AT7 Chapter 108 A4 28 Questions

Tires and Wheels

1. What is the purpose of grooves in tire treads?
A. To increase tire wear
B. To improve fuel economy
C. To prevent hydroplaning and improve wet traction
D. To decrease tire noise
2. What is the foundation of a tire?
A. The tread
B. The bead
C. The body ply
D. The tire belts
3. What is the minimum recommended tread depth for a tire?
A. 1/32 inch
B. 2/32 inch
C. 3/32 inch
D. 4/32 inch
4. What do wear bars on a tire indicate?
A. The tire's brand
B. The tire's age
C. The tire's legal limit for tread depth
D. The tire's recommended air pressure

- 5. What is the purpose of tire belts? A. To stabilize the tread and increase tread life and handling B. To improve fuel economy C. To decrease tire noise D. To increase the tire's load capacity 6. What is the purpose of white sidewall or lettered tires? A. To improve tire performance B. To increase tire wear C. To make the tire more visible D. To decrease tire noise 7. What is the service description method of sidewall information? A. A method of indicating the tire's age B. A method of indicating the tire's speed rating C. A method of indicating the tire's load capacity and speed rating D. A method of indicating the tire's recommended air pressure
- 8. What is the purpose of high-flotation tires?
- A. To improve fuel economy
- B. To increase tire wear
- C. To improve off-road performance
- D. To decrease tire noise
- 9. What can happen if tires are too wide?
- A. They can increase fuel economy
- B. They can contact inner wheel well or suspension components
- C. They can decrease tire noise
- D. They can decrease tire wear

10. What is the "plus 1" concept?
A. Replacing wheels with smaller diameter wheels
B. Replacing wheels with larger diameter wheels to compensate for lower aspect ratio of wider tires
C. Replacing tires with wider tires
D. Replacing tires with narrower tires
11. What can affect speedometer readings and fuel economy when changing tire size?
A. The tire's age
B. The tire's brand
C. The tire's aspect ratio and outside diameter
D. The tire's load capacity and speed rating
12. What does the UTQGS system grade tires based on?
A. Load capacity, speed rating, and temperature resistance
B. Tread wear, traction, and temperature resistance
C. Tread depth, load capacity, and speed rating
D. Tread wear, load capacity, and speed rating
13. What does the M&S rating indicate?
A. Maximum sustained speed rating
B. Tread wear rating
C. All-season tires designed for mud and snow
D. Three-peak mountain snowflake rating
14. Which of the following cannot be corrected by switching tires left to right?
A. Ply steer
B. Tire conicity
C. Load capacity
D. Speed rating

- 15. What should be checked when replacing tires?
- A. Correct tire size, speed rating, and load rating
- B. Correct tire size, brand, and price
- C. Correct tire size, tread depth, and UTQGS rating
- D. Correct tire size, tread wear, and traction rating
- 16. What is the purpose of the load index?
- A. To indicate the maximum sustained speed of a tire
- B. To indicate the tread wear of a tire
- C. To indicate the load-carrying capabilities of a tire
- D. To indicate the temperature resistance of a tire
- 17. What is the DOT code on a tire used for?
- A. To identify the manufacturer and build date of the tire
- B. To indicate the load-carrying capabilities of the tire
- C. To indicate the maximum sustained speed of the tire
- D. To indicate the tread wear of the tire
- 18. What should be selected when choosing tires based on the climate they will be driven in?
- A. The brand of the tire
- B. The tread wear rating of the tire
- C. The speed rating of the tire
- D. Summer, winter, or all-season tires
- 19. What is the purpose of the rim width and tire size limits?
- A. To ensure proper tire fitment and performance
- B. To limit the maximum speed of the vehicle
- C. To increase the load-carrying capacity of the tire
- D. To improve the traction and handling of the vehicle

20. What is the purpose of space-saver spare tires?
A. To improve vehicle handling
B. To increase fuel economy
C. To provide better traction on wet roads
D. To reduce the risk of blowouts
21. What should you do before using a spare tire?
A. Check the air pressure
B. Read warning labels and understand use restrictions
C. Inflate the tire to the maximum pressure
D. Replace the tire if it looks worn
22. What is a run-flat tire?
A. A tire that can operate without air for an unlimited distance
B. A tire that can operate without air for a limited distance
C. A tire that is designed for off-road use only
D. A tire that is designed for high-speed driving
23. What are wheels made of?
A. Wood and steel
B. Steel or aluminum alloy
C. Plastic and rubber
D. Carbon fiber
24. What is the center section of the wheel called?
A. The rim
B. The tire
C. The spider
D. The hub

- 25. What is wheel offset?
- A. The distance between the back rim edge and the wheel center section mounting pad
- B. The distance between the rim and the tire
- C. The distance between the front and rear wheels
- D. The distance between the hub and the brake assembly
- 26. What is the purpose of lug nuts?
- A. To hold the wheel onto the brake or bearing assembly
- B. To balance the wheel
- C. To prevent the wheel from spinning
- D. To improve the vehicle's traction
- 27. What type of valve is used in tires?
- A. Ball valve
- B. Gate valve
- C. Schrader valve
- D. Butterfly valve
- 28. What is the purpose of tapered lug nuts?
- A. To improve the vehicle's handling
- B. To center the wheel and prevent loosening
- C. To reduce the risk of blowouts
- D. To make it easier to remove the wheel

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