

## <u>CMA PROGRAM</u> Examination Questions for Practice

### Part 1

# Business Analysis

#### Introduction

The Institute of Certified Management Accountants (ICMA) is publishing this book of practice questions with answers to help you prepare for the CMA examination. These questions are actual "retired" questions from the computer-based CMA exams and are intended to supplement other study materials.

These practice questions will help you test your understanding of the concepts and rules included in your CMA study materials by requiring you to apply those concepts and rules to unique and varying situations. You will encounter different scenarios and applications on your actual examination so it is essential that you understand the underlying concepts. In general, it will not be helpful to you to memorize particular questions.

The majority of the topic areas covered on the CMA examination are represented in the practice questions; however, there are some topic areas in the current exam that were not covered in previous versions of the CMA examination (e.g., Strategic Marketing) and therefore, there are no "retired" questions available for release at present. No inference should be made from the lack of practice questions in certain topic areas or the quantity of questions in any particular area. All topic areas listed in the Content Specification will be tested on the CMA examination in the proportions and difficulty levels shown.

The CMA Program is a rigorous test of your skills and capabilities and requires dedication to be successful. We hope that these practice questions will be a valuable resource as you pursue your goal of certification. Good luck!

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#### CMA Part 1 – Business Analysis Examination Questions for Practice

#### **Section A: Business Economics**

- 1. Which one of the following would cause the demand curve for bagels to shift to the left?
  - a. A decrease in the cost of muffins.
  - b. An increase in the population.
  - c. A decrease in the price of bagels.
  - d. An increase in the supply of bagels.
- 2. Which one of the following would cause the demand curve for prepared meals sold in supermarkets to shift to the right?
  - a. An increase in the price of prepared meals.
  - b. An increase in consumer income.
  - c. A decrease in the price of restaurant meals.
  - d. An increase in the supply of prepared meals.
- 3. If a decrease in the demand for Product X causes the demand curve for Product Y to shift to the right, then X and Y are most likely to be which of the following?
  - a. Shoes and laces.
  - b. Butter and margarine.
  - c. Knives and forks.
  - d. Cars and gasoline.
- 4. All of the following will increase the demand for a factor of production **except** 
  - a. an increase in the demand for the product.
  - b. an increase in the marginal revenue product of the factor of production.
  - c. training aimed at increasing productivity.
  - d. an increase in the supply of the factor of production.
- 5. If the demand for a product is elastic, a price increase will result in
  - a. no change in total revenue.
  - b. an increase in total revenue.
  - c. a decrease in total revenue.
  - d. an indeterminate change in revenue.

Price	Quantity Supplied	Quantity Demanded
\$ 25	250	750
50	500	500
75	750	250
100	1,000	0

6. A market research analyst determined the following market data for a commodity.

Based on this information, which one of the following statements is correct?

- a. At a price of \$30, there will be excess demand.
- b. A market clearing price cannot be determined.
- c. At a price of \$80, there will be insufficient supply.
- d. A market price of \$50 cannot exist for very long.
- 7. An economist determined the following market data for a commodity.

Price	Quantity Supplied	Quantity Demanded
\$25	250	750
50	500	500
75	750	250
100	1,000	0

Based on this information, which one of the following statements is correct?

- a. In the short-term, there would be excess supply at a price of \$40.
- b. In the long-run, if producers' costs per unit decline, then a reasonable market clearing price could be \$65.
- c. In the short-term, there would be excess demand at a price of \$70.
- d. In the long-run, if producers' costs per unit increase, then a reasonable market clearing price could be \$70.
- 8. If the quantity demanded is less than the quantity supplied at a particular price, then
  - a. there is a shortage and the price will increase over time.
  - b. the price is below the equilibrium price.
  - c. there is a surplus and the price will decrease over time.
  - d. there is a surplus and demand will increase over time.

- 9. If a product's price elasticity of demand is greater than one, then a 1% price increase will cause the quantity demanded to
  - a. increase by more than 1%.
  - b. increase by less than 1%.
  - c. decrease by less than 1%.
  - d. decrease by more than 1%.
- 10. With regard to elasticity, all of the following statements are correct **except** that
  - a. the price elasticity of demand is calculated as the percentage change in quantity demanded divided by the percentage change in price.
  - b. the availability of substitute products generally results in a product having high price elasticity.
  - c. the price elasticity of demand indicates the degree of response to a change in price.
  - d. demand tends to be more inelastic when the expenditures on a product are quite high relative to a consumer's budget.
- 11. When a perfectly elastic demand curve is plotted on a graph with price on the vertical axis and quantity on the horizontal axis, the curve is
  - a. parallel to the horizontal axis.
  - b. parallel to the vertical axis.
  - c. downward sloping with a kink in it.
  - d. upward sloping from the origin.
- 12. If the demand for a good is elastic, then a(n)
  - a. decrease in price will increase total revenue.
  - b. increase in price will increase total revenue.
  - c. decrease in price will decrease total revenue.
  - d. increase in price will have no effect on total revenue.
- 13. If the cross elasticity of demand for two products, A and B, is positive, then an increase in B's price will cause the demand for
  - a. A to decrease.
  - b. A to increase.
  - c. B to increase.
  - d. B to remain unchanged.

- 14. Which one of the following statements correctly defines the income elasticity of demand?
  - a. The percentage change in quantity demanded divided by the percentage change in income.
  - b. The percentage change in income divided by the percentage change in quantity demanded.
  - c. The percentage change in quantity supplied divided by the percentage change in income.
  - d. The percentage change in income divided by the percentage change in quantity supplied.
- 15. Which one of the following **best** describes the cross elasticity of demand?
  - a. The percentage change in quantity demanded of one product divided by the percentage change in its price.
  - b. The percentage change in price of a product divided by the percentage change in quantity demanded.
  - c. The percentage change in quantity demanded of one product divided by the percentage change in price of another product.
  - d. The percentage change in price of one product divided by the percentage change in quantity demanded of another product.
- 16. An economic research firm performed extensive studies on the market for large screen televisions (LSTs). Portions of the results are shown below.

Household Income	LST Sales (units)
\$50,000	20,000
60,000	28,000
72,000	39,200
Price of LSTs	LST Sales (units)
\$1,000	100,000
900	115,000
810	132,250

The income elasticity of demand for LSTs is

- b. 1.5.
- c. 2.0.
- d. 2.5.

- 17. According to cross elasticity of demand, if the quantity demanded of one product varies directly with the change in the price of another product, then the two products are
  - a. substitute goods.
  - b. complementary goods.
  - c. independent goods.
  - d. normal goods.
- 18. All of the following factors are determinants of market demand except
  - a. the price of the product.
  - b. consumer income.
  - c. prices of substitute products.
  - d. the supply of the product.}
- 19. All of the following are violations of antitrust laws **except** 
  - a. selling below cost only in certain geographical areas.
  - b. collusion pricing to restrain trade.
  - c. predatory pricing to drive out competition.
  - d. price discrimination by service companies.
- 20. The goals of antitrust legislation include protecting all of the following **except** 
  - a. competition, by outlawing monopolies and prohibiting unfair competition.
  - b. consumers' welfare, by prohibiting deceptive and unfair business practices.
  - c. small business firms, from economic pressures by big business competitors.
  - d. domestic firms, from unfair practices of foreign corporations.
- 21. Federal antitrust laws are enforced by use of all of the following **except** 
  - a. an injunction to prohibit a specific action.
  - b. an order for specific performance.
  - c. criminal sanctions, including imprisonment and fines.
  - d. revocation of the corporation's charter and liquidation of the firm.

- 22. In defending an antitrust case charging price discrimination, a company is **least likely** to be able to successfully defend its behavior if
  - a. discounts are granted to larger purchasers.
  - b. there are differences in manufacturing or delivery costs.
  - c. the company's pricing policy is a good faith effort to meet the price of competitors.
  - d. the company is merely following the price leadership of dominant firms.
- 23. Which one of the following is a characteristic of the economic concept of utility?
  - a. It is easily quantifiable.
  - b. It is objective.
  - c. It is subjective.
  - d. It is impossible to quantify.
- 24. Which one of the following statements with regard to the consumption of goods and its relationship to utility is correct?
  - a. As consumption of a commodity decreases, the marginal utility derived from that commodity will also decrease.
  - b. As consumption of a commodity increases, the total utility derived from that commodity decreases.
  - c. As consumption of a commodity increases, the marginal utility derived from that commodity will eventually decrease.
  - d. Consumption of a commodity is determined at the point where the marginal utility of the commodity is at its maximum.
- 25. For a consumer, the law of diminishing marginal utility means that the consumer achieves
  - a. less satisfaction as more of a product is consumed.
  - b. more satisfaction as more of a product is consumed.
  - c. more consumption of a product as income rises.
  - d. less consumption of a product as income falls.
- 26. A consumer's budget line shows various combinations of any two products that
  - a. can be purchased with a given money income.
  - b. will yield the same level of satisfaction to a consumer.
  - c. have positive cross elasticity of demand.
  - d. have negative cross elasticity of demand.

- 27. Which one of the following statements concerning indifference curves is correct?
  - a. The quantity demanded can be determined at the point where indifference curves cross.
  - b. Indifference curves measure voter apathy of government policy.
  - c. Indifference curves are used to determine the comparative advantage of trading in two commodities.
  - d. Combinations of goods which are equally preferred by a consumer are depicted using indifference curves.
- 28. The concept of economic profit is **best** defined as total
  - a. revenue minus all accounting costs.
  - b. income minus the sum of total fixed and variable costs.
  - c. revenue minus the sum of total fixed and variable costs.
  - d. revenue minus all explicit and implicit costs.
- 29. "Economic costs" often differ from costs shown in a firm's financial statements. For a corporation, a major difference would arise due to
  - a. interest costs.
  - b. salary and wage costs.
  - c. opportunity costs.
  - d. state and local tax costs.
- 30. Which of the following costs, when subtracted from total revenue, yields economic profit?
  - a. Variable costs.
  - b. Recurring operating costs.
  - c. Fixed and variable costs.
  - d. Opportunity costs of all inputs.
- 31. Williams makes \$35,000 a year as an accounting clerk. He decides to quit his job to enter an MBA program full-time. Assume Williams doesn't work in the summer or hold any part-time jobs. His tuition, books, living expenses, and fees total \$25,000 a year. Given this information, the annual total economic cost of Williams' MBA studies is
  - a. \$10,000.
  - b. \$35,000.
  - c. \$25,000.
  - d. \$60,000.

- 32. Jenson Products, a manufacturer of kitchen appliances, is attempting to estimate its longrun cost structure in light of changing economic conditions. Which one of the following potential changes would have the **least** impact on Jenson's long-run production costs?
  - a. An increase in the sales tax rate.
  - b. More stringent consumer safety legislation.
  - c. Labor cost escalation.
  - d. A decrease in the supply of skilled labor.
- 33. When a firm employs more of a variable input to a fixed input, and output rises by smaller and smaller amounts, the firm is experiencing
  - a. diminishing marginal utility.
  - b. diminishing returns.
  - c. increasing opportunity costs.
  - d. diseconomies of scale.
- 34. Auburn Products Inc. has compiled the following daily cost information for its manufacturing operation.

Output (units)	Fixed Cost	Variable Cost
0	\$2,000	\$ 0
1	2,000	200
2	2,000	380
3	2,000	550
4	2,000	700
5	2,000	860
6	2,000	1,040
7	2,000	1,250
8	2,000	1,500

Auburn's average total cost at an output level of 3 units is

- a. \$667.
- b. \$850.
- c. \$1,217.
- d. \$2,550.

35. Daily costs for Kelso Manufacturing include \$1,000 of fixed costs and total variable costs are shown below.

Unit Output	10	11	12	13	14	15
Cost	\$125	\$250	\$400	\$525	\$700	\$825

The average total cost at an output level of 11 units is

a. \$113.64.
b. \$125.00.
c. \$215.91.
d. \$250.00.

- d. \$250.00.
- 36. Harper Products' cost information for the normal range of output in a month is shown below.

Output in units	Total Cost
20,000	\$3,000,000
22,500	3,325,000
25,000	3,650,000

What is Harper's short-run marginal cost?

- a. \$26.
- b. \$130.
- c. \$146.
- d. \$150.
- 37. Auburn Products Inc. has compiled the following daily cost information for its manufacturing operation.

Output (units)	Fixed Cost	Variable Cost
0	\$2,000	<b>\$</b> 0
1	2,000	200
2	2,000	380
3	2,000	550
4	2,000	700
5	2,000	860
6	2,000	1,040
7	2,000	1,250
8	2,000	1,500

Auburn's marginal cost for the 7th unit is October 2008

- a. \$179.
- b. \$210.
- c. \$286.
- d. \$464.
- 38. Daily costs for Kelso Manufacturing include \$1,250 in fixed costs and total variable costs are shown below.

Unit Output101112131415Cost\$150\$300\$480\$620\$750\$900

The marginal cost of the 12th unit is

- a. \$180.00.
- b. \$140.00.
- c. \$104.16.
- d. \$40.00.
- 39. The total cost of producing 100 units of a good is \$800. If a firm's average variable cost is \$5 per unit, then the firm's
  - a. average fixed cost is \$3.
  - b. total variable cost is \$300.
  - c. marginal cost is \$3.
  - d. marginal cost is \$8.
- 40. Daily sales and cost data for Crawford Industries are shown below.

	Sales	Total
<u>Units</u>	\$	<u>Costs</u>
20	\$2,000	\$1,200
21	2,090	1,250
22	2,170	1,290
23	2,240	1,330
24	2,300	1,380
25	2,350	1,440

The marginal cost of the 23rd unit is

- b. \$40.00.
- c. \$50.00.
- d. \$57.83.}

- 41. A change in any one of the following would cause a shift in a firm's cost curve **except** for a change in
  - a. the level of output.
  - b. tax rates.
  - c. technological improvements.
  - d. resource costs.
- 42. Within the constant returns to scale section of the long-run cost curve, the curve is
  - a. increasing.
  - b. decreasing.
  - c. flat.
  - d. reversing direction.
- 43. The financial statements of Lark Inc. for last year are shown below.

Income Statement (\$000)	
Revenue	\$4,000
Cost of sales	2,900
Gross margin	1,100
General & administrative	500
Interest	100
Taxes	150
Net income	<u>\$ 350</u>

Balance Sheet (\$000)					
Current assets	\$ 800	Current liabilities	\$ 500		
Plant & equipment	3,200	Long-term debt	\$1,000		
		Common equity	2,500		
Totals	<u>\$4,000</u>	Totals	<u>\$4,000</u>		

If Lark's book values approximate market values and if the opportunity costs of debt and equity are 10% and 15%, respectively, what was the economic profit for Lark last year?

- a. (\$125,000).
- b. (\$25,000).
- c. \$0.
- d. \$350,000.

- 44. All of the following statements concerning pure competition are correct **except** that
  - a. firms will expand output until marginal revenue equals marginal cost.
  - b. a single buyer cannot influence the market price.
  - c. firms must take the market price in order to sell.
  - d. the industry demand curve is perfectly elastic.
- 45. Characteristics of an oligopoly include all of the following except
  - a. a "kinked" demand curve.
  - b. price leadership.
  - c. cost-plus pricing.
  - d. ease of entry.
- 46. Which of the following characteristics describe monopolistic competition and oligopoly, respectively?

Monopolistic Competition
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- a. Interdependence among firms
- b. Economies of scale
- c. Interdependence among firms
- d. Differentiated products

<u>Oligopoly</u> Significant barriers to entry. Low barriers to entry. Economies of scale. Interdependence among firms.

47. Which of the following market conditions pertain to pure competition and to monopoly, respectively?

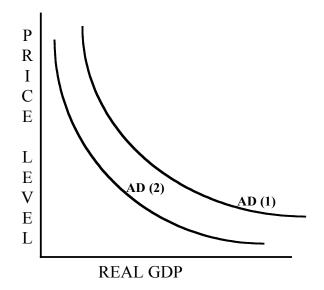
	Pure Competition	Monopoly
a.	Homogenous product.	No good substitutes for the product.
b.	Each buyer is large relative to the market.	The seller is a large firm.
с.	Large number of sellers.	No barriers to entry.
d.	No good substitutes for the product.	High barriers to entry.

- 48. A cartel is an example of which one of the following?
  - a. A monopoly.
  - b. An oligopoly.
  - c. Perfect competition.
  - d. Monopolistic competition.

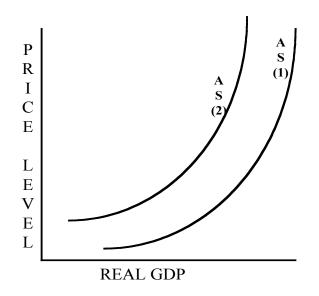
- 49. A monopoly will maximize profits if it produces an output where marginal cost is
  - a. less than marginal revenue.
  - b. greater than marginal revenue.
  - c. equal to marginal revenue.
  - d. equal to price.
- 50. At the long-run profit maximizing equilibrium of a firm in a perfectly competitive market, all of the following are correct **except** that
  - a. price equals marginal cost.
  - b. price equals average total cost.
  - c. economic profits are positive.
  - d. marginal cost equals marginal revenue.
- 51. Under which one of the following market structures would a firm be **most** likely to face a kinked demand curve?
  - a. Monopoly.
  - b. Pure competition.
  - c. Oligopoly.
  - d. Monopolistic competition.
- 52. In the short run, the Phillips curve suggests that
  - a. high unemployment leads to lower inflation, and low unemployment leads to higher inflation.
  - b. high unemployment leads to higher inflation, and low unemployment leads to lower inflation.
  - c. both high unemployment and low unemployment lead to lower inflation.
  - d. there is no consistent relationship between inflation and unemployment.
- 53. All of the following statements are correct with regard to inflation **except** that
  - a. inflation decreases the purchasing power of money.
  - b. inflation is an increase in the general price level of goods and services.
  - c. inflation is similar to a tax on future income, such as a pension.
  - d. consumers are better off postponing their consumption to the future as a result of inflation.

- 54. Of the following, which one is generally considered the immediate cause of cyclical fluctuations?
  - a. Variation of unemployment rate.
  - b. Corporate earnings volatility.
  - c. Inflation expectations.
  - d. Level of total spending.
- 55. Which one of the following types of unemployment can be lowered through fiscal or monetary policy?
  - a. Frictional unemployment.
  - b. Structural unemployment.
  - c. Cyclical unemployment.
  - d. Seasonal unemployment.
- 56. Which one of the following **best** describes the cause of frictional unemployment?
  - a. People leaving the labor force and no longer looking for work.
  - b. Recessionary business conditions and inadequate aggregate demand for labor.
  - c. Changes in the economy that prevent qualified people from being immediately matched up with existing job openings.
  - d. Economic changes that eliminate some jobs while generating other job openings for which the unemployed are not well qualified.
- 57. During the Christmas season, retailers experienced unexpectedly strong demand for a certain toy. Unable to obtain additional supplies of the toy from the manufacturer, the retailers elected to raise the price of the toy by 15%. The demand remained the same. The short-term aggregate demand curve for this product would be **best** described as
  - a. horizontal.
  - b. vertical.
  - c. upward slopping.
  - d. concave.
- 58. A recent government regulation requires employers to provide their employees with mandatory safety training. All other things being equal, the aggregate supply curve will
  - a. remain the same.
  - b. shift to the right.
  - c. shift to the left.
  - d. become flatter.

59. Which one of the following factors would cause the aggregate demand curve shown below to shift from AD(1) to AD(2)?



- a. An increase in real income.
- b. A lower real rate of interest.
- c. An increase in economic pessimism.
- d. An increase in the expected rate of inflation.
- 60. Which one of the following factors would cause the aggregate supply curve shown below to shift from AS(1) to AS(2)?



- a. An increase in the supply of resources.
- b. An improvement in technology.
- c. A decrease in the expected rate of inflation.
- d. A higher resource price.
- 61. An increase in which one of the following is the **most** accurate indication of economic growth?
  - a. Real Gross National Product.
  - b. Per capita Gross National Product.
  - c. Per capita real Gross Domestic Product.
  - d. Real National Income.
- 62. Which one of the following changes would signal a decline in Gross Domestic Product (GDP)?
  - a. Lengthening of the average workweek of production workers.
  - b. Fewer first-time claims for unemployment insurance.
  - c. An increase in the money supply.
  - d. Improved timeliness of vendors in supplying goods to buyers.
- 63. Which one of the following would have the **least** impact on U.S. Gross Domestic Product (GDP)?
  - a. Nebraska farmers grow more corn to feed to hogs.
  - b. Nike imports more shoes from Asia for sale in the U.S.
  - c. Honda adds another shift at its car plant in Ohio.
  - d. Microsoft expands its internet services.
- 64. Which one of the following is considered a leading economic indicator?
  - a. Consumer confidence.
  - b. 30-year Treasury Bond rate.
  - c. Balance of payments.
  - d. Federal funds rate.
- 65. Which one of the following would provide the **least** accurate value for the amount of U.S. Gross Domestic Product (GDP)?
  - a. National income plus exports.
  - b. Money supply times the velocity of money.
  - c. Personal consumption plus investment plus government purchases plus net exports.
  - d. Price level times the volume of goods and services produced.

- 66. A common concern during the peak period of a business cycle is
  - a. underutilized capacity.
  - b. competition from imports.
  - c. stagflation.
  - d. inflation.
- 67. All of the following statements concerning business cycles are correct except that
  - a. a contraction generally follows a business peak.
  - b. over long periods of time, the troughs generally occur at lower levels of Gross Domestic Product (GDP).
  - c. a trough generally follows a contraction.
  - d. real Gross Domestic Product (GDP) generally declines prior to a trough and increases thereafter.
- 68. Which one of the following statements in regard to fiscal policy is **correct**?
  - a. Reducing the discount rate is an example of the government using fiscal policy to control the economy.
  - b. An increase in tax rates is an example of a restrictive fiscal policy.
  - c. The Federal Reserve can implement a restrictive fiscal policy by purchasing U. S. government securities in the open market.
  - d. A reduction in government expenditures has the same fiscal policy effect as a reduction in tax rates.
- 69. Fiscal policy deals with government activities that affect
  - a. the Federal Reserve System and the banking system.
  - b. government taxation and spending.
  - c. shrinking or expanding the money supply.
  - d. control of interest rates.
- 70. According to the Keynesian view, aggregate demand will likely decrease if there is
  - a. an increase in the budget deficit.
  - b. an increase in transfer payments.
  - c. a decrease in government spending.
  - d. a decrease in the tax rate.

- 71. Which one of the following is an example of a restrictive fiscal policy?
  - a. Congressional decision to continue budget deficits.
  - b. Reinstitution of the investment tax credit.
  - c. Increase in defense spending.
  - d. Congressional action to eliminate the home mortgage interest deduction.
- 72. All of the following are accepted explanations of how fiscal policy can affect aggregate output **except** that a(n)
  - a. increase in government purchases moves the aggregate demand curve to the right, increasing aggregate output if the aggregate supply curve is not vertical.
  - b. increase in tax receipts moves the aggregate demand to the right, increasing aggregate output if the aggregate supply is not vertical.
  - c. increase in government purchases will not affect aggregate output, but will only increase prices, if the economy is already at full capacity.
  - d. decrease in tax receipts moves the aggregate demand curve to the right, because decreased tax receipts allow higher aggregate demand at each price level.
- 73. All of the following would be considered built-in-stabilizers except
  - a. corporate income taxes.
  - b. unemployment compensation.
  - c. personal income taxes.
  - d. changes in the Federal Reserve's discount rate.
- 74. Keynesians and monetarists have different views on the workings of the economic system. Keynesians contend that the
  - a. economy is basically stable in the absence of government interference.
  - b. money supply and GDP are directly linked.
  - c. velocity of money is relatively stable.
  - d. aggregate spending method is the best way to calculate GDP.
- 75. Which one of the following does the Federal Reserve Board use **most** often?
  - a. Changes in the discount rate charged by Federal Reserve Banks.
  - b. Margin requirements in the purchase of securities.
  - c. Open market transactions in securities.
  - d. Changes in reserve requirements of depository institutions.

- 76. Which one of the following actions can the Federal Reserve Board take in order to implement a restrictive monetary policy?
  - a. Reduce reserve requirements and raise the discount rate.
  - b. Purchase U.S. securities and raise reserve requirements.
  - c. Raise the discount rate and sell U.S. securities.
  - d. Lower the discount rate and purchase U.S. securities.
- 77. Which one of the following actions can the Federal Reserve Board take in order to implement an expansionary monetary policy?
  - a. Reduce reserve requirements and purchase U.S. securities.
  - b. Lower the discount rate and raise reserve requirements.
  - c. Raise the discount rate and sell U.S. securities.
  - d. Purchase U.S. securities and raise the discount rate.
- 78. When the Federal Reserve uses open-market operations to implement an expansionary monetary policy, it
  - a. lowers the proportion of reserves required for commercial bank deposits, allowing the banks to increase their loan activity.
  - b. buys Treasury securities from commercial banks and pays for the securities by crediting the banks' accounts at the Fed, allowing these banks to make additional commercial loans.
  - c. restricts the type and amount of loans each commercial bank can make, thus reducing the amount of commercial loans the banks can make.
  - d. sets and announces higher interest rates on treasury bills, which encourages the banks to invest in the Treasury securities, thus increasing the money supply.
- 79. All of the following statements concerning the reserve requirements of U.S. commercial banks are correct **except** that the
  - a. Federal Reserve requires commercial banks to maintain reserves for bad loans.
  - b. reserves of commercial banks can include currency held by the bank and deposits with the Federal Reserve.
  - c. Federal Reserve can control the money supply since it has control over reserve requirements.
  - d. commercial banks tend to minimize excess reserves since these reserves earn no interest.

- 80. All of the following statements concerning the money supply are correct **except** that
  - a. the money supply is regulated by the Federal Reserve System.
  - b. the M-1 measure of the money supply reflects the function of money as a medium of exchange.
  - c. the M-2 measure of the money supply includes large (>\$100,000) time deposits.
  - d. as a result of the banking deregulation of the 1980's, interest earning checkable deposits are now a substantial share of the M-1 money supply.
- 81. Which one of the following statements concerning the money supply is **not** correct?
  - a. Commercial bank transactions can influence the amount of M-1, M-2 and M-3.
  - b. Credit unions can influence the amount of M-2 and M-3.
  - c. A fractional reserve banking system enables banks to keep less than 100% reserves against their deposits, which allows the banks to influence the money supply.
  - d. Banks are required to have sufficient reserves to pay all depositors on demand.
- 82. Items used as money in our economy have all of the following functions **except** as a(n)
  - a. unit of account.
  - b. store of value.
  - c. medium of exchange.
  - d. instrument of barter.

#### **Section B: Global Business**

- 83. An industrial country recently decided to reduce tariffs on imported products. The **most** likely result of this policy change will be a
  - a. decrease in domestic production of the affected product.
  - b. reduction in the country's consumption of affected products.
  - c. reduction in economic efficiency due to the change in comparative advantage.
  - d. benefit to domestic producers at the expense of consumers.
- 84. A country has a comparative advantage in producing a good if that country
  - a. can produce the good at a lower absolute cost than any other country.
  - b. can produce the good at a lower opportunity cost than any other country.
  - c. can do a better job than any other country.
  - d. spends less money in out-of-pocket expenses than any other country.

- 85. If the U.S. sells goods that it produces more efficiently to other countries, and buys goods produced more efficiently by other countries, its trade strategy is consistent with which one of the following?
  - a. Comparative advantage.
  - b. Autarky.
  - c. Absolute advantage.
  - d. Dumping.
- 86. Arguments in favor of free trade include all of the following, **except** that
  - a. free trade permits emerging domestic industries to expand without foreign competition.
  - b. tariffs and quotas increase the domestic price of imported goods.
  - c. free trade permits countries and regions to specialize in those industries in which they have a comparative advantage.
  - d. free trade permits domestic corporations to expand their sales into foreign markets.
- 87. Which one of the following is **not** generally considered a significant non-tariff barrier?
  - a. Restrictions on import quotas and countertrades.
  - b. Different interest rates and price levels.
  - c. Different standards in health and safety.
  - d. Different product quality standards.
- 88. Which one of the following statements **best** illustrates dumping?
  - a. Foreign automobiles, sold in limited quantities, cost more in the United States than abroad.
  - b. Computers produced in Asia are sold into the United States at a price less than production cost.
  - c. European farmers bear a limited portion of the cost of production of exportable foodstuffs.
  - d. Televisions produced abroad are sold in the United States for more than the suppliers' established price.
- 89. All of the following are correct with regard to quotas and tariffs except that
  - a. a quota is a quantitative restriction on the quantity imported, while a tariff is a tax on imports.
  - b. both tariffs and quotas raise the price of products.
  - c. both tariffs and quotas are used to protect domestic industries.
  - d. a tariff has the same economic impact as a quota.

- 90. Which one of the following statements concerning the effects of international trade barriers is **correct**?
  - a. If Country J imposes a tariff on imported grain, domestic grain producers in Country J will be harmed.
  - b. Trade quotas imposed on imports to Country K are generally more harmful to Country K than tariffs.
  - c. If Country L imposes import restrictions on manufactured goods, firms in Country L that export agricultural products will benefit.
  - d. Tariffs imposed on electronic products imported to Country M will harm workers in Country M in the electronics industry.
- 91. When calculating a country's balance of payments, the balance in the current account reflects all of the following **except** 
  - a. merchandise trade balance.
  - b. earnings and expenditures on service accounts.
  - c. funds remitted by workers to people living outside the country.
  - d. direct foreign investments.
- 92. Under a floating exchange rate system, which one of the following should result in a depreciation of the Swiss franc?
  - a. U.S. inflation declines relative to the Swiss inflation.
  - b. U.S. income levels improve relative to the Swiss.
  - c. Swiss interest rate rise relative to the U.S. rates.
  - d. Decrease in outflows of Swiss capital to the U.S.
- 93. If the U.S. dollar appreciated against the British pound, other things being equal, we would expect that
  - a. the British demand for U.S. products would increase.
  - b. U.S. demand for British products would decrease.
  - c. U.S. demand for British products would increase.
  - d. trade between the U.S. and Britain would decrease.
- 94. Country A's currency would tend to appreciate relative to Country B's currency when
  - a. Country A has a higher rate of inflation than Country B.
  - b. Country B has real interest rates that are greater than real interest rates in Country A.
  - c. Country A has a slower rate of growth in income that causes its imports to lag behind its exports.
  - d. Country B switches to a more restrictive monetary policy.

- 95. Country R's currency would tend to depreciate relative to Country T's currency when
  - a. Country R switches to a more restrictive monetary policy.
  - b. Country T has a rapid rate of growth in income that causes imports to lag behind exports.
  - c. Country R has a rate of inflation that is lower than the rate of inflation in Country T.
  - d. Country R has real interest rates that are lower than real interest rates in Country T.
- 96. Which one of the following is **least** likely to be a reason why U.S. multinational corporations utilize the foreign exchange market?
  - a. To offset accounts payable transaction exposure to foreign firms.
  - b. To hedge the currency risk of accounts receivable transactions in foreign currencies.
  - c. To improve the return on investments of a foreign subsidiary.
  - d. To counter some of the currency risk of dividend payments from foreign subsidiaries to the U.S. parent.
- 97. The cross-rates for foreign exchange are shown below.

	FCU1	FCU2
FCU3	4	1.60
FCU2	2	1.00

FCU = foreign currency unit

These spot rates present an opportunity for

- a. purchasing power parity.
- b. interest rate parity.
- c. triangular arbitrage.
- d. exchange rate hedging.

98. Which one of the following statements with regard to World Bank loans is **correct**?

- a. They are limited to productive projects for which private funds are not readily available.
- b. They may be made for any project or activity deemed to be worthwhile.
- c. They are guaranteed, fully insured private loans.
- d. They are not made to developing countries.

- 99. Countries sometimes privatize their state-owned enterprises. U.S. firms considering investing in these formerly state-owned enterprises must consider many factors prior to making investments in these countries. Which one of the following is of **least** importance to U.S. investors when considering the acquisition of one of these former state-owned enterprises?
  - a. Transfer of technology back to the U.S.
  - b. Restrictions on capital flows out of the foreign country.
  - c. Stability of the foreign currency.
  - d. Political stability of the country.

#### **Section C: Internal Controls**

- 100. An auditor's primary consideration when assessing a company's internal control structure policies and procedures is whether they
  - a. prevent management override.
  - b. relate to the control environment.
  - c. reflect management's philosophy and operating style.
  - d. affect the financial statement assertions.
- 101. Given a specific precision interval, the likelihood that a sample will represent the true population is known as the
  - a. point estimate.
  - b. sampling error.
  - c. confidence level.
  - d. error rate.
- 102. The basic concepts implicit in internal accounting controls include the following.
  - The cost of the system should not exceed benefits expected to be attained.
  - The overall impact of the control procedure should not hinder operating efficiency.

Which one of the following internal accounting controls recognizes these two factors?

- a. Limitations.
- b. Management responsibility.
- c. Methods of data processing.
- d. Reasonable assurance.

- 103. Which one of the following functions performed in an organization is a violation of internal control?
  - a. A mail clerk opening the mail compares the check received with the source document accompanying the payment, either confirming or noting the amount paid, then forwards the checks daily (along with a listing of the cash receipts) to the Cashier for deposit.
  - b. A mail clerk opening the mail compares the check received with the source document accompanying the payment, either confirming or noting the amount paid, then forwards the source documents that accompany the payments (along with a listing of the cash receipts) to Accounts Receivable, on a daily basis, for posting to the Subsidiary Ledger.
  - c. At the end of the week the cashier prepares a deposit slip for all of the cash receipts received during the week.
  - d. The General Ledger Department compares the summary journal entry, received from the Cashier for cash receipts applicable to outstanding accounts, with the batch total for the posting to the Subsidiary Ledger by the Accounts Receivable Department.
- 104. In order to properly segregate duties, which function within the computer department should be responsible for reprocessing the errors detected during the processing of data?
  - a. Department manager.
  - b. Systems analyst.
  - c. Computer programmer.
  - d. Data control group.
- 105. Which one of the following methods, for the distribution of employees' paychecks, would provide the **best** internal control for the organization?
  - a. Delivery of the paychecks to each department supervisor, who in turn would distribute paychecks directly to the employees in his/her department.
  - b. Direct deposit in each employee's personal bank account.
  - c. Distribution of paychecks directly to each employee by a representative of the Human Resource department.
  - d. Distribution of paychecks directly to each employee by the payroll manager.

106. A firm is constructing a risk analysis to quantify the exposure of its data center to various types of threats. Which one of the following situations would represent the highest annual loss exposure after adjustment for insurance proceeds?

	Frequency of		
	Occurrence	Loss	Insurance
	(years)	Amount	(% coverage)
a.	1	\$ 15,000	85.
b.	8	75,000	80.
c.	20	200,000	80.
d.	100	400,000	50.

- 107. Which one of the following options would be **most** effective in deterring the commission of fraud?
  - a. Policies of strong internal control, segregation of duties, and requiring employees to take vacations.
  - b. Policies of strong internal control and punishments for unethical behavior.
  - c. Employee training, segregation of duties, and punishment for unethical behavior.
  - d. Hiring ethical employees, employee training, and segregation of duties.
- 108. A public corporation that must meet the provisions of the Foreign Corrupt Practices Act of 1977 should have a compliance program that includes all of the following steps **except** 
  - a. an authorized and properly signed agreement that it will abide by the Act.
  - b. documentation of the corporation's existing internal accounting control systems.
  - c. a cost/benefit analysis of the controls and the risks that are being minimized.
  - d. a system of quality checks to evaluate the internal accounting control system.
- 109. The principle impetus for the enactment of the Foreign Corrupt Act by the U.S. Congress was to
  - a. discourage unethical behavior by foreigners employed by U.S. firms.
  - b. promote the mandates issued by the United Nations with regard to global trade between its member nations.
  - c. prevent the bribery of foreign officials by U.S. firms seeking to do business overseas.
  - d. require mandatory documentation of the evaluation of internal controls by the independent auditors.

- 110. The Standards for the Professional Practice of Internal Auditing are classified in five major categories.
  - 1. Independence.
  - 2. Professional proficiency.
  - 3. Scope of work.
  - 4. Performance of audit work.
  - 5. Management of internal audit department

Which of the following statements, regarding internal auditing responsibility and authority, is **incorrect**?

- a. Internal auditors are expected to comply with standards of professional conduct.
- b. The understandability of audit reports is the responsibility of internal auditors.
- c. Follow-up on actions noted in audit findings is not required of internal auditors.
- d. Internal auditors are responsible to service the organization.
- 111. In the practice of internal auditing, the auditors must consider the following responsibilities.
  - Be alert to the possibility of intentional wrongdoing, errors and omissions, inefficiency, waste, ineffectiveness, and conflict of interest.
  - Conduct examinations and verifications to a reasonable extent.
  - Recommend whatever investigation is considered necessary in the circumstances and follow up to see that responsibilities have been met.

Which one of the following specific Standards for the Professional Practice of Internal Auditing **most** directly covers these responsibilities?

- a. Objectivity.
- b. Due professional care.
- c. Reliability and integrity of information.
- d. Policies and procedures.
- 112. In the practice of internal auditing, auditors should identify conditions such as
  - underutilized facilities,
  - procedures which are not cost justified, and
  - overstaffing and understaffing.

Which one of the following Standards for the Professional Practice of Internal Auditing **most** directly covers these activities?

- a. Due professional care.
- b. Performance of audit work.
- c. Scope of work.
- d. Quality assurance.
- 113. Which one of the following accounting and management techniques is **least** likely to assist internal auditors in appraising the economy and efficiency with which resources are being used by respective profit centers?
  - a. Cost Variance Analysis.
  - b. Flexible Budgets.
  - c. Activity-based management.
  - d. Joint cost allocations.
- 114. Of the following, the **primary** objective of compliance testing is to determine whether
  - a. procedures are regularly updated.
  - b. financial statement line items are properly stated.
  - c. controls are functioning as planned.
  - d. collusion is taking place.
- 115. If a corporation may be violating federal and state laws governing environmental concerns, which one of the following types of audit will **best** assist in ascertaining whether such situations may exist?
  - a. Operational audit.
  - b. Compliance Audit.
  - c. Financial audit.
  - d. Management Audit.
- 116. Which one of the following types of audits would be **most** likely to focus on objectives related to the economic and efficient use of resources?
  - a. Compliance audit.
  - b. Information systems audit.
  - c. Independent audit.
  - d. Operational audit.

- 117. When an auditor expresses an opinion as to the efficiency and effectiveness of an entity's activities and makes recommendations for improvements, the auditor is conducting a(n)
  - a. financial statement audit of a public company.
  - b. financial statement audit of a municipality.
  - c. compliance audit.
  - d. operational audit.
- 118. A computer virus is different from a "Trojan Horse" because the virus can
  - a. corrupt data.
  - b. alter programming instructions.
  - c. replicate itself.
  - d. erase executable files.
- 119. In situations where it is crucial that data be entered correctly into an accounting information system, the **best** method of data control would be to use
  - a. key verification.
  - b. compatibility tests.
  - c. limit checks.
  - d. reasonableness tests.
- 120. In securing the client/server environment of an information system, a **principal** disadvantage of using a single level sign-on password is the danger of creating a(n)
  - a. trap door entry point.
  - b. single point of failure.
  - c. administrative bottleneck.
  - d. lock-out of valid users.
- 121. Which one of the following generally represents a weakness in the internal control system of an electronic data processing system?
  - a. The data control group reviews and tests procedures, and handles the reprocessing of errors detected by the computer.
  - b. The accounts receivable clerk prepares and enters data into the computer system and reviews the output for errors.
  - c. The systems analyst designs new systems, and supervises testing of the system.
  - d. The computer operator executes programs according to operating instructions and maintains custody of programs and files.

- 122. In an attempt to minimize the problem of significant variances arising in budget/performance reporting, many organizations have implemented
  - a. a feedforward control system.
  - b. preventive controls.
  - c. a feedback control system.
  - d. an internal auditing system.
- 123. Maxwell Jones, controller of a national consumer marketing firm, is designing a graphical user interface for a new customer information program. Which one of the following graphical tools would be the **best** to control the validation of taxable status of sales transactions?
  - a. Text entry boxes.
  - b. Combo boxes.
  - c. Drop down lists.
  - d. Option buttons.
- 124. An information system includes controls that may be subdivided into general controls and application controls. In evaluating the internal controls for an information system, which one of the following controls would **not** be considered a general control?
  - a. Documentation.
  - b. Data security.
  - c. Output.
  - d. Physical facilities.
- 125. From the perspective of the management accountant, which one of the following represents a **major** disadvantage of business process reengineering?
  - a. The focus is, to a large extent, on short-term results.
  - b. It often results in a decreased use of centralized data bases.
  - c. Internal control mechanisms are often disassembled.
  - d. It results in heavier maintenance for legacy systems.

- 126. Maxwell Jones, controller of a national consumer marketing firm, is designing a graphical user interface for a new customer information program. Which one of the following graphical tools would be the **best** to control the validation of sales tax jurisdiction?
  - a. Check boxes.
  - b. Combo boxes.
  - c. Drop down lists.
  - d. Option buttons.
- 127. The **most** appropriate control to verify that a user is authorized to execute a particular online transaction is a
  - a. password.
  - b. challenge/response system.
  - c. compatibility check.
  - d. closed-loop verification.
- 128. A source code comparison utility is used to identify which one of the following situations?
  - a. Existence of an unauthorized program.
  - b. Unused code in a program.
  - c. Errors in a program.
  - d. Changes to a program.
- 129. Consider the following types of controls.
  - I. Preventive
  - II. Corrective
  - III. Feedback
  - IV. Feedforward
  - V. Detective

Which one of the following groups of controls are generally considered the **most** costeffective controls?

- a. I, II, and III.
- b. III, IV, and V.
- c. I, II, and IV.
- d. I, III, and V.

- 130. The internal auditor's review of processing controls should begin with a review of documentation. What classification(s) of documentation should be studied to obtain an understanding of the organization's distribution of computer printouts, correction of error procedures, and use of batch totals for processing runs?
  - a. Administrative.
  - b. Corrective and detective.
  - c. Reprocessing and systems review.
  - d. Program logic.
- 131. An internal electronic data processing control questionnaire that includes computer input controls, the distribution of output media, and record-retention procedures, is designed to review and assess which one of the following?
  - a. Facility security.
  - b. Organization of duties.
  - c. Computer operations.
  - d. Computer systems.
- 132. Confidential data can be securely transmitted over the internet by using
  - a. single-use passwords.
  - b. firewalls.
  - c. encryption.
  - d. digital signatures.
- 133. All of the following are examples of encryption techniques used for computer security **except** 
  - a. public key.
  - b. private key.
  - c. primary key.
  - d. authentication key.
- 134. The data entry staff of the midwest plant of National Manufacturing Inc. has responsibility for converting all of the plant's shipping information to computerized records. The information flow begins when the shipping department sends a copy of a shipping order to the data entry staff. A data entry operator scans the shipping order information onto a floppy disk. The disk is then used by verification clerks, who check the computerized record with the original shipping orders. When a given batch of files

has been reviewed and corrected, as necessary, the information is uploaded to the company's mainframe system at the home office.

The **most** effective way to visualize and understand this set of activities would be through the use of a

- a. program flowchart.
- b. decision table.
- c. document flowchart.
- d. Gantt chart.
- 135. When attempting to restore computing facilities at an alternate site following a disaster, which one of the following should be restored first?
  - a. Online system.
  - b. Batch system.
  - c. Operating system.
  - d. Decision support system.

#### Section D: Quantitative Methods

- 136. For cost estimation simple regression differs from multiple regression in that simple regression uses only
  - a. one dependent variable, while multiple regression uses all available data to estimate the cost function.
  - b. dependent variables, while multiple regression can use both dependent and independent variables.
  - c. one independent variable, while multiple regression uses more than one independent variable.
  - d. one dependent variable, while multiple regression uses more than one dependent variable.
- 137. A company has accumulated data for the last 24 months in order to determine if there is an independent variable that could be used to estimate shipping costs. Three possible independent variables being considered are packages shipped, miles shipped, and pounds shipped. The quantitative technique that should be used to determine whether any of these independent variables might provide a good estimate for shipping costs is
  - a. flexible budgeting.
  - b. linear programming.
  - c. linear regression.
  - d. variable costing.

138. Dawson Manufacturing developed the following multiple regression equation, utilizing many years of data, and uses it to model, or estimate, the cost of its product.

Cost = FC + a\*L + b\*MWhere: FC = fixed costs L = labor rate per hourM = material cost per pound

Which one of the following changes would have the **greatest** impact on invalidating the results of this model?

- a. A significant reduction in factory overheads, which are a component of fixed costs.
- b. Renegotiation of the union contract calling for much higher wage rates.
- c. A large drop in material costs, as a result of purchasing the material from a foreign source.
- d. A significant change in labor productivity.
- 139. In order to analyze sales as a function of advertising expenses, the sales manager of Smith Company developed a simple regression model. The model included the following equation, which was based on 32 monthly observations of sales and advertising expenses with a related coefficient of determination of .90.

$$S = $10,000 + $2.50A$$
  
 $S = sales$   
 $A = advertising expenses$ 

If Smith Company's advertising expenses in one month amounted to \$1,000, the related point estimate of sales would be

a.	\$2,500.
b.	\$11,250.
c.	\$12,250.
d.	\$12,500.

140. The results of regressing Y against X are as follows.

	<b>Coefficient</b>
Intercept	5.23
Slope	1.54
$\frac{1}{100}$	the estimated value

When the value of X is 10, the estimated value of Y is

a.	6.78.
b.	8.05.
c.	20.63

d. 53.84.

- 141. Which one of the following techniques would **most** likely be used to analyze reductions in the time required to perform a task as experience with that task increases?
  - a. Regression analysis.
  - b. Learning curve analysis.
  - c. Sensitivity analysis.
  - d. Normal probability analysis.
- 142. Aerosub, Inc. has developed a new product for spacecraft that includes the manufacturing of a complex part. The manufacturing of this part requires a high degree of technical skill. Management believes there is a good opportunity for its technical force to learn and improve as they become accustomed to the production process. The production of the first unit requires 10,000 direct labor hours. If an 80% learning curve is used and eight units are produced, the cumulative average direct labor hours required per unit of the product will be
  - a. 5,120 hours.
  - b. 6,400 hours.
  - c. 8,000 hours.
  - d. 10,000 hours.
- 143. A manufacturing firm plans to bid on a special order of 80 units that will be manufactured in lots of 10 units each. The production manager estimates that the direct labor hours per unit will decline by a constant percentage each time the cumulative quantity of units produced doubles. The quantitative technique used to capture this phenomenon and estimate the direct labor hours required for the special order is
  - a. cost-profit-volume analysis.
  - b. the Markov process.
  - c. linear programming analysis.
  - d. learning curve analysis.
- 144. A manufacturing company has the opportunity to submit a bid for 20 units of a product on which it has already produced two 10-unit lots. The production manager believes that the learning experience observed on the first two lots will continue for at least the next two lots. The direct labor required on the first two lots was as follows.
  - 5,000 direct labor hours for the first lot of 10 units
  - 3,000 additional direct labor hours for the second lot of 10 units

The learning rate experienced by the company on the first two lots of this product is

 a.
 40.0%.

 b.
 60.0%.

 c.
 62.5%.

 d.
 80.0%.

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- 145. Aerosub, Inc. has developed a new product for spacecraft that includes the manufacture of a complex part. The manufacturing of this part requires a high degree of technical skill. Management believes there is a good opportunity for its technical force to learn and improve as they become accustomed to the production process. The production of the first unit requires 10,000 direct labor hours. If an 80% learning curve is used, the cumulative direct labor hours required for producing a total of eight units would be
  - a. 29,520 hours.
  - b. 40,960 hours.
  - c. 64,000 hours.
  - d. 80,000 hours.
- 146. Propeller Inc. plans to manufacture a newly designed high-technology propeller for airplanes. Propeller forecasts that as workers gain experience, they will need less time to complete the job. Based on prior experience, Propeller estimates a 70% cumulative learning curve and has projected the following costs.

Cumulative number	Projected Labor Costs	
of units produced	Average cost per unit Total of	
1	\$20,000	\$20,000
2	14,000	28,000

If Propeller manufactures eight propellers, the total manufacturing cost would be

- a. \$50,660.
- b. \$54,880.
- c. \$62,643.
- d. \$112,000.
- 147. Martin Fabricating uses a cumulative average-time learning curve model to monitor labor costs. Data regarding two recently completed batches of a part that is used in tractor-trailer rigs is as follows.

Batch	Number	Cumulative Average
<u>Number</u>	of Units	Hours Per Unit
1	50	20
2	50	16

If the same rate of learning continues for the next several batches produced, which of the following best describes (1) the type (i.e., degree) of learning curve that the firm is experiencing and (2) the average hours per unit for units included in the 201-400 range of units produced (i.e., the last 200 units)?

	Type (Degree) of	Average Hours Per
	Learning Curve	Unit for Units 201-400
a.	20%	10.24.
b.	80%	10.24.
c.	80%	7.68.
d.	20%	3.84.

148. Propeller Inc. plans to manufacture a newly designed high-technology propeller for airplanes. Propeller forecasts that as workers gain experience, they will need less time to complete the job. Based on prior experience, Propeller estimates a 70% cumulative learning curve and has projected the following costs.

Cumulative number	Projected Labor Costs		
of units produced	Average cost per unit	Total costs	
1	\$20,000	\$20,000	
2	14,000	28,000	

If Propeller produces eight units, the average manufacturing cost per unit will be

- a. \$1,647.
- b. \$6,860.
- c. \$9,800.
- d. \$14,000.
- 149. In competing as a subcontractor on a military contract, Aerosub, Inc. has developed a new product for spacecraft that includes the manufacturing of a complex part. Management believes there is a good opportunity for its technical force to learn and improve as they become accustomed to the production process. Accordingly, management estimates an 80% learning curve would apply to this unit. The overall contract will call for supplying eight units. Production of the first unit requires 10,000 direct labor hours. The estimated total direct labor hours required to produce the seven additional units would be
  - a. 30,960 hours.
  - b. 40,960 hours.
  - c. 56,000 hours.
  - d. 70,000 hours.
- 150. A manufacturing company required 800 direct labor hours to produce the first lot of four units of a new motor. Management believes that a 90% learning curve will be experienced over the next four lots of production. How many direct labor hours will be required to manufacture the **next** 12 units?

a.	1,792.
b.	1,944.
c.	2,016.
d.	2,160.
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151. Propeller Inc. plans to manufacture a newly designed high-technology propeller for airplanes. Propeller forecasts that as workers gain experience, they will need less time to complete the job. Based on prior experience, Propeller estimates a 70% cumulative learning curve and has projected the following costs.

Cumulative number	Projected Labor Costs	
of units produced	Average cost per unit	Total costs
1	\$20,000	\$20,000
2	14,000	28,000

The estimated cost of an order for seven additional propellers, after completing production of the first propeller, would be

- a. \$34,880.
- b. \$54,880.
- c. \$92,000.
- d. \$98,000.
- 152. Sales of big-screen televisions have grown steadily during the past five years. A dealer predicted that the demand for February would be 148 televisions. Actual demand in February was 158 televisions. If the smoothing constant is  $\alpha$ =0.3, the demand forecast for March, using the exponential smoothing model, will be
  - a. 148 televisions.
  - b. 151 televisions.
  - c. 153 televisions.
  - d. 158 televisions.
- 153. Lazar Industries produces two products, Crates and Trunks. Per unit selling prices, costs, and resource utilization for these products are as follows.

	Crates	<u>Trunks</u>
Selling price	<u>\$20</u>	<u>\$30</u>
Direct material costs	\$ 5	\$5
Direct labor costs	8	10
Variable overhead costs	3	5
Variable selling costs	1	2
Machine hours per unit	2	4

Production of Crates and Trunks involves joint processes and use of the same facilities. The total fixed factory overhead cost is \$2,000,000 and total fixed selling and administrative costs are \$840,000. Production and sales are scheduled for 500,000 Crates and 700,000 Trunks. Lazar has the capacity to produce a total of 2,000,000 units in any October 2008 Page 41 combination of Crates and Trunks, and maintains no direct materials, work-in-process, or finished goods inventory.

If, during the coming period, Lazar is limited in the production of Crates and Trunks by multiple constraints, the **best** technique to use to determine the optimal sales mix to maximize the total contribution margin would be

- a. multiple regression analysis.
- b. simple regression analysis.
- c. linear programming.
- d. expected value analysis (expected monetary value).
- 154. A company manufactures several products. All the products pass through all of the company's manufacturing processes. In each manufacturing process, there are particular resource constraints. Which one of the following quantitative techniques would the company use when seeking to maximize its profits?
  - a. Cost-volume-profit analysis.
  - b. Decision table analysis.
  - c. Learning curve analysis.
  - d. Linear programming.
- 155. To utilize linear programming in the allocation of scarce resources, all of the following are required **except** 
  - a. an objective function, and constraints that are linear and continuous.
  - b. an objective function, and all constraints that are a function of a prespecified set of unrelated quantitative variables.
  - c. an objective function, and limitations that are expressed as mathematical equations of inequalities.
  - d. an objective function, and constraints that are independent and known with certainty.
- 156. All of the following are basic assumptions of linear programming techniques except
  - a. conditions of certainty.
  - b. focus on scarce resources.
  - c. production of two products.
  - d. linear mathematical relations.

157. Fortune Drug Company markets two products, Elstin and Recklin. The unit contribution per gallon is \$6 for Elstin and is \$5 for Recklin. Both products consist of two ingredients, A and B. Elstin contains 70% of A and 30% of B. Recklin contains 40% of A and 60% of B. The current inventory is 21,000 gallons of ingredient A and 9,000 gallons of ingredient B. The sole supplier of A and B is closed down due to a plant renovation being undertaken to comply with EPA requirements. The supplier does not expect to resume production for several months. Fortune Drug wishes to ascertain the number of gallons of Elstin and Recklin to produce, using its present inventory, to maximize revenue.

The designations of the gallons of products produced and ingredients used are as follows.

Products/Ingredients	Gallon Designation
Elstin	E
Recklin	R
Ingredient A	А
Ingredient B	В

The objective function which Fortune Drug should seek is expressed as

- a. \$6 (.7 A + .4 A) + \$5 (.3 B + .6 B).
  b. \$5 E + \$6 R.
  c. \$6 E + \$5 R + A + B.
  d. \$6 E + \$5 R.
- 158. A manufacturing company makes large and small cutting boards, with both cutting boards passing through the Cutting and Finishing Departments. The lumber used in the cutting boards is readily available without limitation. Direct labor is interchangeable between the Cutting and Finishing Departments, but there is a maximum of 900 direct labor hours available per week. There are only 400 machine hours per week available in the Cutting Department. Market research has shown that the demand for large cutting boards will be a maximum of 1,500 a week. The unit selling prices, costs, and resources for both cutting boards are as follows.

	Large	<u>Small</u>
Selling price	\$25	\$15
Direct material	2	1
Direct labor	6	4
Variable overhead	7	4
Material requirements in board feet (bd. ft.)	2 bd. ft.	1 bd. ft.
Labor requirements in direct labor hours (DLH)		
Cutting	.15 DLH	.10 DLH
Finishing	.25 DLH	.15 DLH
Cutting machine hour (MH) requirements	.2 MH	.1 MH
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Using L to represent the large cutting board and S to represent the small cutting board, which one of the following represents the objective function that will maximize the company's total contribution margin (TCM) when using linear programming?

- a. TCM = \$10 L + \$6 S.
- b. TCM = \$12 L + \$7 S.
- c. TCM = \$15 L + \$9 S.
- d. TCM = \$25 L + \$15 S.
- 159. Pharma Company manufactures Products A and B. The company is unable to meet the growing demand for both of these products due to its limited production facilities. The company has a monthly capacity of 600 direct labor hours and 200 lbs. of material. The company plans to use linear programming to determine a production schedule that will maximize its net return. Based on the current selling prices and production costs, it is estimated that Product A contributes \$9 per unit to the company profit and Product B contributes \$7 per unit. Resources used in the production of the two products are as follows.

	Product A	Product B
Raw materials used per unit	2 lbs.	1 lb.
Labor used per unit	5 hrs.	4 hrs.

The objective function that would maximize Pharma Company's contribution margin is

- a. 2A + 1B.b. 2A + 4B.c. 5A + 4B.d. 9A + 7B.
- 160. Fairless Loan Co. offers small business and home equity loans. The firm wants to determine the optimal mix of loans that will maximize its profit. The average business loan (B) is \$200,000, requires 16 hours of analysis time, and results in a contribution margin of \$5,000. The average home equity loan (H) is \$50,000, requires 8 hours of analysis time, and results in a contribution margin of \$2,000. Fairless can obtain capital to fund up to \$30 million in loans each year. The Fairless work force has up to 4,000 hours per year available for loan analysis. If Fairless uses linear programming to perform this analysis, what is the objective function it should use?
  - a. \$5,000 (16 x B).
  - b. \$2,000 (8 x H).
  - c. (\$200,000 x B) + (\$50,000 x H).
  - d. (\$5,000 x B) + (\$2,000 x H).

161. Fairless Loan Co. offers small business and home equity loans. The firm wants to determine the optimal mix of loans that will maximize its profit. The average business loan (B) is \$200,000, requires 16 hours of analysis time, and results in a contribution margin of \$5,000. The average home equity loan (H) is \$50,000, requires 8 hours of analysis time, and results in a contribution margin of \$2,000. Fairless can obtain capital to fund up to \$30 million in loans each year. The Fairless work force has up to 4,000 hours per year available for loan analysis.

Which of the following would be a correct constraint equation to be used in a linear programming application?

- a.  $(16 \times B) + $5,000 \le $200,000.$
- b.  $($200,000 \text{ x B}) + ($50,000 \text{ x H}) \le $30,000,000.$
- c.  $(8 \times B) + (16 \times H) \ge 4,000.$
- d.  $(8 \text{ x H}) + \$2,000 \le \$50,000.$
- 162. A manufacturing company makes large and small cutting boards, with both cutting boards passing through the Cutting and Finishing Departments. The lumber used in the cutting boards is readily available without limitation. Direct labor is interchangeable between the Cutting and Finishing Departments, but there is a maximum of 900 direct labor hours available per week. There are only 400 machine hours per week available in the Cutting Department. Market research has shown that the demand for large cutting boards will be a maximum of 1,500 a week. The unit selling prices, costs, and resources for both cutting boards are as follows.

	<u>Large</u>	<u>Small</u>
Selling price	\$25	\$15
Direct material	2	1
+Direct labor	6	4
Variable overhead	7	4
Material requirements in board feet (bd. ft.)	2 bd. ft.	1 bd. ft.
Labor requirements in direct labor hours (DLH)		
Cutting	.150 DLH	.100 DLH
Finishing	.225 DLH	.150 DLH
Cutting machine hour (MH) requirements	.200 MH	.100 MH

Using L to represent large cutting boards and S to represent small cutting boards, if the company is going to apply linear programming to maximize its total contribution margin, which one of the following equations is the constraint function for direct labor?

a.  $.150 L + .225 S \le 900.$ b.  $.225 L + .150 S \le 900.$ c.  $.375 L + .250 S \le 900.$ d. .575 L + .350 S < 1,300.

163. Pharma Company manufactures Products A and B. Pharma's monthly production facilities are limited to a total of 600 direct labor hours and 200 lbs. of material. Due to these limits the company is unable to meet the growing demand for both products. The company plans to use linear programming to determine a production schedule that will maximize its net return. Based on current selling prices and production costs, it is estimated that Product A contributes \$9 per unit to company profit and Product B contributes \$7 per unit. Resources used in the production of the two products are as follows.

	Product A	Product B
Raw materials used per unit	2 lbs.	1 lb.
Labor used per unit	5 hrs.	4 hrs.

The non-negativity constraint for the linear programming model is

- a.  $A \le 0, B \ge 0.$ b.  $A \le 0, B \le 0.$ c.  $A \ge 0, B \ge 0.$ d.  $A - B \le 0.$
- 164. Fortune Drug Company markets two products, Elstin and Recklin. The unit contribution per gallon is \$6 for Elstin and \$5 for Recklin. Both products consist of two ingredients, A and B. Elstin contains 70% of A and 30% of B. Recklin contains 40% of A and 60% of B. The current inventory is 21,000 gallons of ingredient A and 9,000 gallons of ingredient B. The sole supplier of A and B is closed down due to a plant renovation being undertaken to comply with EPA requirements. The supplier does not expect to resume production for several months. Fortune Drug wishes to ascertain the number of gallons of Elstin and Recklin to produce, using its present inventory, to maximize revenue.

The designations of gallons of products produced and ingredients used are as follows.

Products/Ingredients	Gallon Designations
Elstin	E
Recklin	R
Ingredient A	А
Ingredient B	В

The constraints imposed by ingredient B can be expressed as

a.	$E + R \le 9,000.$
----	--------------------

b.  $.3 \text{ E} + .6 \text{ R} \le 9,000.$ 

- c.  $.7 \text{ E} + .4 \text{ R} \le 9,000.$
- d.  $.6 \text{ R} + .3 \text{ E} \ge 9,000.$

165. Pharma Company manufactures Products A and B. The company is unable to meet the growing demand for both of these products due to its limited production facilities. The company has a monthly capacity of 600 direct labor hours and 200 lbs. of material. The company plans to use linear programming to determine a production schedule that will maximize its net return. Based on the current selling prices and production costs, it is estimated that Product A contributes \$9 per unit to company profit and Product B contributes \$7 per unit. Resources used in the production of the two products are as follows.

	Product A	Product B
Raw materials used per unit	2 lbs.	1 lb.
Labor used per unit	5 hrs.	4 hrs.

Which one of the following equations is an appropriate constraint function?

- a.  $2A + 1B \ge 200.$ b.  $2A + 4B \le 9.$ c.  $5A + 4B \le 600.$
- d.  $7A + 5B \le 200$ .
- 166. Pharma Company manufactures Products A and B. The company is unable to meet the growing demand for both of these products due to its limited production facilities. The company has a monthly capacity of 600 direct labor hours and 200 lbs. of material. The company plans to use linear programming to determine a production schedule that will maximize its net return. Based on the current selling prices and production costs, it is estimated that Product A contributes \$9 per unit to company profit and Product B contributes \$7 per unit. Resources used in the production of the two products are as follows.

	Product A	Product B
Raw materials used per unit	2 lbs.	1 lb.
Labor used per unit	5 hrs.	4 hrs.

Which one of the following equations is an appropriate constraint function?

a.	$2A + 5B \le 9$ .
b.	$2A + 1B \le 200.$
c.	$1A + 4B \le 7.$
d.	$5A + 4B \ge 600.$

167. Fairless Loan Co. offers small business and home equity loans. The firm wants to determine the optimal mix of loans that will maximize its profit. The average business loan (B) is \$200,000, requires 16 hours of analysis time, and results in a contribution margin of \$5,000. The average home equity loan (H) is \$50,000, requires 8 hours of analysis time, and results in a contribution margin of \$2,000. Fairless can obtain capital to fund up to \$30 million in loans each year. The Fairless work force has up to 4,000 hours per year available for loan analysis.

Which of the following combinations of loans represents the most optimal mix of loans for Fairless based on the information above?

- a. 50 business loans and 400 home equity loans.
- b. 60 business loans and 380 home equity loans.
- c. 25 business loans and 450 home equity loans.
- d. 40 business loans and 440 home equity loans.
- 168. Pharma Company manufactures Products A and B. Pharma's monthly production facilities are limited to a total of 600 direct labor hours and 200 lbs. of material. Due to these limits the company is unable to meet the growing demand for both products. The company plans to use linear programming to determine a production schedule that will maximize its net return. Based on current selling prices and production costs, it is estimated that Product A contributes \$9 per unit to company profit and Product B contributes \$7 per unit. Resources used in the production of the two products are as follows.

	Product A	Product B
Raw materials used per unit	2 lbs.	1 lb.
Labor used per unit	5 hrs.	4 hrs.

Which one of the following is **not** a feasible solution under the given constraints?

- a. 100 units of A and 0 units of B.
- b. 0 units of A and 150 units of B.
- c. 120 units of A and 0 units of B.
- d. 50 units of A and 80 units of B.
- 169. A PERT cost network may display both expected and actual times and costs, which allow for breaking down variances into spending variances and activity time variances. Which one of the following calculations would be used to compute the activity time variance?
  - a. (actual time less expected time) x (expected cost).
  - b. (actual time) x (actual cost less expected cost).
  - c. slack time less normal time.
  - d. critical path time less slack time.

- 170. Under program evaluation review technique (PERT), all of the following time estimates are used in developing the expected activity time **except** 
  - a. optimistic time.
  - b. earliest start time.
  - c. most likely time.
  - d. pessimistic time.
- 171. Paul Dunn, manager of information systems for Martin Inc., is planning a new software development project for the Operations Team. He wants to use network analysis to schedule the project and has determined the required activities and their estimated durations.

<u>Activity</u>	<b>Duration</b>
A-B	9 weeks
A-C	3 weeks
B-H	10 weeks
C-D	5 weeks
C-E	8 weeks
D-F	6 weeks
F-H	4 weeks
E-G	7 weeks
H-I	5 weeks
G-I	8 weeks
I-J	3 weeks

Assuming the project starts at Time = 0, what is the **earliest** time activity H-I can start?

- a. after 16 weeks.
- b. after 18 weeks.
- c. after 19 weeks.
- d. after 21 weeks.
- 172. A contractor uses Program Evaluation Review Technique (PERT) to help manage its construction projects. To accelerate the completion of a local town shopping mall project, the company should devote additional resources to
  - a. non-critical path activities.
  - b. activities on the path(s) where slack time is zero.
  - c. activities on the path(s) where slack time is positive.
  - d. activities that key managers deem critical.

173. Vickery Corporation is using network analysis to manage the construction of a small parking area for the City of Regal Hills. Data relating to this project is as follows.

	Estimated Completion
Activity	<u>Time (Days)</u>
A-B	6
A-C	5
A-D	5
A-E	5
B-G	3
C-H	11
D-F	2
E-F	4
F-I	10
G-H	6
H-I	5
I-J	4

The company's project manager has identified four activity paths for the parking area: ABGHIJ, ACHIJ, AEFIJ, and ADFIJ. The critical path on this project is

- a. ABGHIJ.
- b. ACHIJ.
- c. AEFIJ.
- d. ADFIJ.
- 174. Computer Inc. is using the Program Evaluation and Review Technique (PERT) to plan and track progress of the implementation of a new computer system. The activities for the new system are identified below.

	Estimated Completion Time
Activity	<u>(days)</u>
A-B	2
B-C	3
B-D	5
B-E	1
C-F	2
D-F	6
E-G	7
F-G	4
G-H	2

The critical path of this project is

- a. A-B-C-F-G-H.
- b. A-B-D-F-G-H.
- c. A-B-E-G-H.
- d. A-B-C-E-G-H.
- 175. Paul Dunn, manager of information systems for Martin Inc., is planning a new software development project for the Operations Team. He wants to use network analysis to schedule the project and has determined the required activities and their estimated durations, as follows.

<u>Activity</u>	<b>Duration</b>
A-B	9 weeks
A-C	3 weeks
B-H	10 weeks
C-D	5 weeks
C-E	8 weeks
D-F	6 weeks
F-H	4 weeks
E-G	7 weeks
H-I	5 weeks
G-I	8 weeks
I-J	3 weeks

Which one of the following is the critical path of the network?

- a. A-B-H-I-J.
- b. A-C-D-F-H-I-J.
- c. A-C-E-G-I-J.
- d. A-B-F-G-I-J.
- 176. Johnson Software has developed a new software package. Johnson's sales manager has prepared the following probability distribution describing the relative likelihood of monthly sales levels and relative income (loss) for the company's new software package.

<u>Probability</u>	Income (Loss)
.2	\$(4,000)
.3	10,000
.3	30,000
.2	60,000
	.2 .3

If Johnson decides to market its new software package, the expected value of additional monthly income will be

- a. \$23,200.
- b. \$24,000.
- c. \$24,800.
- d. \$25,000.
- 177. According to recent focus sessions, Norton Corporation has a "can't miss" consumer product on its hands. Sales forecasts indicate either excellent or good results, with Norton's sales manager assigning a probability of .6 to a good results outcome. The company is now studying various sales compensation plans for the product and has determined the following contribution margin data.

	Contribution
	Margin
If sales are excellent and	
Plan 1 is adopted	\$300,000
Plan 2 is adopted	370,000
If sales are good and	
Plan 1 is adopted	240,000
Plan 2 is adopted	180,000

On the basis of this information, which of the following statements is correct?

- a. Plan 2 should be adopted because it is \$10,000 more attractive than Plan 1.
- b. Plan 1 should be adopted because it is \$8,000 more attractive than Plan 2.
- c. Plan 1 should be adopted because of the sales manager's higher confidence in good results.
- d. Either Plan should be adopted, the decision being dependent on the probability of excellent sales results.
- 178. Denton Inc. manufactures industrial machinery and requires 100,000 switches per year in its assembly process. When switches are received from a vendor they are installed in the specific machine and tested. If the switches fail, they are scrapped and the associated labor cost of \$25 is considered lost productivity. Denton purchases "off the shelf" switches as opposed to custom-made switches and experiences quality problems with some vendors' products. A decision must be made as to which vendor to buy from during the next year based on the following information.

	Percentage expected
Price per switch	to pass the test
\$35	90%
37	94%
39	97%
40	99%
	\$35 37

Which vendor should Denton's controller recommend to management?

- a. Vendor P.
- b. Vendor Q.
- c. Vendor R.
- d. Vendor S.
- 179. Scarf Corporation's controller has decided to use a decision model to cope with uncertainty. With a particular proposal, currently under consideration, Scarf has two possible actions, invest or not invest in a joint venture with an international firm. The controller has determined the following.
  - Action 1: Invest in the Joint Venture

Events and Probabilities: Probability of success = 60%. Cost of investment = \$9.5 million. Cash flow if investment is successful = \$15.0 million. Cash flow if investment is unsuccessful = \$2.0 million. Additional costs to be paid = \$0 Costs incurred up to this point = \$650,000.

Action 2: Do Not Invest in the Joint Venture

Events

Costs incurred up to this point = \$650,000. Additional costs to be paid = \$100,000.

Which one of the following alternatives correctly reflects the respective expected values of investing versus not investing?

- a. \$300,000 and \$(750,000).
- b. \$(350,000) and \$(100,000).
- c. \$300,000 and (100,000).
- d. \$(350,000) and \$(750,000).
- 180. Allbee Company has three possible investment opportunities. The controller calculated the payoffs and probabilities, as follows.

	Probabilities			
Payoffs	Investment A	Investment B	Investment C	
\$(20,000)	.3	.2	.3	
(10,000)	.1	.2	.1	
30,000	.3	.2	.2	
70,000	.2	.2	.3	
100,000	.1	.2	.1	

The cost of investments A, B, and C are the same. Using the expected-value criterion, which one of the following rankings of these investments, from highest payoff to lowest payoff, is correct?

- a. A, B, C. b. B, A, C.
- c. C, A, B.
- d. B, C, A.
- 181. The sales manager of Serito Doll Company has suggested that an expanded advertising campaign costing \$40,000 would increase the sales and profits of the company. He has developed the following probability distribution for the effect of the advertising campaign on company sales.

Sales increase	
(units)	<u>Probability</u>
15,000	.10
30,000	.35
45,000	.10
60,000	.25
75,000	.20

The company sells the dolls at \$5.20 each. The cost of each doll is \$3.20. Serito's expected incremental profit, if the advertising campaign is adopted, would be

- a. \$6,500.
- b. \$46,500.
- c. \$53,000.
- d. \$93,000.
- 182. Stock X has the following probability distribution of expected future returns.

	Expected
<u>Probability</u>	<u>Return</u>
.10	-20%
.20	5%
.40	15%
.20	20%
.10	30%

The expected rate of return on stock X would be

a. 10%.

- b. 12%.
- c. 16%.
- d. 19%.

183. Which one of the following four probability distributions provides the highest expected monetary value?

Alternative #1	Alternative #2	Alternative #3	Alternative #4
Cash	Cash	Cash	Cash
<u>Prob</u> . <u>Inflows</u>	Prob. Inflows	Prob. Inflows	Prob. Inflows
10% \$50,000	10% \$50,000	10% \$50,000	10% \$150,000
20% 75,000	20% 75,000	20% 75,000	20% 100,000
40% 100,000	45% 100,000	40% 100,000	40% 75,000
30% 150,000	25% 150,000	30% 125,000	30% 50,000

- a. Alternative #1.
- b. Alternative #2.
- c. Alternative #3.
- d. Alternative #4.
- 184. The Lions Club is planning to sell pretzels at a local football game and has estimated sales demand as follows.

Sales demand	8,000	10,000	12,000	15,000
Probability	10%	40%	30%	20%

The cost of the pretzels varies with the quantity purchased as follows.

Purchase quantity	8,000	10,000	12,000	15,000
Cost per unit	\$1.25	\$1.20	\$1.15	\$1.10

Any unsold pretzels would be donated to the local food bank. The calculated profits at the various sales demand levels and purchase quantities are as follows.

	Expected Profits at Various Purchase Quantity Levels				
Sales Demand	8,000	<u>10,000</u>	12,000	15,000	
8,000	\$6,000	\$4,000	\$ 2,200	\$ (500)	
10,000	6,000	8,000	6,200	3,500	
12,000	6,000	8,000	10,200	7,500	
15,000	6,000	8,000	10,200	13,500	

Which one of the following purchase quantities would you recommend to the Lions Club?

- b. 10,000.
- c. 12,000.
- d. 15,000.

- 185. Monahan Company has developed a new product that can be manufactured in three variations. Each variation may be offered at either a high or a low price. Probabilities of the quantities sold for each variation at the high and low prices have been estimated. To determine the number of each variation of product to produce, the appropriate modeling technique to be used is
  - a. decision tree analysis.
  - b. critical path analysis.
  - c. linear programming.
  - d. Monte Carlo simulation.
- 186. Larry Clement is considering adding a new product line, which would involve constructing a new plant. The options are to construct a large plant, to construct a small plant, or to not add the new product line. Clement has determined there is a 60% chance that the market will be favorable, resulting in high demand, and a 40% chance the market will be unfavorable, resulting in low demand. Clement has constructed the following decision tree and the payoffs under the different states of nature.

		States of Nature & Probabilities	Payoffs
		Favorable (Probability=0.6)	\$100,000
Г 1	Construct large plant	<u>Unfavorable (Probability=0.4)</u>	\$(80,000)
Expand	_Construct small plant_	Favorable (Probability=0.6)	\$60,000
		<u>Unfavorable (Probability=0.4)</u>	\$(10,000)
Do Not expand	Do nothing		\$0

Which one of the following alternatives should be recommended to Clement?

- a. Construct a large plant, as the payoff is \$28,000.
- b. Construct a small plant, as the payoff is \$32,000.
- c. Construct a small plant, as the payoff is \$40,000.
- d. Do not expand, as the payoff is \$0.

187. Susan Hines has developed an estimate of the earnings per share for her firm for the next year using the following parameters.

\$20 million
70% of sales
\$300,000
\$100,000 plus 10% of sales
\$5 million @ 8% interest rate
35%
2 million

She is now interested in the sensitivity of earnings per share to sales forecast changes. A 10% sales increase would increase earnings per share by

- a. 7.0 cents per share.
- b. 10.4 cents per share.
- c. 13.0 cents per share.
- d. 20.0 cents per share.
- 188. Bolger and Co. manufactures large gaskets for the turbine industry. Bolger's per unit sales price and variable costs for the current year are as follows.

Sales price per unit\$300Variable costs per unit210

Bolger's total fixed costs aggregate \$360,000. As Bolger's labor agreement is expiring at the end of the year, management is concerned about the effect a new agreement will have on its unit breakeven point. The controller performed a sensitivity analysis to ascertain the estimated effect of a \$10 per unit direct labor increase and a \$10,000 reduction in fixed costs. Based on these data, it was determined that the breakeven point would

- a. decrease by 1,000 units.
- b. decrease by 125 units.
- c. increase by 375 units.
- d. increase by 500 units.
- 189. The modeling technique that should be used in a complex situation involving uncertainty is a(n)
  - a. expected value analysis.
  - b. program evaluation review technique.
  - c. Monte Carlo simulation.
  - d. Markov process.

190. Janet Jones, an analyst with All Purpose Heater Company, plans to use a Monte Carlo experiment to estimate the simulated daily demand for All Purpose's heaters. The probability distribution for the daily demand for heaters is as follows.

Daily demand		Random number
for heaters	<u>Probability</u>	intervals
0	.10	00-09
1	.15	10-24
2	.20	25-44
3	.20	45-64
4	.25	
5	.10	

Jones is trying to assign random number intervals for each of the demand levels. She has done so for the first four levels. If a total of 100 two-digit numbers are used in a simulation, what random number intervals should Jones assign to the 4 and 5 heaters demand levels, respectively?

a.	65-69; 70-88.
b.	65-84; 85-99.
c.	65-84; 85-99.
d.	65-89; 90-99.

191. All of the following are advantages of a simulation model except it

- a. allows what-if type of questions.
- b. does not interfere with the real world systems.
- c. generates optimal solutions to problems.
- d. allows the study of the interactive effect of variables.
- 192. Logan Corporation, located in Boston, has experienced major distribution problems in supplying key Los Angeles-based customers. Delivery times have been as follows over the last four months.

Delivery Time	Number of Times	
in Days	Occurring	
5	12	
6	18	
7	15	
8	9	
9	6	

The company's marketing manager wants to simulate the distribution process by assigning random numbers to delivery times and to other random variables. If the October 2008

marketing manager uses 100 different random numbers to simulate the process, an appropriate assignment of random numbers to a 6-day delivery time would be

- a. 09-14.
- b. 30-60.
- c. 45-74.
- d. 00-18.

#### Section E: Financial Statement Analysis

- 193. Which one of the following characteristics of accounting standards is **least** likely to be of concern to the business community?
  - a. Standards are complex and costly to implement.
  - b. Standards often become effective more than one year after issuance.
  - c. Some standards introduce volatility in reported net income.
  - d. Some standards require disclosures that put companies at a competitive disadvantage in world markets.
- 194. All of the following are pronouncements issued by the Financial Accounting Standards Board **except** 
  - a. Financial Accounting Concepts.
  - b. Standards and Interpretations.
  - c. Practice Bulletins.
  - d. Technical Bulletins.
- 195. The purpose of which one of the following organizations is **best** described as establishing and improving standards of financial accounting and reporting?
  - a. Financial Accounting Standards Advisory Committee.
  - b. Financial Accounting Standards Board.
  - c. Financial Accounting Standards Board Staff and Task Forces.
  - d. Financial Accounting Foundation.
- 196. The purpose of which one of the following organizations is **best** described as selecting members, funding regulatory activities, and exercising general oversight?
  - a. Financial Accounting Standards Advisory Committee.
  - b. Financial Accounting Standards Board.
  - c. Financial Accounting Standards Board Staff and Task Forces.
  - d. Financial Accounting Foundation.

- 197. A user group that would like to voice its opinion regarding a proposed financial accounting standard that is currently in the process of development must be certain to make contact with which one of the following to ensure its input will be heard?
  - a. The Financial Accounting Standards Board.
  - b. The Financial Accounting Foundation.
  - c. The American Accounting Association.
  - d. The American Institute of Certified Public Accountants.
- 198. The purpose of which one of the following organizations is **best** described as assisting the standard setting process by performing research, analysis, and writing functions?
  - a. Financial Accounting Standards Advisory Committee.
  - b. Financial Accounting Standards Board.
  - c. Financial Accounting Standards Board Staff and Task Forces.
  - d. Financial Accounting Foundation.
- 199. Which one of the following statements is **incorrect** with regard to the steps taken to achieve due process in developing Statements of Financial Accounting Standards?
  - a. Emerging Issues Task Force members are polled for their opinions.
  - b. A public comment period is held after the issuance of an exposure draft.
  - c. A committee studies public responses to an exposure draft and reevaluates the Financial Accounting Standards Board's position.
  - d. Research and analysis are conducted prior to issuing a discussion memorandum.
- 200. Which one of the following is **not** a basic premise of the Financial Accounting Standards Board's due process procedures?
  - a. Be responsive to the needs and viewpoints of the entire economic community.
  - b. Operate in concert with the major accounting firms.
  - c. Operate in full view of the public.
  - d. Allow sufficient time to give interested persons the opportunity to make their views known.
- 201. The Financial Accounting Standards Board (FASB) has a system of due process for the issuance of standards that requires
  - a. all changes to existing pronouncements be processed within 30 days.
  - b. the FASB to vote on the issuance of a standard prior to the issuance of an exposure draft.
  - c. that a discussion memorandum be drafted and released to solicit public comment.
  - d. public hearings to be held after the issuance of each discussion memorandum.

- 202. Which one of the following **best** describes the correct sequence of the Financial Accounting Standards Board's due process for establishing financial accounting standards?
  - a. Agenda item, discussion memorandum, exposure draft, standards statement.
  - b. Public hearing, exposure draft, discussion memorandum, standards statement.
  - c. Agenda item, exposure draft, standards statement, discussion memorandum.
  - d. Discussion memorandum, agenda item, exposure draft, standards statement.
- 203. With regard to accounting information, which one of the following is **least** likely to be a characteristic of reliability?
  - a. Verifiable information.
  - b. Information free of error and bias.
  - c. Numbers agreeing with the events that they purport to represent.
  - d. Information that has predictive or feedback value.
- 204. In Statement of Financial Accounting Concepts No. 2, "Qualitative Characteristics of Accounting Information," comparability is an element of
  - a. relevance.
  - b. verifiability.
  - c. both relevance and reliability.
  - d. both verifiability and reliability.
- 205. Which one of the following **best** describes the Securities and Exchange Commission's (SEC) role in standard setting?
  - a. The SEC has little jurisdiction over generally accepted accounting principles.
  - b. The SEC has legal authority relative to accounting practices, however, it relies on the American Institute of Certified Public Accountants and the Financial Accounting Standards Board to prepare accounting statements.
  - c. The SEC is only concerned with accounting principles related to SEC filing requirements.
  - d. The SEC consults and advises the Financial Accounting Standards Board but has little interaction with the American Institute of Certified Public Accountants.

- 206. All of the following are correct concerning the Security and Exchange Commission's (SEC) involvement with the process of developing accounting standards **except** that the SEC has
  - a. at times refused to accept a standard proposed in the private sector.
  - b. prodded the private sector into taking quicker action on reporting problems.
  - c. broad powers to prescribe accounting practices and standards.
  - d. the right to select members of the Financial Accounting Standards Board.
- 207. The mandate of the Securities and Exchange Commission in the financial accounting standard setting process is to
  - a. accept and enforce standards established by the profession.
  - b. establish accounting principles.
  - c. review and approve the work of the Accounting Principles Board.
  - d. select the members of the Financial Accounting Standards Board.
- 208. The **most** authoritative generally accepted accounting principles are established by
  - a. Practice Bulletins issued by the American Institute of Certified Public Accountants.
  - b. Issues Papers released by the American Institute of Certified Public Accountants.
  - c. Statements of Financial Accounting Concepts issued by the Financial Accounting Standards Board.
  - d. Statements of Financial Accounting Standards issued by the Financial Accounting Standards Board.
- 209. Which one of the following is the **least** authoritative?
  - a. Financial Accounting Standards Board Statements on Financial Accounting Standards.
  - b. Financial Accounting Standards Board Statements on Financial Accounting Concepts.
  - c. Financial Accounting Standards Board Interpretations.
  - d. Accounting Principles Board Opinions.

- 210. The major objective of the International Accounting Standards Committee is
  - a. the creation of superior international standards that would supplant national standards.
  - b. to establish global regulations for governmental accounting.
  - c. to establish requirements for the registration of businesses operating globally.
  - d. the improvement and harmonization of accounting standards relating to financial statements.
- 211. All of the following are goals of the International Accounting Standards Committee except
  - a. improvement in the comparability of cross-border financial statements.
  - b. requiring national accounting standard setters to adopt international accounting standards.
  - c. harmonization of accounting regulations across free-market economies.
  - d. improvement in the quality of financial statements issued throughout the world.
- 212. The accuracy and completeness of the financial statements and related footnotes contained in a company's annual report to shareholders are the responsibility of the company's
  - a. management.
  - b. internal auditors.
  - c. independent auditors.
  - d. outside legal counsel.
- 213. All of the following are affected when merchandise is purchased on credit except
  - a. total current assets.
  - b. net working capital.
  - c. total current liabilities.
  - d. current ratio.
- 214. Stanford Company leased some special-purpose equipment from Vincent Inc. under a long-term lease that was treated as an operating lease by Stanford. After the financial statements for the year had been issued, it was discovered that the lease should have been treated as a capital lease by Stanford. All of the following measures relating to Stanford would be affected by this discovery **except** the
  - a. debt/equity ratio.
  - b. accounts receivable turnover.
  - c. fixed asset turnover.
  - d. net income percentage.

215. Broomall Corporation has decided to include certain financial ratios in its year-end annual report to shareholders. Selected information relating to its most recent fiscal year is provided below.

٠	Cash	\$10,000
٠	Accounts receivable	20,000
٠	Prepaid expenses	8,000
٠	Inventory	30,000
٠	Available-for-sale securities	
	-At cost	9,000
	-Fair value at year end	12,000
•	Accounts payable	15,000
٠	Notes payable (due in 90 days)	25,000
٠	Bonds payable (due in 10 years)	35,000
٠	Net credit sales for year	220,000
•	Cost of goods sold	140,000

Broomall's working capital at year end is

a.	\$40,000.
b.	\$37,000.
c.	\$28,000.

- c. \$28,000. d. \$10,000.
- 216. Peggy Monahan, controller, has gathered the following information regarding Lampasso Company.

	Beginning of the year	End of the year
Inventory	\$6,400	\$7,600
Accounts receivable	2,140	3,060
Accounts payable	3,320	3,680

Total sales for the year were \$85,900, of which \$62,400 were credit sales. The cost of goods sold was \$24,500.

Lampasso's accounts receivable turnover ratio for the year was

- a. 9.4 times.
- b. 20.4 times.
- c. 24.0 times.
- d. 33.0 times.

217. Birch Products Inc. has the following current assets.

Cash	\$	250,000
Marketable securities		100,000
Accounts receivable		800,000
Inventories	1	,450,000
Total current assets	<u>\$2</u>	<u>,600,000</u>

If Birch's current liabilities are \$1,300,000, the firm's

- a. current ratio will decrease if a payment of \$100,000 cash is used to pay \$100,000 of accounts payable.
- b. current ratio will not change if a payment of \$100,000 cash is used to pay \$100,000 of accounts payable.
- c. quick ratio will decrease if a payment of \$100,000 cash is used to purchase inventory.
- d. quick ratio will not change if a payment of \$100,000 cash is used to purchase inventory.
- 218. Shown below are beginning and ending balances for certain of Grimaldi Inc.'s accounts.

	<u>January 1</u>	December 31
Cash	\$ 48,000	\$ 62,000
Marketable securities	42,000	35,000
Accounts receivable	68,000	47,000
Inventory	125,000	138,000
Plant & equipment	325,000	424,000
Accounts payable	32,000	84,000
Accrued liabilities	14,000	11,000
7% bonds payable	95,000	77,000

Grimaldi's acid test ratio or quick ratio at the end of the year is

- a. 0.83.
- b. 1.02.
- c. 1.15.
- d. 1.52.

- 219. Davis Retail Inc. has total assets of \$7,500,000 and a current ratio of 2.3 times before purchasing \$750,000 of merchandise on credit for resale. After this purchase, the current ratio will
  - a. remain at 2.3 times.
  - b. be higher than 2.3 times.
  - c. be lower than 2.3 times.
  - d. be exactly 2.53 times.}
- 220. Markowitz Company increased its allowance for uncollectable accounts. This adjustment will
  - a. increase the acid test ratio.
  - b. increase working capital.
  - c. reduce debt-to-asset ratio.
  - d. reduce the current ratio.
- 221. Garstka Auto Parts must increase its acid test ratio above the current 0.9 level in order to comply with the terms of a loan agreement. Which one of the following actions is **most** likely to produce the desired results?
  - a. Expediting collection of accounts receivable.
  - b. Selling auto parts on account.
  - c. Making a payment to trade accounts payable.
  - d. Purchasing marketable securities for cash.
- 222. The owner of a chain of grocery stores has bought a large supply of mangoes and paid for the fruit with cash. This purchase will adversely impact which one of the following?
  - a. Working capital.
  - b. Current ratio.
  - c. Quick or acid test ratio.
  - d. Price earnings ratio.

223. Selected financial data for Boyd Corporation are shown below.

	January 1	December 31
Cash	\$ 48,000	\$ 62,000
Accounts receivable (net)	68,000	47,000
Trading securities	42,000	35,000
Inventory	125,000	138,000
Plant and equipment (net)	325,000	424,000
Accounts payable	32,000	84,000
Accrued liabilities	14,000	11,000
Deferred taxes	15,000	9,000
Long-term bonds payable	95,000	77,000

Boyd's net income for the year was \$96,000. Boyd's current ratio at the end of the year is

- a. 1.55. b. 1.71.
- c. 2.71.
- d. 2.97.
- 224. When reviewing a credit application, the credit manager should be **most** concerned with the applicant's
  - a. profit margin and return on assets.
  - b. price-earnings ratio and current ratio.
  - c. working capital and return on equity.
  - d. working capital and current ratio.
- 225. Both the current ratio and the quick ratio for Spartan Corporation have been slowly decreasing. For the past two years, the current ratio has been 2.3 to 1 and 2.0 to 1. During the same time period, the quick ratio has decreased from 1.2 to 1 to 1.0 to 1. The disparity between the current and quick ratios can be explained by which one of the following?
  - a. The current portion of long-term debt has been steadily increasing.
  - b. The cash balance is unusually low.
  - c. The accounts receivable balance has decreased.
  - d. The inventory balance is unusually high.

- 226. The acid test ratio shows the ability of a company to pay its current liabilities without having to
  - a. reduce its cash balance.
  - b. borrow additional funds.
  - c. collect its receivables.
  - d. liquidate its inventory.
- 227. Marge Halifax, chief financial officer of Strickland Construction, has been tracking the activities of the company's nearest competitor for several years. Among other trends, Halifax has noticed that this competitor is able to take advantage of new technology and bring new products to market more quickly than Strickland. In order to determine the reason for this, Halifax has been reviewing the following data regarding the two companies.

	<b>Strickland</b>	<b>Competitor</b>
Accounts receivable turnover	6.85	7.35
Return on assets	15.34	14.74
Times interest earned	15.65	12.45
Current ratio	2.11	1.23
Debt/equity ratio	42.16	55.83
Degree of financial leverage	1.06	1.81
Price/earnings ratio	26.56	26.15

On the basis of this information, which one of the following is the **best** initial strategy for Halifax to follow in attempting to improve the flexibility of Strickland?

- a. Seek cost cutting measures that would increase Strickland's profitability.
- b. Investigate ways to improve asset efficiency and turnover times to improve liquidity.
- c. Seek additional sources of outside financing for new product introductions.
- d. Increase Strickland's investment in short-term securities to increase the current ratio.
- 228. When a fixed asset is sold for less than book value, which one of the following will decrease?
  - a. Total current assets.
  - b. Current ratio.
  - c. Net profit.
  - d. Net working capital.

- 229. All of the following are included when calculating the acid test ratio **except** 
  - a. six-month treasury bills.
  - b. prepaid insurance.
  - c. accounts receivable.
  - d. 60-day certificates of deposit.
- 230. Dedham Corporation has decided to include certain financial ratios in its year-end annual report to shareholders. Selected information relating to its most recent fiscal year is provided below.

•	Cash	\$10,000
٠	Accounts receivable	20,000
٠	Prepaid expenses	8,000
٠	Inventory	30,000
٠	Available-for-sale securities	
	-At cost	9,000
	-Fair value at year end	12,000
٠	Accounts payable	15,000
٠	Notes payable (due in 90 days)	25,000
٠	Bonds payable (due in 10 years)	35,000

Dedham's quick (acid-test) ratio at year end is

- a. 2.00 to 1.
- b. 1.925 to 1.
- c. 1.80 to 1.
- d. 1.05 to 1.
- 231. If a company has a current ratio of 2.1 and pays off a portion of its accounts payable with cash, the current ratio will
  - a. decrease.
  - b. increase.
  - c. remain unchanged.
  - d. move closer to the quick ratio.

232. Lowell Corporation has decided to include certain financial ratios in its year-end annual report to shareholders. Selected information relating to its most recent fiscal year is provided below.

•	Cash	\$ 10,000
٠	Accounts receivable (end of year)	20,000
٠	Accounts receivable (beginning of year)	24,000
٠	Inventory (end of year)	30,000
٠	Inventory (beginning of year)	26,000
٠	Notes payable (due in 90 days)	25,000
٠	Bonds payable (due in 10 years)	35,000
٠	Net credit sales for year	220,000
•	Cost of goods sold	140,000

Using a 365-day year, compute Lowell's accounts receivable turnover in days.

- a. 26.1 days.
- b. 33.2 days.
- c. 36.5 days.
- d. 39.8 days.
- 233. Maydale Inc.'s financial statements show the following information.

Accounts receivable, end of Year 1	\$ 320,000
Credit sales for Year 2	3,600,000
Accounts receivable, end of Year 2	400,000

Maydale's accounts receivable turnover ratio is

- a. 0.10.
- b. 9.00.
- c. 10.00.
- d. 11.25.
- 234. Zubin Corporation experiences a decrease in sales and the cost of good sold, an increase in accounts receivable, and no change in inventory. If all else is held constant, what is the total effect of these changes on the receivables turnover and inventory ratios?

	Inventory	Receivables
	Turnover	<u>Turnover</u>
a.	Increased;	Increased.
b.	Increased;	Decreased.
c.	Decreased;	Increased.

- d. Decreased; Decreased.
- 235. Peggy Monahan, controller, has gathered the following information regarding Lampasso Company.

	Beginning of the year	End of the year
Inventory	\$6,400	\$7,600
Accounts receivable	2,140	3,060
Accounts payable	3,320	3,680

Total sales for the year were \$85,900, of which \$62,400 were credit sales. The cost of goods sold was \$24,500.

Lampasso's inventory turnover ratio for the year was

- a. 3.2 times.
- b. 3.5 times.
- c. 8.2 times.
- d. 8.9 times.
- 236. Garland Corporation's Income Statement for the year just ended is shown below.

Net sales		\$900,000
Cost of goods sold		
Inventory - beginning	\$125,000	
Purchases	540,000	
Goods available for sale	665,000	
Inventory - ending	138,000	
		527,000
Gross profit		373,000
Operating expenses		175,000
Income from operations		<u>\$198,000</u>

Garland's average inventory turnover ratio is

- b. 6.52.
- c. 4.01.
- d. 3.82.

237. Makay Corporation has decided to include certain financial ratios in its year-end annual report to shareholders. Selected information relating to its most recent fiscal year is provided below.

Cash	\$ 10,000
Accounts receivable (end of year)	20,000
Accounts receivable (beginning of year)	24,000
Inventory (end of year)	30,000
Inventory (beginning of year)	26,000
Notes payable (due in 90 days)	25,000
Bonds payable (due in 10 years)	35,000
Net credit sales for year	220,000
Cost of goods sold	140,000
	Accounts receivable (end of year) Accounts receivable (beginning of year) Inventory (end of year) Inventory (beginning of year) Notes payable (due in 90 days) Bonds payable (due in 10 years) Net credit sales for year

Makay's average inventory turnover for the year was

- a. 4.7 times.
- b. 5.0 times.
- c. 5.4 times.
- d. 7.9 times.
- 238. Globetrade is a retailer that buys virtually all of its merchandise from manufacturers in a country experiencing significant inflation. Globetrade is considering changing its method of inventory costing from first-in, first-out (FIFO) to last-in, first-out (LIFO). What effect would the change from FIFO to LIFO have on Globetrade's current ratio and inventory turnover ratio?
  - a. Both the current ratio and the inventory turnover ratio would increase.
  - b. The current ratio would increase but the inventory turnover ratio would decrease.
  - c. The current ratio would decrease but the inventory turnover ratio would increase.
  - d. Both the current ratio and the inventory turnover ratio would decrease.
- 239. Lancaster Inc. had net accounts receivable of \$168,000 and \$147,000 at the beginning and end of the year, respectively. The company's net income for the year was \$204,000 on \$1,700,000 in total sales. Cash sales were 6% of total sales. Lancaster's average accounts receivable turnover ratio for the year is
  - a. 9.51.
  - b. 10.15.
  - c. 10.79.
  - d. 10.87.

240. Cornwall Corporation's net accounts receivable were \$68,000 and \$47,000 at the beginning and end of the year, respectively. Cornwall's condensed Income Statement is shown below.

Sales	\$900,000
Cost of goods sold	527,000
Operating expenses	175,000
Operating income	198,000
Income tax	79,000
Net income	<u>\$119,000</u>

Cornwall's average number of days' sales in accounts receivable (using a 360-day year) is

- a. 8 days.
- b. 13 days.
- c. 19 days.
- d. 23 days.
- 241. The following financial information is given for Anjuli Corporation (in millions of dollars).

	Prior Year	Current Year
Sales	\$10	\$11
Cost of good sold	6	7
Current Assets		
Cash	2	3
Accounts receivable	3	4
Inventory	4	5

Between the prior year and the current year, did the days sales in inventory and days sales in receivables for Anjuli increase or decrease? Assume a 365-day year.

	Days Sales	Days Sales
	in Inventory	in Receivables
a.	Increased;	Increased.
b.	Increased;	Decreased.
c.	Decreased;	Increased.
d.	Decreased;	Decreased.

242. The following information was obtained from a company's financial statements.

	Beginning of the year	End of the year
Inventory	\$6,400	\$7,600
Accounts receivable	2,140	3,060
Accounts payable	3,320	3,680

Total sales for the year were \$85,900, of which \$62,400 were credit sales. The cost of goods sold was \$24,500.

The company's payable turnover was

- a. 6.7 times.
- b. 7.0 times.
- c. 16.9 times.
- d. 17.8 times.
- 243. A summary of the Income Statement of Sahara Company is shown below.

Sales	\$15,000,000
Cost of sales	9,000,000
Operating expenses	3,000,000
Interest expense	800,000
Taxes	880,000
Net income	<u>\$ 1,320,000</u>

Based on the above information, Sahara's degree of financial leverage is

- a. 0.96.
- b. 1.36.
- c. 1.61.
- d. 2.27.

244. A degree of operating leverage of 3 at 5,000 units means that a

- a. 3% change in earnings before interest and taxes will cause a 3% change in sales.
- b. 3% change in sales will cause a 3% change in earnings before interest and taxes.
- c. 1% change in sales will cause a 3% change in earnings before interest and taxes.
- d. 1% change in earnings before interest and taxes will cause a 3% change in sales.

- 245. Firms with high degrees of financial leverage would be **best** characterized as having
  - a. high debt-to-equity ratios.
  - b. zero coupon bonds in their capital structures.
  - c. low current ratios.
  - d. high fixed-charge coverage.
- 246. The use of debt in the capital structure of a firm
  - a. increases its financial leverage.
  - b. increases its operating leverage.
  - c. decreases its financial leverage.
  - d. decreases its operating leverage.
- 247. A financial analyst with Mineral Inc. calculated the company's degree of financial leverage as 1.5. If net income before interest increases by 5%, earnings to shareholders will increase by
  - a. 1.50%.
  - b. 3.33%.
  - c. 5.00%.
  - d. 7.50%.
- 248. Which one of the following statements concerning the effects of leverage on earnings before interest and taxes (EBIT) and earnings per share (EPS) is **correct**?
  - a. For a firm using debt financing, a decrease in EBIT will result in a proportionally larger decrease in EPS.
  - b. A decrease in the financial leverage of a firm will increase the beta value of the firm.
  - c. If Firm A has a higher degree of operating leverage than Firm B, and Firm A offsets this by using less financial leverage, then both firms will have the same variability in EBIT.
  - d. Financial leverage affects both EPS and EBIT, while operating leverage only effects EBIT.

249. The Liabilities and Shareholders' Equity section of Mica Corporation's Statement of Financial Position is shown below.

	<u>January 1</u>	December 31
Accounts payable	\$ 32,000	\$ 84,000
Accrued liabilities	14,000	11,000
7% bonds payable	95,000	77,000
Common stock (\$10 par value)	300,000	300,000
Reserve for bond retirement	12,000	28,000
Retained earnings	155,000	206,000
Total liabilities and shareholders' equity	<u>\$608,000</u>	<u>\$706,000</u>

Mica's debt/equity ratio is

- a.25.1%.b.25.6%.c.32.2%.d.33.9%.
- 250. Marble Savings Bank has received loan applications from three companies in the auto parts manufacturing business and currently has the funds to grant only one of these requests. Specific data, shown below, has been selected from these applications for review and comparison with industry averages.

	<b>Bailey</b>	Nutron	<u>Sonex</u>	<u>Industry</u>
Total sales (millions)	\$4.27	\$3.91	\$4.86	\$4.30
Net profit margin	9.55%	9.85%	10.05%	9.65%
Current ratio	1.82	2.02	1.96	1.95
Return on assets	12.0%	12.6%	11.4%	12.4%
Debt/equity ratio	52.5%	44.6%	49.6%	48.3%
Financial leverage	1.30	1.02	1.56	1.33

Based on the information above, select the strategy that should be the **most** beneficial to Marble Savings.

- a. Marble Savings Bank should not grant any loans as none of these companies represents a good credit risk.
- b. Grant the loan to Bailey as all the company's data approximate the industry average.
- c. Grant the loan to Nutron as both the debt/equity ratio and degree of financial leverage are below the industry average.
- d. Grant the loan to Sonex as the company has the highest net profit margin and degree of financial leverage.

251. Grand Savings Bank has received loan applications from three companies in the plastics manufacturing business and currently has the funds to grant only one of these requests. Specific data, shown below, has been selected from these applications for review and comparison with industry averages.

	Springfield	Reston	Valley	<u>Industry</u>
Total sales (millions)	\$4.27	\$3.91	\$4.86	\$4.30
Net profit margin	9.55%	9.85%	10.05%	9.65%
Current ratio	1.82	2.02	1.96	1.95
Return on assets	12.0%	12.6%	11.4%	12.4%
Debt/equity ratio	52.5%	44.6%	49.6%	48.3%
Financial leverage	1.30	1.02	1.56	1.33

Based on the information above, select the strategy that should be the **most** beneficial to Grand Savings.

- a. Grand should not grant any loans as none of these companies represents a good credit risk.
- b. Grant the loan to Springfield as all the company's data approximate the industry average.
- c. Grant the loan to Reston as both the debt/equity ratio and degree of financial leverage are below the industry average.
- d. Grant the loan to Valley as the company has the highest net profit margin and degree of financial leverage.
- 252. Borglum Corporation is considering the acquisition of one of its parts suppliers and has been reviewing the pertinent financial statements. Specific data, shown below, has been selected from these statements for review and comparison with industry averages.

	Bond	<b>Rockland</b>	Western	<u>Industry</u>
Total sales (millions)	\$4.27	\$3.91	\$4.86	\$4.30
Net profit margin	9.55%	9.85%	10.05%	9.65%
Current ratio	1.32	2.02	1.96	1.95
Return on assets	11.0%	12.6%	11.4%	12.4%
Debt/equity ratio	62.5%	44.6%	49.6%	48.3%
Financial leverage	1.40	1.02	1.86	1.33

Borglum's objective for this acquisition is assuring a steady source of supply from a stable company. Based on the information above, select the strategy that would fulfill Borglum's objective.

- a. Borglum should not acquire any of these firms as none of them represents a good risk.
- b. Acquire Bond as both the debt/equity ratio and degree of financial leverage exceed the industry average.

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- c. Acquire Rockland as both the debt/equity ratio and degree of financial leverage are below the industry average.
- d. Acquire Western as the company has the highest net profit margin and degree of financial leverage.
- 253. Which one of the following is the **best** indicator of long-term debt paying ability?
  - a. Working capital turnover.
  - b. Asset turnover.
  - c. Current ratio.
  - d. Debt-to-total assets ratio.
- 254. Easton Bank has received loan applications from three companies in the computer service business and will grant a loan to the company with the best prospect of fulfilling the loan obligations. Specific data, shown below, has been selected from these applications for review and comparison with industry averages.

	<u>CompGo</u>	Astor	<u>SysGen</u>	<u>Industry</u>
Total sales (millions)	\$4.27	\$3.91	\$4.86	\$4.30
Net profit margin	9.55%	9.85%	10.05%	9.65%
Current ratio	1.82	2.02	1.96	1.95
Return on assets	12.0%	12.6%	11.4%	12.4%
Debt/equity ratio	52.5%	44.6%	49.6%	48.3%
Financial leverage	1.30	1.02	1.56	1.33

Based on the information above, select the strategy that would fulfill Easton's objective.

- a. Easton should not grant any loans as none of these companies represents a good credit risk.
- b. Grant the loan to CompGo as all the company's data approximate the industry average.
- c. Grant the loan to Astor as both the debt/equity ratio and degree of financial leverage are below the industry average.
- d. Grant the loan to SysGen as the company has the highest net profit margin and degree of financial leverage.

255. The following information has been derived from the financial statements of Boutwell Company.

Current assets	\$640,000
Total assets	990,000
Long-term liabilities	130,000
Current ratio	3.2 Times

The company's debt-to-equity ratio is

a.	0.50 to 1.
b.	0.37 to 1.
c.	0.33 to 1.
d.	0.13 to 1.

- 256. Douglas Company purchased 10,000 shares of its common stock at the beginning of the year for cash. This transaction will affect all of the following **except** the
  - a. debt-to-equity ratio.
  - b. earnings per share.
  - c. net profit margin.
  - d. current ratio.
- 257. The interest expense for a company is equal to its earnings before interest and taxes (EBIT). The company's tax rate is 40%. The company's times-interest earned ratio is equal to
  - a. 2.0.
  - b. 1.0.
  - c. 0.6.
  - d. 1.2.
- 258. On its year-end financial statements, Caper Corporation showed sales of \$3,000,000, net fixed assets of \$1,300,000, and total assets of \$2,000,000. The company's fixed asset turnover is
  - a. 1.5 times.
  - b. 43.3%.
  - c. 2.3 times.
  - d. 65%.

259. For the year just ended, Beechwood Corporation had income from operations of \$198,000 and net income of \$96,000. Additional financial information is given below.

	<u>January 1</u>	December 31
7% bonds payable	\$95,000	\$77,000
Common stock (\$10 par value)	300,000	300,000
Reserve for bond retirement	12,000	28,000
Retained earnings	155,000	206,000

Beechwood has no other equity issues outstanding. Beechwood's return on shareholders' equity for the year just ended is

a. 19.2%.
b. 19.9%.
c. 32.0%.

- d. 39.5%.
- u. 57.570.

260. The assets of Moreland Corporation are presented below.

	<u>January 1</u>	December 31
Cash	\$ 48,000	\$ 62,000
Marketable securities	42,000	35,000
Accounts receivable	68,000	47,000
Inventory	125,000	138,000
Plant & equipment		
(net of accumulated depreciation)	325,000	424,000

For the year just ended, Moreland had net income of \$96,000 on \$900,000 of sales. Moreland's total asset turnover ratio is

a.	1.27.
b.	1.37.
c.	1.48.
d.	1.50.

261. Interstate Motors has decided to make an additional investment in its operating assets which are financed by debt. Assuming all other factors remain constant, this increase in investment will have which one of the following effects?

	Operating		Return on
	Income	Operating	Operating
	<u>Margin</u>	Asset Turnover	Assets
a.	Increase	No change	Increase.
b.	No change	Decrease	Decrease.
c.	No change	Increase	Decrease.
d.	Decrease	Decrease	Decrease.

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262. Colonie Inc. expects to report net income of at least \$10 million annually for the foreseeable future. Colonie could increase its return on equity by taking which of the following actions with respect to its inventory turnover and the use of equity financing?

	Inventory Turnover	Use of Equity Financing
a.	Increase;	Increase.
b.	Increase;	Decrease.
c.	Decrease;	Increase.
d.	Decrease;	Decrease.

- 263. At the end of its fiscal year on December 31, 2000, Merit Watches had total shareholders' equity of \$24,209,306. Of this total, \$3,554,405 was preferred equity. During the 2001 fiscal year, Merit's net income after tax was \$2,861,003. During 2001, Merit paid preferred share dividends of \$223,551 and common share dividends of \$412,917. At December 31, 2001, Merit had 12,195,799 common shares outstanding and the company did not sell any common shares during the year. What was Merit Watch's book value per share on December 31, 2001?
  - a. \$1.88.
  - b. \$2.17.
  - c. \$1.91.
  - d. \$2.20.
- 264. Donovan Corporation recently declared and issued a 50% stock dividend. This transaction will reduce the company's
  - a. current ratio.
  - b. book value per common share.
  - c. debt-to-equity ratio.
  - d. return on operating assets.
- 265. The following information concerning Arnold Company's common stock was included in the company's financial reports for the last two years.

	Year 2	Year 1
Market price per share on December 31	\$60	\$50
Par value per share	10	10
Earnings per share	3	3
Dividends per share	1	1
Book value per share on December 31	36	34

Based on the price-earnings information, investors would **most likely** consider Arnold's common stock to

- a. be overvalued at the end of Year 2.
- b. indicate inferior investment decisions by management in Year 2.
- c. show a positive trend in growth opportunities in Year 2 compared to Year 1.
- d. show a decline in growth opportunities in Year 2 compared to Year 1.
- 266. Devlin Inc. has 250,000 shares of \$10 par value common stock outstanding. For the current year, Devlin paid a cash dividend of \$3.50 per share and had earnings per share of \$4.80. The market price of Devlin's stock is \$34 per share. Devlin's price/earnings ratio is
  - a. 2.08.
  - b. 2.85.
  - c. 7.08.
  - d. 9.71.
- 267. At year-end, Appleseed Company reported net income of \$588,000. The company has 10,000 shares of \$100 par value, 6% preferred stock and 120,000 shares of \$10 par value common stock outstanding and 5,000 shares of common stock in treasury. There are no dividend payments in arrears, and the market price per common share at the end of the year was \$40. Appleseed's price-earnings ratio is
  - a. 9.47.
  - b. 9.09.
  - c. 8.50.
  - d. 8.16.
- 268. Archer Inc. has 500,000 shares of \$10 par value common stock outstanding. For the current year, Archer paid a cash dividend of \$4.00 per share and had earnings per share of \$3.20. The market price of Archer's stock is \$36 per share. The average price/earnings ratio for Archer's industry is 14.00. When compared to the industry average, Archer's stock appears to be
  - a. overvalued by approximately 25%.
  - b. overvalued by approximately 10%.
  - c. undervalued by approximately 10%.
  - d. undervalued by approximately 25%.

- 269. A steady drop in a firm's price/earnings ratio could indicate that
  - a. earnings per share has been increasing while the market price of the stock has held steady.
  - b. earnings per share has been steadily decreasing.
  - c. the market price of the stock has been steadily rising.
  - d. both earnings per share and the market price of the stock are rising.
- 270. Selected information regarding Dyle Corporation's outstanding equity is shown below.

Common stock, \$10 par value, 350,000 shares outstanding Preferred stock, \$100 par value,	\$3,500,000
10,000 shares outstanding	1,000,000
Preferred stock dividend paid	60,000
Common stock dividend paid	700,000
Earnings per common share	3
Market price per common share	18

Dyle's yield on common stock is

- a. 11.11%.
- b. 16.66%.
- c. 16.88%.
- d. 20.00%.
- 271. For the most recent fiscal period, Oakland Inc. paid a regular quarterly dividend of \$0.20 per share and had earnings of \$3.20 per share. The market price of Oakland stock at the end of the period was \$40.00 per share. Oakland's dividend yield was
  - a. 0.50%.
  - b. 1.00%.
  - c. 2.00%.
  - d. 6.25%.
- 272. The dividend yield ratio is calculated by which one of the following methods?
  - a. Market price per share divided by dividends per share.
  - b. Earnings per share divided by dividends per share.
  - c. Dividends per share divided by market price per share.
  - d. Dividends per share divided by earnings per share.

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- 273. Mayson Company reported net income of \$350,000 for last year. The company had 100,000 shares of \$10 par value common stock outstanding and 5,000 shares of common stock in treasury during the year. Mayson declared and paid \$1 per share dividends on common stock. The market price per common share at the end of last year was \$30. The company's dividend yield for the year was
  - a. 30.03%.
  - b. 28.57%.
  - c. 11.11%.
  - d. 3.33%.
- 274. The following information concerning Arnold Company's common stock was included in the company's financial reports for the last two years.

	Year 2	Year 1
Market price per share on December 31	\$60	\$50
Par value per share	10	10
Earnings per share	3	3
Dividends per share	1	1
Book value per share on December 31	36	34

Arnold's dividend yield in Year 2

- a. has increased compared to Year 1.
- b. is indicative of the company's failure to provide a positive return to the investors.
- c. is the same as Year 1.
- d. has declined compared to Year 1.
- 275. Gordon has had the following financial results for the last four years.

	Year 1	Year 2	Year 3	Year 4
Sales	\$1,250,000	\$1,300,000	\$1,359,000	\$1,400,000
Cost of goods sold	750,000	785,000	825,000	850,000
Gross profit	500,000	515,000	534,000	550,000
Inflation factor	1.00	1.03	1.07	1.10

Gordon has analyzed these results using vertical common-size analysis to determine trends. The performance of Gordon can **best** be characterized by which one of the following statements?

- a. The common-size gross profit percentage has decreased as a result of an increasing common-size trend in cost of goods sold.
- b. The common-size trend in sales is increasing and is resulting in an increasing trend in the common-size gross profit margin.
- c. The common-size trend in cost of goods sold is decreasing which is resulting in an increasing trend in the common-size gross profit margin.
- d. The increased trend in the common-size gross profit percentage is the result of both the increasing trend in sales and the decreasing trend in cost of goods sold.

# Answers – CMA Part 1 Practice Questions

1.	А	44.	D	87.	В	130.	А
1. 2.	A	44.	D	88.	B	130.	C A
2. 3.	B	46.	D	89.	D	131.	C C
<i>4</i> .	D	47.	A	90.	B	132.	C C
ч. 5.	C C	48.	B	90. 91.	D	135.	C C
<i>5</i> . 6.	A	49.	C D	92.	A	135.	C C
0. 7.	D	49. 50.	C	93.	C	135.	C C
8.	C	50.	C	94.	C C	130.	C C
9.	D	52.	A	95.	D	138.	D
10.	D	52. 53.	D	96.	C	130.	D
11.	A	54.	D	97.	C	140.	C
12.	A	55.	C	98.	Ă	141.	B
13.	B	56.	C	99.	A	142.	Ă
14.	Ă	57.	B	100.	D	143.	D
15.	C	58.	Ċ	101.	C	144.	D
16.	Č	59.	Č	102.	D	145.	B
17.	Ă	60.	D	103.	Ċ	146.	B
18.	D	61.	С	104.	D	147.	С
19.	D	62.	D	105.	В	148.	В
20.	D	63.	В	106.	А	149.	А
21.	D	64.	А	107.	А	150.	А
22.	D	65.	А	108.	А	151.	А
23.	С	66.	D	109.	С	152.	В
24.	С	67.	В	110.	С	153.	С
25.	А	68.	В	111.	В	154.	D
26.	А	69.	В	112.	С	155.	В
27.	D	70.	С	113.	D	156.	С
28.	D	71.	D	114.	С	157.	D
29.	С	72.	В	115.	В	158.	Α
30.	D	73.	D	116.	D	159.	D
31.	D	74.	D	117.	D	160.	D
32.	А	75.	С	118.	С	161.	В
33.	В	76.	С	119.	А	162.	С
34.	В	77.	А	120.	В	163.	С
35.	А	78.	В	121.	D	164.	В
36.	В	79.	Α	122.	А	165.	С
37.	В	80.	С	123.	D	166.	В
38.	А	81.	D	124.	С	167.	А
39.	А	82.	D	125.	С	168.	С
40.	В	83.	Α	126.	С	169.	Α
41.	A	84.	В	127.	C	170.	B
42.	C	85.	A	128.	D	171.	C
43.	В	86.	А	129.	С	172.	В

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173.	В	199.	А	225.	D	251.	С
174.	В	200.	В	226.	D	252.	С
175.	С	201.	С	227.	С	253.	D
176.	А	202.	А	228.	С	254.	С
177.	В	203.	D	229.	В	255.	А
178.	D	204.	С	230.	D	256.	С
179.	С	205.	В	231.	В	257.	В
180.	D	206.	D	232.	С	258.	С
181.	С	207.	В	233.	С	259.	А
182.	В	208.	D	234.	D	260.	В
183.	А	209.	В	235.	В	261.	В
184.	С	210.	D	236.	С	262.	В
185.	Α	211.	В	237.	В	263.	А
186.	В	212.	А	238.	С	264.	В
187.	С	213.	В	239.	В	265.	С
188.	С	214.	В	240.	D	266.	С
189.	С	215.	А	241.	Α	267.	В
190.	D	216.	С	242.	В	268.	D
191.	С	217.	С	243.	В	269.	А
192.	С	218.	D	244.	С	270.	А
193.	В	219.	С	245.	Α	271.	С
194.	С	220.	D	246.	Α	272.	С
195.	В	221.	В	247.	D	273.	D
196.	D	222.	С	248.	Α	274.	D
197.	Α	223.	D	249.	С	275.	А
198.	С	224.	D	250.	С		

# **Other Study Resources**

### <u> Part 1 – Business Analysis</u>

#### **Business Economics**

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## Financial Statement Analysis

Wild, John L., Subramanyam, K.R.; and Halsey, Robert F., *Financial Statement Analysis, Theory, Application, and Interpretation*, 9<sup>th</sup> edition, McGraw-Hill Book Co., New York, NY, 2007.

White, Gerald I., Sondhi, Ashwinpaul C., Fried, Dov, *The Analysis and Use of Financial Statements*, 3<sup>rd</sup> edition, Wiley Textbooks, Hoboken, NJ, 2002.

Kieso, Donald E., Weygandt, Jerry J., and Warfield, Terry D., *Intermediate Accounting*, 12<sup>th</sup> edition, Wiley & Sons, Hoboken, NJ, 2007.

Arens, Alvin A., Elders, Randal J., Beasley, Mark, *Auditing and Assurance Services: An Integrated Approach*, 9<sup>th</sup> edition, Prentice-Hall, Upper Saddle River, NJ, 2003.

Nikolai, Loren A., and Bazley, John D., *Intermediate Accounting*, 9<sup>th</sup> edition, South-Western Publishing Company, Boston, MA, 2007.