Sample Examination for 1999 Candidates
CFA® Level I
120 Questions
3 Hours

AIMR has constructed the sample examination to help candidates practice taking multiple choice tests. This 120-question sample examination represents a three-hour section (one-half the regular exam time). To simulate realistic exam-day conditions, candidates may want to set aside a block of three hours in which to take the sample examination. Doing so will allow 1½ minutes, on average, for each question.

The sample examination is intended only to give candidates practice at answering questions that are similar in style to those that will appear on the 1999 CFA Level I examination. None of these sample questions will appear on that examination. Candidates should not rely on the sample exam as their only means of preparing for the 1999 CFA Level I examination. Careful reading and study of the readings listed in the *1999 CFA Level I Study Guide* are essential to being well prepared.

AIMR strives to be accurate with the guideline answers to sample examinations. If you detect any irregularities, please submit them by fax to: **Coordinator, Level I Examination** at 804-980-3631. Corrections will be printed in the *Candidate Bulletin* and posted on the AIMR Web site. **No individual replies will be given**.

Sample Examination Structure			
Question	**Topic**	**Percent**	**Minutes**
1~~1~~8	Ethical and Professional Standards	15	27.0
19~~3~~6	Quantitative Analysis	15	27.0
37~~5~~1	Economics	13	22.5
52~~8~~0	Financial Statement Analysis	24	43.5
81~~9~~2	Global Markets and Instruments and Derivatives	10	18.0
93~~1~~08	Asset Valuation	13	24.0
109~~1~~20	Portfolio Management and Analysis of Alternative Investments	10	18.0
Total		100	180.0

QUESTIONS 1 THROUGH 18 RELATE TO ETHICAL AND PROFESSIONAL STANDARDS AND ARE ALLOCATED 27 MINUTES (OR 1 ½ MINUTES EACH).

1. The AIMR Code of Ethics specifically addresses *all* of the following **EXCEPT**:

   A. competence.
   B. integrity and dignity.
   C. independent judgment.
   D. importance of contractual obligations.

2. According to the AIMR Code of Ethics, members must practice and encourage others to practice in a professional and ethical manner that will:

   A. reflect credit on members and their profession.
   B. add value for clients, prospects, employers, and employees.
   C. maintain the excellent reputation of AIMR and its members.
   D. encourage talented and ethical individuals to enter the investments field.

3. George Moses, CFA, follows Technicorp as an analyst for a brokerage company. Extensive study has led Moses to rate Technicorp as a "hold," largely because of increasing competition in the industry. At a recent AIMR Society meeting, Moses discussed Technicorp's prospects with two other analysts who also follow the company. Although the other analysts did not say why, both said that Technicorp was about to experience rapid earnings growth. Upon returning to his office, Moses released a "buy" recommendation based on this new information. Moses was in:

   A. compliance with AIMR Standards of Professional Conduct.
   B. violation of AIMR Standards because he copied the opinions of others.
   C. violation of AIMR Standards because he did not seek approval of the change from his supervisor.
   D. violation of AIMR Standards because he did not have a reasonable and adequate basis for his recommendation.

4. Wilfred Clark, CFA, accumulates several items of nonpublic information through contacts with computer companies. Although none of the information is "material" individually, Clark concludes, by combining the nonpublic information, that one of the computer companies will have unexpectedly high earnings in the coming year. According to AIMR Standards of Professional Conduct, Clark:

   A. may not use the nonpublic information.
   B. may use the nonpublic information to make investment recommendations and decisions.
   C. must make reasonable efforts to achieve immediate public dissemination of the nonpublic information.
   D. may use the nonpublic information but only after gaining approval from a supervisory analyst attesting to its nonmateriality.

5. An AIMR member resides in Country A, where securities laws are *more* strict than AIMR Standards of Professional Conduct, and does all of his business in Country B, where securities laws are *less* strict than AIMR Standards of Professional Conduct. The laws of Country A apply to the member's professional conduct, but those laws state that conduct is governed by the laws of the locality in which business is conducted. According to AIMR Standards of Professional Conduct, the member has a duty to adhere to:

   A. the laws of Country A.
   B. the laws of Country B.
   C. AIMR Standards of Professional Conduct.
   D. a basic standard of competence and diligence.

6. AIMR Standards of Professional Conduct state that a financial analyst shall not, when presenting material to others, "copy or use in substantially the same form, material prepared by another person without acknowledging its use and identifying the name of the author or publisher of such material." The analyst, however, may use information from other sources without acknowledgment if the information:

   A. includes the analyst's own conclusions.
   B. is only being reported in a one-to-one client presentation.
   C. is only being reported to the analyst's employer or associates.
   D. is factual information published in recognized financial and statistical reporting services.

7. The AIMR Standards of Professional Conduct specifically require that AIMR members must inform their employer, in writing, about the Standards only if they work at companies that:

   A. provide investment advice directly to clients.
   B. employ 25 or more investment professionals.
   C. have not previously employed AIMR members.
   D. have not publicly acknowledged, in writing, AIMR Standards as part of the company's policies.

8. Susan Roberts, CFA, a portfolio manager for Howard Investment Counsel, has just received a call from Michael Moore, an institutional broker. Moore is calling to recommend buying Megamove, an obscure stock on the Nasdaq Stock Market, as a takeover candidate. In the past, Moore has demonstrated an ability to pick takeover candidates. If Roberts buys the stock, is she violating AIMR Standards of Professional Conduct involving trading on material nonpublic information?

   A. Yes, because Roberts is receiving confidential information.
   B. No, because Roberts is basing the purchase on the "mosaic theory."
   C. Yes, because Moore and his sources are breaching fiduciary duty and are receiving personal benefits as a result.
   D. No, because Roberts neither knows nor has any reason to know of a breach in the laws about using material nonpublic information.

9. AIMR Standards of Professional Conduct prohibit CFA charterholders from making statements misrepresenting their qualifications, their firm's services, or the expected performance of any investment. These Standards are intended to apply to:

   I. oral representations.
   II. written statements.
   III. advertising.

   A. I and II only.
   B. I and III only.
   C. II and III only.
   D. I, II, and III.

10. Cliff Fleisher, CFA, is an analyst with a brokerage company. This company has a large investment advisory department that manages three mutual funds and many other accounts. For some time, Fleisher has been recommending the purchase of Gifford Corporation as a long-term investment. Many of the company's brokerage and advisory clients and the three mutual funds have purchased shares of Gifford Corporation based on Fleisher's recommendation.

At 9:00 a.m. Monday, Gifford Corporation makes an announcement that immediately leads Fleisher to change his recommendation from "buy" to "hold." Fleisher promptly tells the company's mutual fund managers, who immediately sell 50 percent of their holdings in the stock, causing the price to drop 20 percent. On Monday afternoon, Fleisher tells his company's large institutional clients about the change in his recommendations. On Tuesday morning, Fleisher publishes a research report for general circulation detailing the changed recommendation.

According to AIMR Standards of Professional Conduct, which of the following statements are **true**?

I. Fleisher should have disclosed his changed recommendation to all of the company's clients as soon as practical.
II. Fleisher did not need to issue a new research report because a change from "buy" to "hold" is not material.
III. Fleisher should not have disclosed the changed recommendation to the mutual fund manager and institutional clients before disseminating the report generally.

A. I only.
B. I and III only.
C. II and III only.
D. I, II, and III.

11. Beth Patrick, a fixed income analyst at a brokerage company, assists her company's traders by developing in-house bond ratings to supplement those of the major bond rating services. The traders use disparities in the ratings to construct profitable investment strategies. Patrick makes inferences from nonmaterial private information and news events, which she reflects in her bond ratings. Patrick's approach:

A. reflects the mosaic theory.
B. violates confidentiality rules.
C. violates insider trading rules.
D. reflects the misappropriation of information theory.

12. When an investment professional has a limited number of shares of an initial public offering to distribute, which of the following allocation methods *violate* AIMR Standards of Professional Conduct?

I. First fill the orders of individual clients, then fill the orders of institutional clients.
II. First fill the orders of the clients who have generated the most commissions during the past year.
III. First fill the orders of those who have been clients of the investment professional for the longest period of time.

A. I and II only.
B. I and III only.
C. II and III only.
D. I, II, and III.

13. Which of the following is **NOT** a stated goal of AIMR Performance Presentation Standards?

A. To enhance the professionalism of the securities industry.
B. To promote policies that help analysts avoid conflicts of interest.
C. To improve the service offered to investment management clients.
D. To achieve greater uniformity and comparability among performance disclosures.

14. The corporate finance department of an investment banking firm decides to compete for the business of ETV Corporation. Knowing that the brokerage department of the investment banking firm now has a "sell" recommendation on ETV, the director of corporate finance department writes a letter to the director of the brokerage department asking for a change in the recommendation to "buy." According to AIMR Standards of Professional Conduct, which of the following is the *best* action for the brokerage department to take?

A. Assign a new analyst to decide if the stock should receive a "buy" recommendation.
B. Have the director of the corporate finance department review the recommendation for the stock rating to ensure its accuracy.
C. Change the recommendation to "buy" only after receiving written direction from the director of the corporate finance department.
D. Remove ETV Corporation from the research universe and put it on a restricted list giving only factual information about the company.

15. AIMR Performance Presentation Standards address *all* of the following topics **EXCEPT**:

A. calculation of returns.
B. presentation of results.
C. disclosure of conflicts of interest.
D. creation and maintenance of composites.

16. Luis Stark, CFA, is employed in the Merger and Acquisitions Department of an investment company. His friend, Elizabeth Mackie, CFA, is a portfolio manager in the Investment Management Department of the same company. Stark is helping a client acquire Gamma Corporation. According to AIMR Standards of Professional Conduct, which of the following is the *most appropriate* action to take involving communication between the two departments?

A. Stark may tell Mackie about the pending merger if Mackie promises not to release the information to the public.
B. The investment company must add Gamma Corporation to its list of stocks that cannot be added to portfolios managed by employees of the investment company.
C. The investment company should build a "Chinese Wall" between the Merger and Acquisitions Department and the Investment Management Department.
D. Stark may tell Mackie about the pending merger if Mackie promises in advance not to use this information to help make her investment decision about Gamma Corporation.

17. AIMR members with supervisory responsibility are:

A. not expected to prevent violations of laws, rules, and regulations by non-AIMR member employees.
B. expected to establish and implement written compliance procedures about applicable statutes, regulations, and provisions of the AIMR Code and Standards.
C. in compliance with AIMR Standards after warning an offending employee to stop violating the applicable statutes, regulations, and provisions of the AIMR Code and Standards.
D. expected to evaluate personally the conduct of their employees concerning applicable statutes, regulations, and provisions of the AIMR Code and Standards on a continuing basis regardless of how many employees they supervise.

18. According to AIMR Standards of Professional Conduct, AIMR members are permitted to:

A. use materials, prepared by an AIMR member employed by another company, in research reports without acknowledgment.
B. depend on coworkers, who are AIMR members, to fulfill the obligation of informing employers of the Code and Standards.
C. be excused for a lack of knowledge of the laws and regulations of countries in which they provide investment services, but not of the country where they live and work.
D. waive the requirement to inform their employer, in writing, that AIMR members are obligated to comply with the Code and Standards, if the employer has acknowledged, in writing, adoption of the Code and Standards.

QUESTIONS 19 THROUGH 36 RELATE TO QUANTITATIVE ANALYSIS AND ARE ALLOCATED 27 MINUTES (OR 1 ½ MINUTES EACH).

19. Below are some raw data displayed in increasing order from top to bottom and left to right.

63.5	96.9	112.3	134.1
66.4	98.3	116.2	138.5
75.6	99.5	116.9	139.8
77.5	100.7	118.3	140.7
84.4	102.0	122.0	143.0
87.6	105.5	122.2	153.9
89.9	108.4	124.5	155.5

In constructing a frequency distribution using five classes, if the first class is "60 up to 80," the class frequency of the *third* class is:

A. 4.
B. 5.
C. 6.
D. 8.

20. The stem-and-leaf display below shows the market value of portfolios managed by an investment advisor.

Stem-and-Leaf Display of Portfolio Values, N = 31

6	4 6
7	6 7
8	4 8 8
9	0 7 9
10	1 2 6 6
11	2 5 6 7 8
12	0 2 5
13	4 4 8
14	0 1 3
15	4 5
16	2

If the *mean market value* of the portfolios managed by the investment advisor is $112,581, the *median market value* is:

A. $25,678.
B. $112,000.
C. $115,000.
D. $1,125,678.

21. A portfolio of non-dividend paying stocks earned a geometric mean return of 5.0 percent between January 1, 1992, and December 31, 1998. The arithmetic mean return for the same period was 6.0 percent. If the market value of the portfolio at the beginning of 1992 was $100,000, the market value of the portfolio at the end of 1998 was *closest* to:

A. $135,000.
B. $140,710.
C. $142,000.
D. $150,363.

22. What are the mean and median of the data in the following frequency distribution?

0 up to 10	2
10 up to 20	5
20 up to 30	6
30 up to 40	3

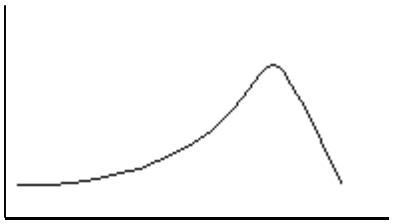
	Mean	Median
A.	21.25	25.00
B.	21.25	21.67
C.	25.00	21.67
D.	25.00	25.00

23. Which of the following statements about the standard deviation is/are **true**? A standard deviation:

I. is the square root of the variance.
II. is denominated in the same units as the original data.
III. can be a positive or a negative number.

A. I only.
B. I and II only.
C. I and III only.
D. II and III only.

24. An analyst develops the following graph of a set of observations:



Based on the graph above, which of the following statements about the probability distribution of is/are **true**?

I. The mean of the graphed data is larger that the median and mode.
II. The probability distribution of observations is symmetrically distributed about the mean.
III. The probability distribution of observations is negatively skewed.

A. I only.
B. II only.
C. III only.
D. I and III only.

25. A stock with a coefficient of variation of 0.5 has a(n):

A. variance equal to half the stock's expected return.
B. expected return equal to half the stock's variance.
C. expected return equal to half the stock's standard deviation.
D. standard deviation equal to half the stock's expected return.

26. Least squares regression assumes that the relationship between the dependent and independent variables is:

A. causal.
B. random.
C. straight-line.
D. economically significant.

27. An individual deposits $10,000 at the beginning of each of the next 10 years, starting today, into an account paying 9 percent interest compounded annually. The amount of money in the account at the end of 10 years will be *closest* to:

A. $109,000.
B. $143,200.
C. $151,900.
D. $165,600.

28. The probability that two or more events will happen concurrently is:

A. joint probability.
B. multiple probability.
C. concurrent probability.
D. conditional probability.

29. An analyst expects that 10 percent of all publicly traded companies will experience a decline in earnings per share (EPS) next year. This analyst has developed a ratio to help forecast a decline in a company's EPS. If a company is headed for an EPS decline, there is a 70 percent probability that the ratio will be negative. If the company is not headed for an EPS decline, there is a 20 percent probability that the ratio will be negative. The analyst randomly selects a company and its ratio is negative. Based on Bayes' theorem, the posterior probability that the company will experience an EPS decline next year is *closest* to:

A. 3%.
B. 7%.
C. 18%.
D. 28%.

30. Which of the following statements about a normal distribution are **true**? A normal distribution is:

I. a continuous probability distribution.
II. a symmetrical or bell-shaped distribution.
III. described by a curve that theoretically extends from negative infinity to positive infinity.

A. I and II only.
B. I and III only.
C. II and III only.
D. I, II and III.

31. An investment strategy has an expected return of 12 percent and a standard deviation of 10 percent. If investment returns are normally distributed, the probability of getting a return less than 2 percent is *closest* to:

A. 10%.
B. 16%.
C. 32%.
D. 34%.

32. Based on a normal distribution with a mean of 500 and standard deviation of 150, what is the *z* value for an observation at 200?

A. ~~2~~.00.
B. ~~1~~.75.
C. 1.75.
D. 2.00.

33. An investor wants to have $1 million when she retires in 20 years. If she can earn a 10 percent annual return, compounded annually, on her investments, the lump-sum amount she would need to invest today to reach her goal is *closest* to:

A. $100,000.
B. $117,459.
C. $148,600.
D. $161,506.

34. If the standard deviation of a population is 100 and a sample size taken from that population is 64, what is the standard error of the sample means?

A. 0.08.
B. 1.56.
C. 6.40.
D. 12.50.

35. In hypothesis testing, a Type II error is the event of:

A. rejecting the null hypothesis when it is true.
B. rejecting the null hypothesis when it is false.
C. accepting the null hypothesis when it is true.
D. accepting the null hypothesis when it is false.

36. An investment promises to pay $100 one year from today, $200 two years from today, and $300 three years from today. If the required rate of return is 14 percent, compounded annually, the value of this investment today is *closest* to:

A. $404.
B. $444.
C. $462.
D. $516.

QUESTIONS 37 THROUGH 51 RELATE TO ECONOMIC ANALYSIS AND ARE ALLOCATED 22 ½ MINUTES (OR 1 ½ MINUTES EACH).

37. According to new classical economists, what effect does financing a reduction in current taxes by government borrowing have on aggregate demand? Demand will be:

A. reduced.
B. increased.
C. unaffected.
D. increased or reduced, depending on interest rate levels.

38. The official U.S. money supply definitions do **NOT** include:

A. credit purchases.
B. time deposit accounts above $100,000.
C. overnight Eurodollar deposits held by U.S. residents.
D. longer-term loans of customers to commercial banks and savings and loan associations.

39. An analyst gathers the following information:

One-year interest rates:	German mark	4%
	U.S. dollar	5%
Spot exchange rate:	DM/$	1.70

Based on the information above, the forward exchange rate that will satisfy the interest rate parity condition is *closest* to:

A. 1.684.
B. 1.716.
C. 1.768.
D. 1.785.

40. Based on historical data and assuming less-than-full employment, periods of sharp acceleration in the growth rate of the money supply tend to be associated *initially* with:

A. periods of economic recession.
B. an increase in the velocity of money.
C. a rapid growth of gross domestic product.
D. reductions in real gross domestic product.

41. When the inflationary side effects of expansionary government macroeconomic policies are anticipated quickly, the *primary* impact of a demand stimulus is a(n):

A. increase in output.
B. increase in the price level.
C. decrease in unemployment.
D. increase in aggregate supply.

42. According to the adaptive expectations hypothesis, when the inflation rate is accelerating, individuals will tend to make a systematic error by:

A. overestimating the future inflation rate.
B. underestimating the future inflation rate.
C. assuming the future inflation rate will eventually decline.
D. assuming the future inflation rate will continue to accelerate.

43. Seasonal adjustment of economic data would *most likely* aid an analyst in interpreting the importance of a(n):

A. decrease in automobile production caused by a strike by employees.
B. decrease in agricultural production caused by unusually severe weather.
C. increase in the growth of the money supply caused by payments of income taxes.
D. decrease in the growth of the money supply caused by reductions in excess reserves in the banking system.

44. The law of diminishing marginal utility states that the:

A. marginal return derived from making successive units of investment eventually declines.
B. additional satisfaction derived from consuming successive units of a product eventually declines.
C. additional satisfaction derived from consuming successive units of a product is limited by the amount of disposable income.
D. additional satisfaction derived from consuming successive units of a product can be increased by reducing the product price.

45. For most products, the long-run price elasticity of demand is:

A. less than the short-run price elasticity of demand.
B. greater than the short-run price elasticity of demand.
C. more likely to increase than the short-run price elasticity of demand.
D. more likely to decrease than the short-run price elasticity of demand.

46. Which of the following statements *best* describes the relationship between the amount of accounting profits (assuming historical-cost-based accounting) and the amount of economic profits of a firm?

A. Accounting profits and economic profits are similar.
B. Economic profits are greater than accounting profits.
C. Accounting profits are greater than economic profits.
D. No systematic relationship exists between accounting and economic profits.

47. *All* of the following factors could cause a downward shift in a company's average total cost curve **EXCEPT**:

A. a decrease in taxes.
B. a decrease in historical costs.
C. a decrease in resource prices.
D. the use of improved technology.

48. Interest rate parity describes relationships among current:

A. interest rates and expected future interest rates.
B. interest rates, expected future interest rates, and spot/forward exchange rate differentials.
C. inter-country interest rate differentials and spot/forward foreign exchange rate differentials.
D. inter-country interest rate differentials and expected inter-country future interest rate differentials.

49. A profit-seeking firm will *most likely* continue production in the short run if the product price at least exceeds:

A. total cost per unit of output.
B. fixed cost per unit of output.
C. average cost per unit of output.
D. variable cost per unit of output.

50. When the effects of expansionary monetary policy are fully anticipated, what impact does that policy tend to have on real economic activity?

A. Little or no impact.
B. Large expansionary impact.
C. Moderate expansionary impact.
D. Moderate contractionary impact.

51. A realistic objective of government regulation of a natural monopoly is to:

A. expand output so consumer demand is fully met.
B. provide incentives for potential competitors to enter the market.
C. reduce the product price to the supplier's marginal cost per unit of output.
D. reduce the product price to the supplier's average total cost per unit of output.

QUESTIONS 52 THROUGH 80 RELATE TO FINANCIAL STATEMENT ANALYSIS AND ARE ALLOCATED 43 ½ MINUTES (OR 1 ½ MINUTES EACH).

Note to Candidates: Assume U.S. GAAP (generally accepted accounting principles) applies unless otherwise noted.

52. A company's current ratio is 2.0. If the company uses cash to retire notes payable due within one year, would this transaction increase or decrease the current ratio and asset turnover ratio?

	Current Ratio	Asset Turnover Ratio
A.	Increase	Increase
B.	Increase	Decrease
C.	Decrease	Increase
D.	Decrease	Decrease

53. When an auditor issues an unqualified opinion of a company's financial statements, this means that:

A. the accounting estimates are the same as those used in the prior year.
B. the financial statements are presented fairly and, therefore, are free from error.
C. the auditor is unaware of any material misstatements affecting the financial statements.
D. a financial analyst does not need to make adjustments to the financial statements before computing financial ratios.

54. Under U.S. GAAP, which of the following statements about impairment and appreciation of the value of long-lived assets are **true**? Managers:

I. may write down the value of impaired assets.
II. have considerable discretion about the timing and amount of impairment recognition for assets the company intends to keep.
III. have considerable discretion about the timing and amount of recognized increase in the value of appreciated assets.

A. I and II only.
B. I and III only.
C. II and III only.
D. I, II, and III.

55. Other things being equal, two companies have substantially different dividend payout ratios. After several years, the company with the lower dividend payout ratio is *most likely* to have:

A. lower inventory turnover.
B. higher inventory turnover.
C. less rapid growth of earnings per share.
D. more rapid growth of earnings per share.

56. Which of the following would *increase* the number of shares of a company's common stock outstanding?

I. Paying a stock dividend.
II. Instituting a reverse stock split.
III. Purchasing treasury stock.
IV. Exercising outstanding warrants.

A. I and III only.
B. I and IV only.
C. I, II, and III only.
D. II, III, and IV only.

57. An analyst should consider whether a company acquired assets through a capital lease or an operating lease because a company may structure:

A. operating leases to look like capital leases to enhance their leverage ratios.
B. operating leases to look like capital leases to enhance their liquidity ratios.
C. capital leases to look like operating leases to enhance their leverage ratios.
D. capital leases to look like operating leases to enhance their liquidity ratios.

58. Which of the following lease provisions would cause a lease to be classified as a capital lease?

I. The term of the lease is less than 60 percent of the estimated economic life of the leased property.
II. The lease contains a bargain purchase option.
III. The present value of the minimum lease payments equals or exceeds 90 percent of the fair value of the leased property.

A. I and II only.
B. I and III only.
C. II and III only.
D. I, II, and III.

59. On January 1, a company entered into a capital lease resulting in an obligation of $10,000 being recorded on the balance sheet. The lessor's implicit interest was 12 percent. At the end of the first year of the lease, the *cash flow from financing activities* section of the lessee's statement of cash flows showed a use of cash of $1,300 applicable to the lease. How much did the company pay the lessor in the first year of the lease?

A. $1,200.
B. $1,300.
C. $2,500.
D. $10,000.

60. Which of the following *best* describes an underfunded pension plan?

A. The pension cost exceeds the contribution to pension plan assets.
B. The vested benefit obligation exceeds the value of pension plan assets.
C. The projected benefit obligation exceeds the value of pension plan assets.
D. The accumulated benefit obligation exceeds the value of pension plan assets.

61. An analyst applies the DuPont system of financial analysis to the following data for a company:

- Equity turnover 4.2
- Total asset turnover 2.0
- Net profit margin 5.5%
- Dividend payout ratio 31.8%

The company's return on equity is *closest* to:

A. 1.3%.
B. 11.0%.
C. 23.1%.
D. 63.6%.

62. Which of the following are examples of deferred credits?

I. Unearned rental income.
II. Customer service prepayments.
III. Product financing arrangements.

A. I and II only.
B. I and III only.
C. II and III only.
D. I, II, and III.

63. *All* of the following are examples of off-balance-sheet financing **EXCEPT**:

A. participating in joint ventures.
B. using take-or-pay arrangements.
C. issuing convertible preferred stock.
D. selling accounts receivable to an unrelated party with limited recourse.

64. The following information applies to a company during a recent fiscal year:

- Cash paid for land $30,000
- Cash paid for salaries $60,000
- Cash paid to suppliers $40,000
- Cash paid for interest to bondholders $20,000
- Cash collected from customers $150,000
- Cash collected for sale of equipment $75,000
- Depreciation expense $10,000

If the company is not subject to income taxes, what is its net cash flow from operations for the fiscal year?

A. $20,000.
B. $30,000.
C. $50,000.
D. $75,000.

65. An analyst gathers the following information about Meyer, Inc.:

- Meyer has 1,000 shares of 8% cumulative preferred stock outstanding, with a par value of $100, and liquidation value of $110.
- Meyer has 20,000 shares of common stock outstanding, with a par value of $20.
- Meyer had retained earnings at the beginning of the year of $5,000,000.
- Net income for the year was $70,000.
- This year, for the first time in its history, Meyer paid no dividends on preferred or common stock.

What is the book value per share of Meyerś common stock?

A. $272.60.
B. $273.00.
C. $273.10.
D. $273.50.

66. An analyst gathers the following data:

- 1,000,000 common shares outstanding (no change during the year).
- $6,500,000 net income.
- $500,000 preferred dividends paid.
- $600,000 common dividends paid.
- $60 average market price of common stock for the year.
- 100,000 warrants outstanding exercisable at $50.

The company's diluted earnings per share is *closest* to:

A. $5.45.
B. $5.90.
C. $6.00.
D. $6.39.

67. During a period of falling price levels, the financial statements of a company using FIFO instead of LIFO for inventory accounting would show:

A. lower total assets and lower net income.
B. lower total assets and higher net income.
C. higher total assets and lower net income.
D. higher total assets and higher net income.

68. Which of the following categories of marketable securities must a company carry at fair value on the balance sheet date?

I. Trading securities.
II. Influential securities.
III. Controlling securities.
IV. Available-for-sale securities.

A. I and II only.
B. I and IV only.
C. II, III, and IV only.
D. I, II, III, and IV.

69. An analyst compares two companies, one of which participates in a 50/50 joint venture. Which of the following *best* describes how the analyst should view the joint venture? Because this joint venture would be:

A. consolidated on company balance sheets, the analyst can calculate the company's financial ratios without adjustment.
B. accounted for using the equity method, the analyst can calculate the company's financial ratios without adjustment.
C. consolidated on company balance sheets, the analyst should reverse the consolidation before calculating the company's financial ratios.
D. accounted for using the equity method, the analyst should adjust the company's balance sheet to reflect proportionate consolidation before calculating the company's financial ratios.

70. An analyst gathers the following information about a company:

- The capital structure does not include any potentially dilutive convertible securities, options, warrants, or other contingent securities.
- Preferred stock dividends of $2 million were paid for the year.
- Common stock dividends of $3.5 million were paid for the year.
- Net income for the year was $10.5 million.
- 20 million shares of common stock were outstanding on January 1, 1998.
- The fiscal year end is December 31.
- The company issued 6 million new shares of common stock on April 1, 1998.

The company's basic earnings per share for 1998 was *closest* to:

A. $0.35.
B. $0.37.
C. $0.43.
D. $0.46.

71.

White Company
Balance Sheet
as of December 31, 1997

Cash	$150
Accounts receivable	565
Inventory	625
Total current assets	$1,340
Property, plant & equipment at cost	$1,920
Less accumulated depreciation	(460)
Property, plant & equipment (net)	$1,460
Total assets	$2,800

Accounts payable	$630
Income tax payable	25
Short-term debt	245
Total current liabilities	$900
Long-term debt	$850
Common stock	200
Retained earnings	850
Total equity	$1,050
Total liabilities and equity	$2,800

White Company experienced the following events in 1998:

- Old equipment that cost $120 and was fully depreciated was scrapped.
- Depreciation expense was $125.
- Cash payments for new equipment were $200.

Based on the information above, what was White Company's net amount of property, plant, and equipment at the end of 1998?

A. $1,415.
B. $1,535.
C. $1,655.
D. $1,660.

72. The following information applies to a company during a recent fiscal year:

Quarter	*Purchases in Units*	*Cost per Unit*	*Purchases in Dollars*
1	200	$22	4,400
2	300	24	7,200
3	300	26	7,800
4	200	28	5,600
Total	1,000		25,000

- Inventory at the beginning of the 1st quarter: 400 units at $20 per unit = $8,000.
- Inventory remaining at the end of the 4th quarter: 600 units.
- Sales for the fiscal year: 800 units.

Reported inventory at the end of the fourth quarter using LIFO and FIFO would be:

	LIFO	FIFO
A.	$12,400	$15,800
B.	$14,200	$12,400
C.	$15,800	$20,600
D.	$20,600	$14,200

73. If a company recognizes revenue faster than justified, which of the following *best* describes whether accounts receivable, inventory, and retained earnings are overstated or understated?

	Accounts Receivable	Inventory	Retained Earnings
A.	Overstated	Overstated	Overstated
B.	Overstated	Understated	Overstated
C.	Understated	Understated	Overstated
D.	Understated	Understated	Understated

74. Which of the following *correctly* classifies (as operating or investing cash flow) interest received, dividends received, and interest paid?

	Interest Received	Dividends Received	Interest Paid
A.	Operating	Operating	Operating
B.	Operating	Operating	Investing
C.	Operating	Investing	Investing
D.	Investing	Investing	Investing

75. When analyzing a company's leverage and liquidity, an analyst should treat deferred tax liabilities on a company's balance sheet:

A. as equity.
B. as long-term debt.
C. as short-term debt.
D. on a case-by-case basis.

76. The following information applies to a company's preferred stock:

- Current price $47.00 per share
- Par value $50.00 per share
- Annual dividend $3.50 per share

If the company's marginal corporate tax rate is 34 percent, the after-tax cost of preferred stock is *closest* to:

A. 4.62%.
B. 4.91%.
C. 7.00%.
D. 7.45%.

77. A manufacturing company is expected to pay cash dividends of $6 one year from today and growth is expected to be 7 percent. The current market price of the company's common stock is $72 per share. The company's tax rate is 34 percent. The company's after-tax cost of retained earnings is *closest* to:

A. 10.12%.
B. 14.79%.
C. 15.33%.
D. 15.92%.

78. Which of the following should be considered as an *incremental cash flow* when analyzing a proposed corporate investment?

I. Sunk costs.
II. Changes in net working capital.
III. Opportunity costs.
IV. Externalities.

A. I and III only.
B. II and IV only.
C. II, III, and IV only.
D. I, II, III, and IV.

79. Financial leverage differs from operating leverage because financial leverage accounts for a company's:

A. use of debt.
B. variability in sales.
C. use of plant and equipment.
D. variability in fixed operating costs.

80. Graham Industries has two separate divisions: the Farm Equipment Division and the Household Products Division. Each division accounts for about 50 percent of the company's revenues and assets. Managers now want to enter the toy industry. In assessing the attractiveness of investment projects in the toy industry, Graham should use a required rate of return based on:

A. a required return computed for the toy industry.
B. the required rate of return on the market portfolio.
C. Graham's current weighted-average cost of capital.
D. a weighted-average required return computed for the farm equipment, household products, and toy industries.

QUESTIONS 81 THROUGH 92 RELATE TO GLOBAL MARKETS AND INSTRUMENTS AND DERIVATIVES SECURITIES AND ARE ALLOCATED 18 MINUTES (OR 1 ½ MINUTES EACH).

81. Security market indexes are used:

I. as benchmarks for portfolio performance.
II. to construct index funds.
III. as inputs for technical analysis.
IV. to determine systematic risk.

A. I and II only.
B. II and III only.
C. III and IV only.
D. I, II, III, and IV.

82. The divisor for the Dow Jones Industrial Average (DJIA) is *most likely* to decrease when a stock in the DJIA:

A. has a stock split.
B. has a reverse split.
C. pays a cash dividend.
D. is removed and replaced.

83. Trends observed during the late 1980s and early 1990s suggest that brokerage commissions in global markets are generally:

A. increasing for both stocks and bonds.
B. decreasing for stocks and remaining relatively low for bonds.
C. decreasing for stocks but remaining relatively high for bonds.
D. remaining relatively high for stocks and increasing for bonds.

84. *All* of the following explain the higher custody costs observed in international investments **EXCEPT**:

A. a network of subcustodians.
B. capital market deregulation.
C. multicurrency accounting systems.
D. multicurrency cash flow collection.

85. In futures trading, the minimum level to which an equity position may fall before requiring additional margin is *most accurately* termed the:

A. initial margin.
B. variation margin.
C. cash flow margin.
D. maintenance margin.

86. A silver futures contract requires the seller to deliver 5,000 Troy ounces of silver. Jerry Harris sells one July silver futures contract at a price of $8 per ounce, posting a $2,025 initial margin. If the required maintenance margin is $1,500, what is the *first* price per ounce at which Harris would receive a maintenance margin call?

A. $5.92.
B. $7.89.
C. $8.11.
D. $10.80.

87. The following price quotations are for exchange-listed options on Primo Corporation common stock.

Company	Strike	Expiration	Call	Put
Primo				
63 1/8	55	Feb	7 1/4	7/16

Ignoring transaction costs, how much would a buyer have to pay for one call option contract?

A. $7.25.
B. $72.50.
C. $398.75.
D. $725.00.

88. Which of the following factors affect the correlation coefficients among asset prices in different national capital markets?

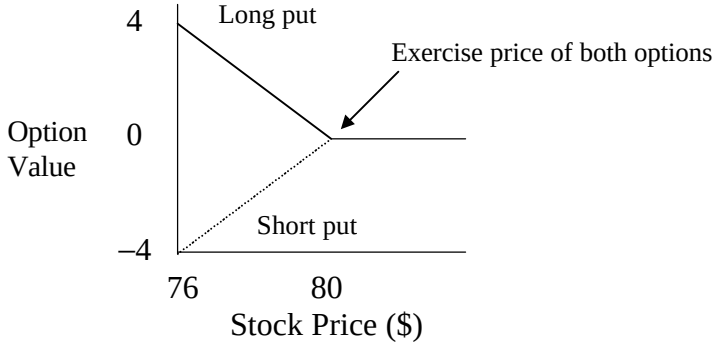
I. Technological specialization.
II. Cultural and sociological differences.
III. Independent fiscal and monetary policies.
IV. Regulations imposed by national governments.

A. I and IV only.
B. II and III only.
C. I, III, and IV only.
D. I, II, III, and IV.

89. *All* of the following statements about the value of a call option at expiration are **true EXCEPT** the:

A. short position in the same call option can result in a loss if the stock price exceeds the exercise price.
B. value of the long position equals zero or the stock price minus the exercise price, whichever is higher.
C. value of the long position equals zero or the exercise price minus the stock price, whichever is higher.
D. short position in the same call option has a zero value for all stock prices equal to or less than the exercise price.

90. The following diagram shows the value of a put option at expiration:



Ignoring transaction costs, which of the following statements about the value of the put option at expiration is **true**?

A. The value of the short position in the put is $4 if the stock price is $76.
B. The value of the long position in the put is –$4 if the stock price is $76.
C. The long put has value when the stock price is below the $80 exercise price.
D. The value of the short position in the put is zero for stock prices equaling or exceeding $76.

91. The open interest on a futures contract at any given time is the total number of outstanding:

A. contracts.
B. unhedged positions.
C. clearinghouse positions.
D. long and short positions.

92. Two parties enter a three-year interest rate swap agreement to exchange the LIBOR rate for a 10 percent fixed rate on $10 million. LIBOR is 11 percent in the first year, 12 percent in the second year, and 9 percent in the third year. Which of the following *accurately* characterizes a *net cash flow* to be received by the *fixed-rate payer*?

A. $100,000 in year 2.
B. $100,000 in year 3.
C. $200,000 in year 2.
D. $200,000 in year 3.

QUESTIONS 93 THROUGH 108 RELATE TO ASSET VALUATION (ANALYSIS OF EQUITY INVESTMENTS AND ANALYSIS OF DEBT INVESTMENTS) AND ARE ALLOCATED 24 MINUTES (OR 1 ½ MINUTES EACH).

93. A common stock pays an annual dividend per share of $2.10. The risk-free rate is 7 percent, and the risk premium for this stock is 4 percent. If the annual dividend is expected to remain at $2.10, the value of the stock is *closest* to:

A. $19.09.
B. $30.00.
C. $52.50.
D. $70.00.

94. Which of the following assumptions does the constant growth dividend discount model require?

I. Dividends grow at a constant rate.
II. The dividend growth rate continues indefinitely.
III. The required rate of return is less than the dividend growth rate.

A. I only.
B. III only.
C. I and II only.
D. I, II and III.

95. If a country liberalizes its depreciation rules for tax reporting purposes, more capital-intensive industries:

A. and less capital-intensive industries would benefit equally.
B. and less capital-intensive industries would not realize benefits.
C. would realize larger benefits than less capital-intensive industries.
D. would realize smaller benefits than less capital-intensive industries.

96. An analyst gathers the following information about a company:

• 1997 net sales	$10,000,000
• 1997 net profit margin	5.0 %
• 1998 expected sales growth	15.0 %
• 1998 expected profit margin	5.4 %
• 1998 expected common stock shares outstanding	120,000

The analyst's estimate of the company's 1998 earnings per share should be *closest* to:

A. $3.26.
B. $3.72.
C. $3.83.
D. $4.17.

97. Which of the following assumptions imply(ies) an informationally efficient market?

I. Many profit-maximizing participants, each acting independently of the others, analyze and value securities.
II. The timing of one news announcement is generally dependent on other news announcements.
III. Security prices adjust rapidly to reflect new information.
IV. A risk-free asset exists, and investors can borrow and lend unlimited amounts at the risk-free rate.

A. I only.
B. I and III only.
C. II and IV only.
D. I, II, III, and IV.

98. A market anomaly refers to:

A. an exogenous shock to the market that is sharp but not persistent.
B. a price or volume event that is inconsistent with historical price or volume trends.
C. a trading or pricing structure that interferes with efficient buying and selling of securities.
D. price behavior that differs from the behavior predicted by the Efficient Market Hypothesis.

99. An analyst estimates the earnings per share and price-to-earnings ratio for a stock market series to be $43.50 and 26 times, respectively. The dividend payout ratio for the series is 65 percent. The value of the stock market series is *closest* to:

A. 396.
B. 735.
C. 1131.
D. 1866.

100. The decline stage of the industry life cycle is *most likely* characterized by:

A. slowly growing sales.
B. a search for product differentiation.
C. a rapidly increasing return on equity.
D. an emphasis on production efficiencies.

101. Which of the following *most accurately* measures interest rate sensitivity for bonds with embedded options?

A. Convexity.
B. Effective duration.
C. Modified duration.
D. Macaulay duration.

102. Which of the following risks for a bond is *most directly* determined by whether that bond has an embedded option?

A. Credit risk.
B. Market risk.
C. Volatility risk.
D. Interest-rate risk.

103. A "fallen angel" bond is *best* defined as a bond issued:

A. below investment grade.
B. at an original issue discount.
C. as investment grade, but declined to speculative grade.
D. as a secured bond, but the collateral value declined below par value.

104. The following are quotes for a U.S. Treasury bond:

Bid	Asked
102:2	102:5

If the face value of the bond is $1,000, the price an investor should pay for the bond is *closest* to:

A. $1,020.63.
B. $1,021.56.
C. $1,025.00.
D. $1,026.25.

105. An analyst gathers the following information:

Years to Maturity	*Spot Rate*
1	5.00%
2	6.00%
3	6.50%

Based on the data above, the one-year implied forward rate two years from now is *closest* to:

A. 6.25%.
B. 7.01%.
C. 7.26%.
D. 7.51%.

106. A 6 percent coupon bond pays interest semi-annually, has a modified duration of 10, sells for $800, and is priced at a yield to maturity (YTM) of 8 percent. If the YTM increases to 9 percent, the predicted decrease in price, using the duration concept, is:

A. –$80.00.
B. –$77.67.
C. –$76.92.
D. –$76.56.

107. Which of the following is **NOT** a component of call risk for a bond investor?

A. The cash flow pattern of a callable bond is not known with certainty.
B. When the issuer calls a bond, the investor is exposed to reinvestment risk.
C. The value of a callable bond drops when expected interest-rate volatility decreases.
D. The capital appreciation potential of a callable bond is lower than a noncallable bond.

108. If an investor's required return is 12 percent, the value of a 10-year maturity zero-coupon bond with a maturity value of $1,000 is *closest* to:

A. $312.
B. $688.
C. $1,000.
D. $1,312.

QUESTIONS 109 THROUGH 120 RELATE TO PORTFOLIO MANAGEMENT AND ANALYSIS OF ALTERNATIVE INVESTMENTS AND ARE ALLOCATED 18 MINUTES (OR 1 ½ MINUTES EACH).

109. What are the *two* steps involved in setting investor objectives in real estate investing?

I. Consider differences in the investment characteristics of real estate.
II. Develop a real estate investment policy.
III. Establish investment constraints and goals.
IV. Determine the allocation among real estate investment categories.

A. I and II.
B. I and III.
C. II and IV.
D. III and IV.

110. In a real estate context, which of the following statements about leverage is **true**?

A. The risk of a real estate investment is lower with negative leverage than with positive leverage.
B. The return on a real estate investment is positive with positive leverage but negative with no leverage.
C. The return on invested equity is higher with positive leverage than with negative leverage if a propertyṡ return exceeds its debt cost.
D. The market value of a property is higher with positive leverage than with negative leverage if the yield curve on debt is upward sloping.

111. An analyst uses the following data and the direct capitalization approach to estimate the market value of an income-producing property to be $2,750,000:

- Annual gross potential rental income $400,000
- Annual property operating expenses $100,000
- Annual vacancy and collection losses $50,000

Which of the following capitalization rates is *closest* to the rate the analyst use to calculate the market value of the property?

A. 9.09%.
B. 10.91%.
C. 12.73%.
D. 14.55%.

112. Which of the following statements about the security market line (SML) are **true**?

I. The SML provides a benchmark for evaluating expected investment performance.
II. The SML leads all investors to invest in the same portfolio of risky assets.
III. The SML is a graphic representation of the relationship between expected return and beta.
IV. Properly valued assets plot exactly on the SML.

A. I and III only.
B. II and IV only.
C. I, II, and IV only.
D. I, III, and IV only.

113. Under the provisions of a typical corporate defined-benefit pension plan, the employer is responsible for:

A. paying benefits to retired employees.
B. investing in conservative fixed-income assets.
C. counseling employees in the selection of asset classes.
D. maintaining an actuarially determined, fully funded pension plan.

114. A real estate valuation approach that uses information about past transactions involving properties that are similar to the subject property is the:

A. cost approach.
B. income approach.
C. comparative sales approach.
D. discounted cash flow approach.

115. *All* of the following statements *typically* characterize the structure of an investment company **EXCEPT**:

A. an investment company adopts a corporate form of organization.
B. an investment company invests a pool of funds belonging to many investors in a portfolio of individual investments.
C. an investment company receives an annual management fee ranging from 3 to 5 percent of the total value of the fund.
D. the board of directors of an investment company hires a separate investment management company to manage the portfolio of securities and to handle other administrative duties.

116. A three-asset portfolio has the following characteristics:

Asset	*Expected Return*	*Expected Standard Deviation*	*Weight*
X	0.15	0.22	0.50
Y	0.10	0.08	0.40
Z	0.06	0.03	0.10

The expected return on this three-asset portfolio is:

A. 10.3%.
B. 11.0%.
C. 12.1%.
D. 14.8%.

117. Which of the following statements reflects the importance of the asset allocation decision to the investment process? The asset allocation decision:

A. helps the investor decide on realistic investment goals.
B. identifies the specific securities to include in a portfolio.
C. determines most of the portfolioš returns and volatility over time.
D. creates a standard by which to establish an appropriate investment time horizon.

118. Risk aversion has *all* of the following implications for the investment process **EXCEPT**:

A. the security market line is upward sloping.
B. the promised yield on AAA-rated bonds is higher than on A-rated bonds.
C. investors expect a positive relationship between expected return and expected risk.
D. investors prefer portfolios that lie on the efficient frontier to other portfolios with equal rates of return.

119. An investor is considering adding another investment to a portfolio. To achieve the maximum diversification benefits, the investor should add, if possible, an investment that has which of the following correlation coefficients with the other investments in the portfolio?

A. –1.0.
B. –0.5.
C. 0.0.
D. +1.0.

120. Consistent with capital market theory, systematic risk:

I. refers to the variability in all risky assets caused by macroeconomic and other aggregate market-related variables.
II. is measured by the coefficient of variation of returns on the market portfolio.
III. refers to nondiversifiable risk.

A. I only.
B. II only.
C. I and III only.
D. II and III only.

GUIDELINE ANSWERS

1. D
   LOS: Study Session 2~~1~~

   Reference: *Standards of Practice Handbook*, 7th ed., p. 5.

2. A
   LOS: Study Session 2~~1~~

   Reference: *Standards of Practice Handbook*, 7th ed., p. 5.

3. D
   LOS: Study Session 2~~2iv~~

   Reference: *Standards of Practice Handbook*, 7th ed., p. 61.

4. B
   LOS: Study Session 2~~2v~~

   Reference: *Standards of Practice Handbook*, 7th ed., pp. 139~~1~~46.

5. C
   LOS: Study Session 2~~2i~~

   Reference: *Standards of Practice Handbook*, 7th ed., pp. 12~~1~~3.

6. D
   LOS: Study Session 2~~2ii~~

   Reference: *Standards of Practice Handbook*, 7th ed., p. 27.

7. D
   LOS: Study Session 2~~2iii~~

   Reference: *Standards of Practice Handbook*, 7th ed., pp. 33~~3~~4.

8. D
   LOS: Study Session 2~~2v~~

   Reference: *Standards of Practice Handbook*, 7th ed., pp. 141~~1~~44.

9. D
   LOS: Study Session 2~~2iv~~

   Reference: *Standards of Practice Handbook*, 7th ed., p. 127.

10. B
LOS: Study Session 2~~2iv~~

Reference: *Standards of Practice Handbook*, 7th ed., pp. 103~~1~~07 (Example 2).

11. A
LOS: Study Session 2~~3b~~

Reference: *Standards of Practice Handbook*, 7th ed., p. 175.

12. D
LOS: Study Session 2~~3b~~

Reference: *Standards of Practice Handbook*, 7th ed., pp. 103~~1~~05.

13. B
LOS: Study Session 2~~4a~~

Reference: Performance Presentation Standards,"2nd ed., in *1999 CFA Level I Candidate Readings*, p. 1.

14. D
LOS: Study Session 2~~3a~~

Reference: *Standards of Practice Handbook*, 7th ed., pp. 75, 80.

15. C
LOS: Study Session 2~~4c~~

Reference: Performance Presentation Standards,"2nd ed., in *1999 CFA Level I Candidate Readings*, pp. 12~~2~~0.

16. C
LOS: Study Session 2~~3b~~

Reference: *Standards of Practice Handbook*, 7th ed., pp. 144~~1~~45, 178~~1~~79.

17. B
LOS: Study Session 2~~2iii~~
Reference: *Standards of Practice Handbook*, 7th ed., p. 53.

18. D
LOS: Study Session 2~~3iii~~

Reference: *Standards of Practice Handbook*, 7th ed., pp. 14, 15, 27, 33 and 34.

19. D
LOS: Study Session 3~~1Aa~~

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., pp. 27~~2~~8.

20. C
LOS: Study Session 3~~1Ad~~

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., pp. 37~~4~~1.

21. B
LOS: Study Session 3~~1Be~~

There are seven annual periods between January 1, 1992 and December 31, 1998.
Market value end of 1998
$EMV = BMV \times (1 + GM)^n$
$= \$100{,}000 \times (1.05)^7$
$= \$140{,}710.$

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 6~~1~~1.

22. B
LOS: Study Session 3~~1Bf~~
Calculation of the mean:

$$\overline{X} = \frac{\sum fX}{n}$$

$$= \frac{(5\times 2)(15\times 5)(25\times 6)(35\times 3)}{16}$$

$= 21.25.$

Calculation of the median:
With a total of 16 observations, the median observation is the eighth one. Assuming equal distribution of each observation within the group, the eight observation is 1/6 of the way between 20 and 30 or 21.67.

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., pp. 90~~9~~4.

23. B
LOS: Study Session 3~~1Cb~~

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., pp. 120–122.

24. C
LOS: Study Session 3~~1Ch~~

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., pp. 144–145.

25. D
LOS: Study Session 3~~1Cg~~

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., pp. 141–142.

26. C
LOS: Study Session 3~~1Hj~~

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., pp. 484, 491~~4~~94, 501~~5~~02.

27. D
LOS: Study Session 3~~2h~~

FVA = $10,000(15.193)(1.09) = $165,603.70,

or, FVA = $10,000(17.560 –~~1~~) = $165,600,

or, by calculator: $165,602.93.

Reference: Brigham, Houston, *Fundamentals of Financial Management*, 8th ed., pp. 218~~2~~20.

28. A
LOS: Study Session 3~~1Dd~~

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., p. 182.

29. D
LOS: Study Session 3~~1Dh~~

$$P(A_1|B) = \frac{P(A_1) \times P(B|A_1)}{[P(A_1) \times P(B|A_1)] + [P(A_2) \times P(B|A_2)]}$$

$$= \frac{(0.10)(0.70)}{[(0.10)(0.70)] + [(0.90)(0.20)]}$$

= 0.28, or 28%,

where A_1 = Lower EPS
B = negative ratio.

Reference: Mason, Lind, Statistical Techniques in Business and Economics, 9th ed., pp. 191–195.

30. D
LOS: Study Session 3~~1Fa~~

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., pp. 256–257.

31. B
LOS: Study Session 3~~1Fe~~

68% of the returns fall within ±1 standard deviation of the mean. Therefore,
(100% – ~~6~~8%)/2
= 32%/2
= 16%.

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., pp. 261–262.

32. A
LOS: Study Session 3~~1Fc~~

$$z = \frac{x - m}{s}$$

= (200 – ~~5~~00)/150
= ~~2~~.0.

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., p. 259.

33. C
LOS: Study Session 3~~2b~~

$$PV = \frac{FV_n}{(1+i)^n}$$

$$= \frac{\$1{,}000{,}000}{(1+0.10)^{20}}$$

= $148,600,

or divide $1 million by the FVIF of 20 year at 10 percent
= $1,000,000/6.7275
= $148,644,

or, by calculator: $148,644.

Reference: Brigham, Houston, *Fundamentals of Financial Management*, 8th ed., pp. 213~~2~~15.

34. D
LOS: Study Session 3~~1Gg~~

$$s_{\bar{X}} = \frac{s}{\sqrt{n}}$$

$$= \frac{100}{\sqrt{64}}$$

= 12.5.

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., p. 318.

35. D
LOS: Study Session 3~~1HC~~

Reference: Mason, Lind, *Statistical Techniques in Business and Economics*, 9th ed., p. 349.

36. B
LOS: Study Session 3~~2n~~

$$PV = \sum_{t=1}^{n} CF_t \left(\frac{1}{1+i}\right)^t$$

= $100(0.8772) + $200(0.7695) + $300(0.6750)
= $444.12.

Reference: Brigham, Houston, *Fundamentals of Financial Management*, 8th ed., pp. 224~~2~~26.

37. C
LOS: Study Session 41Aa

Reference: Gwartney, Stroup, *Economics*, 8th ed., pp. 275–277.

38. A
LOS: Study Session 41Ba

Reference: Gwartney, Stroup, *Economics*, 8th ed., pp. 298–300.

39. B
LOS: Study Session 62j

$$F = S\left(\frac{1+r_{\$}}{1+r_{DM}}\right)$$

$= 1.70 \times (1.05/1.04)$
$= 1.716.$

Reference: Solnik, *International Investments*, 3rd ed., pp. 182–1.

40. C
LOS: Study Session 41Cd

Reference: Gwartney, Stroup, *Economics*, 8th ed., p. 345.

41. B
LOS: Study Session 41Da

Reference: Gwartney, Stroup, *Economics*, 8th ed., p. 371.

42. B
LOS: Study Session 41Db

Reference: Gwartney, Stroup, *Economics*, 8th ed., pp. 359–362.

43. C
LOS: Study Session 4Aa

Reference: Goldman, Sachs, "Understanding U.S. Economic Statistics," in *1999 CFA Level I Candidate Readings*, pp. 34–36.

44. B
LOS: Study Session 51Aa

Reference: Gwartney, Stroup, *Economics*, 8th ed., p. 437.

45. B
LOS: Study Session 5~~1Ae~~

Reference: Gwartney, Stroup, *Economics*, 8th ed., pp. 454~~4~~55.

46. C
LOS: Study Session 5~~1Bc~~

Reference: Gwartney, Stroup, *Economics*, 8th ed., p. 482.

47. B
LOS: Study Session 5~~1Bg~~

Reference: Gwartney, Stroup, *Economics*, 8th ed., pp. 495~~4~~97.

48. C
LOS: Study Session 6~~22h~~

Reference: Solnik, *International Investments*, 3rd ed., pp. 18~~2~~1.

49. D
LOS: Study Session 5~~1Cd~~

Reference: Gwartney, Stroup, *Economics*, 8th ed., pp. 510~~5~~12.

50. A
LOS: Study Session 4~~1Ce~~

Reference: Gwartney, Stroup, *Economics*, 8th ed., pp. 342~~3~~43.

51. D
LOS: Study Session 5~~1Ef~~

Reference: Gwartney, Stroup, *Economics*, 8th ed., pp. 571~~5~~72.

52. A
LOS: Study Session 10~~2b~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 383–385, 389.

53. C
LOS: Study Session 7~~Ab~~

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 18~~1~~9.

54. A
LOS: Study Session 8~~Bh~~

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 187~~1~~88.

55. D
LOS: Study Session 10~~2b~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., p. 406.

56. B
LOS: Study Session 8~~Ar~~

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 131~~1~~32.

57. C
LOS: Study Session 8~~Ag~~

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 109~~1~~12.

58. C
LOS: Study Session 8~~Ab~~

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., p. 106.

59. C
LOS: Study Session 8~~Af~~

Financing section shows principal reduction only. Rental payment consists of interest plus principal.
= $10,000(0.12) + $1300
= $1200 + $1300
= $2500.

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 109~~1~~11.

60. D
LOS: Study Session 8~~Ak~~

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., p. 116.

61. C
LOS: Study Session 10~~2~~c

ROE = Equity turnover × Net profit margin
= 4.2 × 5.5%
= 23.1%.

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 389–390, 393.

62. A
LOS: Study Session 8~~A~~a

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 124~~1~~25.

63. C
LOS: Study Session 8~~A~~q

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 126~~1~~28.

64. B
LOS: Study Session 10~~1~~c

Net cash flow from operations = Cash collected from customers ~~-~~Cash paid for salaries ~~-~~Cash paid to suppliers ~~-~~Cash paid for interest to bondholders
= 150,000 ~~-~~60,000 ~~-~~40,000 ~~-~~20,000
= 30,000.

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 346~~3~~48.

65. A
LOS: Study Session 8~~P~~Problem 3.8~~a~~

Total owners'equity:	
Par value of preferred ($1,000 × 100)	$100,000
Preferred value in excess of par ($10 × 1,000)	10,000
Par value of common (20,000 × $20)	400,000
Retained earnings + net income	5,070,000
Total owners' equity	$5,180,000
Liquidation value of preferred in excess of par value	$(10,000)
Dividends in arrears on preferred	(8,000)
Book value of common	$5,452,000

= $5,452,000/20,000
= $272.60 per share.

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., Problem 3~~8~~, pp. 148~~1~~49.

66. B
LOS: Study Session 9Bd

Numerator:
Net income – Preferred dividend
= $6,500,000 – $500,000
= $6,000,000.

Denominator:
100,000 warrants (proceeds $5,000,000) + (83,333) shares acquired at $60 with $5,000,000 proceeds + 1,000,000 outstanding
= 1,016,667.

$6,000,000/1,016,667
= $5.90.

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 326332.

67. A
LOS: Study Session 8Bf

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 172175.

68. B
LOS: Study Session 8Bc

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 156159.

69. D
LOS: Study Session 8Bg

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 182185.

70. A
LOS: Study Session 9Ba

$$\text{Basic EPS} = \frac{\text{Net income} - \text{Preferred dividends}}{\text{Weighted average number of shares outstanding}}$$

$$= \frac{\$10{,}500{,}00 - \$2{,}000{,}000}{(\frac{3}{12} \times 20{,}000{,}000) + (\frac{9}{12} \times 26{,}000{,}000)}$$

= $0.35.

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 324326.

71. B
LOS: Study Session 8~~P~~Problems 4.4 and 4.5~~a~~

Property, plant and equipment at cost = Original amount + New equipment added ~~-~~Old equipment retired
= $1920 + $200 ~~-~~$120
= 2000.

Accumulated depreciation = Original amount + Depreciation for year ~~-~~Cost of retired equipment
= $460 + $125 ~~-~~$120
= $465.

Net:
= $2,000 ~~-~~$465
= $1,535.

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., p. 204.

72. A
LOS: Study Session 8~~BC~~Case 4.3~~b~~

Ending inventory using LIFO:
= 400($20) + 200($22)
= $8,000 + $4,400
= $12,400.

Ending inventory using FIFO:
= 200($20) + 300($26) + 100($24)
= $5,600 + $7,800 + $2,400
= $15,800.

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 206~~2~~07.

73. B
LOS: Study Session 9~~A~~a

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 267~~2~~70.

74. A
LOS: Study Session 10~~1~~b

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., p. 365.

75. D
LOS: Study Session 8~~Ap~~

Reference: Bernstein, Wild, *Financial Statement Analysis*, 6th ed., pp. 125~~1~~26.

76. D
LOS: Study Session 11~~1Ab~~

$$k_{ps} = \frac{D_{ps}}{P_n}$$
= $3.50/$47.00
= 7.45%.

Reference: Brigham, Houston, *Fundamentals of Financial Management*, 8th ed., pp. 355~~3~~56.

77. C
LOS: Study Session 11~~1Ac~~

$$RE = \frac{D_1}{P_0} + g$$
= $6.00/$72.00 + 0.07
= 15.33%.

Reference: Brigham, Houston, *Fundamentals of Financial Management*, 8th ed., pp. 358~~3~~59.

78. C
LOS: Study Session 11~~1Cb~~

Reference: Brigham, Houston, *Fundamentals of Financial Management*, 8th ed., pp. 426~~4~~28.

79. A
LOS: Study Session 11~~1Ef~~

Reference: Brigham, Houston, *Fundamentals of Financial Management*, 8th ed., p. 498.

80. A
LOS: Study Session 11~~Df~~

Reference: Brigham, Houston, *Fundamentals of Financial Management*, 8th ed., p. 470.

81. D
LOS: Study Session 12~~1Ca~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., p. 152.

82. A
LOS: Study Session 12~~1Cb~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., p. 154.

83. B
LOS: Study Session 12~~2Ba~~

Reference: Solnik, *International Investments*, 3rd ed., p. 127.

84. B
LOS: Study Session 12~~2Bb~~

Reference: Solnik, *International Investments*, 3rd ed., pp. 127~~1~~28.

85. D
LOS: Study Session 15~~1Bd~~

Reference: Kolb, *Futures, Options & Swaps*, 2nd ed., pp. 17~~1~~8.

86. C
LOS: Study Session 15~~B~~e

$2,025 – X = $1500
X = $525.

$525/5,000 ounces
= $0.105 or $0.11 per ounce

$8 + $0.11 = $8.11 per ounce
A seller loses when the price rises.

Reference: Kolb, *Futures, Options & Swaps*, 2nd ed., pp. 16~~1~~9.

87. D
LOS: Study Session 15~~1Ce~~

100 shares × $7.25 = $725.00.

Reference: Kolb, *Futures, Options & Swaps*, 2nd ed., p. 317.

88. D
LOS: Study Session 12~~2Ac~~

Reference: Solnik, *International Investments*, 3rd ed., p. 93.

89. C
LOS: Study Session 15~~1Db~~

Reference: Kolb, *Futures, Options & Swaps*, 2nd ed., pp. 342~~3~~43.

90. C
LOS: Study Session 15~~1Dc~~

Reference: Kolb, Futures, Options, and Swaps, 2nd ed., pp. 347~~3~~48.

91. A
LOS: Study Session 15~~1Cj~~

Reference: Kolb, 2nd ed., p. 12.

92. C
LOS: Study Session 15~~1Ec~~

Reference: Kolb, 2nd ed., in *1999 CFA Level I Candidate Readings*, pp. 139~~1~~41.

93. A
LOS: Study Session 17~~1Aa~~; Study Session 13~~1Bb~~

$$V_j = \frac{D}{RFR + RP}$$

= $2.10/0.11
= $19.09.

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 18~~1~~9, 438~~4~~43.

94. C
LOS: Study Session 13~~1Bc~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., p. 443.

95. C
LOS: Study Session 13~~2f~~

Reference: Kolb, *Investments*, 4th ed., in *1999 CFA Level I Candidate Readings*, pp. 110~~1~~12.

96. C
LOS: Study Session 13~~3Ab~~

$8,500,000 × 5.4%
= 459,000/120,000
= $3.83.

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 723–726.

97. B
LOS: Study Session 13~~1Aa~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 209–210.

98. D
LOS: Study Session 13~~1Ae~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., p. 212.

99. C
LOS: Study Session 13~~1Cd~~

$X = 43.50 × 26$

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., p. 669.

100. D
LOS: Study Session 13~~2e~~

Reference: Kolb, *Investments*, 4th ed., in *1999 CFA Level I Candidate Readings*, pp. 108~~1~~09.

101. B
LOS: Study Session 14~~1Bt~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 579–580.

102. C
LOS: Study Session 14~~2f~~

Reference: Fabozzi, *Bond Markets, Analysis and Strategies*, 3rd ed., in *1999 CFA Level I Candidate Readings*, pp. 131~~1~~34.

103. C
LOS: Study Session 14~~1Ah~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., p. 512.

104. B
LOS: Study Session 14~~1AI~~

102 and 5/32 of 1,000 = 1,021.56.

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 519–520.

105. D
LOS: Study Session 14~~1Bj~~

$$_{t+2}r_1 = \frac{(1+R_3)^3}{(1+R_2)^2} - 1$$

$$= \frac{(1+0.065)^3}{(1+0.060)^2} - 1$$

= 0.0751
= 7.51%.

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 554–556.

106. A
LOS: Study Session 14~~1Bo~~

$$\Delta P = -D_{\text{mod}} \times \Delta i \times P$$
$$= -10 \times (0.01) \times 800$$
$$= -80.$$

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 568–569.

107. C
LOS: Study Session 14~~2c~~

Reference: Fabozzi, *Bond Markets, Analysis and Strategies*, 3rd ed., in *1999 CFA Level I Candidate Readings*, pp. 131~~1~~34.

108. A
LOS: Study Session 14~~1Ba~~

$1,000 × 0.312
= $312;
n = 20 periods
i = 6% per period.

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 511, 527.

109. B
LOS: Study Session 16~~1A~~

Reference: Gitman, Joehnk, *Fundamentals of Investing*, 6th ed., in *1999 CFA Level I Candidate Readings*, p. 180.

110. C
LOS: Study Session 16~~1e~~

Reference: Gitman, Joehnk, *Fundamentals of Investing*, 6th ed., in *1999 CFA Level I Candidate Readings*, p. 190.

111. A
LOS: Study Session 16~~1e~~

Market capitalization rate = Annual NOI/market value

Gross potential rental income	$400,000
Property operating expenses	(100,000)
Vacancy and collection losses	(50,000)
Net operating income	$250,000

$250,000/$2,750,000
= 9.09%.

Reference: Gitman, Joehnk, *Fundamentals of Investing*, 6th ed., in *1999 CFA Level I Candidate Readings*, p. 188.

112. D
LOS: Study Session 17~~Cd~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 288–292.

113. A
LOS: Study Session 18~~1e~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., p. 52.

114. C
LOS: Study Session 16~~1b~~

Reference: Gitman, Joehnk, *Fundamentals of Investing*, 6th ed., in *1999 CFA Level I Candidate Readings*, pp. 187~~1~~88.

115. C
LOS: Study Session 16~~2a~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 967–968.

116. C
LOS: Study Session 17~~Bf~~

$$E(R) = \sum_{i=1}^{n} W_i R_i$$
= (0.15)(0.50) + (0.10)(0.40) + (0.06)(0.10)
= 0.075 + 0.04 + 0.006
= 0.121 or 12.1%.

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., p. 269.

117. C
LOS: Study Session 18~~1f~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 56, 61.

118. B
LOS: Study Session 17~~Ba~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., p. 252.

119. A
LOS: Study Session 17~~bc~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., pp. 261–264.

120. C
LOS: Study Session 17~~cc~~

Reference: Reilly, Brown, *Investment Analysis and Portfolio Management*, 5th ed., p. 284.