor operation  
Safety precautions  
Speed sensors  
Wheel speed readings  
3 way circuits  
4 way circuits  
Hose replacement

#### **Drum Brake Diagnosis & Repair - 22%**

Drum finish  
Single anchor Bendix type  
Self adjuster diagnosis  
Noise diagnosis  
Measuring  
Primary v.s. secondary shoes

#### **Disc Brake Diagnosis & Repair - 16%**

Rotor thickness variation  
Rotor surface finish  
Caliper overhaul  
Brake noise  
Brake adjustment  
Measuring, lateral run-out

#### **Repair Procedures - 13%**

Brake line bleeding  
Brake fluid diagnosis  
Replacing wheel bearings/races  
Brake adjustments

#### **SAMPLE QUESTION:**

A car has a spongy pedal. Which of the following could be the cause?

- A. Air in the system.
- B. An internal master cylinder leak.
- C. Worn brake pads.
- D. Warped brake disc.

**ANSWER: A**