Automotive Brake Systems, 7th Edition Chapter 6
Name
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.
1) What is the difference between a brake pedal switch and a brake pedal sensor?
2) Why are metering valves not used on all vehicles?
3) Why are residual check valves not used in most vehicles?
4) What are the split point and the slope of a proportioning valve?
5) List the three possible reasons that could cause the red brake warning lamp to come on during driving.

Answer Key

Testname: BRAKES7\_SHORT6

- 1) On older vehicles, the brake switch was used to turn on the brake lights. Most new vehicles use the brake pedal position (BPP) sensor or switch as an input to the body computer for many functions. This sensor is a three-wire potentiometer that returns a variable voltage signal to the ABS controller to indicate the position of the brake pedal. Page Ref: 105
- 2) Metering valves are not needed on front-wheel-drive vehicles because of the forward weight bias and they use a diagonal-split hydraulic system instead of a front/rear split system used on rear-wheel-drive vehicles.

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- 3) Residual check valves are used to maintain a slight pressure on the brake system to help prevent the sealing cups in the wheel cylinders from collapsing. Most new vehicles have eliminated the residual check valve and have installed cup expanders in the wheel cylinders.

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- 4) The proportioning valve limits the pressure to the rear brakes after a certain pressure is achieved. This pressure is called the split point. A portion of the front brake pressure that is sent to the rear brakes is called the slope.

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- 5) Parking brake on. Low brake fluid. Unequal brake pressure. Worn brake pads. Page Ref: 96