

TEST YOUR AUTOMOTIVE TECHNICAL KNOWLEDGE

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This self-test can help you determine how much you really know about this subject. Questions are written in the ASE style format and are multiple choice.

The answer key is on the last page.

There are also links to related articles on the <https://www.AA1Car.com> website. Good luck!

BRAKE SYSTEM SELF-TEST

1. The advantages of disc brakes over drum brakes include all of the following EXCEPT:
 - A. Disc brakes won't trap water so are less prone to fade when wet
 - B. Disc brakes cool better so are less likely to fade when hot
 - C. Disc brakes are quieter
 - D. Disc brakes are self-adjusting

2. Power brakes are used on vehicles for all of the following reasons EXCEPT:
 - A. Power brakes reduce pedal effort
 - B. Power brakes reduce the risk of skidding and wheel lockup
 - C. Power brakes work with disc or drum brakes
 - D. Power brakes are combined with the ABS system on many vehicles

3. On most Front-Wheel Drive (FWD) cars, the dual hydraulic circuits in the master cylinder are:
 - A. Split front-to-rear (front brakes on one circuit, rear brakes on other circuit)
 - B. Split diagonally (RF & LR brakes, and LF & RR brakes)
 - C. Split left and right side of the vehicle
 - D. Divided independently for each wheel

4. Technician A says removing the drums is necessary to inspect the thickness and condition of drum brake linings.
Technician B says the minimum acceptable brake lining thickness for most disc brake pads is about 3/32 to 1/4 inch
Who is right?
 - A. Technician A only
 - B. Technician B only
 - C. Technician A and Technician B
 - D. Neither Technician A nor Technician B

5. Many vehicles have drum brakes in the rear and disc brakes up front because:
- A. This combination provides better brake balance
 - B. A parking brake only works with a drum brake
 - C. It eliminates the need to readjust the rear drum brakes
 - D. This combination provides the best compromise between cost and performance
6. Technician A says the brake system should be bled if a brake line has been opened or a major hydraulic component (master cylinder, caliper or wheel cylinder) has been replaced. Technician B says bleeding the brakes prevents a soft brake pedal by removing air from the system.
Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both Technician A and Technician B
 - D. Neither Technician A nor Technician B
7. Technician A says brake balance refers to the relative force applied to the front and rear wheels.
Technician B says brake balance is controlled by a proportioning valve.
Who is right?
- A. Technician A only
 - B. Technician B only
 - C. Both Technician A and Technician B
 - D. Neither Technician A nor Technician B
8. A "combination" valve may do any of the following EXCEPT:
- A. Delay application of disc brakes when pedal is first applied
 - B. Detect the loss of brake pressure in a brake circuit.
 - C. Regulate front-to-rear brake balance
 - D. Prevent fluid from returning to master cylinder until pedal is released
9. Reasons for changing old, high mileage Brake Fluid include all of the following EXCEPT:
- A. To remove moisture contamination
 - B. To restore the fluid's boiling temperature and heat fade resistance
 - C. To restore corrosion protection
 - D. To eliminate a soft brake pedal
10. Technician A says rotor thickness should be checked if there's a pedal pulsation when the brakes are applied.
Technician B says rotors that are worn to minimum thickness specifications must be replaced for safety reasons.
Who's right?
- A. Technician A only
 - B. Technician B only
 - C. Both Technician A and Technician B
 - D. Neither Technician A nor Technician B

11. Technician A says a leaking or sticking disc brake caliper should be replaced.
Technician B says a leaking caliper will often cause a brake pull to the OPPOSITE side as the leaking caliper.

Who is right?

- A. Technician A only
- B. Technician B only
- C. Both Technician A and Technician B
- D. Neither Technician A nor Technician B

12. As a general rule, aftermarket CERAMIC disc brake pads can replace any of the following EXCEPT:

- A. Semi-metallic brake pads
- B. Original equipment ceramic pads
- C. Non-asbestos organic (NAO) pads
- D. Low metallic brake pads (Euro pads)

13. All of the following are TRUE statements about LOW COPPER brake pads EXCEPT:

- A. Low Copper pads are required by law in some states
- B. Some Low Copper pads contain less than 5 percent copper
- C. Some Low Copper pads contain less than 0.5 percent copper
- D. Low Copper pads should only replace Semi-Metallic pads

14. The most likely cause of a brake pedal that slowly sinks to the floor while pressure is applied when a vehicle is stopped would be:

- A. A bad Power Brake booster
- B. A bad ABS pump
- C. A worn master cylinder
- D. A leaky ABS accumulator

15. Technician A says Semi-Metallic brake pads can handle higher brake temperatures because they insulate against heat.

Technician B says Ceramic brake pads produce less brake dust and rotor wear than Semi-Metallic pads.

Who is right?

- A. Technician A only
- B. Technician B only
- C. Both Technician A and Technician B
- D. Neither Technician A nor Technician B

16. All of the following are TRUE about Electronic Parking Brakes EXCEPT:

- A. They are used only on late model European vehicles
- B. They use an electric motor to apply the parking brake
- C. Most automatically release when the transmission is put into Drive or Reverse, but some require pushing a button to release
- D. They should not require periodic adjustments

17. A vacuum leak in a vacuum power booster will:

- A. Decrease pedal effort
- B. Increase pedal effort
- C. Have no effect on pedal effort
- D. Cause a pedal pulsation

18. What does the accumulator do in an Anti-Lock Brake system?

- A. It supplies vacuum to the Power Brake booster
- B. It stores fluid for the master brake cylinder reservoir
- C. It regulates pressure between the front and rear brake circuits
- D. It supplies braking pressure when ABS is required, or power assist on some vehicles

19. An ABS warning light that comes on and remains on while driving on means what?

- A. The ABS system is running a self-check
- B. Low brake fluid level
- C. The ABS system is temporarily disabled
- D. The ABS system is active

20. A BRAKE warning light that comes on and remains on may mean what?

- A. The parking brake has not been released
- B. Low brake fluid level in the master cylinder reservoir
- C. A leak or loss of pressure in a brake circuit
- D. Any of the above

21. All ABS systems do the following EXCEPT:

- A. Applies the brakes automatically if the driver fails to react quickly enough
- B. Monitors wheel speeds
- C. Monitors the position of the brake pedal
- D. May also provide stability control

22. Before servicing an ABS system that has a pump and accumulator:

- A. Pump the brake pedal 40 times with the key on to pressurize the accumulator
- B. Pump the brake pedal 40 times with the key off to depressurize the accumulator
- C. Pump the brake pedal 40 times with the key off to pressurize the accumulator
- D. Pump the brake pedal 40 times with the key on to pressurize the accumulator

23. Technician A says all vehicles with ABS require special replacement brake pads. Technician B says a failure of the ABS system results in total brake failure. Who is right?

- A. Technician A only
- B. Technician B only
- C. Both Technician A and Technician B
- D. Neither Technician A nor Technician B

24. A "hard" brake pedal (one that requires extra effort) can be caused by:

- A. Worn linings
- B. Low brake fluid
- C. Weak return springs
- D. Faulty power booster

25. Technician A says a disc brake rotor with glazed or discolored patches on the surface has uneven wear and hard spots that may cause a brake pedal pulsation.

Technician B says uneven wear between inner and outer brake pads on a disc brake is the result of a warped rotor.

Who is right?

- A. Technician A only.
- B. Technician B only.
- C. Both Technician A and Technician B.
- D. Neither Technician A nor Technician B.

(Answer Key on Next Page)

BRAKE SELF-TEST ANSWER KEY

1C, 2B, 3B, 4C, 5D, 6C, 7C, 8D, 9D, 10C, 11C, 12A, 13D, 14C, 15B, 16A,
17B, 18D, 19C. 20D, 21A, 22B, 23D, 24D, 25A



Links to Brake Related Articles on the <https://www.aa1car.com> website:

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[Doing A Complete Brake Job](#)

Disc Brakes

[Disc Brakes](#)

[Disc Brake Repair](#)

[Brake Calipers](#)

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