

PRACTICE EXAM 8

1. A part costs the store \$64 and is sold for \$80. What is the gross profit margin on this sale?
 - A. 20 percent, based on profit relative to selling price
 - B. 25 percent, based on the markup over cost
 - C. 80 percent, based on cost relative to price
 - D. 125 percent, based on price relative to cost

2. A part costs \$45 and is priced to a 40% gross margin. What is the selling price?
 - A. \$63.00, the cost plus a 40 percent markup
 - B. \$27.00, the cost reduced by a margin factor
 - C. \$64.29, the cost divided by 1.40
 - D. \$75.00, the cost divided by 0.60

3. A remanufactured starter is priced at \$95 with a \$30 core charge. The customer has not returned a core. How much is paid at purchase, before tax?
 - A. \$65.00, the price minus the core charge
 - B. \$95.00, the price with no core charge
 - C. \$125.00, the price plus the core charge
 - D. \$95.00 with the core charge refunded immediately

4. Parts Specialist A says markup is figured on the cost. Parts Specialist B says margin is figured on the selling price. Who is correct?
 - A. A only

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

5. A specialist applies a 20% wholesale discount to a \$180 part. What is the discounted price?

- A. \$144.00, the price times 0.80
- B. \$216.00, the price times 1.20
- C. \$160.00, the price minus \$20
- D. \$36.00, the discount amount alone

6. A part listed "sold each" is needed for a front brake job covering two wheels. How many pads should be ordered?

- A. One, since the listing covers the job
- B. Two, one for the entire axle
- C. Four, two for each of the two front wheels
- D. Three, with one kept as a spare

7. A 30% markup is applied to a part costing \$70. What is the selling price?

- A. \$49.00, the cost minus a discount
- B. \$21.00, the markup amount alone
- C. \$100.00, the cost divided by 0.70
- D. \$91.00, the cost plus the 30 percent markup

8. A specialist applies a 25% discount to a \$240 part, then adds 8% sales tax. What is the final total?

- A. \$194.40, discount first then tax

- B. \\$240.00, with neither discount nor tax
- C. \\$259.20, tax first then discount
- D. \\$180.00, discount only with no tax

9. A ring and pinion set has a 3.55:1 ratio. What does this mean?

- A. The axle turns 3.55 times per driveshaft revolution
- B. The ratio refers to the tire diameter in inches
- C. The ratio describes the differential fluid capacity
- D. The driveshaft turns 3.55 times per axle revolution

10. Parts Specialist A says a core charge is non-refundable profit. Parts Specialist B says the core charge is refunded when the old core is returned. Who is correct?

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

11. A part is listed "per axle," and a customer is servicing both the front and rear. How many units are needed?

- A. One, since the listing covers the vehicle
- B. Two, one per axle for both axles
- C. Four, one for each wheel
- D. Three, with one as a spare

12. A specialist applies a 15% discount to a \\$200 part in a single step. Which calculation is correct?

- A. Multiply $\$200$ by 0.85 to get $\$170$
- B. Multiply $\$200$ by 1.15 to get $\$230$
- C. Add $\$15$ to $\$200$ to get $\$215$
- D. Divide $\$200$ by 0.15 to get about $\$1,333$

13. A part costs $\$100$ and sells for $\$125$. Which statement about the markup and margin is correct?

- A. The markup is 20 percent and the margin is 25 percent
- B. Both the markup and margin are 25 percent
- C. The margin is larger than the markup
- D. The markup is 25 percent and the margin is 20 percent

14. A battery has a $\$22$ core charge. A customer buys it for $\$130$ plus the core, then returns the old battery. What is the customer's net cost after the core return, before tax?

- A. $\$152.00$, the price plus the core kept
- B. $\$130.00$, the price after the core is credited back
- C. $\$108.00$, the price minus the core charge
- D. $\$22.00$, the core charge alone

15. Parts Specialist A says a 40% markup and a 40% margin produce the same selling price. Parts Specialist B says markup and margin are figured on different bases. Who is correct?

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

16. A part is priced to a 30% margin from a $\$84$ cost. What is the selling price?

- A. \$109.20, the cost plus a markup
- B. \$58.80, the cost reduced by a factor
- C. \$120.00, the cost divided by 0.70
- D. \$64.62, the cost divided by 1.30

17. A specialist quotes a \$60 part with an additional \$12 handling charge for an outside purchase. What is the subtotal before tax?

- A. \$72.00, the part price plus the handling charge
- B. \$48.00, the part price minus the handling charge
- C. \$60.00, the part price with no handling charge
- D. \$12.00, the handling charge alone

18. A part costs \$50 and is marked up 20%. A second identical part is sold at the same price. What is the total selling price for both, before tax?

- A. \$100.00, the cost of both with no markup
- B. \$60.00, the price of one marked-up part
- C. \$120.00, two parts at \$60 each
- D. \$140.00, the cost divided by a factor

19. Which VIN position holds the calculated check digit?

- A. Position 10, the model year
- B. Position 1, the country of origin
- C. Position 9, the check digit
- D. Position 11, the assembly plant

20. A customer needs four spark plugs at $\$8$ each and one air filter at $\$24$. What is the subtotal before tax?

- A. $\$56.00$, four plugs plus the filter
- B. $\$32.00$, one plug plus the filter
- C. $\$24.00$, the filter alone
- D. $\$48.00$, the plugs alone

21. Parts Specialist A says DOT 5 is silicone-based. Parts Specialist B says DOT 5.1 is also silicone-based. Who is correct?

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

22. A part with a $\$150$ list price is sold to a wholesale account at a 30% trade discount. What does the account pay, before tax?

- A. $\$195.00$, the list plus a markup
- B. $\$120.00$, the list minus $\$30$
- C. $\$45.00$, the discount amount alone
- D. $\$105.00$, the list times 0.70

23. A specialist must total an invoice: two parts at $\$40$ each, a $\$25$ core charge, then 10% tax on the full amount. What is the total?

- A. $\$105.00$, with no tax applied
- B. $\$110.00$, tax on the parts only
- C. $\$112.50$, tax before the core charge

D. \$115.50, parts plus core, then 10 percent tax

24. Parts Specialist A says a counter ticket includes labor charges. Parts Specialist B says a repair order includes both parts and labor. Who is correct?

A. Both A and B

B. B only

C. A only

D. Neither A nor B

25. A part is priced at \$90 with a 25% margin. To check, the specialist computes the cost. What was the cost?

A. \$72.00, the price reduced by 20 percent

B. \$67.50, the price times 0.75

C. \$112.50, the price divided by 0.80

D. \$22.50, the margin amount alone

26. A 33-count of a part is needed at \$3 per unit. What is the cost before any markup or tax?

A. \$99.00, thirty-three units times \$3

B. \$36.00, twelve units times \$3

C. \$33.00, the count alone as dollars

D. \$11.00, one-third of the count

27. Parts Specialist A says a turbocharger is belt-driven. Parts Specialist B says a turbocharger is driven by exhaust gas. Who is correct?

A. A only

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

28. A part's selling price is \$140 and its cost is \$112. What is the markup percentage?

- A. 20 percent, based on the selling price
- B. 28 percent, the dollar profit alone
- C. 80 percent, cost relative to price
- D. 25 percent, profit relative to cost

29. A customer buys three quarts of oil at \$7 each and one filter at \$9. With a \$2 drain plug gasket, what is the subtotal before tax?

- A. \$21.00, the oil alone
- B. \$30.00, the oil plus the filter only
- C. \$32.00, oil, filter, and gasket combined
- D. \$16.00, the filter plus the gasket

30. A specialist applies a 10% discount to a \$250 part on a tax-exempt account. What is the amount due?

- A. \$275.00, the price plus a markup
- B. \$250.00, with no discount applied
- C. \$225.00, the discounted price with no tax
- D. \$247.50, discount plus tax added

31. Parts Specialist A says a rotor has a maximum diameter spec. Parts Specialist B says a drum has a maximum diameter spec. Who is correct?

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

32. A part costs \$200 and is priced to a 50% margin. What is the selling price?

- A. \$300.00, the cost plus a 50 percent markup
- B. \$250.00, the cost plus \$50
- C. \$400.00, the cost divided by 0.50
- D. \$100.00, half the cost

33. A customer needs two front pads and two rear pads, each listed "sold each" at \$15. What is the subtotal before tax?

- A. \$30.00, two pads only
- B. \$60.00, four pads at \$15 each
- C. \$45.00, three pads
- D. \$15.00, one pad

34. A part with a \$48 cost is marked up 50%. What is the selling price?

- A. \$24.00, half the cost
- B. \$96.00, double the cost
- C. \$72.00, the cost plus the 50 percent markup
- D. \$32.00, the cost reduced by a factor

35. Parts Specialist A says CVT fluid and conventional ATF are interchangeable. Parts Specialist B says a CVT requires dedicated fluid. Who is correct?

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

36. A specialist sells a \$120 part and adds 8% tax with no discount. What is the total?

- A. \$129.60, the price plus 8 percent tax
- B. \$110.40, the price minus 8 percent
- C. \$120.00, with no tax applied
- D. \$96.00, the price times 0.80

37. A part costs \$75 and is sold at a 20% margin. What is the selling price?

- A. \$90.00, the cost plus a 20 percent markup
- B. \$93.75, the cost divided by 0.80
- C. \$60.00, the cost reduced by 20 percent
- D. \$15.00, the margin amount alone

38. Parts Specialist A says a part listed "sold in pairs" is sold as a pair. Parts Specialist B says it can be split and sold individually. Who is correct?

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

39. A specialist applies a 25% discount to a \$160 part in one step. Which calculation is correct?

- A. Multiply $\$160$ by 1.25 to get $\$200$
- B. Add $\$25$ to $\$160$ to get $\$185$
- C. Divide $\$160$ by 0.25 to get $\$640$
- D. Multiply $\$160$ by 0.75 to get $\$120$

40. A part has a list price of $\$220$ and sells at a 30% trade discount. What does the wholesale account pay, before tax?

- A. $\$286.00$, the list plus a markup
- B. $\$154.00$, the list times 0.70
- C. $\$66.00$, the discount amount alone
- D. $\$190.00$, the list minus $\$30$

41. Which engine oil viscosity element indicates cold-temperature flow in the rating 5W-20?

- A. The "5W," reflecting cold-weather performance
- B. The "20," reflecting hot-temperature viscosity
- C. The dash between the numbers
- D. The total of the two numbers added

42. A part costing $\$90$ is sold for $\$120$. What is the gross profit in dollars?

- A. $\$120.00$, the selling price itself
- B. $\$30.00$, the selling price minus the cost
- C. $\$90.00$, the cost alone
- D. $\$210.00$, the cost plus the price

43. Parts Specialist A says a fuse should be upsized if it keeps blowing. Parts Specialist B says the cause should be addressed and the same rating used. Who is correct?

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

44. A customer needs six lug nuts at $\$2.50$ each. What is the cost before tax?

- A. $\$2.50$, the price of one
- B. $\$10.00$, four lug nuts
- C. $\$25.00$, ten lug nuts
- D. $\$15.00$, six lug nuts at $\$2.50$

45. A part is priced at $\$100$ to a 20% margin. What was the cost?

- A. $\$80.00$, the price times 0.80
- B. $\$83.33$, the price divided by 1.20
- C. $\$120.00$, the price plus 20 percent
- D. $\$20.00$, the margin amount alone

46. Parts Specialist A says the VIN model year is in position 10. Parts Specialist B says the engine data is often in the descriptor section. Who is correct?

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

47. A specialist quotes a $\$300$ part at a 10% discount, then a 5% tax. What is the final total?

- A. \\$300.00, with neither applied
- B. \\$270.00, the discount only
- C. \\$283.50, discount first then tax
- D. \\$315.00, tax first then no discount

48. A part's cost is \\$60 and its selling price is \\$90. What is the margin percentage?

- A. 50 percent, profit relative to cost
- B. 33.3 percent, profit relative to selling price
- C. 30 percent, the dollar profit alone
- D. 150 percent, price relative to cost

49. Parts Specialist A says R-134a and R-1234yf are not interchangeable. Parts Specialist B says any refrigerant can be mixed safely. Who is correct?

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

50. A customer buys two rotors at \\$45 each and a hardware kit at \\$12. What is the subtotal before tax?

- A. \\$90.00, the rotors alone
- B. \\$102.00, two rotors plus the hardware kit
- C. \\$57.00, one rotor plus the kit
- D. \\$45.00, one rotor

51. A part costs \\$160 and is priced to a 20% margin. What is the selling price?

- A. \$192.00, the cost plus a markup
- B. \$200.00, the cost divided by 0.80
- C. \$128.00, the cost reduced by 20 percent
- D. \$133.33, the cost divided by 1.20

52. Parts Specialist A says a strut is structural and load-bearing. Parts Specialist B says a plain shock is also structural. Who is correct?

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

53. A specialist applies a 40% trade discount to a \$250 list price. What does the account pay, before tax?

- A. \$350.00, the list plus a markup
- B. \$150.00, the list times 0.60
- C. \$100.00, the discount amount alone
- D. \$210.00, the list minus \$40

54. A part is marked up 25% from a \$120 cost. What is the selling price?

- A. \$150.00, the cost plus the 25 percent markup
- B. \$96.00, the cost reduced by 20 percent
- C. \$160.00, the cost divided by 0.75
- D. \$30.00, the markup amount alone

55. A customer buys a \$40 part and a \$60 part, then receives a 10% discount on the combined subtotal. What is the discounted subtotal, before tax?

- A. \$90.00, the \$100 subtotal times 0.90
- B. \$100.00, with no discount applied
- C. \$110.00, the subtotal plus 10 percent
- D. \$10.00, the discount amount alone

56. Parts Specialist A says outgoing delivery merchandise needs no verification. Parts Specialist B says both incoming and outgoing merchandise should be verified. Who is correct?

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

57. A part costing \$80 is sold for \$100. What is the markup percentage?

- A. 25 percent, profit relative to cost
- B. 20 percent, profit relative to selling price
- C. 80 percent, cost relative to price
- D. 125 percent, price relative to cost

58. A specialist sells three belts at \$18 each with a 10% discount on the total. What is the discounted total, before tax?

- A. \$54.00, with no discount applied
- B. \$60.00, the total plus a markup
- C. \$5.40, the discount amount alone

D. $\$48.60$, the $\$54$ total times 0.90

59. Parts Specialist A says the alternator stores energy. Parts Specialist B says the alternator converts engine rotation into electrical current. Who is correct?

A. A only

B. B only

C. Both A and B

D. Neither A nor B

60. A part is priced at $\$200$ to a 40% margin. What was the cost?

A. $\$120.00$, the price times 0.60

B. $\$140.00$, the price minus $\$60$

C. $\$280.00$, the price divided by a factor

D. $\$80.00$, the margin amount alone

61. A customer needs two front struts at $\$85$ each, replaced as a pair. What is the subtotal before tax?

A. $\$85.00$, one strut only

B. $\$255.00$, three struts

C. $\$170.00$, two struts at $\$85$ each

D. $\$340.00$, four struts

62. Parts Specialist A says a clutch is replaced as a kit with the disc, pressure plate, and release bearing. Parts Specialist B says only the disc is ever replaced. Who is correct?

A. A only

B. B only

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

63. A part costing \$144 is priced to a 25% margin. What is the selling price?

- A. \$180.00, the cost plus a markup
- B. \$108.00, the cost reduced by 25 percent
- C. \$115.20, the cost divided by 1.25
- D. \$192.00, the cost divided by 0.75

64. A specialist applies an 8% tax to a \$50 part with no discount. What is the total?

- A. \$46.00, the price minus 8 percent
- B. \$50.00, with no tax applied
- C. \$54.00, the price plus 8 percent tax
- D. \$58.00, the price plus 16 percent

65. Parts Specialist A says the thermostat regulates coolant flow. Parts Specialist B says the radiator cap maintains system pressure. Who is correct?

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

66. A part costs \$36 and is marked up 25%. What is the selling price?

- A. \$27.00, the cost reduced by 25 percent
- B. \$48.00, the cost divided by 0.75

- C. \$9.00, the markup amount alone
- D. \$45.00, the cost plus the 25 percent markup

67. A customer needs the production date of a vehicle. Parts Specialist A says it is the model year. Parts Specialist B says it is the actual build date on the door-jamb label. Who is correct?

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

68. A part is priced at \$160 to a 20% margin. What was the cost?

- A. \$192.00, the price plus a markup
- B. \$133.33, the price divided by 1.20
- C. \$140.00, the price minus \$20
- D. \$128.00, the price times 0.80

69. Parts Specialist A says a wheel must match the bolt pattern. Parts Specialist B says offset affects clearance. Who is correct?

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

70. A specialist totals: one part at \$70, a 20% discount, then 5% tax. What is the final total?

- A. \$70.00, with neither applied

- B. \$56.00, the discount only
- C. \$73.50, tax first then no discount
- D. \$58.80, discount first then tax

71. A part's cost is \$50 and selling price is \$75. What is the gross profit in dollars?

- A. \$75.00, the selling price itself
- B. \$25.00, the selling price minus the cost
- C. \$50.00, the cost alone
- D. \$125.00, the cost plus the price

72. Parts Specialist A says a coil-on-plug engine uses plug wires. Parts Specialist B says a coil-on-plug engine uses individual coils with no wires. Who is correct?

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

73. A 33-count letter pair appears in a series; unrelated to that, a customer needs 4 tires at \$110 each. What is the subtotal before tax?

- A. \$110.00, one tire only
- B. \$220.00, two tires
- C. \$440.00, four tires at \$110 each
- D. \$330.00, three tires

74. A part costs \$96 and is priced to a 25% margin. What is the selling price?

- A. \$120.00, the cost plus a markup
- B. \$72.00, the cost reduced by 25 percent
- C. \$128.00, the cost divided by 0.75
- D. \$76.80, the cost divided by 1.25

75. Parts Specialist A says interchange lists cross-reference part numbers across brands. Parts Specialist B says interchange lists set retail prices. Who is correct?

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

76. A specialist applies a 15% discount to a \$300 part, then 6% tax. What is the final total?

- A. \$300.00, with neither applied
- B. \$255.00, the discount only
- C. \$318.00, tax first then no discount
- D. \$270.30, discount first then tax

77. A part costing \$110 is sold for \$132. What is the markup percentage?

- A. 20 percent, profit relative to cost
- B. 22 percent, the dollar profit alone
- C. 16.7 percent, profit relative to selling price
- D. 120 percent, price relative to cost

78. Parts Specialist A says a lost sale should be reported to capture demand. Parts Specialist B says lost sales should be ignored. Who is correct?

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

79. A customer buys two wiper blades at $\$14$ each and a bottle of washer fluid at $\$5$. What is the subtotal before tax?

- A. $\$28.00$, the blades only
- B. $\$33.00$, two blades plus the fluid
- C. $\$19.00$, one blade plus the fluid
- D. $\$14.00$, one blade

80. A part is priced to a 50% margin from a $\$120$ cost. What is the selling price?

- A. $\$180.00$, the cost plus a 50 percent markup
- B. $\$170.00$, the cost plus $\$50$
- C. $\$60.00$, half the cost
- D. $\$240.00$, the cost divided by 0.50

81. Parts Specialist A says a TTY head bolt can be reused. Parts Specialist B says a TTY head bolt is typically single-use. Who is correct?

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

82. A specialist sells a \$50 part with a \$10 handling charge and 8% tax on the total. What is the final amount?

- A. \$50.00, with neither added
- B. \$64.80, the \$60 subtotal plus 8 percent tax
- C. \$54.00, tax on the part only
- D. \$60.00, the subtotal with no tax

83. A part costs \$108 and is priced to a 40% margin. What is the selling price?

- A. \$151.20, the cost plus a markup
- B. \$64.80, the cost reduced by 40 percent
- C. \$77.14, the cost divided by 1.40
- D. \$180.00, the cost divided by 0.60

84. Parts Specialist A says a physical inventory sets retail prices. Parts Specialist B says a physical inventory reconciles counts with actual stock. Who is correct?

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

85. A customer needs four quarts of oil at \$6 each, a filter at \$8, and a 10% discount on the subtotal. What is the discounted subtotal, before tax?

- A. \$32.00, the oil alone
- B. \$28.80, the \$32 subtotal times 0.90
- C. \$40.00, oil plus filter with no discount

D. \$24.00, three quarts plus the filter

Answer Key & Explanations

1. A — 20 percent, based on profit relative to selling price. $\text{Margin} = \text{profit} \div \text{selling price} = \$16 \div \$80 = 20\%$. Margin is always figured on the selling price, not the cost.

2. D — \$75.00, the cost divided by 0.60. Pricing to a target margin divides cost by $(1 - \text{margin})$: $\$45 \div 0.60 = \75 . Margin is figured on the selling price.

3. C — \$125.00, the price plus the core charge. The core charge is added at purchase: $\$95 + \$30 = \$125$, recovered when the old core is returned. It is paid up front as a deposit.

4. C — Both A and B. Markup is figured on the cost and margin is figured on the selling price; both statements are correct. They reference the same profit dollars from different bases.

5. A — \$144.00, the price times 0.80. A 20% discount applied in one step multiplies by 0.80: $\$180 \times 0.80 = \144 . This single-step method is fastest.

6. C — Four, two for each of the two front wheels. A pad listing "sold each" for a two-wheel front brake job requires four pads. Reading the packaging basis prevents a quantity error.

7. D — \$91.00, the cost plus the 30 percent markup. Pricing to a markup multiplies cost by 1.30: $\$70 \times 1.30 = \91 . Markup is figured on cost.

8. A — \$194.40, discount first then tax. Apply the 25% discount: $\$240 \times 0.75 = \180 , then 8% tax: $\$180 \times 1.08 = \194.40 . Discount comes before tax.

9. D — The driveshaft turns 3.55 times per axle revolution. A 3.55:1 ratio means the driveshaft (pinion) turns 3.55 times for each axle (ring gear) revolution. This must be matched when ordering a ring and pinion.

10. B — B only. The core charge is refunded when the old core is returned, so B is correct; it is a deposit, not non-refundable profit, so A is wrong. The deposit returns to the customer.

11. B — Two, one per axle for both axles. A part listed "per axle" requires one per axle, so both front and rear need two. Reading the packaging basis prevents a quantity error.

12. A — Multiply $\$200$ by 0.85 to get $\$170$. A 15% discount in one step multiplies by $(1 - 0.15) = 0.85$, giving $\$170$. This is faster than subtracting the discount.

13. D — The markup is 25 percent and the margin is 20 percent. Profit is $\$25$; markup = $\$25 \div \$100 = 25\%$, margin = $\$25 \div \$125 = 20\%$. Markup (on cost) exceeds margin (on price).

14. B — $\$130.00$, the price after the core is credited back. The customer pays $\$130 + \22 core at purchase, then recovers the $\$22$ on return, netting $\$130$. The core charge is a refundable deposit.

15. C — B only. Markup and margin are figured on different bases, so B is correct; a 40% markup and 40% margin do not produce the same price, so A is wrong. The different bases yield different prices.

16. C — $\$120.00$, the cost divided by 0.70 . Pricing to a 30% margin divides cost by $(1 - 0.30)$: $\$84 \div 0.70 = \120 . Margin is figured on the selling price.

17. A — $\$72.00$, the part price plus the handling charge. The subtotal adds the handling charge to the part: $\$60 + \$12 = \$72$. A handling charge compensates the store for the added cost of an outside purchase.

18. C — $\$120.00$, two parts at $\$60$ each. Each part sells at $\$50 \times 1.20 = \60 , and two total $\$120$. Markup is figured on cost.

19. C — Position 9, the check digit. The check digit is in position 9, calculated from the other characters to detect a mistyped VIN. Position 10 is the model year.

20. A — $\$56.00$, four plugs plus the filter. Four plugs at $\$8 = \32 , plus the $\$24$ filter = $\$56$. Summing the line items gives the subtotal.

21. C — A only. DOT 5 is silicone-based, so A is correct; DOT 5.1 is glycol-based, not silicone, so B is wrong. The two are incompatible despite the similar numbers.

22. D — $\$105.00$, the list times 0.70. A 30% trade discount multiplies by 0.70: $\$150 \times 0.70 = \105 . This is the wholesale price before tax.

23. D — $\$115.50$, parts plus core, then 10 percent tax. Two parts ($\$80$) plus the $\$25$ core = $\$105$, then 10% tax: $\$105 \times 1.10 = \115.50 . The core charge is part of the taxable subtotal here.

24. B — B only. A repair order includes both parts and labor, so B is correct; a counter ticket records only a parts sale without labor, so A is wrong. The two documents differ in scope.

25. B — $\$67.50$, the price times 0.75. To find the cost from a 25% margin, multiply the price by $(1 - \text{margin})$: $\$90 \times 0.75 = \67.50 . Margin is figured on the selling price.

26. A — $\$99.00$, thirty-three units times $\$3$. The cost is $33 \times \$3 = \99 before any markup or tax. Multiplying quantity by unit cost gives the total.

27. B — B only. A turbocharger is driven by exhaust gas, so B is correct; it is not belt-driven (that's a supercharger), so A is wrong. Their power sources differ.

28. D — 25 percent, profit relative to cost. Markup = profit \div cost = $\$28 \div \$112 = 25\%$. Markup is always figured on the cost.

29. C — $\$32.00$, oil, filter, and gasket combined. Three quarts at $\$7 = \21 , plus the $\$9$ filter and $\$2$ gasket = $\$32$. Summing the line items gives the subtotal.

30. C — \\$225.00, the discounted price with no tax. A 10% discount gives $\$250 \times 0.90 = \225 , and the tax-exempt account adds no tax. Correctly identifying the exempt account prevents wrongly charging tax.

31. D — B only. A drum has a maximum diameter spec, so B is correct; a rotor has a minimum thickness (not maximum diameter) spec, so A is wrong. The two wear specs are opposite.

32. C — \\$400.00, the cost divided by 0.50. Pricing to a 50% margin divides cost by $(1 - 0.50)$: $\$200 \div 0.50 = \400 . Margin is figured on the selling price.

33. B — \\$60.00, four pads at \\$15 each. Two front and two rear pads at \\$15 each total \\$60. Each pad is sold individually.

34. C — \\$72.00, the cost plus the 50 percent markup. Pricing to a markup multiplies cost by 1.50: $\$48 \times 1.50 = \72 . Markup is figured on cost.

35. D — B only. A CVT requires dedicated fluid, so B is correct; CVT fluid and conventional ATF are not interchangeable, so A is wrong. The wrong fluid causes damage.

36. A — \\$129.60, the price plus 8 percent tax. $\$120 \times 1.08 = \129.60 . Tax is added to the subtotal.

37. B — \\$93.75, the cost divided by 0.80. Pricing to a 20% margin divides cost by $(1 - 0.20)$: $\$75 \div 0.80 = \93.75 . Margin is figured on the selling price.

38. A — A only. A part listed "sold in pairs" is sold as a pair, so A is correct; it cannot be split and sold individually, so B is wrong. The packaging basis governs.

39. D — Multiply \\$160 by 0.75 to get \\$120. A 25% discount in one step multiplies by 0.75, giving \\$120. This is faster than subtracting the discount.

40. B — \\$154.00, the list times 0.70. A 30% trade discount multiplies by 0.70: $\$220 \times 0.70 = \154 . This is the wholesale price before tax.

41. A — The "5W," reflecting cold-weather performance. In 5W-20, the "5W" reflects cold-temperature flow (W = Winter); the lower the number, the better the cold flow. The "20" reflects hot-temperature viscosity.

42. B — $\$30.00$, the selling price minus the cost. Gross profit = $\$120 - \$90 = \$30$. It is the dollar difference between selling price and cost.

43. D — B only. The cause of a blown fuse should be addressed and the same rating used, so B is correct; upsizing the fuse defeats the protection, so A is wrong. The replacement must match the original rating.

44. D — $\$15.00$, six lug nuts at $\$2.50$. Six at $\$2.50 = \15 . Multiplying quantity by unit price gives the cost.

45. A — $\$80.00$, the price times 0.80. To find the cost from a 20% margin, multiply the price by 0.80: $\$100 \times 0.80 = \80 . Margin is figured on the selling price.

46. A — Both A and B. The VIN model year is in position 10 and the engine data is often in the descriptor section; both statements are correct. These are the specialist's highest-value VIN reads.

47. C — $\$283.50$, discount first then tax. Apply the 10% discount: $\$300 \times 0.90 = \270 , then 5% tax: $\$270 \times 1.05 = \283.50 . Discount comes before tax.

48. B — 33.3 percent, profit relative to selling price. Margin = profit \div selling price = $\$30 \div \$90 = 33.3\%$. Margin is always figured on the selling price.

49. A — A only. R-134a and R-1234yf are not interchangeable, so A is correct; refrigerants cannot be mixed safely, so B is wrong. Mixing can damage the system.

50. B — $\$102.00$, two rotors plus the hardware kit. Two rotors at $\$45 = \90 , plus the $\$12$ hardware kit = $\$102$. Summing the line items gives the subtotal.

51. B — $\$200.00$, the cost divided by 0.80. Pricing to a 20% margin divides cost by $(1 - 0.20)$: $\$160 \div 0.80 = \200 . Margin is figured on the selling price.

52. C — A only. A strut is structural and load-bearing, so A is correct; a plain shock only dampens and is not structural, so B is wrong. The distinction matters in parts selection.

53. B — $\$150.00$, the list times 0.60. A 40% trade discount multiplies by 0.60: $\$250 \times 0.60 = \150 . This is the wholesale price before tax.

54. A — $\$150.00$, the cost plus the 25 percent markup. Pricing to a markup multiplies cost by 1.25: $\$120 \times 1.25 = \150 . Markup is figured on cost.

55. A — $\$90.00$, the $\$100$ subtotal times 0.90. The combined subtotal is $\$40 + \$60 = \$100$, and a 10% discount gives $\$100 \times 0.90 = \90 . Discount applies to the subtotal.

56. C — B only. Both incoming and outgoing merchandise should be verified, so B is correct; outgoing delivery merchandise does need verification, so A is wrong. Verification applies in both directions.

57. A — 25 percent, profit relative to cost. Markup = profit \div cost = $\$20 \div \$80 = 25\%$. Markup is always figured on the cost.

58. D — $\$48.60$, the $\$54$ total times 0.90. Three belts at $\$18 = \54 , and a 10% discount gives $\$54 \times 0.90 = \48.60 . Discount applies to the total.

59. B — B only. The alternator converts engine rotation into electrical current, so B is correct; it does not store energy (that's the battery), so A is wrong. The two have distinct roles.

60. A — $\$120.00$, the price times 0.60. To find the cost from a 40% margin, multiply the price by 0.60: $\$200 \times 0.60 = \120 . Margin is figured on the selling price.

61. C — $\$170.00$, two struts at $\$85$ each. A pair of struts at $\$85$ each totals $\$170$. Struts are replaced in pairs.

62. A — A only. A clutch is replaced as a kit with the disc, pressure plate, and release bearing, so A is correct; replacing only the disc is wrong, so B is incorrect. The kit shares the labor.

63. D — $\$192.00$, the cost divided by 0.75. Pricing to a 25% margin divides cost by $(1 - 0.25)$: $\$144 \div 0.75 = \192 . Margin is figured on the selling price.

64. C — $\$54.00$, the price plus 8 percent tax. $\$50 \times 1.08 = \54 . Tax is added to the subtotal.

65. C — Both A and B. The thermostat regulates coolant flow and the radiator cap maintains system pressure; both statements are correct. They serve distinct cooling-system roles.

66. D — $\$45.00$, the cost plus the 25 percent markup. Pricing to a markup multiplies cost by 1.25: $\$36 \times 1.25 = \45 . Markup is figured on cost.

67. B — B only. The production date is the actual build date on the door-jamb label, so B is correct; it is not the model year, so A is wrong. Catalogs use the build date for date-split parts.

68. D — $\$128.00$, the price times 0.80. To find the cost from a 20% margin, multiply the price by 0.80: $\$160 \times 0.80 = \128 . Margin is figured on the selling price.

69. A — Both A and B. A wheel must match the bolt pattern and the offset affects clearance; both statements are correct. Wheels are matched by several specifications.

70. D — $\$58.80$, discount first then tax. Apply the 20% discount: $\$70 \times 0.80 = \56 , then 5% tax: $\$56 \times 1.05 = \58.80 . Discount comes before tax.

71. B — $\$25.00$, the selling price minus the cost. Gross profit = $\$75 - \$50 = \$25$. It is the dollar difference between selling price and cost.

72. B — B only. A coil-on-plug engine uses individual coils with no wires, so B is correct; it does not use plug wires, so A is wrong. The design eliminates plug wires.

73. C — $\$440.00$, four tires at $\$110$ each. Four tires at $\$110$ total $\$440$. Multiplying quantity by unit price gives the subtotal.

74. C — $\$128.00$, the cost divided by 0.75. Pricing to a 25% margin divides cost by $(1 - 0.25)$: $\$96 \div 0.75 = \128 . Margin is figured on the selling price.

75. A — A only. Interchange lists cross-reference part numbers across brands, so A is correct; they do not set retail prices, so B is wrong. Interchange is a cross-reference tool.

76. D — $\$270.30$, discount first then tax. Apply the 15% discount: $\$300 \times 0.85 = \255 , then 6% tax: $\$255 \times 1.06 = \270.30 . Discount comes before tax.

77. A — 20 percent, profit relative to cost. Markup = profit \div cost = $\$22 \div \$110 = 20\%$. Markup is always figured on the cost.

78. C — A only. A lost sale should be reported to capture demand, so A is correct; ignoring lost sales is wrong, so B is incorrect. Lost-sale data guides stocking.

79. B — $\$33.00$, two blades plus the fluid. Two blades at $\$14 = \28 , plus the $\$5$ washer fluid = $\$33$. Summing the line items gives the subtotal.

80. D — $\$240.00$, the cost divided by 0.50. Pricing to a 50% margin divides cost by $(1 - 0.50)$: $\$120 \div 0.50 = \240 . Margin is figured on the selling price.

81. D — B only. A TTY head bolt is typically single-use, so B is correct; it cannot be reused, so A is wrong. Reusing one risks improper clamping.

82. B — $\$64.80$, the $\$60$ subtotal plus 8 percent tax. The subtotal is $\$50 + \10 handling = $\$60$, then 8% tax: $\$60 \times 1.08 = \64.80 . Tax applies to the full subtotal including handling.

83. D — $\$180.00$, the cost divided by 0.60. Pricing to a 40% margin divides cost by $(1 - 0.40)$: $\$108 \div 0.60 = \180 . Margin is figured on the selling price.

84. D — B only. A physical inventory reconciles counts with actual stock, so B is correct; it does not set retail prices, so A is wrong. Its purpose is reconciliation and shrinkage detection.

85. B — \$28.80, the \$32 subtotal times 0.90. Four quarts at \$6 = \$24, plus the \$8 filter = \$32 subtotal, then a 10% discount: $\$32 \times 0.90 = \28.80 . Discount applies to the subtotal.