

Chapter 01: Introduction to Servicing Heavy-Duty Trucks

Multiple Choice

1. What is the minimum truck class rating required to haul a load of 34,000 pounds?

- a. Class 5
- b. Class 6
- c. Class 7
- d. Class 8

ANSWER:

d

2. Which of the GVW categories would a Class 6 truck be rated at?

- a. 14,001–6,000 GVW
- b. 33,001 GVW and over
- c. 19,501–26,000 GVW
- d. 10,001–14,000 GVW

ANSWER:

c

3. Which of the following types of clutches are used in heavy-duty truck powertrains?

- a. pull-type
- b. push-type
- c. two-plate
- d. all of the above

ANSWER:

d

4. Which of the following truck configurations has a single drive axle?

- a. 4×2
- b. 4×4
- c. 6×4
- d. 6×6

ANSWER:

a

5. How is the wheelbase measured on a tandem axle truck?

- a. Forward edge of the front tire to the rear edge of the rear tandem tire
- b. Center of the front tire to the center of the rear tandem tire
- c. From the centerline of the front wheel to the centerline of the tandem spread
- d. None of the above

ANSWER:

c

6. What is the maximum number of forward gear ratios that have been used in highway heavy-duty truck transmissions?

- a. 10
- b. 13
- c. 15
- d. 20

ANSWER:

d

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7. Which of the statements about brake systems used on heavy-duty trucks is **NOT** true?

- a. Class 8 trucks use air brake systems
- b. Current production trucks and trailers are equipped with ABS
- c. Disc brakes are not used on heavy duty trucks
- d. Some class 7 trucks have air-over-hydraulic brakes

ANSWER:

c

8. Technician A says that most current Class 8 trucks use power-assisted steering. Technician B says that rack and pinion steering is a recent introduction in trucks. Who is correct?

- a. Technician A only
- b. Technician B only
- c. Both A and B
- d. Neither A nor B

ANSWER:

c

9. Which of these organizations conducts a certification program for truck technicians?

- a. ASE
- b. NHTSA
- c. ATA
- d. FMVSS

ANSWER:

a

10. Which of the following terms describes a trucking operation that runs goods from terminal to terminal?

- a. Linehaul
- b. Less than load (LTL)
- c. Vocational
- d. Pick-up and delivery

ANSWER:

a

11. Which ASE certification test qualifies truck technicians to work on air brake systems?

- a. T1
- b. T3
- c. T4
- d. T5

ANSWER:

c

12. Which of the following is not mounted on an axle?

- a. cast spoke wheel
- b. hub-piloted disc wheel
- c. stud-piloted disc wheel
- d. fifth wheel

ANSWER:

d

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13. Which of the following is NOT a type of vehicle retarder?

- a. internal engine brake
- b. transmission hydraulic retarder
- c. driveline brake
- d. kingpin lock

ANSWER:

d

14. Which of the following components couples a trailer to a tractor fifth wheel?

- a. upper coupler plate
- b. kingpin
- c. bazooka
- d. secondary lock

ANSWER:

b

15. Which of the following components is used to transfer torque from the transmission to the driveshaft?

- a. hanger bearing
- b. slip spline
- c. final drive carrier
- d. end yoke

ANSWER:

d

16. What component is used in drivelines to allow torque transfer between two drive components on different planes?

- a. slip splines
- b. U-joints
- c. yokes
- d. hanger bearings

ANSWER:

b

17. Which ASE test certifies technicians to work on truck electrical systems?

- a. T1
- b. T3
- c. T5
- d. T6

ANSWER:

d

18. If a technician holds ASE T5 certification, what is he or she certified to work on?

- a. diesel engines
- b. truck brake systems
- c. suspension and steering systems
- d. HVAC systems

ANSWER:

c

19. What is another way of describing an 'independent trucker'?

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- a. owner-operator
- b. private fleet
- c. cowboy
- d. fleet manager

ANSWER:

a

20. Which of the following is a major advantage of a truck air suspension system?

- a. improved ride
- b. greater driver comfort
- c. adjusts from loaded to unloaded states
- d. all of the above

ANSWER:

d

21. How many tires would be found on a typical tandem drive, highway tractor?

- a. 6
- b. 8
- c. 10
- d. 12

ANSWER:

c

22. What is the advantage of using two or three countershafts in a heavy-duty truck transmission?

- a. multiplies output torque
- b. divides torque reducing stress on gears
- c. increases overall transmission length
- d. easier to overhaul

ANSWER:

b

23. If a truck is described as a tandem drive, highway tractor, how many axles does it have?

- a. 2
- b. 3
- c. 4
- d. 6

ANSWER:

b

24. What is the front of a trailer sometimes known as?

- a. nose
- b. snout
- c. landing gear
- d. upper coupler

ANSWER:

a

25. Which of the following correctly describes GVW?

- a. weight of the vehicle

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- b. weight of the load
- c. weight of the vehicle and its load
- d. weight of the vehicle minus its load

ANSWER:

c

26. Which of the following truck brand names is owned by Paccar?

- a. Sterling
- b. Western Star
- c. Mack Trucks
- d. Kenworth

ANSWER:

d

27. Which of the following acronyms is used to describe the overall length of a tractor-semi trailer combination?

- a. AF
- b. OAL
- c. OWB
- d. TL

ANSWER:

b

28. What is another way of saying 'computer-controlled'?

- a. hydromechanically managed
- b. electrically controlled
- c. electronically managed
- d. hydraulically actuated

ANSWER:

c

29. Approximately what percentage of total freight volume is handled by trucks nationwide?

- a. 10%
- b. 50%
- c. 80%
- d. 95%

ANSWER:

c

30. Which of the following occupations in the truck service industry has an ASE certification test?

- a. medium/heavy duty parts specialist
- b. service manager
- c. service writer
- d. general manager

ANSWER:

a

31. If a standard 6X4 highway tractor is converted from duals to wide base singles on the drive axles, how many tires would the unit have in total?

- a. Four

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- b. Six
- c. Eight
- d. Ten

ANSWER:

b

32. If what is known as a standard 18-wheeler has its duals replaced by wide-base singles throughout the rig, what would be the total number of tires?

- a. Ten
- b. Twelve
- c. Fourteen
- d. Sixteen

ANSWER:

a

33. Which of the following accounts for an increase in auxiliary HVAC systems on late model trucks?

- a. Drivers are not as hardy today.
- b. Anti-idling legislation in some areas.
- c. Diesel fuel today has more sulfur.
- d. Drivers sleep better without the engine noise.

ANSWER:

b

34. Which ASE certification category qualifies transit bus technicians?

- a. B-Series
- b. T-Series
- c. S-Series
- d. H-Series

ANSWER:

d

35. Technician A says that an ASE T-Series certified truck technician is eligible to join the ATA Technology and Maintenance Council (TMC) as a technician member. Technician B says that two years of hands-on experience are required to be eligible to take ASE T-Series certification tests? Who is correct?

- a. Technician A only
- b. Technician B only
- c. Both A and B
- d. Neither A nor B

ANSWER:

c

36. Which of the following would be associated with hotel loads (shore power)?

- a. DC power
- b. AC power
- c. V-Bat
- d. V-Ref

ANSWER:

b

37. Which of the following terms refers to the tracking, moving, storing, and delivery of cargo?

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- a. Linehaul
- b. Pick and delivery
- c. Just-in-time delivery
- d. Logistics

ANSWER:

d

38. Which of the following terms would be used to classify a fire truck?

- a. Vocational
- b. Pick-up and delivery
- c. LTL
- d. Linehaul

ANSWER:

a

39. Which of the following technologies is most responsible for making semi-autonomous truck operation common today?

- a. Battery Electric Drivetrains
- b. ADAS
- c. LTL
- d. Electric Steering

ANSWER:

b

40. What communications technology makes platooning of truck rigs possible?

- a. Telematics
- b. Robots
- c. Electronic hitches
- d. Smart phones

ANSWER:

b