Auto Upkeep (4th Edition)
Chapter 15 Test
Braking System

Name _____
Date ____/____/____
Test Score ____

Section 1: Selected Response
Directions: Place the letter that corresponds to the correct answer on the space provided.

___ 1. Which of the following components does a disc brake system use?
a. brake shoe
b. adjuster screw
c. wheel cylinder
d. caliper

___ 2. What is another name for a brake disc?
a. rotor
b. drum
c. shoe
d. pad

___ 3. What does ABS stand for?
a. Always Beware Skidding
b. Actual Braking System
c. Antilock Braking System
d. Apply Before Skidding

___ 4. What has been recently added to vehicles to help drivers maintain control during unstable situations such as attempting to avoid a crash or during unfavorable weather conditions?
a. parking brake
b. electronic stability control
c. disc brakes
d. drum brakes

___ 5. What does the braking system use to reduce the speed of a vehicle?
a. grease
b. lubrication
c. friction
d. oil

___ 6. What converts fluid pressure to mechanical motion?
a. caliper
b. brake shoe
c. rotor
d. bleeder

___ 7. Hybrid vehicles use _____ braking in addition to conventional brakes.
a. regional
b. regenerative
c. reactive
d. return

___ 8. The key principle in a hydraulic system is that fluid is _____.
   a. not compressible
   b. compressible
   c. lighter than air
   d. heavier than air

___ 9. What type of energy does a regenerative braking system recapture?
   a. potential
   b. kinetic
   c. light
   d. nuclear

___ 10. What is a common service interval for changing the brake fluid?
   a. every 4,500 miles
   b. every 45,000 miles
   c. every 450,000 miles
   d. brake fluid lasts a lifetime and doesn't need changing

___ 11. What type of system uses sensors to detect tire slippage during acceleration?
   a. traction control system
   b. electronic stability control
   c. brake assist system
   d. autonomous emergency braking

___ 12. What type of system can stop a vehicle during a critical situation without the driver pushing on the brake pedal?
   a. traction control system
   b. electronic stability control
   c. brake assist system
   d. autonomous emergency braking

___ 13. What is lidar?
   a. It is a light-emitting diode.
   b. It is technology that is used to monitor brake pad thickness.
   c. It is an acronym for light detection and ranging.
   d. It is used to measure the level of brake fluid in the master cylinder.

___ 14. Which of the following statements is true?
   a. A forward collision warning system uses similar technologies found in autonomous emergency braking systems, but they don't automatically apply the brakes.
   b. An adaptive cruise control is used to keep a constant speed while backing up.
   c. Traction control systems are used during deceleration.
   d. Electronic stability control maximizes oversteer and understeer situations.

___ 15. Rotor runout can occur _____.
   a. when you go over the speed limit.
   b. when you make a panic stop.
   c. when you use your cruise control too much.
   d. when lug nuts are unevenly torqued or if corrosion or dirt is between the rotor and hub.

Section 2: Selected Response ASE Style Questions
Directions: Place the letter that corresponds to the correct answer on the space provided.

___ 16. Technician A says that most new vehicles have ABS. Technician B says that ABS minimizes wheel lockup (skidding) by using sensors at each wheel (or in the differential) to monitor wheel speed. Who is correct?
a. Technician A
b. Technician B
c. Both Technician A and Technician B
d. Neither Technician A nor Technician B

___ 17. Technician A says that moisture and dirt do not harm brake fluid. Technician B says that moisture, dirt, and air are considered brake fluid contaminates. Who is correct?
a. Technician A
b. Technician B
c. Both Technician A and Technician B
d. Neither Technician A nor Technician B

___ 18. Technician A says on vehicles that have disc and drum brakes, the drum brakes are always on the front of the vehicle. Technician B says that it is common to have drum brakes on all four wheels on new vehicles. Who is correct?
a. Technician A
b. Technician B
c. Both Technician A and Technician B
d. Neither Technician A nor Technician B

___ 19. Technician A says that the master fluid reservoir is where the brake fluid is stored and checked. Technician B says that if you don't have brake fluid, windshield washer fluid can be used as a substitute. Who is correct?
a. Technician A
b. Technician B
c. Both Technician A and Technician B
d. Neither Technician A nor Technician B

___ 20. Technician A says that brake fluid never needs to be serviced. Technician B says that it is important to change brake fluid as recommended by the manufacturer to remove contaminates from the system. Who is correct?
a. Technician A
b. Technician B
c. Both Technician A and Technician B
d. Neither Technician A nor Technician B

Section 3: Constructed Response

Directions: Use complete sentences to answer the following questions. The criteria below will be used to assess your answers.

Outstanding (A = 4.0)	**Very Good (B = 3.0)**	**Acceptable (C = 2.0)**	**Attempted (D = 1.0)**	**Did Not Attempt (F = 0)**
Student demonstrates a complete understanding of the problem. Several details and examples were given to support the answer. The response was extremely well organized.	Student demonstrates a considerable understanding of the problem. Some details and examples were given to support the answer. The response was presented in a thoughtful manner.	Student demonstrates a partial understanding of the problem. Few details and examples were given to support the answer. The response was somewhat organized, but did not have smooth transitions.	Student demonstrates little understanding of the problem. Details and examples were not relevant or not given. The response was difficult to follow and confusing to the reader. However, the student made an honest attempt at answering the question.	No attempt was made to answer the question.

21. What is the purpose of the braking system? Explain how applying the brake pedal slows the vehicle.

22. What does it mean to "bleed" the brakes?